

CAPITAL EQUIPMENT¹ NEWS

For informed decision-making

MAY 2023



CASE CE SHOWCASES INDIAN MANUFACTURING

MATERIALS HANDLING: A look at forklift safety

COMPACTION EQUIPMENT: The advantages of roller attachments

COMMERCIAL FLEETS: Minimise downtime with the right tyres

FLEET MONITORING
Ctrack enhances the
functionality of crystal
fleet management

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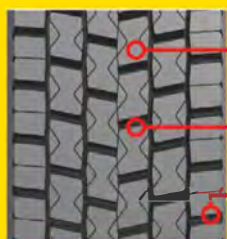
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MANUFACTURING WILL ALWAYS HAVE A GOOD STORY TO TELL

Manufacturing plays a pivotal role in South Africa's economic landscape, driving growth, job creation, and technological advancement.

The industry has weathered challenges, including global economic fluctuations and domestic constraints, but continues to evolve and thrive – even during the latest, and worst times of load shedding. But can manufacturing be safeguarded against the energy crises as it's unfolding now?

Well, let us consider first the value of manufacturing in the South African context, and then what has been done to mitigate draconian load shedding.

Manufacturing is a critical contributor to South Africa's GDP, export earnings, and employment opportunities. The sector generates significant value-added economic activity, fostering linkages with other sectors and supply chains. By producing a diverse range of products, including machinery, vehicles, textiles, and chemicals, manufacturing contributes to export competitiveness and reduces dependency on imports. Furthermore, the industry provides employment opportunities across various skill levels, driving inclusive growth and addressing unemployment challenges.

Manufacturing in South Africa serves

as a hub for technological advancement and innovation. It fosters research and development, drives technological adoption, and promotes knowledge transfer between academia and industry. The sector leverages advanced manufacturing technologies, such as automation, robotics, and additive manufacturing, to improve efficiency, product quality, and competitiveness. Innovative manufacturing practices contribute to enhanced productivity, reduced costs, and improved product offerings, positioning South African manufacturers as global players in various sectors.

Manufacturing plays a crucial role in addressing socio-economic challenges in South Africa. The industry provides opportunities for skills development, upskilling, and job creation. By investing in human capital development, manufacturers contribute to reducing inequality and promoting social mobility. Furthermore, localized manufacturing activities contribute to regional development, attracting investment, stimulating entrepreneurship, and fostering inclusive economic growth.

Manufacturing in South Africa has embraced the principles of sustainable development. The industry focuses on resource efficiency, waste reduction, and environmental stewardship. Manufacturers are implementing green manufacturing practices, such as renewable energy adoption, eco-friendly processes, and waste recycling initiatives. These efforts contribute to mitigating environmental impact, reducing carbon emissions, and enhancing sustainability.

It's clear that manufacturing is important, and that manufacturers have played a role to develop ways to not be reliant on the national grid. And, with every effort not to fall into despair, there is good news coming from the sector – even in some of South Africa's darkest hours.

One South African success story is Mathe

Group and Van Dyck. Mathe Group recycles tyres while Van Dyck is a manufacturer of recycled rubber flooring. They are staging a multi-million-rand comeback with multiple investments in their businesses in Hammarsdale, KwaZulu-Natal.

As one of South Africa's only tyre recyclers, Mathe has been operating around the clock since the beginning of 2022. It processes around 700 radial truck tyres per day, producing between 25 and 30 tons of rubber crumb.

To accompany the requirements to be operational during load shedding Mathe installed 980 x 570 KW solar panels in October last year on its three buildings.

This produces up to half a megawatt per hour and ensures they can use sustainable energy for more than half of the operational requirements.

This forms part of a broader plan to manage energy usage to minimise disruptions from outages and enhance productivity.

Plans to add a second tyre recycling line in Hammarsdale are already underway and at the EIA stage. This will create more jobs. Mathe currently employs around 100 people, and Van Dyck doubles that number with the amount of employees on the floor. Most of these employees are from the surrounding Hammarsdale community.

With a second line, and the ability to operate when the grid is tight, Mathe Group helps safeguard manufacturing.

The takeaway is that it is possible to keep South African manufacturing alive. The importance of manufacturing can never be disputed.

Just look at this month's manufacturing feature from CASE Construction Equipment, and see how its Indian manufacturing facility has grown and flourished to make tough equipment built in India, and appreciated around the world.

These are the kind of legacies South Africa should have in place once the power is plugged back in. 🌱

Adriaan Roets - EDITOR



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The new Volvo R60 rigid hauler wows with uptime



The Volvo R60 rigid hauler from Volvo Construction Equipment (Volvo CE) has been designed to maximise a day of work.

The new E-generation Volvo R60 rigid hauler is perfect for heavy-duty quarrying and mining. Built for markets with Tier 2-compliant engines and based on the R100E model, the R60 packs a higher payload than the D-generation model it replaces, along with a durable design and new comfort and safety-enhancing features – enabling it to move more for less with every cycle.

The Volvo R60 offers a 55-tonne payload and body volume of 36m³, enabled by a V-shaped body ensuring optimum load retention and minimal material carry-back,” says Drew Watson, Global Product Manager for the Volvo R60 at Volvo CE.

“The rigid hauler is a perfect match for a 90-tonne excavator and meets the industry standard of 10/10/20 where it can take 10% overload for 10% of the time but should not exceed 20%. To help operators haul the optimum amount of material, an optional On-Board Weighing system provides real-time payload insight to the hauler operator via the on-board display and can predict the 10/10/20 payload,” he adds.

Machine maintenance is also straightforward. Servicing of the R60 is required every 500 hours and can be completed swiftly thanks to a straightforward machine design that includes grouped maintenance points located within easy reach either from the ground or the service platform, as well as common-sized bearings throughout.

On-board diagnostics provide insights into system pressures and temperatures, and fault reporting to facilitate and speed up troubleshooting.

Noteworthy is the R60s design, which aims to deliver high uptime and low operating costs, the R60 is built to last with a 60,000-hour life frame and a list of features that contribute to long-lasting performance and component life. 🌟

Technology ready to fly at KITE

The KwaZulu-Natal Industrial Technology Exhibition aims to expand the portal for industrial technology solutions at the 2023 KITE exhibition.

The exhibition at the Durban Exhibition Centre from 18 to 20 July provides the province with access to a wide and comprehensive line-up of industrial technology products and services.

“As companies move to embrace the benefits of Industry 4.0, finding providers of the technology and services necessary to maximise their adoption of 4IR (Fourth Industrial Revolution) trends, becomes a priority. Fortunately, we have made this process simpler and more efficient by bringing together the designers and providers of solutions focused on assisting organisations to implement changes that will, through automation, improve productivity, increase occupational health and safety, maximise profitability and operational uptime, and create sustainability of operations,” says Charlene Hefer, Portfolio Director at Specialised Exhibitions.

Over 60 exhibitors are lining up a diverse range of products and services geared around optimising productivity and uptime and assisting with future-proofing businesses for continued sustainability.

Some exhibitors include Point of Rental which provides innovative rental and inventory management software solutions that empower businesses to streamline their operations and grow strategically, regardless of industry.

Another exhibitor is OMRON Industrial Automation, dedicated to providing unrivalled automation products and customised expert solutions for any industry. The product portfolio includes factory automation, sensors and safety, mechatronics and drives, industrial components, and vision systems.

“Not only will visitors be exposed to the latest technology and trends in the exhibitor offerings, but they will also be able to increase their industry knowledge base by attending the SAIMechE free-to-attend Seminar Theatre. Topics are presented by experienced industry professionals and thought leaders, addressing the latest trends and changes to regulations in the industry which could impact on decision making and business plans for automation of facilities,” says Hefer.

“Similarly, if you are involved in the lifting industry, then registration for the LEEASA (Lifting Equipment Engineering Association of South Africa) conference is a priority,” she adds. 🌟

Webfleet integrates telematics in Botswana

Bridgestone’s fleet management solution Webfleet is adding Botswana as its third African presence.

Webfleet’s partnership in Botswana joins the company’s presence in South Africa and Namibia, the first two African markets where Webfleet started to conduct business.

“Being part of Bridgestone, we recognised the opportunity to leverage the companies’ large African presence to expand the telematics and connected vehicle solutions we provide as well,” says Webfleet South Africa Sales Director, Justin Manson.

“With three markets now offering dedicated resources to transport and logistics customers in those markets, we feel it’s the right time to expand earnestly in the Southern African Development Community (SADC) region,” he adds.

Telematics provide a similar service to what Namibia offers, from basic vehicle tracking to comprehensive fleet management, including live diagnostic data collection and real-time route optimisation.

Additional advanced solutions, like onboard cameras and other hardware, will be brought in on an as-needed basis, or from customer requests.

Whichever grade of solution they opt for, customers can expect to see improvements in fuel and maintenance costs, safer drivers and road users, and a boost in productivity.

In Botswana, Webfleet has partnered with Kgare Digital, the on-the-ground team that will provide sales capabilities, training, and delivery of services.

Kgare Digital General Manager, Malebogo Busang, says the investment by Webfleet will not only provide quality jobs in the sector but see the beginning of a new sector.

“I think we are at a good state of readiness from a sales perspective, and we already have a team of technicians, IT support, finance and other admin functions,” Busang says.

“Tracking services are still very new to the market, so this team will be part of the vital journey to build advanced capabilities in telematics and logistics. As a landlocked country, Botswana imports almost everything we consume, mainly using road transport through the two ports of entry, Namibia, and South Africa. This presents the perfect opportunity to implement the necessary digitisation of vehicles, to run more intelligently and efficiently,” she adds. 🌟

The first practical Kleemann impact crusher MOBIREX MR 130i PRO in action



The MOBIREX MR 130i PRO impresses in Oetelshofen with high throughput in limestone.

The Kleemann impact crusher MOBIREX MR 130i PRO is operating at the Oetelshofen quarry near Wuppertal in Germany.

Here it is tasked with crushing limestone for industrial blast furnaces. Previously an impact crusher was operated with a separate screening plant. This has been replaced with the MOBIREX MR 130i PRO, which now works with an integrated post-screening unit. As a result, the new piece of equipment streamlines the process at the quarry.

Instead of supplying a crushing and screening plant, now only one machine does the job. The new machine achieves a final product of 0/45 with a feed size of 0/600. The double-deck post-screening unit discharges a final grain size, whereby both screen decks are fully utilised.

A size 50 square mesh is installed in the lower deck for this purpose and a larger mesh is installed in the upper deck as a relief deck.

The oversize grain of the upper deck as well as that of the lower deck is directed in an uncomplicated process via a reversible transfer conveyor onto the oversize grain conveyor and then returned to the crushing process.

The initial challenge was to find a solution that meets the requirements of the quarry where one screen replaces the job of two.

"The customer had considered different suppliers and options," explains Christoph Obalski, Sales Wirtgen Germany.

"Luckily, with the new MR 130i PRO from Kleemann, we have a completely new machine that is suited exactly to the project," he adds. The MOBIREX MR 130i PRO has a high output and effective screening.

"The large running gear with heavy-duty framing, ease of physical and visual access via steps and platforms to all components and the solid double-deck post-screening unit – this made a perfect first impression," explains Dirk Frorath, managing director of AMIRO GmbH in the quarry.

The crushing unit of the plant is driven by a powerful electric motor. It also has a new drive concept. A star-delta drive and frequency converter, which makes it possible to vary the speed of the rotor as required, is available as an option. Thanks to its all-electric drive concept E-DRIVE, there is an option for an external power supply which means that the machine can be operated locally free of emissions. ⚡

HeightRider 17 wins the Product of the Year award

Niftylift Ltd, manufacturer of mobile elevating work platforms (MEWPs) has won Product of the Year at the Hire Awards of Excellence 2023 for the HeightRider 17 All-Electric (HR17E).

Founded in 1985, Niftylift has production facilities in the UK, Sales, Service and Parts Centres in Greer in the US, and Markranstädt in Germany and an extensive dealer network supporting Niftylift sales throughout Europe, Australia, China, South Africa and Central and East Asia.

The HeightRider 17 All-Electric (HR17E) is a 17m All-Electric boom that offers up to five days of zero-emission operation on a single charge.

Launched in 2022 alongside the HR15E, the HR17E includes compact dimensions,



low weight (just 4,970 kg), an industry-leading working envelope and many innovative features to ensure efficiency and operator safety.

These include AGM maintenance-free batteries, a complete battery monitoring and protection system, onboard diagnostics, ToughCage with SiOPS, and Niftylift's advanced telematics solution, Niftylink. ⚡

Liebherr crane helps to rebuild a castle



Narrow access routes and limited space made the renovation of the former Geyerswörth Castle building in Bamberg, Germany, tricky. But a Liebherr 81 K.1 fast-erecting crane proved to be a solution.

The bottom-slewing crane can be flexibly adapted to local construction site conditions, thanks to 11 carefully graduated hook heights and five different jib lengths.

This makes hook heights between 17 and 40 metres and jib lengths between 31 and 48 metres possible. The crane was configured with a hook height of just under 39 metres and a reach of 48 metres for the historic building's renovation.

The crane has been involved in various tasks for the historic building's comprehensive renovation since August 2019, including the repair of roof trusses and rooftops, interior demolition, and remodelling work, as well as the renovation of ceilings and façades.

Metso Outotec signs a distributor contract in the Philippines



Metso Outotec and its distribution partner Process Machinery Company Inc (PMCI) in the Philippines have renewed their aggregates distribution contract to cover the whole Philippines market for stationary machines.

The contract enables PMCI to deliver best-in-the-industry Metso Outotec crushing equipment and services to the growing demand for aggregates in the Philippines.

PMCI will stock capital equipment and spares and wears, making lead times short and thus reducing costs for the end customers. They will utilise new developments and best practices from Metso Outotec to serve the customers' needs best. Additionally, PMCI continues to look for new ways to lower the costs for customers, which will increase the competitiveness of Metso Outotec's capital equipment, spares and wears. ⚡

A recycling truck to boost construction services



The Amanzi Recycling Unit.

Bokokotla Motshabo Construction and Projects, based in Rustenburg, offers civil and structural construction services and heavy-duty machinery rentals.

To expand on these offerings the company purchased a sixth high-pressure vacuum truck to add to its existing fleet procured from Werner Pumps.

While the previous five truck units the company procured are either vacuum trucks or combination vacuum and jetting trucks, the sixth is an Amanzi Recycling Unit.

Bokokotla Eric Mahlatji, Director of

Bokokotla Motshabo Construction and Projects, says the new recycling truck is an important addition to the company's jetting and pumping equipment, as it will increase the business's capacity and enable it to service customers' needs more effectively and efficiently.

Sebastian Werner, Managing Director of Werner Pumps SA, says the company has been supplying high-pressure jetting equipment for more than three decades and the water recycling truck units are a recent addition to its range of locally manufactured

high-pressure vacuum and jetting equipment.

"The benefit of the recycling unit is that it offers both wet and dry suction capacity and the ability to use water obtained from sewer lines on site," he explains.

"It's an ideal solution for cleaning sewer and stormwater lines, and for municipal applications – work that Bokokotla Motshabo does regularly. The recycling unit saves up to 168,000 L of clean water per 8-hour shift, which means it caters for South Africa's water-scarce environment and is available in various forms and sizes." 🌱

Wirtgen W 380 CRi cold recycler shows its mettle

Forget conventional asphalt paving methods, in-place cold recycling can use existing asphalt material on the spot for the production of a qualitatively new BSM base layer.

The Wirtgen W 380 CRi cold recycler recently showed its quick work when rehabilitating a sidewalk in Silkeborg, Denmark. The machine first milled off the existing asphalt surface to a depth of 15 cm and then added foamed bitumen and cement to directly produce the new mix in the machine's milling and mixing chamber.

Around 300 t of BSM (bitumen stabilised material) per hour was transferred to the Vögele SUPER 2100-3i road paver following on behind, which then paved the new pavement profile in a single pass.

The cold recycling train worked its way forward along the 3 km section of the Sinding Hedevej at a rate of 4 m/min.

As soon as the Hamm rollers had taken

care of the final compaction, the road was able to be temporarily reopened for local traffic.

This quick work is attributed to the cold recycling at the start of the process.

Thanks to the clear advantages of cold recycling with foamed bitumen, it has already become established as a standard practice in road construction in many parts of the world. 🌱



Shattering costs with MB Crushers

The MB Crusher twin header is an innovative piece of equipment used to mill different types of materials quickly, accurately and without vibration, saving the user time and gaining efficiency.

When it comes to demolition projects, the use of the MB Crusher drum cutter allows work to be carried out quickly.

The drum cutter crushes concrete and reduces it to rubble, and the material is, therefore, smaller and occupies less volume. This in turn means it is easier, faster and cheaper to handle and transport the material.

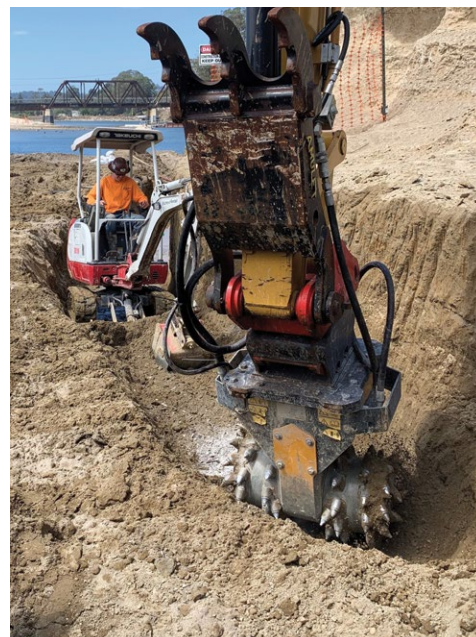
Three reasons these crushers are benchmarked as some of the most efficient tools are:

- Efficiency and cutting speed: The drum cutters are efficient tools that can quickly mill hard materials. They can mill large surfaces at a higher speed

than conventional cutting methods.

The adjustable milling depth and speed make them suitable for a wide range of application area requirements.

- Low vibration and noise levels: Twin headers generate very low vibration and noise levels, making them ideal for use both indoors and outdoors. They are therefore particularly suitable for construction sites in urban areas, where excessive noise and vibration can be a major problem. In addition, the twin header can be used at different angles, allowing greater access to hard-to-reach areas.
- Versatility: Drum cutters can be used for a variety of applications, including trenching, milling, levelling, excavating and more. This makes them very versatile tools. 🌟



Manitou shines at Celebration of Construction

Manitou North America showcased their latest product innovations and technology at the Association of Equipment Manufacturers' (AEM) Celebration of Construction on the National Mall festival in Washington this week.

Their exhibit featured all-new Manitou machines launched at ConExpo earlier this year.

These machines include the all-new vertical-lift mid-range 2750VT Track Loader, the MTA 1055 10,000-pound lift-capacity

Construction Telehandler and the 100% Electric ATJ 60e rough terrain aerial work platform.

"We are thrilled to participate in the Celebration of Construction on the National Mall, where we will present our latest advancements that incorporate innovation, sustainability and equipment simplification for modern construction sites," says Ilmars Nartish, Vice President of Manitou North America.

"This is a great opportunity for OEM

manufacturers to unite and showcase our products to policymakers, leaders and consumers, highlighting our contributions as well as challenges in the construction sector."

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

eMixers gaining popularity

Paris, France is the latest testing ground for eMixers. Three brands are behind the partnership, with one goal - the reduction of emissions on the construction site through a CO₂-neutral value chain.

Putzmeister, SANY and Holcim are behind the latest eMixer and Putzmeister and Holcim partnered to test whether the battery-electric mixer delivers what it promises in terms of efficiencies in everyday practice.

With a battery capacity of 350 kW/h, a working time window of about eight hours should be achieved in urban areas.

The eMixer has already covered 4,462 km in Paris. An average driving distance from the batching plant to the construction site of 5.4 km, which was covered in about 20 minutes on average with 5.6 m³ of concrete on board.

At first glance, it looks like a normal truck mixer; however, the eMixer is based on a SANY electric chassis and is powered



100% electrically.

This means that no CO₂ emissions are produced during the entire operation. The noise level is also significantly lower due to the electric drive.

Its preferred area of application is particularly in inner-city areas, where there are

strict noise protection regulations.

SANY has given its subsidiary Putzmeister overall responsibility for the introduction and rollout of the SANY eTruck portfolio in Europe. With over 4,100 eTrucks sold in China in 2022, SANY is already one of the pioneers in the heavy-duty electric truck sector. 🌟

CASE CE's STATE-OF-THE-ART MANUFACTURING PLANT IN INDIA

Pithampur in Central India is a manufacturing and industrial hub for the Republic of India. CASE Construction Equipment, a global brand of CNH Industrial, is a roleplayer in the hub, manufacturing equipment that is exported around the world, including Africa.

Pithampur in Central India is not a no man's land. While it is around 600km from key Indian hubs like Mumbai and New Delhi, it is a noteworthy stomping ground for factory workers manufacturing capital equipment for the Indian market and abroad.

CASE Construction Equipment (CASE CE) has placed a lot of value in its Indian manufacturing plant, one that is reaping rewards. Some of these rewards include 50,000 backhoe loaders rolling off the production line.

During April, the brand invited representatives of the international press to visit its state-of-the-art manufacturing plant in Pithampur.

On the event, it displayed the newly launched V-Series backhoe loaders, the CX220C LC HD crawler excavator and the 110EX, 450DX and 752EX compactors, just some of the equipment manufactured at the plant.

A Global Player

CASE CE, a global brand of CNH Industrial, relies on state-of-the-art facilities to produce its lauded, respected and above all esteemed pieces of equipment.

"Our state-of-the-art facility in Pithampur operates to the high manufacturing standards of CNH Industrial plants across the world. With its range of high-quality construction equipment that stands out for its reliability and durability, which are the hallmarks of the CASE brand, it serves the Indian domestic market and exports to more than 75 countries. India is a global manufacturing hub and a strategically important market for CASE Construction Equipment's growth in the region," says Satendra Tiwari, Plant Head - CNH Industrial, India.

Built-in 1989, the Pithampur facility is one of eight manufacturing hubs for the brand.

Spread across 40 acres of land in



Pithampur, the facility operates according to the company's CNH Business System (CBS), which involves all employees across the entire organisation to drive greater accountability, agility, efficiency, and safety.

The plant achieves consistently high quality with its class-leading and automated production technologies, including robotic welding, laser cutting and high-precision machining. It has ISO certifications for its Quality, Health, and Safety as well as Environmental and Energy Performance.

In 2022, the plant achieved the significant milestone of manufacturing 50,000 loader backhoes.

The plant also houses an important Research and Development facility to ensure that machines go through regular upgrades and are future-ready.

As part of its efforts to contribute to CNH Industrial's sustainability goals and its aims to reduce carbon emissions, the company

The CX220C LC HD Crawler Excavator on the ground at Pithampur. It is one of the models available in South Africa.



The Pithampur plant manufactures the V-Series backhoe loaders, the CX220C LC HD crawler excavator and the 1110-EX, 450DX and 752EX compactors.



The Pithampur facility was built in 1989 and operates according to the company's CNH Business System (CBS).



The plant houses class-leading and automated production technologies, including robotic welding, laser cutting and high-precision machining.



CASE CE opened a training centre in Pithampur in 2021 intending to provide equipment- and technology-related training to its company and dealer engineers.

has installed solar panels at its Pithampur plant which help by providing up to 25% of the facility's energy through renewable sources.

Trained to be great

CASE CE opened a training centre in Pithampur in 2021 to provide equipment- and technology-related training to its company and dealer engineers.

The sleek training centre covers nearly 900 sqm and comprises three classrooms with a practical workshop area attached.

Offering a capacity of up to 72 trainees at any time, the training centre benefits from multi-mode facilities – allowing sessions to take place both face-to-face and remotely, via the company's online training portal. CNH Industrial Web Academy will also make use of the centre for web-based instructor-led training of engineers.

Such training programmes form a vital element of CASE CE's professional



The SR130B Skid Steer Loader, manufactured in Pithampur, is another CASE CE model available in South Africa. Here it is displayed in the plant.



Robotic welding at the plant.

development strategy, to bring company and dealer engineers up to date with new technological advances and the safest, most appropriate way to use equipment for various applications.

The standard programme includes Basic Product Training, Engines - CRDI & FPT, Machine Hydraulics, Power Training, Parts Training, and Training for Machine Electricals. Recently, a new training module has been added for BS(CEV)-IV-compliant machines in order to inform engineers of the technicalities behind the technologically advanced range of

machines. All training programs are delivered by CASE's in-house team of experienced professionals and experts.

Orange gold

CASE-orange equipment is easily recognisable, but the newly launched V-Series backhoe loader and the CX220C LC HD crawler crane are as much testament to the strength of the manufacturing facility, as they are to the equipment that exits the production line. The 50,000 backhoe loaders are evidence that the facility can manufacture



efficiently. When the line-up of equipment that is produced here is stacked up, it's even more impressive – especially when you consider that some models are exported to South Africa. This includes the 1110-EX Compactor, the V-Series Backhoe Loader and the stellar CX220C LC HD Crawler Excavator. Each piece of equipment built in India is built tough so it will work, effectively, around the world. The following equipment is available in South Africa.

1110-EX Compactor

Designed for heavy and demanding applications, the 1110-EX Compactor is equally at home in road and construction job building sites, as it is in mining operations. It features the proven S8000 engine developed by FPT Industrial, which has recently been upgraded to deliver more performance with a power increase of 110 hp and a massive 430 Nm of torque.

The turbocharged engine delivers power with excellent fuel economy. The 1110-EX Compactor is equipped with a class-leading 32mm thick drum, which provides a higher weight and robustness that guarantees maximum productivity and reliability. The 1110-EX Compactor delivers outstanding compaction applied force of 33 375 kgf: this reduces the number of compaction passes, in turn reducing fuel cost and work hours. The EX-Series compactor delivers an effective performance on every surface with its two configurations: the 1110-EX-D with drum drive and increased traction are ideal for slopes and landfills, while the 1110EX-PD, featuring drum drive and



clamp-on pad foot, is the perfect solution for compacting more cohesive materials such as clay and silt.

V-Series Backhoe Loader

The newly launched 580V and 695SV backhoe loaders feature a brand-new cab, that is more ergonomic and offers a completely new interior and exterior style. The cab has been redesigned around the operator to provide a comfortable work environment. The 580V offers higher visibility thanks to narrower frame and high-stress resistance due to balanced effort distribution along the boom.

The FPT engine delivers big performance in a small package, and with the lowest maintenance cost in the market. The air intake system with centrifugal pre-filter reduces cleaning intervals and the model features a high turbulence piston and air intake manifold; while the mechanical Injection Pump for the 580V ensures high power combined with an easy-to-maintain and serve injection system.

In both models, main checkpoints are easily accessible from the ground. The front tilting engine hood and the ideal layout of the components enable fast routine maintenance operations.

The 695SV allows the operator to select three different steering modes: 2-wheel steering – road steer for standard operations; 4-wheel steering for agile and fast operations, and crab steer for restricted areas. This ensures great versatility and manoeuvrability. The CASE 695SV is equipped with 4 equal sized wheels to guarantee better weight distribution and more traction.



The expansive Pithampur facility allows for enough space to manufacture the CX220C LC HD Crawler Excavator.



The Pithampur Training Centre.

All these features are combined with a full range of general and multipurpose buckets and forks.

CX220C LC HD Crawler Excavator

The CX220C LC HD has been designed with stronger boom, arms and undercarriage structures, with increased thickness to make it suitable for the harshest applications. The machine is equipped with a 6-cylinder 6.7-litre engine which delivers outstanding torque that ensures maximum power with the best fuel efficiency. This electronic engine

from FPT is the perfect match for the CASE Intelligent Hydraulic System which features 5 automatic energy-saving functions that further improve machine efficiency. These functions constantly adjust the engine rpm and the hydraulic pump displacement to match the actual power requirement at any time. The powerful and reliable industrial engine ensures high productivity with low fuel consumption, making the machine suitable for stone quarry, general and road construction, earthworks and mining applications. 🌟



Ctrack ensures access at the user's fingertips.

Ctrack ENHANCES THE FUNCTIONALITY OF CRYSTAL FLEET MANAGEMENT

Ctrack Crystal is an all-encompassing, customisable fleet monitoring platform that places ease of use at its core. As part of its latest update, Ctrack's Crystal software has been refined with additional industry-defining functionality along with flexible and scalable AI software to assist with everyday business needs, all from one platform.

Al has quickly become something that is passed in everyday conversations, but beyond the writing capabilities of accessible AI, artificial intelligence has a lot of capabilities to ensure safety, and to improve performance.

These two things are central to Ctrack's Crystal software.

"Ctrack understands that the needs of our customers are always changing. Fortunately, since Crystal is cloud-based, it can be continually refined without any disruption to the daily functionality,"

says Hein Jordt, Chief Executive Officer of Ctrack Africa.

Quick delivery

The last-mile delivery industry has shown tremendous growth in the past three years with no signs of slowing down. The latest updates to Crystal are particularly attractive to this industry. Fleet managers can now assign jobs to drivers and provide them with details regarding pickup and delivery, such as address or specific instructions when they reach the location safely via the Crystal app.

Crystal now includes electronic proof of delivery. It is fully customisable and could consist of digital documents such as an invoice or a delivery note, ensuring peace of mind and a time-stamped record that packages arrived safely at their destination.



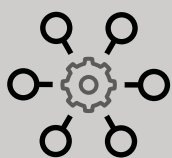
"The ability to create and optimise jobs, monitor route adherence, view your fleet via video feed in real-time, and capture electronic proof of delivery from one single platform allows for simple and efficient management of your entire fleet."

Hein Jordt, Chief Executive Officer of Ctrack Africa.



Live data is crucial for the optimal running of any fleet operation, and a powerful user experience allows fleet managers to be more proactive. Real-time visibility of all assets via a digital dashboard ensures efficient management.

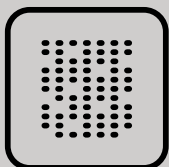
This Sign-on-Glass technology, along with the fact that you can always see exactly where drivers are, assists with making better business decisions and delivering on your promise to your clients.



Fleet managers can assign jobs to drivers and provide them with details regarding pickup and delivery.



Crystal now includes electronic proof of delivery. It is fully customisable and could consist of digital documents.



User-friendly functionality includes a picture-in-picture option, downloadable video clips, SMILE script integration and AI analysis of video feeds to create alerts.



Crystal users can ensure optimum fleet utilisation with daily productivity reports of the entire fleet displayed on the dashboard.

Simple scheduling

New scheduling functionality allows for optimal use of resources and vehicles. Real-time data allows for visual comparison between planned and actual delivery and turnaround times, enabling fleet managers to continuously refine schedules due to unforeseen delays or traffic. Once on the road, this routing automatically adapts to changing conditions, assisting drivers in delivering safely and on time. Refuelling can be planned in such a way that the impact on the schedule is minimal, and drivers can easily be alerted should they need to deviate from the schedule, such as in emergencies.

The driver app, which forms part of the Crystal offering, gives managers and drivers enhanced control of their daily activities using one single application that offers a myriad functionality and allows for the safe navigation of their schedule and on-time status.

Good communication

Clear communication with drivers ensures a smooth-running operation. Now drivers can receive a job list and route guidance via the Crystal app. Sign-on-Glass technology with integrated Electronic



Proof of Delivery ensures quick and efficient movement of goods to and from the vehicles, all within the same app.

Further enhancements to Crystal include the addition of video monitoring straight from the Crystal platform, with the viewing and management of all of a fleet's cameras in real time. This technology enables fleet managers to see exactly what is happening in the cabin or load bay of any of their vehicles at any time.

User-friendly functionality includes a picture-in-picture option, downloadable video clips, SMILE script integration, Artificial intelligence analysis of video feeds to create alerts, access to fleet video feeds from within a map view, date or location view as well as user-defined video alerts such as harsh braking, G-Force, or speed limit transgressions.

"The ability to create and optimise jobs, monitor route adherence, view your fleet via video feed in real-time, and capture electronic proof of delivery from a single platform allows for simple and efficient management of your entire fleet," adds Jordt.

The customisation options and advanced functionality of Ctrack Crystal make it perfect for any businesses - no matter their size - that utilise movable assets to take control of their business operations and have access to data that assists them in making better decisions. Users can choose from a variety of functionality packages as their needs change.

With Crystal, users can now ensure

optimum fleet utilisation with daily productivity reports of the entire fleet displayed on the dashboard for easy success.

"Live data is crucial for the optimal running of any fleet operation, and a powerful user experience allows fleet managers to be more proactive. Real-time visibility of all assets via a digital dashboard ensures efficient management," concludes Jordt.

The latest Ctrack Insights

The South African logistics sector continued its recovery in March, with the Ctrack Transport and Freight Index reaching its highest level since September, the last month before the crippling Transnet strike hit the sector.

During March, the Ctrack Transport and Freight Index increased by a notable 3.3%, the third consecutive monthly increase and the highest monthly increase since April 2021, reflective of a synchronised recovery.

In addition, five of the six sub-sectors measured by the Ctrack Transport and Freight Index increased monthly, accelerating much-needed momentum in the sector.

On an annual basis, the Ctrack Transport and Freight Index is tracking 3.3% higher than a year earlier. While this is still only a blip on the graph compared to the annual growth rate of 13.6% recorded as recently as in August 2022, all indications are that the sector is on a firm positive trajectory.

One of the characteristics of

the logistics sector is the varying discrepancies in the performances of the different sub-sectors. While this has proved to be a major positive in the sector's resilience, a more synchronised recovery, as was observed in March, is indeed very encouraging. In March, four of the six sub-sectors still declined on an annual basis, whereas five of the six increased every month, indicative of positive near-term momentum. March's improvement also confirmed a strong quarterly performance of the Ctrack Transport and Freight Index, which increased by a notable 6.6% quarter on quarter, representing a much-needed positive contribution to the country's GDP.

GDP growth

The transport sector defied expectations of underperformance in the fourth quarter of 2022 to be the best sectoral performer, and all indications are that the transport sector will save the day for the South African economy in the first quarter once again. March's solid improvements, as measured by the Ctrack Transport and Freight Index, showcased a strong quarterly performance of 6.6% in the first quarter of 2023.

"The ongoing challenges of harsh load shedding, high living costs, inflated production costs, rising wage demands and elevated interest rates mean that many sectors of the economy are either contracting or only showing marginal growth. In this environment, the transport sector's resilience creates a sliver of hope for the South African economy," says Jordt.

Emerging Trends

The performances of four sub-sectors, including Rail Freight, Storage and Warehousing, Sea Freight and Pipeline Transport, remain below levels of a year ago. This strongly indicates that these sectors have still not fully recovered from the cumulative negative impact of the KZN flooding in April 2022 and the Transnet strike in October 2022.

Road Freight remains the most resilient of all sub-sectors, recording a growth of 15.9% year on year at the end of March 2023. Air Freight has remained stagnant compared to a year earlier.

"Strong recoveries have been recorded in the first quarter of 2023 in Rail Freight, Pipeline Transport, Sea Freight and Road Freight, showcasing that the logistics sector is firmly in recovery mode, following a dismal end to 2022," says Jordt. 🌟

JCB HAS MANUFACTURED OVER 50 PROTOTYPES POWERED BY HYDROGEN

A team of 150 engineers is working on the pioneering initiative to develop hydrogen combustion engines – and more than 50 prototypes have already been manufactured at JCB's UK engine plant.

By Anthony Bamford, JCB Chairman

The brand new JCB hydrogen combustion engine was recently unveiled, and with it the company's zero-carbon emissions solution for construction and agricultural equipment.

The JCB engineering team has made enormous strides in a short space of time to develop a hydrogen internal combustion engine. As the first construction equipment company to develop a fully working combustion engine fuelled by hydrogen, I'm delighted we are now able to present this technology on the international stage.

Prototype JCB hydrogen engines are already powering backhoe loader and Loadall telescopic handler machines. JCB has also made a major breakthrough in proving the wider appeal of hydrogen combustion technology by installing one of the super-efficient hydrogen engines into a 7.5-tonne Mercedes truck – a retrofit which was completed in just days. JCB has also unveiled its very own designed and built mobile refuelling bowser to take the fuel to the machines. The bowser has enough hydrogen gas to fill 16 hydrogen backhoe loaders and is able to be transported either on the back of a modified JCB Fastrac tractor or on a trailer.

The JCB engineering team has gone back to first principles to completely re-design the combustion process to work for hydrogen. In doing so they have achieved two major things: secured JCB's place in history as the first construction equipment company to develop a fully working combustion engine fuelled by hydrogen and steered us towards the production of a landmark 50 hydrogen combustion engines.

JCB has also been at the forefront of electric technology development to meet customers' demands for zero-carbon products. While battery electric is suitable for smaller machines which do fewer hours and typically use less fuel, larger machines have a higher energy requirement. This would result in larger

batteries, which would take longer to charge, making them less suitable for machines which work multiple daily shifts and do not have the available downtime to recharge.

As a result, JCB has concentrated its development of electric machines on its compact range, including the 525-60E Loadall telehandler and the 19C-1E mini excavator - the world's first electric mini excavator.

As the company examines future fuels which deliver zero emissions, it has left no stone unturned. In its search for a mobile fuel which can be taken to the machine, ensuring maximum uptime and fast refuelling, HVO, biogas, E-fuels, ammonia, and hydrogen have all come under the microscope. Interestingly, JCB engines have been approved for use with HVO since Stage IIIB / Tier 4i engine legislation came into force.

The majority of these alternative fuels require the production of hydrogen, so it makes perfect sense to use hydrogen in the first place because it is a clean zero carbon fuel which can be produced from renewable energy. Hydrogen also offers a potential solution to the challenge of batteries on larger machines; it allows for fast refuelling and is a mobile fuel solution, allowing fuel to be taken to the machine."

The unique combustion properties of hydrogen enable the hydrogen engine to deliver the same power, the same torque, and the same efficiency that powers JCB machines today, but in a zero-carbon way. Hydrogen combustion engines also offer other significant benefits.

By leveraging diesel engine technology and components, they do not require rare earth elements and critically, combustion technology is already well-proven on construction and agricultural equipment. It is a technology which is cost-effective, robust, reliable and well-known throughout not just the construction and agricultural industry, but the whole world. 🌍



JCB Chief Innovation and Growth Officer Tim Burnhope with the JCB hydrogen engine at Conexpo.

The majority of these alternative fuels require the production of hydrogen so it makes perfect sense to use hydrogen in the first place because it is a clean zero carbon fuel which can be produced from renewable energy. Hydrogen also offers a potential solution to the challenge of batteries on larger machines.

The 8FBE Series Electric Power Forklift fitted with our SEnS+ System.



TECHNOLOGY AND WORKSHOPS ENSURE FORKLIFT SAFETY

Taking advantage of supplier workshops to maximise safety, coupled with new technologies like management systems, or operator assistance applications, can make the materials handling space a zero-harm zone, writes Adriaan Roets.

CFAO Equipment SA believes that occupational health and safety in the material handling industry is critical for the well-being of businesses, and employees.

The safe operation of forklift trucks is key to those safety measures being met. According to Dawn Van Dyk, SHEQ Manager at CFAO Equipment SA, many accidents are due to a lack of proper training, licensing, and human behaviour.

The first step in correcting this is training, which has become an important part of what CFAO Equipment SA offers clients.

On-site workshops

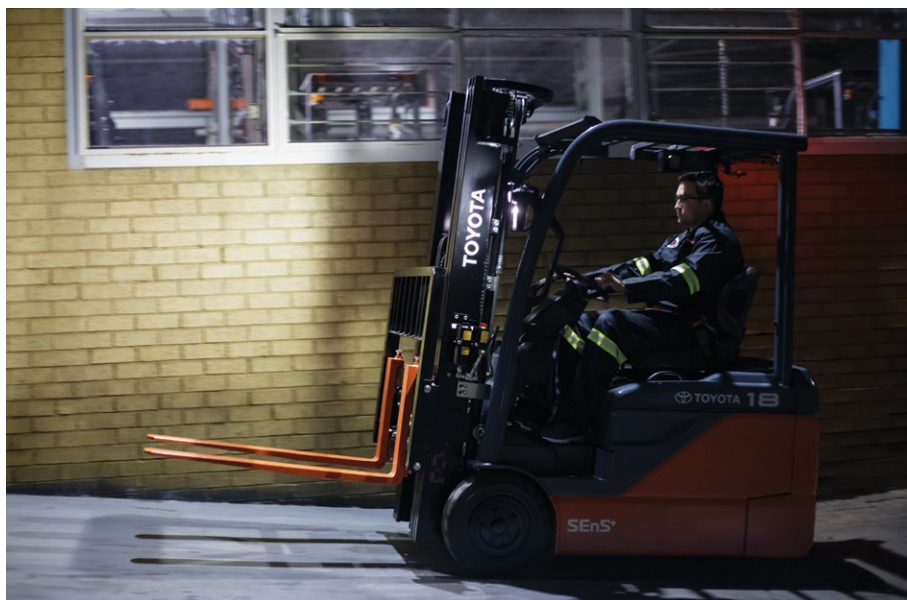
It is firmly established that many accidents are the result of a lack of proper training, licensing, and human behaviour.

Van Wyk explains that the fact that



"With our focus on establishing trusted partnerships and providing quality equipment solutions that keep costs down, we have come up with flexible rental agreements that are tailored to meet each customer's specific needs."

Bianca Smit, National Operations Manager at CFAO Equipment SA



material handling equipment predominantly operates in reverse results in reduced visibility for operators.

“Coupled with this, many warehouse and logistics spaces do not have demarcated areas for pedestrians, with many having to walk between machinery and racks. This increases their potential risk for injury, with the majority of accidents being the result of collisions between forklifts and pedestrians,” she highlights.

One way to effectively address these collisions is through workshops.

“On-site workshops are a working partnership between Toyota Material Handling and valued customers that have high volume fleets. We assist in optimising the fleet utilisation, and minimising equipment downtime by ensuring that all repairs, maintenance, servicing, and even legal compliance from a load testing perspective is done on-site,” says Van Dyk.

We compensate for the power loss with the cylinders. This has the advantage, especially when driving concrete piles, that they are not damaged as much as when using accelerated hammers.



By signing up for workshops, clients can ensure that machines are not taken out of operation for long periods, and this reduces the business disruption cost to customers.

“Breakdowns and response times are responsive and efficient, with constant communication between Toyota Material Handling and our customers and Forklift Operators,” adds Van Dyk.

These workshops, presented on-site, also provide a sense of ease when new concepts or equipment are introduced to a client.

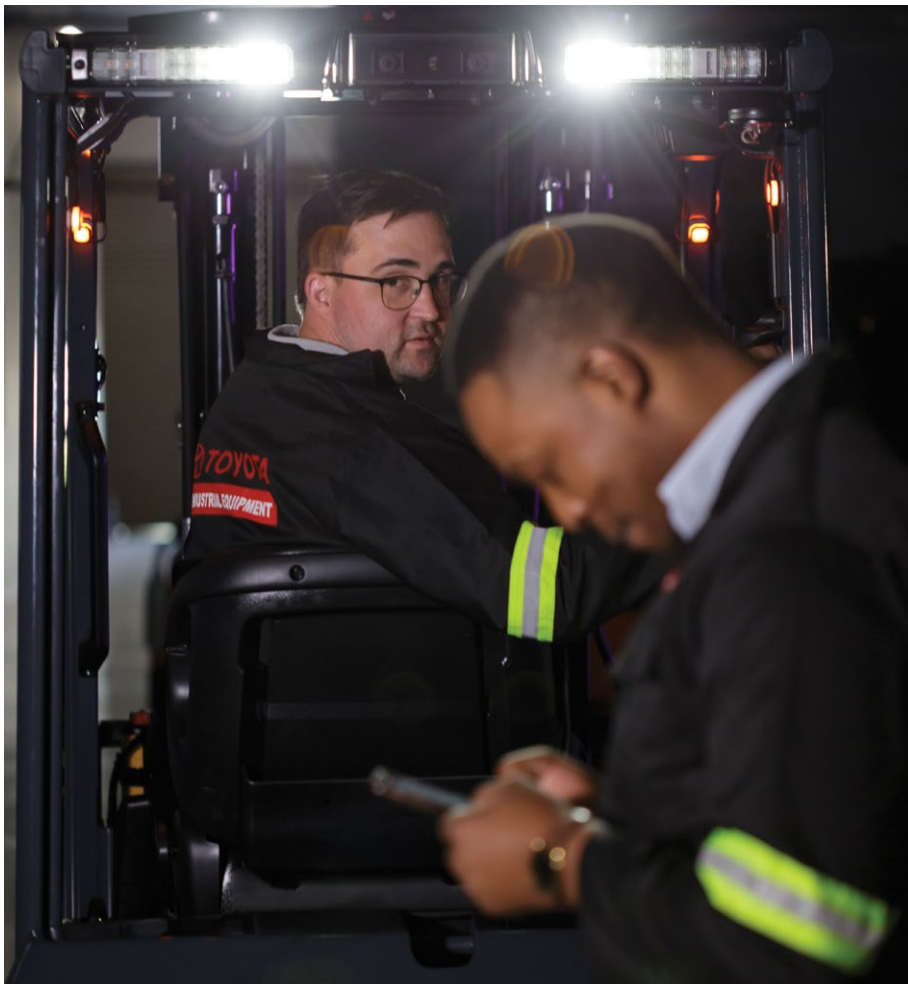
“Having an established workshop on a customer site is critical from a safety aspect. This way we can always ensure compliance and possibly prevent any safety breaches or incidents that might occur and that would directly affect profitability or even possibly result in loss of trade,” says Van Dyk.

The Anzen Philosophy

At CFAO Equipment SA, the safety philosophy and code of conduct are focused on Anzen, which translates to safety first in Japanese.

“This indicates that safety is one of our topmost top priorities and is non-negotiable or avoidable. Caring about our people and ensuring their wellbeing is the foundation of what it means to be a sustainable business,” says Van Dyk.

According to her, as a leader in the material handling industry and a global brand, it has become their duty to constantly introduce innovative solutions to minimise risk to all stakeholders, to



The 8FBE Series Electric Power Forklift fitted with the SEnS+ System can distinguish between objects and pedestrians.

prevent accidents and ensure that CFAO Equipment SA creates awareness around danger and possible incidents in the work environment, both to the employees and the business as a whole.

For this to happen, the adoption of new technologies is vital.

A sense of safety

Featuring the industry-first SEnS+ operator assistance system, the AI-powered camera system distinguishes between pedestrians and objects behind the forklift and notifies the operator with a buzzer and lights when a pedestrian is nearby. The system also automatically controls the travelling speed of the truck and prevents it from moving backwards.

The SEnS system can detect unspecified obstacles and pedestrians, making them particularly useful at logistics sites, which have unspecified movement constraints.

"One of the latest technologies in South Africa from Toyota Material Handling is our upgraded 8FBE Series Electric Power Forklift fitted with our SEnS+ System. The introduction of SEnS+ is at the forefront of technological innovation with the

main purpose of enhancing safety on our customers' sites," says Van Dyk.

According to her, SEnS+ complements standard safety systems fitted to their counterbalance trucks that include:

- SAS – Toyota Material Handling's new unique Operator Assist System of Active Stability
- OPS – Operator Presence Sensing
- This can become critical in operations where forklifts are present.

"Forklifts are heavy mobile machinery that can weigh more than 30 tonnes, operated by a single operator in a fast paced environment. It is therefore critical that safety remains key to all our stakeholders and equipment that operate on our customer sites thus making the forklift environment unique," adds Van Dyk.

SEnS+ with pedestrian obstacle detection is the safety feature needed for fast-phase environments.

The system controls deceleration by reducing power to the accelerator minimising potential accidents. With a 130° Detection angle the system can distinguish between obstacles and pedestrians, with 3-level alarms.

Top training

"When drivers are not effectively trained and allowed to operate forklifts, a real risk is that serious harm and even a fatal accident might occur," Van Dyk emphasises.

While it often sounds like it would be obvious that untrained operators would not be operating forklifts, constant training is a real focus area.

"Constant training ensures that drivers reduce their chance of accidents by being fully competent, all the while keeping abreast with any technological advancements introduced on our equipment in creating a safer working environment. We at CFAO Equipment SA can therefore assist with various forms of training through our MERSETA-accredited training centre," explains Van Dyk.

Highlighting the implications of not promoting safety and understanding how it can affect businesses and their employees, will be the deciding factor in ensuring that more industry stakeholders make the necessary changes to their operations.

Rental equipment

For those that use material handling equipment in their day-to-day operations, the price tag associated with the purchase of new machinery can deal a heavy blow to constrained budgets.

Bianca Smit, National Operations Manager at CFAO Equipment SA, says the volatility of the market has seen requests for rental agreements increase significantly.

"This is because rental agreements allow customers to safeguard their cash flows and focus on the core operational aspects of their businesses instead of worrying about the productivity and performance of their equipment."

According to her, it also gives customers the peace of mind that the equipment can be returned to the supplier if there is an issue, as opposed to taking responsibility for the added costs associated with repairs and maintenance when something goes wrong.

"With our focus on establishing trusted partnerships and providing quality equipment solutions that keep costs down, we have come up with flexible rental agreements that are tailored to meet each customer's specific needs," adds Smit.

With rental options becoming more every day, the CFAO Equipment SA Training Academy offers another solution to upskill, train or retrain forklift operators to be able to use new equipment. At the heart of all these options is safety – and that is the true success. 🌟

HOW CONSTRUCTION SITES CAN AVOID NEGATIVE CERTIFICATES

The Master Builders Association (MBA) North is receiving an increasing number of complaints about the issuing of zero or even negative certificates.

By Brad Boertje, construction risk management consultant and ADR practitioner for MBA North

A growing number of MBA North members are alerting us to the practice of issuing zero – or even negative – certificates. This means that contractors can end up being paid less than expected, thus negatively affecting their cash flows, or even, in extreme circumstances, finding that they owe money to the employer.

While we have no firm data on how much of a problem this is, the fact that we are receiving this complaint from long-standing MBA North members is concerning, especially as some are convinced that this practice is being used unethically. Several members have alleged that unethical practices relating to the issuing of zero or negative certificates led directly to their businesses going under.

To be clear, the improper issuing of zero certificates is not the norm, but it is concerning that it seems to be on the increase.

It's worth pointing out that there are two sides to any story, and there will be instances in which the issuing of a zero certificate is justified by the circumstances, especially when a contractor is penalised for being in breach of its contractual obligations. However, what we are concerned with here is the unethical use of zero certificates to improve the employer's cash flow or to offset increasingly tight margins.

A contributing factor could be South Africa's talent exodus, creating a gap that opens up the way for inexperienced or even unethical people.

Understanding the process

The issues arise from the way payments are made in the construction industry. Once the work begins, the contractors submit monthly payment requests based on the work they have done and the material that has been delivered on-site. This request is then assessed by the employer's principal agent (in conjunction with the quantity surveyor). A payment

certificate is then issued as requested, or revised in line with what the principal agent believes is the true state of affairs. This is when a zero or even negative certificate could be issued.

So far, so very logical. But a problem arises when the payment request is not assessed quickly, and the contractor only gets told what it will be paid just before the payment is due. At that point, disputing the principal agent's calculations would delay the payment potentially for months, something that no contractor can afford. Even alternate dispute resolution is too slow and expensive to be practical, especially in the midst of a contract with wages and accounts to be paid. So the aggrieved contractor hopes that the mistake, if it is a mistake, can be rectified in the following month or at the end of the contract.

As noted above, there will certainly be instances when the contractor gets things wrong, but one can also see how an unscrupulous principal-agent or employer could manipulate the process. Given the wafer-thin margins that prevail, this kind of manipulation can be enough to propel an apparently stable contractor into receivership – devastating for its employees and owners, and for the industry's ecosystem as a whole.

Mitigating the risk

All indications are that some elements of the construction industry could be taking some shortcuts to improve their profits at the expense of contractors. Contributing factors might be the dire state of the industry and the general culture of lawless impunity that increasingly prevails.

Whatever the causes, hard-pressed contractors find themselves vulnerable to these tactics, not least because a contract, any contract, seems better than no contract. Presumably, things will right themselves when and if business picks up, but until then there are ways they can protect themselves:

- Submit comprehensive backup documentation to payment applications. This makes it easier for the quantity surveyor to do his or her work and makes it harder to dispute the contractor's request.
- Don't leave things to the last minute. For example, get work signed off in sections or phases, so there is no room for dispute weeks later. Similarly, remeasure your work as the project progresses to ensure you are verifiably on track.
- Put gentle pressure on the principal agent to get your payment certification issued as early in the month as possible, so there is time to register a dispute well before the payment due date. If the certification is issued the day before payment is due, the contractor finds itself with little wriggle room.
- If certifications are incorrect, make the time to challenge them immediately with well-argued reasons and comprehensive backup documentation.
- If MBA North members are involved, get the organisation involved at an early stage. Other professional bodies should be involved too, if appropriate.

Contractors might argue that these remedies require resources that they do not have. It's true that tight margins force unpleasant choices on everybody, but putting in good processes will not only make it less likely they will find themselves being issued with zero or negative certificates, but it will also make their companies much more resilient in general. And that is worth a lot. 🌀

It's important to partner with a reputable tyre supplier with accredited sales channels and an in-field technical services team to get the most out of your fleet's tyres.



TAKE A LONG-TERM VIEW OF COMMERCIAL FLEET TYRE MANAGEMENT

When it comes to buying tyres, the biggest mistake some fleet operators make is to look at short-term savings instead of long-term investments in their fleet, because of the cost pressures they face.

Professional transport operators recognise the impact of tyre cost vs. tyre performance and the necessity of fitting the correct tyre for the application.

They also understand how vehicle and tyre maintenance affect safety, reputation, and fuel consumption, and prevent unnecessary breakdowns and insurance claims.

Lubin Ozoux, CEO of Sumitomo Rubber South Africa, which manufactures Dunlop, Sumitomo and Falken tyres, explains: "Truck and bus radial (TBR) tyres are sold on performance, casing strength and retreadability that relates to cost per kilometre or CPK. Every cent per kilometre that end user can save will assist their bottom line, keeping their business running in a very cut-throat operating environment. We're proud to offer a CPK guarantee where we will pay out the transporter should our tyre not outperform their fleet's current tyres."



"Every cent per kilometre that end user can save will assist their bottom line, keeping their business running in a very cut-throat operating environment. We're proud to offer a CPK guarantee where we will pay out the transporter should our tyre not outperform their fleet's current tyres."

Lubin Ozoux, CEO of Sumitomo Rubber South Africa

Dunlop's Truck, Bus and Radial tyre range is designed using advanced Japanese technology and manufactured locally at its Ladysmith plant, which celebrates 50 years of manufacturing excellence in 2023.



QUICK TAKE

There are many different tyre tread patterns and casing constructions for different heavy-duty and industrial applications.



Buying from reputable, local manufacturers or suppliers is good for the industry.



Presently there is no legislation to curb the sale of second-hand tyres or regrooved and retreaded tyres in South Africa. These tyres are however often unsafe.



Sumitomo Rubber SA is the first tyre manufacturer to offer truck tyre insurance at no additional cost to the customer, through its Dunlop Sure package of tyre cover



should our tyre not outperform their fleet's current tyres."

To ensure cost per kilometre stays affordable Ozoux shares many tips for commercial fleet operators to effectively manage their tyres and on-the-road safety.

Partner for success

Collaborate with a reputable and experienced tyre supplier that will provide the best advice and support required to manage your fleet. Sumitomo Rubber SA has an In-field Technical Services (ITS) team based in all regions, and in Africa, to advise customers on tyre selection, application and performance. The ITS division becomes an extension of customers' businesses, assisting with business growth, staff development and getting the most out of tyres. Scrap reports and fleet surveys are an essential part of this process, including a thorough analysis of any tyre failures.

Choose your tyres wisely

Tyres are made to provide optimal performance for a specific wheel position, for example, Steer and Drive tyres don't have the same tread patterns, rubber compounds and construction. Dunlop boasts an extensive range of truck and bus tyres for all axle positions, including Steer, Drive and All Positions.

Consider fleet application

Will you need a long-haul highway tyre, a regional-haul tyre, an on/off-road tyre or an off-road construction tyre for your Drive axle? There are many different tyre tread patterns and casing constructions for different heavy-duty and industrial applications. Placing an ill-suited tyre in an application will result in a loss of mileage and a higher CPK. Dunlop offers tyres for long-haul application (such as the SP835A), for ordinary highway usage on mid and short-distance (such as the SP431W), for predominantly off-road use (such as the SP925A and SP931) or mixed-use, both on and off-road (such as the SP581 and the SP571).

Tyre tracking and maintenance

Rubber SA uses several systems – both human and machine-driven – to assist in compiling data and to support fleet customers with correct tyre application and improved outcomes in safety, mileage, cost containment and life span. This is fed in and out of the Digitrak data management system, and used to monitor tyre mileage performance from “cradle to grave”.

Vehicle and tyre maintenance

Carry out vital tyre checks frequently to keep your fleet's tyres in peak condition. Tyre rotation, wheel alignment and balancing are important, as worn vehicle parts and axle misalignment will cause tyres to wear unevenly and ultimately result in the need for premature removal and replacement. Underinflation, over-loading and unattended damages are probably the greatest causes of tyre failure in commercial vehicles. Temperature also plays a significant role, as a mechanical condition or failure (such as when truck or trailer brakes start binding or when wheel bearings start failing), can lead to excessive temperatures developing around a specific wheel position, and even causing the tyres to catch alight.

Trained staff

Like maintenance, training both technicians and drivers remains critical when implementing a tyre management programme. Sumitomo Rubber SA offers regular education and training to commercial customers to upskill their staff. Fleets can book training sessions through their Dunlop dealers. Key outcomes include an understanding of passenger and TBR tyres, safety requirements, fit and strip procedures, truck and trailer wheel alignment, trailer maintenance, and how to work out CPK.

Beware of second-hand tyres

Presently there is no legislation to curb the sale of second-hand tyres or regrooved and retreaded tyres in South Africa. However, through Sumitomo Rubber SA's #SaferThanSafe campaign, the company aims to educate and provide safety-related information to dealers and customers on an ongoing basis.

Maximise CPK

The best return on investment is undoubtedly the tyre that gives you the lowest CPK – and the lowest CPK tyre is generally the one that will give good first-life mileage and will have a strong and durable casing which can be re-treaded multiple times. At Sumitomo Rubber SA, “cradle to grave” CPK is a big focus, taking into account not only the original life of a tyre but the total value that it has to offer, including the casing retreadability. The cheapest tyre will not necessarily give you the lowest CPK.

Support local

Buying from reputable, local manufacturers or suppliers is good for the industry. Sumitomo Rubber SA's locally produced TBR range is designed using advanced Japanese technology, tested against Africa's challenging road conditions, and manufactured in South Africa at a state-of-the-art purpose-built 180 000m² TBR factory in Ladysmith. Sumitomo Rubber SA also has a fast-growing Dunlop Commercial dealer footprint throughout the major cities and popular routes, to help with 24-hour breakdown support, new tyre sales and tyre retreading.

Get tyre cover

Sumitomo Rubber SA is the first tyre manufacturer to offer truck tyre insurance at no additional cost to the customer, through its Dunlop Sure package of tyre cover. The Dunlop Sure Product Life Warranty of eight years protects customers against defects in material and/or workmanship on all Dunlop, Sumitomo and Falken branded tyres. Complimentary truck tyre insurance is available specifically on Dunlop's locally manufactured premium Drive tyre, the SP835A, in size 315/80R 22.5 and is valid for 18 months from the date of purchase. Full tyre replacement is offered in the first six months for irreparable truck tyre damage from all road hazards, without any costs for tread already used, and only fitment costs for the customer's account. For claims after the first six months, the remaining tread will be calculated and



Dunlop's SP835A Premium Drive tyre is suitable for long-haul applications and offers free Dunlop Sure truck tyre insurance in size 315/80R 22.5.

a credit paid to the dealer directly by the Insurer. The truck tyre insurance is available exclusively from Dunlop stores in South Africa, eSwatini, Botswana, Namibia and Lesotho, and is activated when the Dunlop dealer registers the policy on the customer's behalf via the Dunlop Dealer Portal within seven days of purchase and receives a policy number.

A new generation of tyres

Sumitomo Rubber SA's new generation Dunlop TBR range has been researched, designed and precision engineered in Japan, and exhaustively tested to extremes in all road conditions.

The company's stringent processes during manufacturing, together with accredited sales channels and in-field technical services personnel ensure that safety starts on the factory floor and continues throughout the sales process and life span of its products.

An example of Sumitomo Rubber SA's innovation-driven focus is the Dunlop Energy Control Technologies (DECTES) which is the result of extensive research and development into the needs of the truck and bus industries.

This unique technology delivers next-generation innovation and compounding technologies that result in reduced tyre maintenance and rotation requirements, increased re-treadability and an up to 30% reduction in tyre rolling resistance – delivering significant CPK, fuel and bottom-line savings to truck and bus fleet owners.

As a fleet owner, this is the kind of expert support you need to ensure you're getting the most out of your fleet's tyres. 🌟

DATA CAN IMPROVE FACTORY OPERATIONS

Manufacturers are increasingly turning to smart manufacturing principles, hoping to turn shop floors into highly efficient, data-driven operations humming with synchronised precision. Unfortunately, line-of-business managers, crew leaders, and shift supervisors – the shop floor heroes – often lack easy access to the ERP system and the relevant data needed to keep production on track.

By Phil Lewis, Senior Vice President, Solution Consulting, International, Infor

Deskless workers play a vital role in operational efficiency. Democratising data – making data consumable for a wider population – will give these frontline users valuable decision-making insights. With role-based dashboards and reporting tools, they can drive better performance up and down the production line, from the smart use of resources to a reduction in rework and scrap.

Countless critical decisions are made on the shop floor every shift. The setting, which is notoriously noisy and fast-moving, isn't conducive to careful, prolonged pondering of influences. Fast-moving production lines require fast decisions and expedient action. At the same time, errors can be costly, eating away at profitability, wasting resources, and jeopardising as-promised delivery times. Decisions based on guesses, one random exception, or anecdotal stories can send a team into spirals of wasted time, frustrating workers and managers alike.

The answer is to empower frontline workers by putting data in the hands of every decision-maker in the organisation; even those who aren't advanced data analysts with skills in report writing and applying artificial intelligence (AI) algorithms. Modern digital platforms provide interface tools to help users apply advanced functionality to everyday situations. Featuring low-code and no-code capabilities, the digital platform provides front-line users with role-based dashboards to track relevant key performance indicators (KPIs) and custom reporting to investigate emerging trends. Quickly, dynamic insights are within reach of machine operators, maintenance technicians, material handling engineers, scheduling clerks, and shift leaders.

We know data drives speed and accuracy. Operational-level access to data is especially helpful in preventing gaps in workflows and avoidable delays. Frontline workers can get immediate answers to design questions or specifications on a custom work order. Access to information keeps production lines moving as planned, with minimal

interruptions because of questions, disconnects between departments, or stockouts. Advanced analytics can go even further to keep the shop floor operating smoothly and profitably. Managers can delve into exceptions and tracking influencing variables. They can find opportunities for improvement, such as eliminating quality roadblocks or controlling downtime.

As artificial intelligence (AI) and machine learning (ML) have moved into the mainstream, manufacturers are increasingly seeking practical applications for data insights. Proof-of-concept projects are being replaced by ones which promise a timely, measurable return on investment. The shop floor offers many practical applications for AI-driven insights. Routine processes can be automated, streamlining the need for human interaction. Only anomalies or exceptions need to be routed to supervisors for individual attention. Streamlining the data flow will also help keep various teams apprised of real-time updates and needs. No one is out of the information loop, falling behind on evolving expectations. One data-driven digital thread will connect every stage in shop floor operations.

Some ways to bolster data management include:

Custom quotes and bills of materials.

Efficiently managing make-to-order, engineer-to-order, and configured products requires an automated system for generating rules-based quotes and matching bills of materials. Once the customer has approved the order, the specifications must flow from sales to operations to ensure the right dimensions, features, and finishes are applied. Access to the customer order helps the manager verify details, eliminating reworks or customer returns.

Projecting raw resources needed.

Synchronizing production planning and availability of raw resources requires access to data and AI-driven predictive capabilities to prevent stock-outs. Data helps procurement managers make

sure the warehouse is stocked with the necessary components. Too much inventory can be just as dangerous, tying up capital and risking obsolescence.

Accurate scheduling.

Synchronizing production runs to fulfil customer orders depends on accurate account data as well as sales, delivery promises, inventory of raw materials, and machine capacity. Working with co-manufacturers or subcontractors also requires access to information. Collaboration portals can help share information while protecting security.

Strategic scheduling of the workforce.

With data insights, managers can track and understand the performance of shifts and crews, identifying essential staffing requirements and tracking expenses. With the acute labour shortage manufacturers face today, careful scheduling of the right-skilled workers is especially important.

Workflows.

Keeping operations running smoothly with no gaps, delays, or roadblocks requires coordination among teams and sharing data on job status, equipment performance, and scheduling. Reporting can help identify trends and analyze variables, allowing managers to delve deeper into influencing factors that can be improved. Decisions can be made, changes executed, results monitored, and further refinements made. Continuous improvement can be part of the system and standardized workflows.

Compliance and quality control.

Managers need to track, monitor, and evaluate quality standards, with a continuous feedback loop in place. As new products are introduced, specifications need to be easily updated and accessible to relevant teams. Regulation compliance, too, is critical in many industries and demands accurate reporting. Democratised access to data helps keep the details in view when and where they are needed most. 🌐



Crews can safely and effectively compact material from the flat ground using a compaction attachment with an offset arm—allowing for safe work at virtually any angle.

BOOST SAFETY WITH OFFSET COMPACTION ROLLER ATTACHMENTS

Safety is the highest priority on any construction job site, but not every equipment solution aids in attaining that safety goal. Compaction equipment also needs specific care and caution when operational, writes *Lynn Marsh*, Road Widener, LLC president.

Compaction equipment is a prime example of a potentially problematic design, especially on uneven or side-sloped surfaces. It is not uncommon for road construction crews to witness a silent rollover, watching their crewmember jump to safety when the equipment they are operating unexpectedly gives way to gravity while compacting a steep slope.

Many ride-on compaction rollers often succumb to rollover accidents due to their rigid design and high centre of gravity, which offers little protection or stability for crew members.

Most manufacturers are taking steps to eliminate this kind of job site incident, and are doing so in the form of an attachment paired with equipment they already own. With an offset arm, crews can safely and effectively compact material from the flat

ground using the compaction attachment—allowing for safe work at virtually any angle.

The Safety in the Design

This new approach to compaction is achieved by relocating the drum to a remote-controlled offset arm that can be attached to almost any grader, compact track loader, wheel loader or skid steer—immediately solving the safety issue.

By employing an attachment, the host machine provides a separate source of power for the compaction drum and, thanks to the offset arm, enhances stability and safety for the operator.

With its offset position, the drum can pivot up to 30 degrees below the mounting point. The host machine can drive safely on flat ground while the attachment arm extends to the furthest, steepest edge of sloping road shoulders and ditches. This

allows the roller to easily compact slopes at various angles that would flip a traditional compaction machine.

Further, shifting the drum to an offset arm attachment doesn't just drastically improve safety, it also unlocks a host of other benefits.

Maximum Capabilities

Although safety is the top priority on any job site, the efficiency and quality of a job along with equipment versatility also prove critical.

Compaction roller attachments can increase the efficiency and versatility of a contractor's existing fleet by allowing them to work on a variety of road construction and utility repair projects, all with the equipment they are already familiar with.

The attachments effectively compact a range of materials, from gravel, stone and



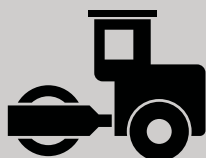
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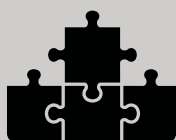
Crews can safely and effectively compact material from the flat ground using a compaction attachment with an offset arm – allowing for safe work at virtually any angle.



A remote-controlled offset arm that can be attached to almost any grader, compact track loader, wheel loader or skid steer.



Compaction roller attachments can increase efficiency and versatility by allowing work on a variety of road construction and utility repair projects.



The compact design of compaction attachments allows it to fit on any common trailer along with the host machine during transport.



Roller attachments can be purchased in a variety of interchangeable drum widths providing heightened adaptability.

QUICK TAKE

topsoil to even hot asphalt mix.

With the high infrastructure demand and scarce, inexperienced workforce, ease of use — in terms of equipment — is key to a project's overall efficiency. Some offset compaction attachments incorporate remote controls, combining safety with an intuitive operation that is easy to learn, and allows the operator to adjust the height, angle, extension, and compaction adjustments all from the comfort of the host machine's cab.

While a compaction roller attachment may not achieve density as quickly as a ride-on roller on a flat roadway, it excels in a sloping ditch or trench which places an operator in a hazardous position. Because of the rigid design of traditional compaction rollers, and the stability issues working on a slope, operators tend to drive at a slower rate resulting in a slower compaction rate.

Efficiency is not only seen through the work on the job but also by reduced transportation challenges. The compact design of compaction attachments allows it to fit on any common trailer along with the host machine — and other core attachments — and be towed by a standard pickup truck. No heavy-haul trailers or permits are required.

Additionally, compaction roller attachments can offer contractors the ability to expand their application capabilities and win more bids by incorporating an adaptable system into their business model. Compaction roller attachments can be purchased in a variety of interchangeable drum widths providing heightened adaptability.

To get the same benefit as traditional compaction machines, contractors would have to purchase multiple self-propelled units, all with engines and transmissions that would need to be continuously maintained. This flexibility opens more opportunities for contractors, allowing them to meet a range of job specifications without the hassle of maintaining, hauling and storing several pieces of equipment.

Moving to Safety

In a world where so many elements are outside of our control — the supply chain, the price of fuel, inflationary costs, and more — it is more critical than ever that contractors control risk and costs wherever they can. And their equipment investment is a great place to start.

By carefully evaluating equipment selection and choosing options that maximize the capabilities of their current fleet, contractors will see an increase in the efficiency and profitability of their business while providing unparalleled safety for their crew. 🌟

Daimler Truck Southern Africa group of companies officially opens its new office building and business campus in the presence of key stakeholders.



DAIMLER TRUCK SA SETS UP SHOP IN CENTURION

With easy highway access that connects the capital City of Pretoria with the rest of the nation, and neighbouring countries in the region, Daimler Truck SA's new headquarters is a statement about investing in Africa, as well as a noteworthy hub of sales related to the transport, road-freight and logistics, writes *Adriaan Roets*.

The Daimler Truck Southern Africa (DTSA) shop, financial services and sales and marketing are now completely inland, in Centurion to be exact.

Gauteng, the economic heartland of SA provides closer proximity to customers –

and that is something to boast about.

The Daimler campus, one of the largest truck shops outside of Europe, is a testament to Daimler Truck's commitment to Africa. Here, the selection of Mercedes Benz trucks and buses and the FUSO line speak for itself. But what does shine is the opportunity to experience customer service.

Coupled with the DTSA production plant in Eastern Cape, the company now has an entry at a port city and community in South Africa's densely populated Gauteng province.

DTSA headquarters

There are approximately 600 employees at the new Centurion campus, and they are guarded against load shedding whatever in their respective departments.

On the new building, the roof slopes

"I look forward to further creating a great place to work for our employees, while fully catering to our customers and continue serving all who keep Africa moving."

Michael Dietz, President and CEO of DTSA





Old and new trucks from the Daimler range of vehicles are scattered throughout the campus during the opening event.

to the north to accommodate the solar installation and rainwater collection. The rows of parking bays and campus roof areas help generate electricity and reduce reliance on non-renewable sources.

In total, 752 solar panels provide 350 kWp of electricity at the hub. This is in line with company's commitment to achieve a net-zero status.

"As a team, we are truly humbled by how far we have come since becoming an independent company on 1 December 2021. I look forward to further creating a great place to work for our employees, while fully catering to our customers and continue serving all who keep Africa moving," says Michael Dietz, President and CEO of DTSA

According to him, it is an ideal solution to have operations from the new location, while Eastern Cape houses Daimler production.

African identity

FUSO Trucks has a long history in South Africa, and the new headquarters pays homage to the fact that there's synergy between these vehicles and South African roads.

This year marks 60 years since FUSO Trucks first introduced its Canter model in 1963.

Since the 1960s, the Centre has expanded its sales worldwide and led the light-duty truck segment in the global market. In Indonesia, one of the first overseas FUSO markets, the truck has maintained the top market share in the light-duty segment for the past 48 years. Currently, knock-down production is carried out in 12 overseas markets, including South Africa.

"Since its first market entrant in the early 1980s, the Canter has played an integral part in our FUSO Trucks brand success story in South Africa and has deservedly earned its status among customers and drivers alike as the "light gallop" in the light-duty segment. The next 60 years of Canter are exciting and worth looking forward to, as we cast our eyes towards adapting to the rapid shift towards electrification and connectivity in the commercial vehicles industry of," says Dietz about the truck's 30th anniversary in South Africa.

In 2022 the DTSA assembly plant in East London unveiled 60 FUSO Canter FE7-136 special edition models for the local market.

The FUSO Canter FE7-136 is one of the most popular and top performers in the FUSO stable, and it is for this reason, it is the first-line flagship model to celebrate the milestone. Coupled with the



There are approximately 600 employees at the new Centurion campus



Accommodating sales, marketing, and financial services under one roof provides integrated transport solutions for DTSA



Around half of Daimler trucks and buses sold locally are financed through DTSA



The Group's success is based on its leading brands Mercedes-Benz Trucks, Mercedes-Benz Buses and FUSO Trucks

QUICK TAKE

The first-generation Canter entered the light-duty truck segment for the first time in March 1963 as the T720 cab-over type model boasting a design providing a wide field of view and easy operability.



The new Centurion-based DTSA campus.

fact that in 2023 DTSA opened its new headquarters, Daimler Truck has shown commitment to Africa as a valuable market.

Full-service HQ

Financing vehicles locally has become important to DTSA.

"The new headquarters is a welcoming home for our team in South Africa. The concept of bringing sales, marketing, and financial services together under one roof is taking the right step in our strategy to provide integrated transport solutions for our customers," says Stephan Unger, Member of the Board of Management at Daimler Truck AG and Head of Financial Services.

According to Unger, financial services is one of the newer areas in which customers, and the numbers in South Africa are noteworthy.

"About half of the Daimler trucks and buses sold locally are financed through us," adds Unger.

By providing financial services Daimler becomes entrenched in customer service. Customer service is also one of the reasons the workshop at the new headquarters is so valuable. It offers a full service experience in the truck retail space that is rare locally.

Established in South Africa over 60 years ago, DTSA together with its subsidiaries Daimler Truck Financial Services South Africa (Pty) Ltd and Sandown Motor Holdings (Pty) Ltd provides an optimal customer experience. The Group's success is based on its leading brands including of Mercedes-Benz Trucks, Mercedes-Benz Buses, FUSO Trucks and its parts and services offering for Freightliner and Western Star Trucks.

- There are approximately 600 employees at the new Centurion campus.
- Housing sales, marketing, and financial services under one roof provides integrated transport solutions for DTSA.
- Around half of Daimler trucks and buses sold locally are financed through DTSA.
- The Group's success is based on its leading brands: Mercedes-Benz Trucks, Mercedes-Benz Buses and FUSO Trucks. 🌱

EQUIPMENT LONGEVITY RELIES ON GOOD OIL

Trucks in South Africa often operate under arduous conditions, and startup protection can go a long way to ensure heavy vehicles stay healthy.



An aerial view of the new FUCHS' head office and warehouse in Isando.

If one considers the South African car park or truck yard, so to speak, the importance of a technologically advanced low-SAPS product like TITAN CARGO MAXX 10W40 is imperative," says Andy Weddell, Sales Representative, Commercial Vehicle Lead, at FUCHS Lubricants South Africa.

Low-SAPS engine oil is noted to have low sulphated ash, phosphorous and sulphur content.

Sometimes referred to as low-ash engine oils, they have a reduced tendency for ash formation. These oils consist of innovative, low-emission additives.

This bolsters the life of any vehicle enhanced with FUCHS technology.

"We sell equipment longevity, which is very beneficial to the commercial vehicle sector in South Africa," says Weddell.

FUCHS' success in this market segment is that it is seeing year-on-year growth of about 30%, with plans to grow it by an additional 30% in the year ahead.

Looking at existing and emerging challenges for this road ahead, Weddell points to the regulatory environment,

road infrastructure, carbon emissions and specific local challenges due to the decline in the number of new commercial vehicles and associated components being produced as key drivers to change the oil.

Premium Lubrication

"TITAN CARGO is recognised as the premium diesel engine oil in our South African range," says Weddell.

It offers, according to him, the best wear protection, represents the most comprehensive additive package, and is both technologically advanced and low SAPS.

Highlighting the extended benefits of this oil, Weddell mentions oil drainage interval extension.

This results in a substantial reduction of the cost per kilometre, which makes running such a fully synthetic product an extremely cost-effective and maximum wear protection offering. In addition, extended intervals reduce maintenance costs, with the added advantage of wear protection to extend equipment life.

"It is the perfect combination for a fleet owner," points out Weddell.



FUCHS Sales Rep Andy Weddell and Auto Aftermarket Sales Manager Lesley Barnard.



TITAN CARGO MC SAE 10W-40 is a semi-synthetic engine oil ideal for extended drainage intervals.

FUCHS' value-added services for customers include oil condition monitoring for preventative maintenance, dispensing equipment, the availability of national deals through a well-established supply network and the assistance and expertise offered by a qualified technical team comprised of engineers and tribologists.

To make it even simpler to have the correct oil, FUCHS' Oil Chooser allows customers to select the correct oil for a specific vehicle or application. 🌟



Every day, waste tyres are piling up in South Africa. A new private sector industry body wants to work with the government to allay this potential environmental hazard.

TRIASA STEPS IN AS A TYRE-RECYCLING AUTHORITY

The launch of The Tyre Recycling Industry Association of South Africa (TRIASA) aims to boost recycling practises, and fleet owners of road vehicles should take note.

TRIASA is noted as South Africa's independent industry body and comes at a critical time when the road towards efficiently repurposed tyres is needed.

According to Dr Mehran Zarrebini, one of the body's founder members and CEO of Hammarisdale-based truck tyre recycling operation, Mathe Group, TRIASA can make an important contribution to whittling away the ever-growing stockpile of waste tyres, and to creating entrepreneurial and manufacturing opportunities as well as employment.

Historic problem

The Recycling and Economic Development Initiative of South Africa (REDISA) was established in 2013 with the primary goal of creating an environmentally friendly waste tyre management solution. Unfortunately, it was suspended in 2017 following allegations of mismanagement, corruption and financial irregularities. Since then tyre recycling locally fizzled out, and even more so the willingness to recycle or repurpose tyres.

With the formation of TRIASA, Dr Zarrebini is confident that the proposed 29 Integrated Waste Tyre Plan will be implemented and as an industry body TRIASA can make an important contribution to this new strategy of waste management and creating employment opportunities.

"TRIASA's goal is not to change the disposal of waste tyres but to represent industry, foster collaboration and ensure waste tyres processors are represented in



"We aim to unite the different elements of tyre recycling in South Africa and to provide a forum for discussion, knowledge exchange and collaboration on pressing issues within the industry."

Dr Mehran Zarrebini, CEO of Mathe Group and founding member of TRIASA.



Roy Maharaj, an engineer at Mathe Group, displays the finished rubber crumb at the site meeting of delegates of the Intergovernmental Panel on Climate Change Working Group's visit to the factory in Hammarisdale.



Visitors on a tour of the Mathe Group radial truck tyre recycling plant in Hammarisdale.

South Africa," he says.

According to him, TRIASA's primary objectives are:

- Encouraging Green Public Procurement (GPP) and supporting the circular economy by promoting the use of Recycled Tyre Material (RTM) in applications such as road resurfacing, construction and infrastructure projects.
- Stimulating the use of recycled content in new products to replace imported rubber.
- Supporting research in tyre recycling. This would foster innovation in end-market applications for RTMs to expand their potential use and create new opportunities within the industry.

"We aim to unite the different elements of tyre recycling in South Africa and to provide a forum for discussion, knowledge exchange and collaboration on pressing issues within the industry. Our priority, as TRIASA, is to foster the growth of the tyre recycling industry, promoting a circular economy and reducing South Africa's dependency on imported rubber," he adds.

Recycling for good

TRIASA members are companies or entities who are involved in the processing of waste tyres and employ either of the primary recycling technologies currently in use - mechanical or ambient grinding of tyres and pyrolysis (decomposition at high temperatures) of tyres and pre-processing, shredding and baling.

All members of TRIASA must prove that they are processing waste tyre material, be registered with the Waste Bureau and have supply agreements in place.

"I believe very strongly that industry should foster and nurture a strong relationship with the Government concerning the implementation and management of the tyre waste management plan of South Africa. We believe that the Department of Environmental Affairs, Forestry and Fisheries and TRIASA share common goals in safeguarding our environment and ensuring compliance of the waste tyre industry in South Africa," says Zarrebini.

The disposal of waste tyres is an international challenge, and while South Africa will play catch-up, the problem of waste tyres is not unique to this country alone.

In 2021, global tyre production was estimated to be 1,900,000,000 units. This included tyres for on and off-road vehicles and equipment.

"The rule of thumb to estimate potential tyre arisings is one-for-one. For each tyre placed on the market – as original or replacement equipment – one tyre will reach the end of its road life. From then, they will be defined as waste," explains Zarrebini.

In 2021, the 27 EU member states permanently removed about 4,213,000 tonnes of tyres from passenger cars, utility vehicles and trucks, and off-road vehicles (agricultural, mining and construction). This represented an increase of 300,000 tonnes over 2019. There are comparable quantities in other regions, including the Americas, Asia, Australia and the Middle East.

Tyre waste in SA

Waste tyre statistics in South Africa are difficult to come by, posing a challenge for those devising a Waste Tyre Plan. Although some role players provide accurate data, others have almost no record-keeping systems. Zarrebini points out that this emphasises the need for a national audit on waste tyres in South Africa.

An estimate, based on confirmed data by the Waste Bureau, suggests that an average of 13 million tyres (weighing 300 000 tonnes) are sold in South Africa each year through a network of between 1 400 to 2 000 dealerships.

Passenger vehicle tyres (including SUV/4x4 and light truck radial tyres) contribute an estimated 89% and commercial vehicle (truck) tyres 11% of the total. Applying an 18-20% reduction in weight between new and waste tyres results in an estimated 240 000 - 250 000 tonnes of end-of-life tyres per year in South Africa. The majority are returned to dealerships and fitment centres when new tyres are fitted.

An estimated OTR waste tyre stream of 20 000 tonnes per annum was added to derive a total estimated annual flow of waste tyres in South Africa ranging between 250 000 and 300 000 tonnes. Updated industry data suggest that 206 272 tonnes of waste tyres were generated in 2021.

The last government statistics available indicate that, in 2018/19, just an estimated 54 460 tonnes of waste tyres were re-processed. 🌟

Worker operating equipment faces fatigue at mines

Sam Mabena, an experienced safety practitioner in the African mining industry, recently took up the challenge to lead the safety department at Erudite, with a focus on developing and enhancing the best safety systems.

Erudite is an engineering, procurement, and construction management (EPCM) company with a foothold in multiple countries across Africa. Since its founding, it has helped numerous mining enterprises to get off the ground and improve both their operational stability and profitability.

Mabena acknowledges that South Africa is still one of the most regulated countries in Africa, other African countries are also improving their safety regulations and enforcement of systems and are reaping the benefits.

"The considerable improvement in safety statistics seen over the past few years can be attributed to new interventions implemented by the Minerals Council Board in December 2021, and exhaustive measures undertaken by the various mining stakeholders to curtail the worrying trend of the two years prior."

Since 2023, with over 4,200 shifts worked, Erudite has not experienced any fatalities, other injuries, high-profile incidents such as government stoppages, or any health, social, and environment-related incidents.

A considerable concern for mining projects, given that employees often work with large, heavy equipment, is workplace fatigue. Employees, and managers especially, must be attentive to signs of



fatigue such as slower reactions, reduced ability to process information, lack of attention, underestimation of risk, and reduced coordination.

It is crucial that organisations manage employees' working hours, promote rest periods, and improve overtime approval processes to minimise worker fatigue, emphasises Mabena.

He encourages management to im-

plement practical systems which employ hierarchical control processes and preventative measures to protect workers from illnesses and injuries. This could include the physical removal of hazards from the workplace, replacement of hazardous equipment and materials where possible, isolating hazardous material, and protecting workers with effective and applicable PPE. 🌟

Bosch Rexroth Africa's new GM for Smart Mine

To bolster its service offering to the mining industry, the Bosch Rexroth Africa Group has appointed Jonas Corali as General Manager of Bosch Rexroth Smart Mine (Smart Mine), a company within Tectra Automation.

At the helm of Smart Mine, Corali will focus on conducting and driving digital transformation in the mining industry, by offering smart mining solutions to streamline processes for mining operations. Solutions from Smart Mine include Smart Lockout, Smart Conveyor, Stop-Start Retrofit, and Smart Inspection.

Corali has vast experience and expertise in business development and growth, and generational stewardship. In the past 23 years, he has served the Group in Brazil and Germany, and now in South Africa.

Corali's qualifications include Electrical Mechanics and Electronics, Manufactur-



ing Engineering, and an MBA in Finance Management. He is a voluntary jury member of the Global Startup Awards,

an international competition that aims to identify the world's best early-stage entrepreneurs and startups. 🌟

Pulse diagnostics essential in mining

Haver & Boecker Niagara provides industry-leading preventative maintenance support with a full suite of Pulse diagnostic services for vibrating screens in aggregates and mining. Haver & Boecker Niagara designed the Pulse Diagnostics suite specifically to monitor the health of vibrating screens and identify issues before they become critical, improving operations' productivity and proficiency. The suite combines advanced vibration analysis, condition monitoring and impact testing to give aggregates and mining producers a more holistic view of their machines and allow them to maximize uptime and screening efficiency through planned maintenance. Haver & Boecker Niagara highlighted the Pulse diagnostics suite at CONEXPO-CON/AGG 2023 to shift maintenance from a reactive to a predictive approach.

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



Pulse diagnostics are being performed by a Haver & Boecker Niagara team member.

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

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

machine performance and health.

Pulse Vibration Analysis gathers information through eight wireless, triaxial sensors which measure multiple parameters including speed, stroke and amplitude. The data is collected electronically and stored in an online database for an easily accessible historical overview of each machine. 🌟

Perfectly matched screens and crushers for the best results

The careful alignment of screens and crushers in processing makes for optimal throughput and efficiency, by ensuring that all settings and parameters are ideally matched.

"The Kwatani product can now give their vibrating screen customers added benefits in this regard, being part of the global Sandvik group – which is well known for its crushing solutions," says Kenny Mayhew-Ridgers, Regional Business Director at Sandvik Rock Processing Solutions South Africa.

"The advantage is that the Kwatani screens can be specified and optimised with Sandvik's range of crushers – ensuring that the key elements of the circuit are perfectly matched."

Earlier this year, Kwatani and the mining-related business of Schenck Process Group (SP Mining) were incorporated into the Sandvik group within Sandvik Rock Processing Solutions South Africa. Mayhew-Ridgers explains that the screens and crushers in any mineral processing plant are two critical lines of equipment – and they need to be well integrated to optimise their performance of both.

"There is a risk that operators and service technicians may focus on one item without taking into account the impact of



Kwatani double-deck banana screen on route to the customer.

the other," he says. "The settings and parameters on both the screens and crushers must suit the mined material and must be perfectly aligned for best results."

If the crusher is not delivering the required size distribution of material, for instance, the screen will not perform to expectation. The Kwatani product is now able to specify a vibrating screen along with the optimal Sandvik crusher specification, he explains.

"With Sandvik as the OEM for both equipment lines, we bring our in-depth product insight into how the different equipment will best serve the customer's specific requirements," he says.

An integrated solution is based on a careful assessment of the nature and size distribution of the material which will be fed into the crushing and screening circuit, says Gavin McLaggan, Lifecycle Services Manager for Africa at Sandvik Rock Processing Solutions South Africa. This opens the door to increased efficiency and bottom-line profitability.

The Kwatani product's inclusion into Sandvik has facilitated a valuable two-way sharing of knowledge on screening technology, says Mayhew-Ridgers. This is a considerable benefit for customers as decades of research and development are combined. 🌟

N140 9-tonne truck rounds out JAC N-Series line-up

JAC Motors South Africa launched the latest addition to its N-Series line-up, the N140 9-tonne truck.

The new truck, which dabbles in heavy-vehicle capabilities, was introduced to accommodate transport operators' rising demand for dependable, cost-effective trucks.

The truck, with its Euro 3, Cummins 4.5L ISB engine, is noted to have excellent fuel consumption and low cost of ownership.

JAC Motors has invested in refining its N-Series range of trucks locally. The N-Series has established itself as a reliable and affordable option for transport operators with its three- and six-tonne derivatives. The launch of the N140 9-tonne truck sets a new standard for sustainable, cost-effective transportation.

"A trademark of the N-Series is its excellent fuel efficiency across the range. The new N140 continues in that tradition," says Karl-Heinz Göbel, Chief Executive Officer of JAC Motors South Africa.

The N140's Euro 3, Cummins 4.5L ISB



Hein Jordt, Chief Executive Officer of Ctrack Africa.

four-cylinder turbo-diesel engine produces 154 kW @ 2 300 rpm and 740 Nm of peak torque between 1 200 - 1 800 rpm, enough to transport large loads over long distances.

The cab of the truck is also a modern and comfortable space for drivers, and as a result the truck, which is priced well below R1 million, could go far in numerous areas of the industry. 🌐

Fuel theft is a problem, but you can stop it

Refuel is a business focused on refuelling vehicles and fleets via mobile fuel trucks.

It is a measure to eradicate fuel theft in South Africa, and a system that utilises its technology to provide a reliable and cost-effective mobile fuelling solution for fleet and generator companies.

In a first-to-market, Refuel, is a technology company at heart and introduced a fuel management software update that allows logistics companies, mines, and construction companies visibility of their entire fuel consumption with data analytics to scrutinise utilisation patterns as an end-to-end solution.

Refuel retrofits its technology onto clients' on-site bowzers, inserts the probes into each asset's fuel tank, and links them to Refuel's app and web-based ordering system, giving clients a digitally controlled real-time end-to-end fuel management solution tracking fuel pumped and consumed.

Refuel's system was developed as a response to theft that exists in decentralised fuel-consuming locations.

"The probe and our app perform a 'handshake' which acknowledges having received a certain volume of litres pumped into the tank. It thereafter tracks fuel – every single litre as it's consumed, whether on the road, at a



A truck is being refuelled.

construction site, a mine or in a generator," says Ricky Luntz, founder and CEO of Refuel.

Theft remains an issue locally and Refuel is steadfast in addressing this. According to Luntz it typically happens in one of two ways, misuse of fuel cards as fleet managers often has no visibility of what happens in retail spaces or the drainage of fuel out of fuel tanks.

"On implementing our system, we have seen drops in consumption by as much as 20%, on top of saving on the fuel price

our clients often pay. This represents a large amount for a logistics, construction, or mining business, on what can be their largest operating cost. It can be even higher among companies that haven't been tracking the cost."

"In an environment where fuel expenses are a significant line item, management of that cost and mitigating misuse thanks to real-time reporting, gives a deep and detailed view of fuel costs and consumption than ever before," Luntz says. 🌐

Eeco releases locally from Suzuki, eyeing load-carrying segment

Designed for the efficient and safe transport of goods, the Eeco is already a market leader in countries such as India, where it has sold close to a million units since its launch.

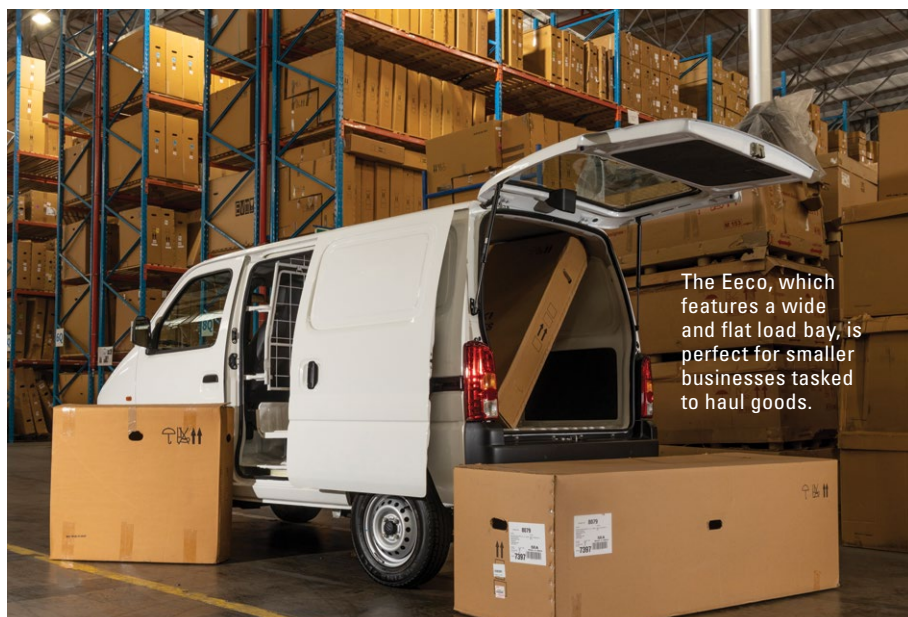
Only one version of the Suzuki Eeco will be available at launch. The van has a large roof-to-bumper rear door that opens upwards and two side sliding doors that can be operated independently.

The load bay itself is wide and flat, offering a loading length of 1 620 mm from the rear door to the start of the steel grid partition that is fitted as standard between the loading bay and cockpit.

Perhaps more important is the width of the load bay. At 1 300 mm, the Eeco can fit a full-sized South African pallet and with a height of 1 070 mm, there is space for large and bulky items. In total it has a load-carrying capacity of 615 kg with two passengers and a full tank of fuel on board.

The newest version of the Suzuki Eeco is fitted with a workhorse version of the brand's 1.2 litre petrol engine.

The K12N engine has 16 valves across its four cylinders and is equipped with variable-valve timing. The engine also has a multipoint fuel-injection system and a compression ratio of 12:1 for greater low-down torque.



The Eeco, which features a wide and flat load bay, is perfect for smaller businesses tasked to haul goods.

In the Eeco, the K12N engine delivers 59 kW at 6 000 r/min and 104 Nm at 3 000 r/min. Power is delivered to the rear wheels through a manual five-speed transmission.

The K12N engine has an uncomplicated design and easy access to maintenance items such as spark plugs, engine oil and filters. This is done through the driver's

seat, which folds up and forward to expose the engine. Suzuki has also opted for a single exterior colour – white – to allow for easy branding, quick and cost-effective repairs in the case of dents and scratches and low insurance costs.

Also standard on the Eeco is a simple steel wheel with a small centre cap that requires no maintenance. ⚙️

Ducat aims to scale up investment in SA through logistics

The prospect of considerable growth in the logistics sector driven by new technologies and government scaling up investment in this area has made a good business case for entry into the South African market for Ducat Trading, a global integrated logistics and infrastructure company.

Ducat has an interesting background. Founded in 2014, the company's focus was on Francophone West Africa's refinery adjacent space in the agricultural sector. There, an excess of 3 million tonnes of rice, sugar and clinker was handled for import in order to meet growing demand. That led to the interest in logistics, and good infrastructure to transport goods.

"South Africa is an exciting opportunity for us. Contrary to a lot of companies who have looked at South Africa's natural resources in terms of what is below the ground, we believe the greatest asset the country has is above ground, in its people," says Krishnan Nagendran, Managing Partner of Ducat Capital SA (Geneva, Switzerland) and Board Member of Ducat Trading SA.

A focus is on logistics and warehousing, where Ducat aims to provide a



Ducat is an integrated inland and maritime logistics, distribution and trading company covering Eastern and Southern Africa.

full-service logistics solution in the dry-bulk, energy, wet and dirty cargo space in the region.

This will include operation with Ducat's own and chartered fleet of trucks and product tankers, in addition to in-port and ex-port warehousing and tank locations.

Ducat also supplies premium lucerne and Alfafa hay to the dairy cattle, horse racing, and equestrian sports sectors across the Western Cape, KwaZulu-Natal and Limpopo, as well as for export markets in the Arabian Gulf and Asia.

With plans to partner with world-lead-

ing South African businesses in the agricultural, infrastructure and energy sector over the next 18 to 24 months Nagendran affirms Ducat's commitment to returning critical skills and talent to the country.

"South Africa has substantial underutilised or poorly managed assets that we can repurpose or operate in a more effective way. Therefore, we look forward to creating long-term sustainable value in operating assets that form critical parts of the supply chain for the basic goods that underpin the economy," Nagendran concludes. ⚙️

ELECTRIC COMPACT EQUIPMENT SET FOR RAPID GROWTH

Compact construction equipment is leading the charge toward electrification in the off-highway market around the globe. The market for battery electric compact construction equipment will be nearly 100 times bigger in 2030 than it is now.

By Alastair Hayfield, Senior Research Director at Interact Analysis



Alastair Hayfield, Senior Research Director at Interact Analysis.

What is driving this uptick in the market? First, compact equipment these are the simplest machines to electrify. The relatively low power requirements make engineering electric versions easier (and cheaper) than their larger siblings.

Second, because of their size, these types of machines can be used indoors – in basements or demolition work – so making them emission-free is a health benefit, and reduces safety concerns considerably.

Third, the lower noise level from electric machines versus diesel machines makes them a much better fit for work in urban areas – particularly residential areas – where they can operate for extended hours causing less nuisance for residents.

Which countries are adopting EVs?

Although the global penetration of battery

electric compact equipment is forecast to be only 10% by 2030, there is quite a lot of variation by country and machine type.

In Western and Northern Europe, penetration will be closer to 20%, while in China it will be 15%. The penetration rate for mini-excavators will be 13% in 2030, compared with only 6% for compact track loaders and skid steers.

Although the leading countries for market adoption of battery electric vehicles are in Western and Northern Europe, market volumes are going to be greatest in those countries with the largest overall markets for construction equipment.

That means that the largest markets for battery electric compact equipment in 2025 will be China, the United States of America, Germany, the UK and the Netherlands. If America can accelerate its policy landscape and provide more incentives, it could even overtake China by the end of the decade.

Can the market speed up?

We're often asked: what could make the market speed up the adoption of battery electric machinery? Well, the answer is relatively simple – better incentives and clearer government policy. There is still a gap in the total cost of ownership (TCO) between a battery electric excavator and its diesel equivalent.

Although the gap is narrowing and will become positive in the mid-term, incentives that help offset the higher cost of battery electric machinery will speed up adoption.

Furthermore, there is very little clear government policy related to battery electric construction machinery. If more countries and cities announced plans to phase out diesel machinery it would allow fleets to invest in the new technology, giving manufacturers and suppliers the confidence of greater volumes, helping them to reduce prices. 🌱



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