

CAPITAL EQUIPMENT^{NEWS}

For informed decision-making

JUNE-JULY 2020



KEEPING MINING PROCESSES FLOWING

COMMERCIAL VEHICLES: Maintenance tips for stationary vehicles during lockdown

COMPACTION EQUIPMENT: The ongoing evolution of compaction technology

TOWER CRANES: Key trends in the South African tower crane market

TAKE BACK CONTROL.

The cost of doing business within the Transportation Industry has increased dramatically over the past few years due to external market conditions.

Fuel accounts for 40% – 60% of a fleet's total operating cost and until now there was no way to accurately and consistently manage & calculate true fuel usage.

Take back control to ensure your operations remain profitable via the Ctrack Fuel Solution which gives you eyes in the tank, providing insights on operational efficiency.

BENEFITS:



FEATURES:

- Physical in-tank solution via fuel sensor
- Live monitoring of fuel consumption & levels
- Real time fuel analytics for business insights



CONTENTS

FEATURES

COMMENT

- 2** Hauling in a 100 t rigid market

COVER STORY

- 4** Keeping mining processes flowing

COMPACTION EQUIPMENT

- 8** The ongoing evolution of compaction technology

COMMERCIAL VEHICLES

- 12** Maintenance tips for stationary vehicle during lockdown

SMART ATTACHMENTS

- 18** The advent of smart attachments

TOWER CRANES

- 22** Key trends in the South African tower crane market

MATERIALS HANDLING

- 26** Drivers and general outlook for the telehandler market in SA

TRANSPORT

- 30** A Scania truck service that costs less than the average bakkie service

THOUGHT LEADERSHIP

- 29** Substantial health & safety precautions needed as alcohol ban lifted

- 32** Top tips to use your compact equipment to its fullest

NEWS

TRANSPORT NEWS

- 31** Ctrack launches fuel management solution for fleet operators

MINING NEWS

- 31** XCMG signs strategic cooperation agreement with Rio Tinto

Capital Equipment News is published monthly by Crown Publications

Editor:

Munesu Shoko
capnews@crown.co.za

Features writer:

Mark Botha
markb@crown.co.za

Advertising manager:

Elmarie Stonell
elmaries@crown.co.za

Design:

Ano Shumba

Publisher:

Karen Grant

Deputy publisher:

Wilhelm du Plessis

Circulation:

Karen Smith

PO Box 140
Bedfordview 2008
Tel: (011) 622-4770
Fax: (011) 615-6108
www.crown.co.za

Printed by Tandym Print

The views expressed in this publication are not necessarily those of the editor or the publisher.



Total circulation Q1 2020: 4 642



HAULING IN A 100 T RIGID MARKET



Munesu Shoko – Editor



capnews@crowm.co.za



Capital Equipment News



@CapEquipNews



Scan QR CODE to visit and read our latest news

Having the right-sized fleet in a mining environment means estimating fleet equipment needed to meet production targets, since the main objective is to achieve the planned movement of ore within a set timeframe. To procure such machinery is not a straightforward exercise; planning is essential to ensure that the right equipment is obtained at the right time.

To plan the acquisition you need to have consistent information about current equipment and market trends. It's also important to have all the info on performance rates, purchase price, total cost of ownership, ease of mobility and the necessary support from the supplier, among other key considerations.

This is especially true for the contract mining market. Productivity and efficiency of mining equipment are among the most important factors that can contribute to their success, especially in the face of the current taxing trading conditions. One of the key trends in the global contract mining market is the increased preference for 100 t rigid haulers.

The global rigid hauler market is about 3 700 units per year, and the 100 t is by far the most popular, followed by the 60 t range – the two sizes constitute in excess of 80% of the total global market.

In southern Africa, available industry figures show that the rigid hauler market is around 150 – 200 units per year, with the 100 t size constituting about 50 – 60% of the region's total rigid dump truck market.

It is in this context that we have seen several new rigid hauler launches in the 100 t size class in recent years. Volvo Construction Equipment (Volvo CE) and Liebherr recently entered the 100 t market segment for the first time, while Caterpillar

also recently introduced its new 100 t unit.

Volvo CE announced its re-entrance into the rigid hauler market with its own Volvo brand of RDTs in the second quarter of 2018. The range comprises the 45 t R45D, 60 t R60D, 72 t R70D and the 100 t R100E. The star of the line-up is the R100E.

Elsewhere, Liebherr also introduced its T236 rigid hauler to the local market in 2018, allowing Liebherr-Africa to compete in the 100 t RDT segment for the first time, armed with a model said to be the first diesel-electric truck in this size class.

Barloworld Equipment, the Caterpillar dealer in southern Africa, also launched its Cat 777E in 2017. The new model has been well received by the local market as the successor to the Cat 777D model.

The new offerings arrived at an opportune time for the mentioned suppliers and their principals. They all agree that the 100 t market is currently driven by contract miners, who increasingly require 100 t excavators and 100 t dump trucks in their running fleets. This is due to the mobility they need, given the short nature of their current mining contracts, which are generally limited to 3 – 5 years.

In mining, an important element to successfully complete projects is to ensure that you have the right-sized equipment for the job at hand.

Planning of mining equipment acquisition is no frivolous task. At a strategic level, when looking to size an equipment fleet for several surface mining projects, you need to consider several factors relating to equipment, including acquisition costs, operating costs, productivity, physical availability, utilisation and the condition of each mine. At this stage, the 100 t rigid hauler ticks all the right boxes for mining contractors. 🌟

A SCANIA SERVICE THAT COSTS LESS THAN THE AVERAGE BAKKIE SERVICE*.

THAT'S HOW WE SUPPORT BUSINESS SUSTAINABILITY.



With an up to 30% discount across our Fixed Maintenance Packages, keeping your older Scania on the road is now more affordable than ever.



ONE FIXED MAINTENANCE COST

We offer tailored solutions to deliver one fixed maintenance cost. Increase productivity and decrease disruptions to your daily operations.



ACCELERATED 24-HOUR PARTS AVAILABILITY

Downtime is a cash burner. We are stocked and loaded to deliver parts in just 24 hours.



12-MONTH PARTS WARRANTY

We cover your Scania for selected parts that need to be replaced.

*Prices based on South Africa AA Kinsey Report 2019

For more information contact your nearest Scania Dealership or visit www.scania.com/za

SCANIA

Weir Minerals Cavex hydrocyclones, Isogate valves and Linatex hoses work together to offer an integrated solution to customers.



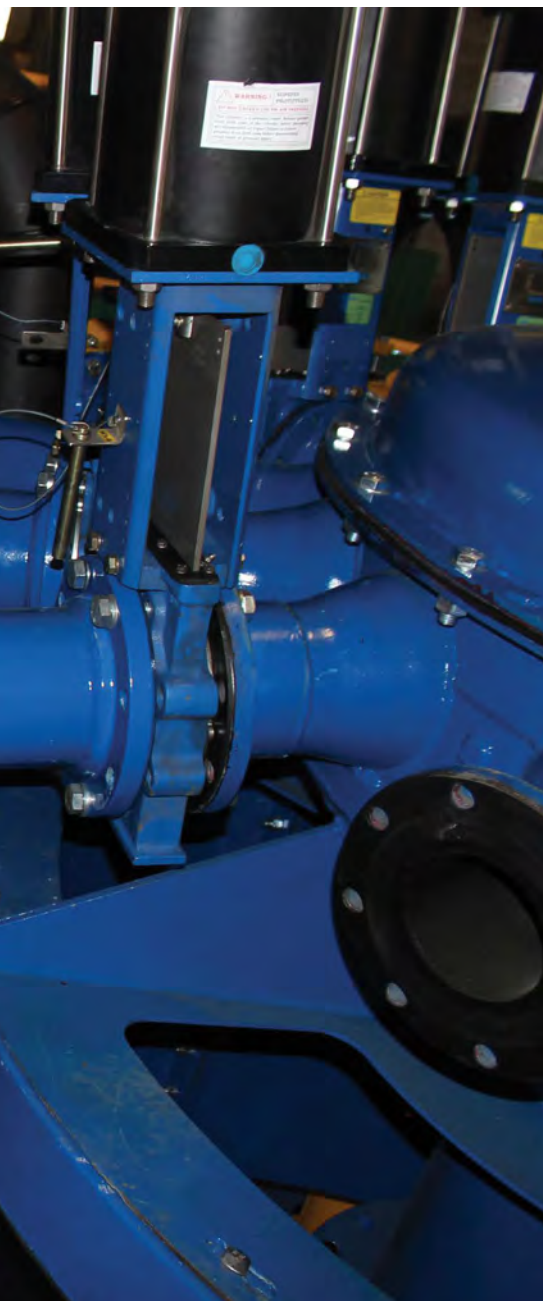
KEEPING MINING PROCESSES FLOWING

Weir Minerals has always looked at mining as a system of interdependent pieces of equipment – from mills, pumps and hoses, to valves, hydrocyclones and screens. Yet, pump efficiency and the endurance of hoses and valves are often overlooked when buying decisions are made, often to the detriment of a mine's total cost per tonne. These components – which keep corrosive and abrasive fluids flowing – should be considered carefully to keep operational, maintenance and repair costs to a minimum, writes *Munesu Shoko*.

Essentially, mining is a process where what matters most is the overall cost per tonne to deliver the product. Marnus Koorts, product manager pumps at Weir Minerals Africa, is of the view that the economic efficiency of the mining process hinges on the overall efficiency of all pieces of equipment deployed across the whole system.

Like any other piece of equipment in the plant, says

Koorts, pumps, pipes and valves play a significant role in the overall efficiency of the mineral processing plant. Yet, many buying decisions don't pay particular attention to these crucial components of the plant. He reasons that each of the components involved in the handling of fluids that can be corrosive and abrasive at the same time, should meet specific build requirements to always keep maintenance and repair costs to a minimum.



Pump efficiency

According to Koorts, pumps are important in the overall efficiency of the plant.

"A typical plant will have one or two mills, one or two large clusters of hydrocyclones, and hundreds of pumps," he says.

He adds that pumps generally consume a lot of energy. According to Koorts the largest power consumer in a typical plant setup is the furnace, followed by the mill and then the pumps. In some of the coal plants, he says, the largest consumer of power may be the pump.

"To provide context, recently, at one of the coal projects where we were a supplier, the plant had an installed power of 2 MW. 1.6 MW was attributed just to pumps. Indeed, in most plants, the annual cost of energy the pumps consume outweighs the cost of the pumps

Weir Minerals' integrated solution approach helped a customer increase production by 35%.

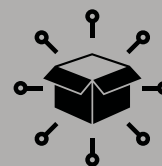


QUICK TAKE

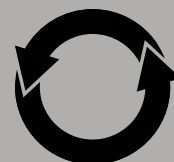
The economic efficiency of the mining process hinges on the overall efficiency of all pieces of equipment deployed across the whole system



Like any other piece of equipment in the system, pumps, pipes and valves play a significant role in the overall efficiency of the processing plant



System optimisation can help all parties understand how every piece of equipment in the mining process affects overall economics



To complement its pump offering, Weir Minerals offers a wide range of pipes and valves





The Warman WBH offers lower maintenance, lower power, longer wear life and better performance against older horizontal slurry pumps.

themselves. Clearly, energy consumption is an important consideration in the pump buying decision," says Koorts.

Weir Minerals is a global leader in slurry pump manufacturing. In fact, Koorts says the company is close to four times bigger than all its global competitors combined. "To be able to achieve that feat, you need to have a good product; created through an unparalleled research and development (R&D) capability and a network of local branches, which we have all over Africa to provide outstanding customer service, anywhere, anytime," he says.

It's one thing to have great products, but you also need to be able to get them to the customer when they need it. Koorts says customers served by Weir Minerals Africa have experienced considerable added value through the company's

upgrades to its supply chain system in recent years. The company ships hundreds of thousands of items each year from its main distribution hub in Alrode, near Johannesburg.

Leveraging modern technology and an innovative management approach has raised warehouse stock accuracies to 98% over the past four years. Koorts says about 8 000 parts are shipped each day from the Weir Minerals Africa Alrode facility.

While Weir Minerals offers a wide range of pump technology, many of the leading mining companies choose the company's Warman® range of centrifugal slurry pumps. The Warman WBH is typically used in heavy duty applications such as mill discharge, slurry transfer and process pumping applications, and is suitable for both greenfields and

brownfields installations.

The Warman WBH pump offers: lower maintenance, lower power usage, longer wear life and better performance when compared with previous horizontal slurry-pump technology. A key feature is the one-piece frame for correct alignment of bearings, seal and impeller to front liner, a feature also present in the very successful dewatering DWU range. The pump incorporates a fully adjustable and rotatable throatbush to more evenly spread the wear and maintain high levels of performance for longer periods.

"The 'One Point' front liner adjustment feature of this pump allows both rotational and axial movement to minimise front impeller gap which in turn reduces wear and maintains performance. Significantly, this adjustment can be made while the pump is running, eliminating the need to stop production, which results in cost savings for the plant," says Koorts.

Complementary offerings

To be a real player in the pumps, pipes and valves segment, Koorts says a supplier needs to understand and supply the entire range of solutions. To complement its pump offering, Weir Minerals offers a wide range of pipes and valves. "Weir Minerals has spent a lot of time and resources in developing the equipment that completes the system and engineering to operate in very abrasive



"Because valves are relatively less expensive than other capital items in the plant, mine owners end up replacing them frequently. If those costs are added together over the entire plant, over a year, this can add up to a significant sum. Mine owners can save a lot of money by installing capital valves, not consumable ones, in their applications."

Marnus Koorts, product manager
pumps at Weir Minerals Africa



Weir Minerals Africa's world class warehouse in Alrode can move up to 8 000 parts a day.

environments," says Koorts.

Weir Minerals' pipes and spools are custom-made to be abrasion resistant irrespective of the ambient temperature. For example, we have customers operating in desert conditions where it drops below 0°C at night and can reach over 40°C during the day, which puts major thermal strains on the metal pipework," he says.

"Normal pipes won't work well in those fluctuating temperatures, so we have a purpose-made rubber material that can actually expand and contract according to the temperatures," adds Koorts.

Weir Minerals' flagship Linatex® rubber hoses are said to offer superior wear resistance and extended wear life when handling abrasive materials. The range includes soft- and hard-wall slurry hoses, dredge hoses and a variety of preformed bends, reducers and T-pieces. The company also offers preformed hose bends that provide a replacement option for standard metal piping or for use in confined spaces where a standard hose cannot be curved and especially when

abrasive wear and vibration are an issue.

Valves, says Koorts, are also an important part of the system that is frequently neglected. "People often treat a valve like a disposable item. When it breaks it is thrown away and a new one installed," says Koorts. "At Weir Minerals we do not believe in this philosophy; we are focused on total lifecycle costs of every part of the system."

Weir Minerals treats valves as capital equipment – they should be installed and last for a long time. "A valve is not something that you replace every two months; you replace the small components of it and the valve itself keeps working. Our valves have a small Linatex rubber seal that in most cases is only replaced once a year," he says.

"Because valves are relatively less expensive than other capital items in the plant, mine owners end up replacing them frequently. If those costs are added together over the entire plant, over a year, this can add up to significant sum. Mines owners can save a lot of money by installing capital valves, not consumable

ones, in their applications," he says.

Weir Minerals offers a wide range of valves, including Isogate® knife gate valves, pinch valves, industrial butterfly valves and gate valves. The company's Isogate and Delta Industrial knife gate valves are specifically designed to handle tough slurry applications while also ensuring ease of maintenance.

Sleeves are available in a variety of materials, including Linatex natural rubber, EPDM, nitrile, neoprene and others. Koorts notes that all of the valve wear parts are easily replaced in the field, reducing downtime and ownership costs.

System optimisation

System optimisation can help all parties understand how every piece of equipment in the mining process impacts overall mine operation economics. As a mine progresses through its lifecycle and the plant feed changes, says Koorts, the plant operation process should also be continually reviewed and adjusted to maintain optimum performance and lowest rand per tonne.

Awareness among mine owners of the potential cost savings, Koorts says, has resulted in a big trend towards plant optimisation. There are several parties involved in the optimisation process – including consultants, plant optimisation specialists and design houses.

"Sometimes customers work through consultants or design houses to do their plant optimisation projects," he says. "At the end of the day, these parties work hand-in-hand with the suppliers to optimise the customer circuits. Customers are demanding more value from their capital investments, and regard Weir Minerals as a specialist supplier of these products."

Koorts says it is therefore important that mines deal with reputable suppliers. "That's where the risk lies, if it's the wrong supplier, they will give you wrong advice," he says. He fully understands that capital is always a question when the project is starting, but advises that the focus should always be on the overall cost of production, rather than the upfront cost of equipment.

"A lot of customers often talk about price. For me, a customer doesn't pay for the product; they pay for the knowledge and experience the supplier brings to the table. In my opinion, the product is 'free'; it is the knowledge, gained over many years of experience, that they pay for. Many of our products, if installed correctly, will pay for themselves in months," concludes Koorts. ☀

The HAMM Compaction Quality principle comprises several HAMM products designed to measure, monitor, document and control compaction processes.

THE ONGOING EVOLUTION OF COMPACTION TECHNOLOGY

Compaction technology constantly evolves as manufacturers continue to improve their product offering to meet the needs of the end-user. *Capital Equipment News* takes a closer look at some of the key technological improvements across roller ranges by different OEMs in recent years. By Mark Botha.

Much research and development has gone into the evolution of compaction rollers in recent years, leading to innovations such as electronic measuring, computing technologies and micro-processor controls.

When asked about key developments offered by his company, Calvin Fennell, business development manager at Wirtgen South Africa, a supplier of HAMM earthwork machines, refers to the oscillation system developed by the OEM to achieve more homogeneous compaction.

He says split or oscillation drums provide better results when compacting asphalt, which is susceptible to displacement, or when compacting around curves. He also mentions the Power Hybrid drive from HAMM and the OEM's Easy Drive feature, an operating concept for tandem rollers, compactors and pneumatic tyre rollers.

"The HAMM Compaction Quality principle comprises several HAMM products designed to measure, monitor, document and control compaction processes," he says.

"With HAMM's vibration crusher (VC) compactors, stone can be crushed and compacted in a single operation. The secret to these machines' performance is the drum, which is equipped with 150 toolholders."

Other developments in the OEM's stable include the Hammtronic electronic machine management system which supports fuel- and cost-efficiency, and pneumatic tyre rollers offering what Fennell terms "a highly flexible ballasting concept enabling optimum weight distribution, among other advantages".

Telematics system

Mark Senyard, GM of JCB distributor Kemach, says the implementation of the

LiveLink JCB telematics system as standard is changing the way compactors are managed.

"Customers around the world are becoming more and more reliant on its features, which were kept simple and user friendly. Combining the system with online compaction measurement was a logical next step in its evolution."

The company's stable comprises JCB's range of single and tandem drum rollers including soil compactors from 7 to 21 t and tandem rollers ranging from 1,5 to 5 t operating weight.

"Our 'superstar' compactor representing the most popular size in South Africa is the JCB 116D, with an operating weight of around 12 t, while the most popular tandem roller both locally and abroad is the new 2,6 t CT260-120 with its 120 cm drum width."

He says JCB's single drum compactors

are designed for a wide variety of soil compaction jobs. Machines below 10 t operating weight, he says, are ideal for small and medium compaction jobs such as roads. He recommends the JCB VM75D for these applications.

"Machines heavier than 15 t are suited to large-scale mining projects. Our models VM166D and VM200D are designed specifically for this environment."

He says tandem rollers are used increasingly on soil jobs where bigger machines cannot work.

They are designed for small and medium asphalt construction sites such as asphalt patch works or road construction.

Wirtgen South Africa supplies HAMM articulated compactors from 5 to 25 t, articulated and pivot-steered tandem rollers between 1,5 and 14 t, and pneumatic-tyre rollers with an operating weight of between 8 and 28 t, depending on ballasting.

"With our compactors, the client has the choice between smooth, padfoot VIO or vibration crusher drums," says Fennell.

Electronic data processing

When asked about the introduction by OEMs in recent years of smart features such as electronic data processing (EDP) and GPS-supported machine controls, Senyard refers to JCB's onboard LiveLink system software.

"This software records the location of the compaction machine and provides alerts, diagnostic data, maintenance records, data on fuel consumption and many other variables, to help the operator manage their excavator, backhoe loader, wheel loading shovel and roller under one system," says Senyard.

"LiveLink is available as standard on all CT160 and CT260 tandem rollers, as well as on the 116D soil compactor. It can also be retrofitted locally on all other models.

"Our clients demand simplicity and our machines meet this requirement by offering modern technology while remaining easy to operate and maintain."

Compaction quality

The Wirtgen Group, on the other hand, offers the HAMM Compaction Quality (HCQ) solution for asphalt and earthworks, comprising several HAMM products to measure, monitor, document and control compaction processes, including a compaction and temperature meter, both of which are displayed on the driver's platform.

Fennell says the HCQ Navigator uses a global navigation satellite system (GNSS) receiver to determine the position of the rollers. It combines this data with collected measured values to create a "compaction map". The rollers are in communication via



The implementation of the LiveLink JCB telematics system as standard is changing the way compactors are managed.



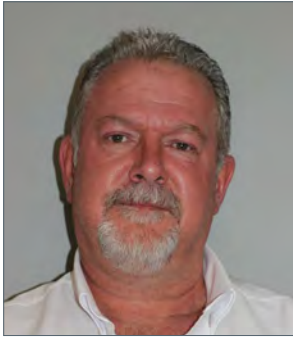
WLAN and the separate passes and overall compaction process are shown on the display.

"This means the driver can see which areas have been compacted sufficiently and which require a further pass."

With WITOS HCQ, collected process data is transferred to the WITOS portal via a mobile network (each roller is provided with a SIM card). Construction site managers, supervisory authorities or consultants can then monitor the site in real time by means of the portal, which displays geographical position, the number of passes, asphalt temperature and stiffness value for every

point and machine respectively.

The Hammtronic electronic machine management system monitors and controls machine functions such as automatic adjustment of diesel engine speed to provide the required power. It controls start-up and braking and distributes the drive torque across the drum axle or rear wheels in accordance with real-time operating data. It also controls the hydrostatic vibration drive and steering programmes in some series. Additional functions such as an edge pressing and cutting device, water sprinkling, a tyre-inflation system or a chip spreader can be added.



"Our clients demand simplicity and our machines meet this requirement by offering modern technology while remaining easy to operate and maintain."

Mark Senyard, GM, Kemach



"With our compactors, the client has the choice between smooth, padfoot VIO or vibration crusher drums."

Calvin Fennell, business development manager, Wirtgen South Africa



"Our competitive edge lies with the compact nature of our products, which makes them easy to move."

Lionel Zietsman, national sales manager at Husqvarna SA

JCB 116D compactor

On the features and benefits providing Kemach with a competitive edge in this market sector, Senyard refers to the JCB 116D compactor which, he says, provides the highest compaction forces in this class, with its drum shell thickness of 28 mm and 10 mm stiffener rings for added vibrating mass and greater durability. He says the compactor's switchable traction system allows it to clear gradients of up to 55 degrees.

"The 116D has a 114 hp JCB Tier-3 Dieselmix engine with mechanical fuel injection, which makes it the most fuel-economic machine in this class. It also features maintenance-free centre joints and triple-fixed drum rubber mounts, which keep operational costs down."

The compactor is also said to be easy to service as its engine and axle are also made by the OEM, and as it shares parts with other JCB products.

Senyard says the CT160 and 260 tandem rollers feature LiveLink as standard, as well as Kubota diesel engines with mechanical injection and high compaction forces and

Husqvarna SA stocks pedestrian rollers in two sizes, both with two variable and one remote control trench roller and both featuring Hatz diesel motors. The LP6505 is available with either electric or manual start and a 650 mm drum. The PL7505, also available in either electric or manual start, features a 750 mm drum while the remote-controlled LP 9505 features an 850 mm drum width.

Husqvarna SA national sales manager Lionel Zietsman says the LP 9505 features articulated steering and is designed for compaction in underground mines, foundations and trenches while the LP 6505 and 7505 are ideal for foundation, driveway, road and trench compaction.

Recent improvements to the range include a new fan design for the hydraulics system, which enables the longer running hours needed on jobs involving trenching. The LP 7505 now also features an automatic park brake for when the engine is switched off.

Zietsman says the company's competitive edge lies with the compact nature of its products, which makes them easy to move. In this regard, he also mentions the LP7505 auto park brake feature and improved airflow to run the system cooler. The units also feature

PEDESTRIAN ROLLERS



Husqvarna SA stocks pedestrian rollers in two sizes, both with two variable and one remote control trench roller and both featuring Hatz diesel motors.

With clients demanding simplicity, JCB machines meet this requirement by offering modern technology while remaining easy to operate and maintain.



frequencies for fast rolling speeds.

These two models are also “rental friendly” and offer features such as central lifting eyes, manually adjustable polyurethane scrapers and anti-vandalism covers. Their electrics comply with IP69 in all exposed areas to enable easy pressure washing.

200 machine types

Fennell says HAMM AG is the earthworks and road construction equipment company within the Wirtgen Group, and that a thousand workers are employed at its facility at Tirschenreuth, Germany. The company provides equipment ranging from tandem rollers between 1,5 and 14 t and compactors between 5 and 25 t, up to pneumatic tyre rollers with working weights of between 8 and 28 t.

“This means that the customer can choose from over 200 different machine types.” He says HAMM, with its 140-year history in this segment of the market, developed the first motorised roller in 1911. In 2019, the company introduced split drum oscillation to bring compaction solutions to its customers.

“These and many others are the points that give the HAMM customer the advantage.” 🌟

hydrostatic drive systems, recessed pipes to drums for protection and a manual crank handle in front for start-up in trenches.

Kemach’s Senyard says his company stocks pedestrian rollers by Stampede ranging from 500 kg to 1,1 t and with drum widths between 390 and 900 mm. He says the pedestrian rollers are designed for work in applications ranging from trench compaction to pothole repairs, paving, soil compaction and asphalt repair and rehabilitation.

“The pedestrian rollers are designed to work in various applications ranging from trench compaction with the narrow PR39, to pothole repairs, paving, soil compaction and asphalt repair and rehabilitation.”

He says the company has developed a condition monitoring solution providing real-time data on machine location, general engine and hydraulic management, over-compaction and more.

To Senyard, Stampede’s competitive edge lies with features including the models’ open design for ease of maintenance and repairs; a simple hydrostatic system; robustness, and a condition monitoring system designed to improve asset management and reduce repair costs.

Grounding-breaking diesel expertise at your service.



Bosch Diesel Service specialises in providing advanced diesel injection system components, as well as the repair and servicing of diesel fuel injection systems to help build your business to new heights.

We’re equipped with state-of-the-art diagnostic software, fuel injection testing and calibration equipment. Our expert services include repairing, overhauling and testing of all mechanical and electronic units, pumps and hydraulically actuated injectors. All of our work is done in-house, and our skilled technicians follow strict repair procedures in accordance with OEM standards.

Book a professional diesel repair today!
www.boschdiesel.co.za



Although most vehicles are stationary and therefore don't require normal regular maintenance during lockdown, Scania South Africa believes it is an opportune time for owners to ensure their vehicles are 100% mechanically sound.



MAINTENANCE TIPS FOR STATIONARY VEHICLES DURING LOCKDOWN

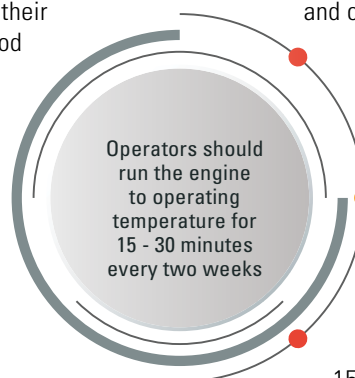
Due to the COVID-19-influenced lockdown, many commercial vehicle operators have had their vehicles standing in truck yards for extended times. What are some of the maintenance issues to consider during such a long downtime period? *Capital Equipment News* speaks to experts from some of the leading truck manufacturers for handy tips to keep stationary vehicles in top condition. By *Munesu Shoko*.

If you are not transporting essential goods during the national lockdown, you would probably have your commercial vehicles parked for extended times, until such a time they are permitted to hit the road again. A panel of experts helps us unpack some useful tips to help fleet owners look after their mission-critical assets during the lockdown period and beyond.

If a truck is stationary for a long time, what are some of the key maintenance issues owners should consider? Marc Mynhardt, branch manager at Powerstar Centurion, advises that transport operators should use the downtime wisely by inspecting for any faults on their vehicles, such as water, oil and air leakages. He also advises that the engine must be run regularly to keep it lubricated and cycle the battery.

Pieter le Roux, senior manager, Uptime Services at Volvo Trucks Southern Africa, says that a functional test should be conducted every four weeks, where the truck's electrical, mechanical and hydraulic functions are checked by turning the switches and controls on and off.

"Operators should also do road testing at least every two weeks. If there are some vehicles in a fleet that are operational, it is advised that vehicles are rotated to ensure most vehicles are operational at least once in every two weeks," says Le Roux. If not possible, he advises operators to run the engine to operating temperature (HPDI) for 15 – 30 minutes every two weeks.



Vehicles on VOSP (Volvo Service Programme) Schedules still follow the set services in their schedules during lockdown.



Transport operators should use the lockdown downtime wisely by inspecting for any faults on their vehicles, such as water, oil and air leakages



A functional test should be conducted every four weeks, where the truck's electrical, mechanical and hydraulic functions are checked by turning the switches and controls on and off



Companies should avoid heavy loads on the drivetrain, such as loaded trailers, as they exert unnecessary pressure on the stationary vehicle



Disconnect the battery and grease the terminals if the vehicle will be stationary for a period of more than a week

QUICK TAKE



as needed. Inspection should be carried out every two weeks and only change or action if found that the items are not in order," adds Le Roux.

"Ensure that the vehicle is parked in Neutral and not in 'M' or 'A' mode. If the vehicle is parked in gear and it loses air pressure, it will be difficult to start it normally," he says.

Gerhard van Staden, national service manager at Scania Southern Africa, says companies should avoid heavy loads on the drivetrain, such as loaded trailers, as they exert unnecessary pressure on the vehicle.

In addition, he says, if possible, service personnel should ensure that the exhaust outlet is covered with a cloth. "This will prevent insects

"Start the truck and leave it to idle until it reaches operating temperature," he says.

Le Roux also urges transport operators to change the engine oil and engine oil filters every 52 weeks (once a year). This is highly unlikely, but very important to

note that a vehicle's oil should be changed at least once a year, even if the vehicle has been stationary for the entire period.

"It's also advisable to check that bags are secured on vent stacks and the hydraulic reservoir breather, and replace



"We suggest that truck owners make sure they have anti-syphons on their diesel tanks, lock nuts on the wheels and remove all loose items outside the truck, such as fire extinguishers and spare wheels and lock them up in a safe place to avoid possible theft."

Marc Mynhardt, branch manager at Powerstar Centurion



"If the vehicle will be stationary for more than one month, remove the battery and store it in a cool dry place at temperatures of between 0°C and 30°C. The battery should be stored in an upright position. Also keep the battery charge above 12,55 V at all times. If the battery voltage falls below 12.1 V, it is an indication that the battery is damaged and needs replacement."

Kgaogelo Sebothoma, head of customer services at FUSO Trucks Southern Africa



"It's important to ensure that the battery master switch is switched off during storage. Also top up the battery electrolyte level with distilled water before the storage period. This is only applicable to maintainable batteries. Ensure that battery terminals, battery casing and battery box are acid free. Soapy water will neutralise any battery acid deposits. One must also slow-charge batteries at least every two weeks."

Gerhard van Staden, national service manager at Scania Southern Africa



"Tyre pressure should be monitored after every two weeks. It is advisable to keep tyres out of direct sunlight. Direct UV to tyres for extended periods of time can damage the tyre and shorten its lifespan. When doing a test run every two weeks, it will be a good idea to move the vehicle slightly forward/backwards every time. This ensures that not one specific side of the tyre is in contact with the ground the entire time."

Pieter le Roux, senior manager, Uptime Services at Volvo Trucks Southern Africa



and small rodents from getting in the exhaust outlet. However, it is important to remember to remove the cloth before one starts the vehicle after storage. Drivers can leave themselves a note on the steering wheel as a reminder," says Van Staden.

He outlines several other things to look out for: "Wiper blades are an essential safety feature on vehicles. To prevent the rubber of the blades sticking to the windshield, place plastic wrap under the blades first. Also check engine oil and coolant levels before start up. Top up fuel tanks before parking long term to prevent condensation from accumulating inside the tank," he says.

Kgaogelo Sebothoma, head of customer services at FUSO Trucks Southern Africa, says if the vehicle is to be stored for a period of more than a month, wipers can be folded away from the windscreen, while the battery needs to be removed and stored in accordance with the manufacturer's specifications.

He says it's also ideal to keep the overall vehicle tidy by cleaning it periodically. "It is also important to check oil and coolant levels, at least once every month. If the vehicle will be stored in an open area, close all air inlets and set the heating system to 'off'."

Routine maintenance

One of the burning questions is whether stationary vehicles should defer their routine maintenance schedules due to



Powerstar advises its customers to keep all components lubricated during this time so that no issues occur when the vehicles are back on the road after a long period of standing.



FUSO advises that whether stationary or not, routine maintenance should always be adhered to as per stipulated kilometre intervals or 12 months from the date of the last service, whichever comes first.

non-activity. Sebothoma is of the view that whether stationary or not, routine maintenance should always be adhered to as per stipulated kilometre intervals or 12 months from the date of the last service, whichever comes first. Regular servicing increases the safety, reliability and lifespan of the vehicles, he adds.

For Le Roux, if the vehicle has not been stationary for longer than six months, the schedules continue as normal. He says for Volvo customers, vehicles on VOSP (Volvo Service Programme) Schedules will still follow the set services in the schedule, then after the first service the schedule will be re-planned.

Although the vehicles are stationary and therefore don't require the normal regular maintenance, Van Staden believes it is an opportune time to go through the trucks to ensure they are 100% mechanically sound. This will ensure maximum uptime when work normalises.

Powerstar doesn't offer maintenance plans yet, but Mynhardt advises the company's customers that it's important to keep all components lubricated during this time so that no issues occur when the vehicles are back on the road after a long period of standing.

Battery care

One of the components that suffers most due to non-starting of the vehicle is the battery, thus much effort should be devoted to battery care during long periods of vehicle downtime.

"Disconnect the battery and grease the terminals if the vehicle will be stationary for a period of more than one week," says Sebothoma.

"If the vehicle will be stationary for more than one month, remove the battery from the vehicle and store in a cool dry place at temperatures of between 0°C and 30°C. The battery should be stored in an upright position. Also keep the battery charge above 12,55 V at all times. If the battery voltage falls below 12.1 V, it is an indication that the battery is damaged and needs replacement," adds Sebothoma.

According to Van Staden, it's important to ensure that the battery master switch is switched off during storage. "Also top up the battery electrolyte level with distilled water before the storage period. This is only applicable to maintainable batteries. Ensure that battery terminals, battery casing and battery box are acid free. Soapy water will neutralise any battery acid deposits. One must also slow-charge batteries at least every two weeks," he says.

Le Roux agrees, saying that a battery check should be done every two weeks. This can be done by a multi-meter or turning the ignition on and then verifying on the driver display cluster. Charged batteries should be 24 V combined or more, he says.

Le Roux also urges responsible personnel to practice the required safety measures when working with batteries. "Avoid sparks or open flames

near batteries as these may ignite the explosive oxyhydrogen gas that is formed when charging a battery. Also remember that electrolyte contains strong, corrosive sulphuric acid and always wear the necessary protective equipment such as protective goggles, gloves and clothes," he says.

"Do not tilt the flooded batteries more than 30°. If a body part comes in contact with battery acid, wash thoroughly with soap and plenty of water. Always remember that a single battery should be around 12,75 V fully charged (combined 25,5 V) and it is advised that if a single battery dips below 12,5 V, it should be connected to a charger," he adds.

Paint work

Another important consideration during a long period of downtime is preserving the paintwork of the vehicle. Van Staden says a vehicle's paint job can be damaged if it is parked outdoors due to the dust, grime and moisture. "To prevent possible damage, clean the exterior thoroughly. Make sure you remove any dirt, dust or grime stuck to the vehicle before applying a coat of polish and wax. This will help to keep moisture away," he says.

Mynhardt says it's important to park vehicles either under the roof or under any form of protection. However, he admits that with the size of commercial vehicles, space is not always available. "So I suggest that the truck be cleaned after every operation and also once every two



Service personnel should check engine oil and coolant levels before start up.



Operators should do road testing at least every two weeks.

weeks when standing in the open," he says.

Sebothoma agrees that keeping the overall vehicle clean is of significance. He, however, advises not to use any organic solvent such as thinner or gasoline for cleaning. These will damage painted surfaces and cause discoloration and cracks in plastic components.

"When washing the vehicle, pay particular attention to the wheel housings and the underside of the chassis, especially if the vehicle has been driven in a coastal area or on a road covered with an anti-icing agent. In addition, pay particular attention to the wheel

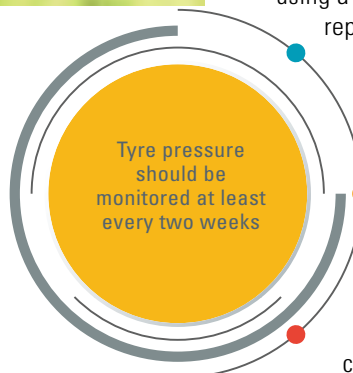
housings and the underside of the chassis if the vehicle is often used to carry marine products or coal and is thus prone to the effects of seawater or to serious paint damage. If anti-icing agent is left on the vehicle, it will stick to the vehicle and become impossible to remove with normal washing," says Sebothoma.

He adds that waxing the vehicle at least once every month is recommended. The best timing for waxing is just after washing the vehicle when the paint surface temperature is lower than the body temperature. "Avoid waxing under direct sunlight. Waxing hot paintwork may cause stains. Do not use a wax containing abrasive compound; it will damage painted surfaces and destroy their original luster," adds Sebothoma.

He adds that rust or corrosion on the underside or chassis of the vehicle can cause accidents or breakdowns. "After washing the vehicle, check for rust and for rust perforation. Remove any rust using a wire brush, then perform paint repair and/or apply rust inhibitor.

If you find rust perforation, have corrective work performed promptly by your nearest authorised FUSO distributor or dealer," says Sebothoma.

Le Roux says Volvo Trucks are designed to operate in tough conditions, from below freezing conditions to the heat of the



desert. He believes the paintwork on these trucks should be up to the task during the lockdown-influenced downtime. "We do, however, encourage a vehicle to be parked under a roof when possible," he says.

Tyre care

In terms of tyre care, Van Staden advises that tyre pressure should be checked constantly and make sure that the tyres are at the correct pressure all the time. He says proper inflation helps prevent cracking and flat spots. "Check the valves and valve caps for leaks and that the valve caps fit properly," he says.

Tyre pressure, says Le Roux, should be monitored every two weeks. It is advisable, he says, to keep tyres out of direct sunlight. Direct UV to tyres for extended periods of time can damage the tyre and shorten its lifespan. "When doing a test run every two weeks, it will be a good idea to move the vehicle slightly forward/backwards every time. This ensures that not one specific side of the tyre is in contact with the ground the entire time," says Le Roux.

The same view is shared by Mynhardt, who says the best way is to keep tyres out of the sun as much as possible. With time, he says, exposure to direct sunlight for extended periods may affect the life of the tyre. "Also check all tyres regularly as some might have slow punctures or leaks and fix them before they are completely deflated to avoid complete removal of the wheel to either replace or repair," says Mynhardt.

Sebothoma advises that tyres should be inflated to about 0,5 bar extra pressure above the specified tyre pressure, especially if the vehicle will be parked for longer periods. However, correct tyre pressure should be inflated according to manufacturer's specification when the vehicle is getting back on the road.

Parting shots

In conclusion, Van Staden says if one has insurance for their vehicle, they should not cancel for the period of the lockdown. "Not only will this impact on any no-claims rewards, you may be flouting the terms of your lease or purchase agreements if you cancel now," he says.

Le Roux assures Volvo customers that the Volvo Trucks Uptime Services team (Service Contracts and Telematics) is there to assist customers during this difficult time. "We are there to support customers 100% during this time," he says.

Mynhardt says it's important for fleet operators to ensure that all the necessary safety precautions on the truck are available. He reasons that the tough economic conditions as a result of the lockdown may lead to increased theft, and transport companies should be on the lookout for theft of diesel, rims and tyres, among others.

"We suggest that truck owners make sure that they have anti-syphons on their diesel tanks, lock nuts on the wheels and remove all loose items outside the truck, such as fire extinguishers and spare wheels and lock them up in a safe place. Trucks are standing in large quantities and this makes it easy for theft to take place, so owners should prioritise safety and security precautions," he says.

Sebothoma advises that vehicles should always be parked on the flattest available surface, and the hand brake should be released. "Avoid parking on a slope. If it is unavoidable to park the vehicle on a slope, firmly apply the parking brake while fully depressing the brake pedal. On vehicles with a DUONIC transmission, place the gearshift lever in the "P" position, and choke the wheels," concludes Sebothoma. 🌟

Grounding-breaking diesel expertise at your service.



Bosch Diesel Service specialises in providing advanced diesel injection system components, as well as the repair and servicing of diesel fuel injection systems to help build your business to new heights.

We're equipped with state-of-the-art diagnostic software, fuel injection testing and calibration equipment. Our expert services include repairing, overhauling and testing of all mechanical and electronic units, pumps and hydraulically actuated injectors. All of our work is done in-house, and our skilled technicians follow strict repair procedures in accordance with OEM standards.

Book a professional diesel repair today!
www.boschdiesel.co.za





The new Cat smart backhoe attachment significantly increases the versatility of Cat compact loaders, allowing them to take on a range of tasks, including utility trenching, digging footing and forming and maintaining drainage ditches.

The new Cat GB120 and GB124 smart grader blade attachments are available for Cat D3- Series skid steer loaders and compact track loaders

THE ADVENT OF SMART ATTACHMENTS

One of the most apparent examples of forward momentum in the compact equipment industry is the development of smart excavator and loader attachments to increase accuracy, efficiency and attachment management, writes Munesu Shoko.



"The basic benefits of smart attachments include improved operator interface and functionality, as well as feedback to the operator in grading applications."

Daniele Paciotti, product line manager Attachments at Bobcat EMEA

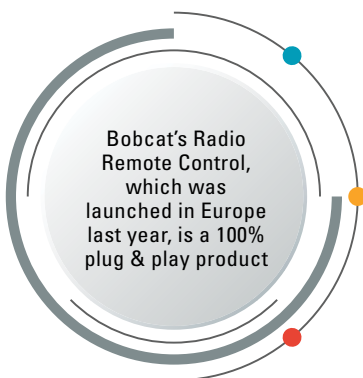
To remain competitive in today's challenging economic environment, equipment owners are looking beyond the basics. They are looking at how their fleets of mini-excavators, skid steers, backhoe loaders, among other tool carriers, can squeeze more margins and volumes, and a strong attachment focus is gaining momentum. Attachments are key to equipment versatility and utilisation.

A key factor in succeeding with any fleet of equipment, especially compact, is getting the most out of your machines. Whether you have a mixture of mini-excavators, skid steer loaders, telehandlers or TLBs, implementing various tools and attachments can expand your assets from one-dimensional pieces of equipment into multipurpose and adaptable machines.

For many years, attachments have always been designed to enhance equipment fleets. While that likely won't change, advancing technology means that today's



Almost all Advanced Bobcat Attachments are designed with the ACD system so that they can be automatically recognised by Bobcat loaders to ensure the best performance and efficiency.



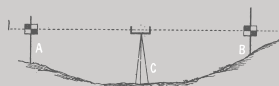
compact machine operators are benefitting from innovations that are taking accuracy, efficiency and attachment management to a whole new level. The advent of smart attachments is one of the key developments in that regard. Caterpillar and Bobcat are some of the leading names in that space.

Smart attachments

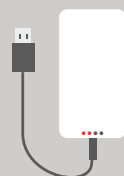
What is a smart attachment? Tharen Peterson, product application specialist at Caterpillar, explains that there are three criteria that make a Cat attachment smart. First, attachment recognition –



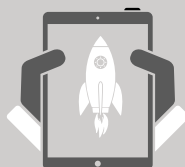
Advancing smart attachment technology means that today's compact machine operators are benefitting from innovations that are taking accuracy, efficiency and attachment management to a whole new level



Grading/levelling is one of the most important applications to benefit from the use of smart attachments



Almost all Advanced Bobcat Attachments are designed with the ACD (Attachment Control Device) system so that they can be automatically recognised by Bobcat loaders and other carriers



Caterpillar has recently launched three smart attachments to the market: the smart 6-way dozer blade, the BH130 smart backhoe attachment and the smart grader blade attachment

QUICK TAKE



The new Cat GB120 and GB124 smart grader blade attachments are available for Cat D3- Series skid steer loaders and compact track loaders.



For the smart dozer, Caterpillar engineers took an existing attachment and made it more user-friendly.

when the attachment is hooked up to the D3 series skid steer loader or compact track loader, the machine recognises the attachment.

"Secondly, the machine unlocks additional screens in the advanced display. And thirdly, a second control mode is unlocked. The D3 series skid steer or compact track loader then allows for machine control mode or attachment control mode," he says.

Daniele Paciotti, product line manager Attachments at Bobcat EMEA, says there isn't a single industry agreed definition of the "smart attachment" concept, but it can be described in several ways. Firstly, through the recognition of the machine/attachment combination to ensure the safest features and best performance.

"Secondly, the automation of the machine/attachment set-up to save time and to guarantee the best accuracy and efficiency. And, thirdly, remote control of the machine/attachment to provide increased safety and comfort when operating the machine," he says.

Paciotti says grading/levelling is one of the most important applications to benefit from the use of smart attachments, while

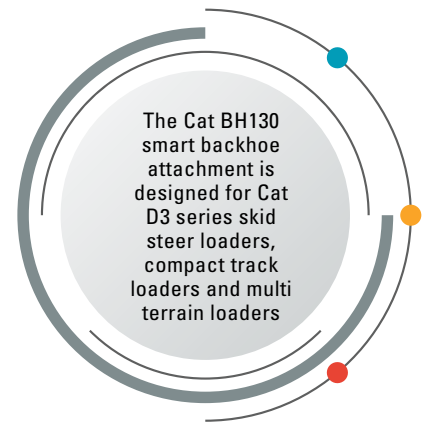


Bobcat's MaxControl concept system is an iOS app that makes operating machines easier and more convenient.

road milling/planing is another application where this kind of smart system is needed.

Peterson says Caterpillar first investigates how the technology can be beneficial to its customers and then applies it to those applications where there is a benefit to the customer. He, however, agrees that one of the leading applications for smart attachments in the compact construction equipment space has been grading.

Why grading? The critical importance of



The Cat BH130 smart backhoe attachment is designed for Cat D3 series skid steer loaders, compact track loaders and multi terrain loaders

maintaining proper grade specs, coupled with the complexity of the machine controls, necessitates continued innovation in tools that are used for this application. How best an operator can work a grader or grading attachment remains at the core of today's product offerings. The smart grader attachment is thus centred on easing operation as grading has traditionally been regarded as one of the most difficult applications to execute, often calling for specialised final level skills.

Bobcat's offering

Almost all Advanced Bobcat Attachments are designed with the ACD (Attachment Control Device) system so that they can be automatically recognised by Bobcat loaders. This kind of 'recognition' system, explains Paciotti, communicates through a CAN-Bus to automatically set up the joystick controls and the output flow to get the best attachment performance.

"Another type of smart attachment is the integrated 2D laser or 3D GNSS/UTS system for use with our grader attachments, which allows the operator to carry out the minimum to get a job done with the maximum precision and in the quickest time, using automation," he says, adding that these systems enable operators to create perfect surfaces, while reducing fuel and labour costs.

Another example of a smart attachment, he adds, is Bobcat's Radio Remote Control; the system, which was launched last year in Europe, is said to be unique because it is a 100% plug & play product which is applicable to all Bobcat compact loaders with selectable joystick controls from 2007 models onwards. This hand-held system provides operators with the same control of machines but from a distance of their choosing (up to 500 m away).

"On top of that, it is completely interchangeable; for example, in less than a minute the operator can restore the machine to its original state or move the system from machine A to machine B," adds Paciotti.



Launched last year in Europe, Bobcat's Radio Remote Control is a 100% plug & play product which is applicable to all Bobcat compact loaders with selectable joystick controls from 2007 models onwards.

Caterpillar expands range

Caterpillar has recently launched three smart attachments to the market: the smart 6-way dozer blade, the BH130 smart backhoe attachment and a smart grader blade attachment. The smart backhoe and the smart dozer, says Peterson, take two attachments that have been in the skid steer loader and compact track loader segment for a long time and update them for modern usage.

"With the BH130, the engineers built off the previous Cat offering of backhoe attachment that was already advanced. With this attachment, the operator remains inside the structure of the D3 Series skid steer loader or compact track loader. However, now there is no longer a swing in control arm," he says.

The controls are performed with the joysticks in the machine. The operator selects 'attachment control mode' and the machine locks down and the joysticks now control the backhoe attachment just like a mini excavator or backhoe loader. The pattern is also selectable, so based on operator preference, either backhoe pattern or excavator pattern may be selected.

The Cat BH130 smart backhoe attachment is designed for Cat D3 Series skid steer loaders, compact track loaders and multi terrain loaders. The new attachment significantly increases the versatility of these small machines, allowing them to take on a range of tasks, including utility trenching, digging footing and forming and maintaining drainage ditches.

In addition, the backhoe is compatible with Cat 3-t excavator attachments, and its auxiliary-hydraulic system allows pairing with hydro-mechanical work tools, including hammers, thumbs, augers and vibratory compactors. The backhoe also hydraulically shifts side-to-side to allow digging adjacent to buildings and footers, and integrated stabilisers provide a solid digging platform.

For the smart dozer, again, the engineers took an existing attachment and made it more user-friendly, says Peterson. Like the BH130, there is attachment control mode. The left joystick still operates the drive functions.

"Now, however, the right joystick becomes more like a full-size dozer control. No more multi-button presses to get the blade to move. Everything is done with the right joystick. In addition, there are operator assist features for the main fall (forward and backwards) as well as the blade slope. The display also provides indication to the operator for main fall, machine side slope as well as blade slope," he says, adding that the smart dozer is compatible with the 279D3 HF XPS, 289D3 HF XPS, 299D3 HF XPS and 299D3 XE machines.

The new Cat GB120 and GB124 smart grader blade attachments are available for Cat D3-Series skid steer loaders and compact track loaders. As with the smart dozer blade attachment, the D3 host machine recognises the grader blade and unlocks special display screens that provide options for attachment control, allowing the joysticks to be repurposed to perform attachment functions.

Selecting the attachment-control mode allows the right joystick to operate blade functions – tilt (moving the joystick side-to-side), angle (rotating the thumb wheel forward or rearward),

and lift (moving the joystick fore and aft). In the advanced display, the home screen shows the cross-slope of the blade, as well as the blade angle.

The ASSIST feature allows selecting either the Cross Slope Right pattern or Cross Slope Left pattern and maintains the cross-slope setting, independent of the machine's operating angle. If the Cross Slope Right pattern is selected, the forward/backward movement of the right joystick controls the right side of the blade by raising and lowering the attachment's right lift cylinder.

"The machine/attachment will control the left side of the blade to maintain the desired cross-slope, allowing the operator to focus on the right side of the blade. Cross Slope Left pattern reverses this setting," explains Peterson.

Also, as the blade is angled and geometry changes, the attachment calculates and maintains the cross-slope setting. It even maintains the desired cross-slope angle when you rotate the blade to windrow the material. The special display screens of the smart grader blade provides the operator with feedback about the orientation of the attachment, displaying blade slope, as well as blade angle.

Key benefits

The basic benefits of smart attachments, says Peterson, are improved operator interface and functionality, as well as feedback to the operator in grading applications. All of this ultimately can lead to improved efficiency as well as improvement in material usage. Thus, time and material improvements can lead to lower input costs for the customer.

"At Caterpillar we will continue to listen to the needs of our customers and strive to offer solutions that provide an increased benefit to their businesses," says Peterson.

Paciotti says high performance, better efficiency (productivity, lower fuel consumption) and increased comfort and safety are some of the key benefits of Bobcat's smart attachment technology.

As technology continues apace, Paciotti highlights some of the innovations we hopefully will see in the future. "Some of the future technologies that are coming in in the next few years – all of which depend on the extra capabilities these technologies will bring – include remote control by mobile (for example, Bobcat's MAX Control concept system); recognition systems for the full range of Bobcat attachments and carriers; telematics on attachments; autonomous machine systems; obstacle avoidance systems; and electrical attachment systems, among others," concludes Paciotti. 🌟



Crane & Hoist Equipment SA's range of Potain top slewing cranes offers free standing heights of between 35 m and 54 m, and a lifting capacity of 5 – 8 t

KEY TRENDS IN THE SOUTH AFRICAN TOWER CRANE MARKET

With building structures becoming taller and contractors seeking optimal material handling solutions to ensure maximum productivity on sites, Crane & Hoist Equipment SA, the Potain dealer in southern Africa, reports increased demand for top slewing cranes. Meanwhile, the constrained construction marketplace is driving the growing preference for tower crane rental, at the expense of outright buying. By Munesu Shoko.

Construction of tall buildings is an international property development trend that has gained favour in South Africa in recent years. The 'high-rise' renaissance largely comes down to the need for space management as space is at a premium in many towns.

With structures getting taller and taller, Louw Smit, sales director at Crane & Hoist Equipment SA, says it is essential for contractors to apply optimal material handling solutions to ensure the highest possible productivity, while operating safely.

A key trend that has come out of the high-rise drive is the growing preference for top slewing cranes which, according to Louw, currently account for 80% of the tower crane market

in South Africa.

"A major driver is the height of buildings being built currently. The 30 – 50 m high buildings make the top slewing crane a material handling tool of choice," he says, adding that bottom slewing cranes have limited height and cannot meet the required hook height at these projects. To provide context, available bottom slewing cranes in the market offer about 20 – 23 m of hook height, "which is not sufficient for the buildings that are being built at the moment".

Crane & Hoist Equipment SA's range of Potain top slewing cranes offers free standing heights of between 35 m and 54 m, and a lifting capacity of 5 – 8 t. "The type of buildings being built in South Africa at the moment



A Potain MD208A working on site in Umhlanga, KwaZulu-Natal.

mostly require 35 m and more of hook height, which you can't get with a self-erecting crane," adds Smit.

Operations director Danie Roos adds that topless cranes are ideal for construction projects where there are several cranes operating on site, which is a common scene on today's building sites. "A flat top crane works well on sites where you have more than one crane," he says, "as it can overfly other cranes without any need for a high top tower space."

MD Brenden Crous agrees, saying that top slewing cranes have a reputation for being easy to adapt to their working environments: sites which are high up, crowded or widely spread out. They make it possible to hoist and distribute loads by using two technologies: horizontal displacement of the trolley or movement by raising the jib.

Wide range

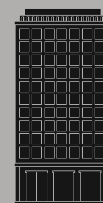
Crane & Hoist Equipment offers a wide range of models in the top slewing category, comprising the MC 85B, MCT 88, MDT 98, MDT 178 and the MDT 175B.

The MCT range is renowned for its

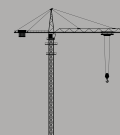


QUICK TAKE

With structures getting taller and taller, it is essential for contractors to apply optimal material handling solutions to ensure the highest possible productivity, while operating safely



A key trend that has come out of the tall building trend is the growing demand for top slewing cranes, currently accounting for 80% of the tower crane market in South Africa



Another key trend in the tower crane market is the growing demand for cranes on special configurations to achieve better hook heights



The market has in recent months shifted towards the smaller range of cranes, which is largely due to the smaller size of buildings currently being built, mostly the 5 – 7 storey flats



simple and faster erection on site. With two notches on the lower members and one pin on the upper member, the jib can be erected quickly and easily. The variable frequency slewing feature allows for continuous variable speed control by means of a stepless controller that also adapts to the crane operator's driving style.

The crane features minimal componentry, providing adaptability and easy installation on urban jobsites. Bases, masts, counter-jib ballast blocks and telescoping cages are interchangeable with other MCT models.

Equipped with the new Crane Control System, the MDT CCS range provides greater performance. The user-friendly crane control

system offers owners the highest levels of comfort, flexibility, ergonomic control – translating to better return on investment.

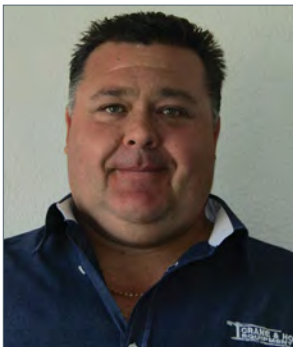
MDT CCS Topless concept allows complex multi-crane installations. The assembly, erection, transport and even maintenance phases are shortened. Optimum productivity and greater safety make MDT CCS cranes the best choice for all users and hirers.

"CCS assists users to enjoy the highest levels of comfort, flexibility, ergonomic control and, most importantly, improved lifting capacity. The enhanced productivity achieved as a result translates into faster return on investment for Potain crane owners," says Smit.



"The special configuration of the mast allows for a higher freestanding height of the tower crane itself, and this is a good solution for high-rise structures. With the increased freestanding height, there is no need to tie the tower crane onto the building, which gives the contractor both a time and cost saving on the project."

Louw Smit, sales director at Crane & Hoist Equipment SA



"Instead of the normal configuration, which has to be anchored to the wall, the special configuration offers greater flexibility which, in the end, cuts anchoring and jacking costs."

Danie Roos, operations director at Crane & Hoist Equipment SA



"Top slewing cranes have a reputation for being easy to adapt to their working environments: sites which are high up, crowded or widely spread out."

Brenden Crous, MD of Crane & Hoist Equipment SA

Special configurations

Another key trend in the South African tower crane market is the growing demand for special configurations to achieve better hook heights, notes Smit. Special configuration of Potain tower cranes allows Crane & Hoist Equipment to give clients better standing height without anchoring the crane on the building.

"The special configuration of the mast allows for a higher freestanding height of the tower crane itself, and this is a good solution for high rise structures," says Smit. With the increased freestanding height, there is no need to tie the tower crane onto the building, which gives the contractor both

a time and cost saving on the project.

"In such a constrained construction market, contractors are looking for ways to cut costs because anchoring and jacking are expensive – so they opt for cranes with special configurations to achieve the required hook heights," he says. To get this right, Smit cautions that it is important for contractors to partner with technical tower crane experts with an in-depth understanding of tower cranes configurations like Crane & Hoist Equipment.

Explaining how the special configuration works, Smit says, if one takes the MDT 98 tower crane, for instance, the standard tower width of the masts of that unit is

1,6 x 1,6 m. With that, you can achieve standard standing height of about 52 m. If one uses a special configuration, you start up with bigger 2 x 2 m mast sections, before adapting to the normal 1,6 m sections.

"The idea is to start with bigger sections and then adapt to the normal mast size after that, which gives you a better hook height. It's not a standard configuration that's available on the spec sheet," says Smit.

"Instead of the normal configuration, which has to be anchored to the wall," adds Roos "the special configuration offers greater flexibility, which in the end, cuts anchoring and jacking costs."

Smaller range

Crous says the market has in recent months shifted towards the smaller range of cranes, which is largely due to the smaller size of buildings being built, mostly the 5 – 7 storey flats.

"It's also to do with the costs of cranes, given the tough nature of the market. If you have one big crane on site, you only have one hook, but with two smaller cranes, you have two hooks and can still be within your budget, which helps significantly in terms of productivity," says Crous.

The move towards smaller ranges, says Crous, is also driven by a fair amount of activity in water infrastructure projects, such as reservoirs. "We have two water projects," he says "where two of our cranes are working. There are a couple of other projects currently under way, and there definitely seems to be a bit of activity in that space."

Rental market

Due to the tough nature of the construction market, which has been exacerbated by the Covid-19-influenced lockdown, many contractors are finding it difficult to invest in new equipment, thus opting for rental instead.

"I am of the view that it will take a while before people start buying equipment again. We have, in recent months before the lockdown, had a few sales enquiries, but I don't think companies will be able to buy equipment anytime soon. Rental will remain the viable choice for many," says Smit.

With its fleet of eight top-slewing cranes and one bottom-slewing crane (IGO 50), Crane & Hoist Equipment is prepared to meet the rental needs of the market. The rental fleet is ideally suited for small to medium-sized projects where 5 – 8 t lifting capacity is required at 50 – 60 m jib lengths.

"We currently have nine of our own cranes available for rental. At the moment, rental constitutes 80% of our business, and 20% is sales," concludes Smit. 🌟



INCREASED FUEL SAVINGS. REDUCED ENVIRONMENTAL IMPACT.

DISCOVER BRIDGESTONE'S
FLAGSHIP RANGE OF PREMIUM,
FUEL-EFFICIENT TYRES.

ECOPIA
H-STEER 002

ECOPIA
H-DRIVE 002

ECOPIA
H-TRAILER 002



ECOPIA



A Manitou MT-X 1840 telehandler on a construction site.

DRIVERS AND GENERAL OUTLOOK FOR THE TELEHANDLER MARKET IN SA

Marketing company Verified Market Research has found that the global telehandler market was valued at over US\$5,267-billion in 2018. This is projected to reach over US\$7,715-billion by 2026, showing a CAGR of 4,96% over eight years. In this feature, Bobcat and Manitou SA discuss the drivers behind this market, the changing applications for telehandlers and new innovations to look out for, among others. By **Mark Botha**.

To Manitou SA MD Steve Ryder, the main drivers for the local heavy-duty telehandler industry from 9 t capacity upwards are to be found in the mining and quarrying industries. Smaller telehandlers are used in industries such as construction, agriculture, ports and aviation, where the material is lighter and the reach of the telehandler is important.

He says heavy materials handling is less likely to be required in construction, except in special heavy-duty applications where capacities exceeding 10 t are required.

On the other hand, Bobcat sales consultant Christo Swart singles out as market drivers for smaller telehandlers the construction and agriculture industries.

"Whether it's offloading bricks on the second floor of a newly built shopping centre or stacking feed bales on a dairy farm, both industries require heavy tonnage as well as decent reach," he says.

Applications

Ryder notes a "multitude of applications" for telehandlers

in mining, quarrying, construction and agriculture.

"A single telehandler can perform many different tasks simply by changing the attachment to the one required for the job," he says. "In the mining and quarrying industries, for instance, telehandlers with tyre handling attachments can easily change the tyres of large dump trucks, which is impossible to do manually."

Ryder says other mining applications include replacement of drive motors and cylinders, as well as repairs and maintenance of conveyor belts and cable reels.

In the agriculture sector, applications range vastly, from handling and stacking bales to bulk bag handling and silage preparation.

Models

Manitou SA stocks six heavy duty models ranging from 6 t to 33 t, with a reach of between 8 m and 10 m, while their smaller MT-X telehandlers range from 2 t to 4 t capacity, with a reach of 4 m to 18 m. On the agricultural

telehandler side, the MLT-X range includes capacities of 2,5 t to 6 t, and a reach of 6 m to 10 m.

The most popular model in the Bobcat stable, says Swart, is the 4 t Bobcat T40180, which offers a reach of 18 m.

"This model includes a load management system for safety, compact stabilisers and three steering modes. It also features integrated frame levelling and the sideshift system works independent of the main frame to provide a 4° bank angle on tyres, and up to a 12° angle on stabilisers." He says the T40180 has a top speed of 30 km/h to enable quick movement between locations.

Key features

The features that make Manitou's range suited to demanding applications, says Ryder, are the machines' robustness, large capacity, ergonomic cabs and their willingness to take on rough terrain. He says all models feature quick-hitch couplings which simplify the changing of attachments.

The attachments themselves, he says, are highly specialised and include on-fork handling solutions such as jibs, tyre, cylinder pipe and drum handlers, as well as cable reel and conveyor belt handlers for the mining industry.



Bobcat offers various specialised attachments to improve the machine's performance in various applications.

QUICK TAKE

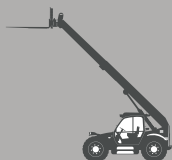
The main drivers for the local heavy-duty telehandler industry from 9 t capacity upwards are found in the mining and quarrying industries



In the agriculture sector, applications range vastly, from handling and stacking bales to bulk bag handling and silage preparation



The most popular model in the Bobcat stable is the 4 t Bobcat T40180



Bobcat offers various specialised attachments to improve the T40180's performance in various applications



A WIRTGEN GROUP COMPANY

KLEEMANN

THE EVOLUTION OF INNOVATION

THE EVO-LINE FROM KLEEMANN



EVO

IT'S ALL ABOUT EVOLUTION. The demands placed on plants in the contracting sector are high: maximum output matched with cost-effective operation – and all for the most diverse applications. This is exactly what distinguishes KLEEMANN EVO-Line plants. Thanks to highly innovative solutions, such as an advanced material flow concept, continuous feed system, outstanding safety concepts and many more, KLEEMANN's EVO-Line mobile jaw crushers, impact crushers and cone crushers deliver a solid plus in performance, efficiency and versatility. Progress calls for real innovation – the KLEEMANN EVO-Line.

www.wirtgen-group.com/southafrica

WIRTGEN SOUTH AFRICA (PTY) LTD · 52 Maple Street
Pomona, Kempton Park 1619 · South Africa
T: +27 (11) 452-1838 · sales.southafrica@wirtgen-group.com



Manitou's MHT-X 10130 heavy duty telehandler with a cable reel.



Large Bobcat telehandler with a pallet fork.



"The market for the telehandler will always be there. There will always be a need on construction and other sites to lift or place material on higher surfaces."

Christo Swart, Bobcat sales consultant



"A single telehandler can perform many different tasks simply by changing the attachment to the one required for the job."

Steve Ryder, MD of Manitou SA

"The most defined attachment would certainly be our man platform, which allows the operator to work at height while controlling the machine, without an operator in the cab. We also fit a reasonable amount of pallet forks, bale forks and concrete skips."

Market outlook

Ryder expects a negative outlook for the mining and construction market segments over the first six months to a year post-Covid-19, following the impact on the mining industry of operational downtime and volatility in terms of return on equity (RoE) and commodity prices.

"In general, however, the outlook after this period looks positive for both mining and construction as safety regulations on mines and quarries force them to move to more rigid, fixed-framed attachments or equipment for the operating and handling of high-risk applications while construction will recover to the point of being able to purchase capital equipment such as telehandlers again.

"We already have the attachments available to complement mines in their move towards mechanisation, allowing mines and quarries to handle equipment and components in the safest manner possible. The rapid movement towards mechanisation in agriculture means that high quality telehandlers with specialised agricultural attachments will be used more frequently."

To Swart, "the market for the telehandler will always be there". He says there will always be a need on construction and other sites to lift or place material on higher surfaces. 🌟

Manitou's smaller telehandler attachments include forks, various construction and general-purpose buckets, man cages, skips and jibs. For the agricultural sector, the company offers a wide range of attachments to perform many applications on the farm. These include agricultural grabs and silage buckets, bale clamps and sweepers.

To Swart, the Bobcat T40180 has the "best placing capacity in the market". He says the reason is that the machine's centre of gravity is more centralised and can therefore handle heavier loads on further reaches.

"Apart from this feature, the T40180 is completely covered underneath, which allows the machine to operate on the most rugged of construction sites. The T40180 also offers the customer a 'man platform' function which is standard on our top model. This feature allows the operator to operate the machine from the man-cage safely, at a height of 18 m."

He says Bobcat offers various specialised attachments to improve the machine's performance in various applications.

SUBSTANTIAL HEALTH & SAFETY PRECAUTIONS NEEDED AS ALCOHOL BAN LIFTED

Alcohol sales have been banned in South Africa since the hard lockdown began on 26 March 2020. For many, this means that they have had zero access to alcohol for more than eight weeks. With the ban lifted from June 1, more precautions must be put into place to ensure that Occupational Health and Safety (OHS) Act regulations are adhered to in the workplace and those under the influence do not risk their lives as well as the lives of their colleagues. *By Rhys Evans, MD of ALCO-Safe.*

It is also critical to ensure testing practices do not put anyone at increased risk of catching or spreading the COVID-19 virus.

With the country moving to Alert Level 3 of the lockdown at the beginning of June, the alcohol ban has been lifted. Sales are permitted during certain hours on certain days of the week.

With alcohol sales once again being permitted, even in a limited fashion, it is inevitable that alcohol consumption will spike. This means that more people will be driving under the influence and/or arriving at their place of work possibly intoxicated. They will be less likely to follow rules and safety precautions.

This is and always has been hazardous on the road and in the workplace, especially where dangerous equipment is used. However, in the current climate there is even greater risk. People who are intoxicated are less likely to follow social distancing requirements and hygiene practices, risking further spread of the virus.

It is therefore imperative to ensure that workplaces and roads are free of those under the influence of alcohol. This needs to be kept top of mind as the country gradually begins to open up further during the lifting of the lockdown.

Precautions around testing practices

The standard testing for alcohol is a breathalyser, which is quick and effective. COVID-19 virus is spread by droplets and businesses therefore need to ensure they continue using safe methods when testing with breathalysers.

It is therefore essential to avoid physical contact between the person being tested and the breathalyser device. There must also be distance between the instrument, the person being tested, and the person doing the testing. The person manning the device must also observe strict precautions including washing and sanitising their hands, wearing gloves and a face mask.

One solution that is practical for workplaces is to utilise a special housing to mount the device in a fixed location. The operator can then maintain social distance while the test is being performed, and then read the results.

For both the workplace and roadside testing, it is also advisable to use biodegradable straws. These straws ensure there is no physical contact between the subject and the breathalyser. It means that saliva or bodily fluids which may contain contaminants are contained and cannot be spread. The government gazette requires the subject to be 5 cm away. However, by making use of straws, it would increase the distance between the breathalyser and the subject to over 20 cm – making it even safer to use.

Newer equipment also reads almost instantaneously, which dramatically reduces the amount of time the person being tested must blow, subsequently reducing risk at the same time.

It has now been advised that people should blow constantly into the equipment for 2-3 seconds. However, newer breathalysers only require a person to blow for 0,3 seconds thereby surpassing what is stipulated in the government gazette and again making the procedure safer.

Vigilance is critical

There is no doubt that as soon as the alcohol ban is lifted, we will see a peak of alcohol consumption. If not controlled, this will lead to high incidents of drunk



Rhys Evans, MD of ALCO-Safe.

driving and accidents at work that will take up valuable space in hospitals.

Police need to be aware of this and ensure that roadside testing takes place in a safe and hygienic manner. 🚔

EARTHMOVING EQUIPMENT

PLANT

We refurbish machines to the highest standards. Visit our showrooms with over 600 machines in stock.

PARTS


BLC has the largest stock of parts in the southern hemisphere. We have stripped over 3000 CAT machines for stock!

RENTAL

With a wide variety of high quality equipment, we can assure availability of machines.

AFTER SALE SERVICE

We offer 24/7 customer support and unmatched aftersales service.



AFRICA'S
LEADING
EARTHMOVING
EQUIPMENT
DEALER

Call us now **+27 (0)11 555 2000**
or visit **www.blcplant.com**
for our latest stock.



A Scania service that costs less than the average bakkie service goes a long way in contributing to lower operational costs.

A SCANIA TRUCK SERVICE THAT COSTS LESS THAN THE AVERAGE BAKKIE SERVICE

As businesses look to recover from the effects of the nationwide lockdown, which has negatively affected many companies' revenue streams, Scania South Africa is supporting its customers with discounted Fixed Maintenance Packages specifically for older trucks that may require servicing more frequently. Scania is a global company selling trucks, buses and service solutions in over 100 countries.

"Our business is built on the foundation of sustainability," says Nomonde Kweyi, Scania GM, Marketing & Communications, South Africa. "In these challenging times where demand and volumes have dropped by up to 30% across the logistics sector, Scania South Africa is putting support behind our customers' business recovery efforts by providing cost efficient packages across our product portfolio."

During the nationwide lockdown, many businesses' ability to trade was impacted and this has affected liquidity across the transport sector. With constrained cash flow and a critical focus on cost optimisation, Scania has tailored specific maintenance plans for trucks that are four years or older, to meet individual business needs, ensuring maximum ability to plan financially while increasing productivity and decreasing disruptions to daily operations.

Trucks out of warranty will now enjoy

a 12-month warranty covering selected parts. Accelerated parts availability is also a priority with parts available in 24 hours across the Scania retail network.

"Many businesses have suffered supply chain deviations as the lockdown has put suppliers under pressure and made importing parts difficult," explains Kweyi. "The strength of our global logistics network has allowed us to continue to supply parts to our customers, ensuring that the productivity of their fleet is minimally affected." Rapid delivery means parts are available overnight, to ensure minimum disruption to transport schedules and delivery contracts.

Partnering with customers

"Our top priority is partnering with our customers," explains Alan Hugo, GM of Services. "We don't follow the traditional supplier/customer relationship. We go out of our way to understand their businesses and develop solutions that offer them real value. By delivering on this, our customers feel the Scania 'experience' and become part of the Scania family. We are sensitive to their challenges and are committed to developing new solutions that promote real business sustainability."

Taking into account that, during the lifecycle of a truck, the value changes, Scania has concentrated on offering competitive price points across their Fixed Maintenance Packages. With up to 30% discounts offered, these packages are cost efficient. To ensure a valid comparison was offered, Scania consulted the AA Kinsey report 2019, which investigates the average cost of vehicle services in South Africa. Comparing the Scania service packages to the average cost of servicing a double cab, it was found that the entry-level Scania Fixed Maintenance Service Package was more cost-effective than the average bakkie service.

"Our customers are our top priority," says Kweyi. "Now more than ever we must offer them the very best cost efficiencies possible. A Scania service that costs less than the average bakkie service goes a long way in contributing to lower operational costs." 🌟

Ctrack launches fuel management solution for fleet operators

With the slowing economy and the ever present pressures that current fleet operators and freight & hauling companies face, the emphasis on productive fleet operations and fleet management has become the number one priority.

Until now the biggest expenditure for transport companies, which equates to between 40% and 60% of the total operating cost, is fuel. It is fair to say that diesel has become liquid gold. There is nothing so easy to sell nor so at risk of pilferage.

When it comes to fuel monitoring, there are four types of fuel sensors in use today: flow-type sensors; CAN bus injector and float systems; float sensors and capacitive fuel sensors.

Ctrack believes the latter method is the most reliable means to monitor fuel use and is using a capacitive fuel probe to accurately measure and record fuel consumption in long haul trucks.

While many companies claim that they can measure fuel use accurately, Ctrack performed its own in-field testing, and believes that its new offering at 98% is the most accurate solution available.

Specialised installation data is fed from the probe to the cloud-based environment and coupled to a Ctrack tracking device, real-time location information allows operators to identify where fuel is being decreased and/or increased.

Ctrack's digital dashboard gives an overview of fuel use over a period of time, as well as the number of assets and percentages of fuel decreases in each vehicle. The dashboard shows the percentage of decreases, total number of increases and the average volume of increases and decreases. Users can select this information by date, by driver or by vehicle.

In the past, fuel losses became commonplace and losses were budgeted for, but as the economy weakened and margins for truck operators became slimmer, the overwhelming need for fuel security and monitoring increased.

A stolen 20 litres or 40 litres of fuel is very seldom noticed if operators have an outdated way of measuring their fuel use, with the bottom line negatively affected especially if there are multiple vehicles in use. This then in turn affects the growth, profitability and sustainability of these



Ctrack performed its own in-field testing, and believes that its new offering at 98% is the most accurate solution available.

companies.

In some cases, the pilferage of diesel cannot only lead to profit loss, but also exposes the trucks and entire loads to potential fire and other damages during these thefts.

With the fuel management solution, Ctrack is now able to provide more accurate fuel usage information, with real-time activity triggers, allowing fleet operators to act and ultimately to save on cost, protect the asset and to remain "Always Visible".

XCMG signs strategic cooperation agreement with Rio Tinto

MINING NEWS

On October 30 2019, a delegation led by Mark Davies, vice president of Global Purchasing at Rio Tinto, paid a special visit to XCMG in China and signed a strategic cooperation agreement with the leading Chinese original equipment manufacturer (OEM), for both parties to explore the mysteries of mining machinery together.

Wang Min, president of XCMG, says as a leading enterprise in Chinese construction machinery, XCMG has bolstered its international reach in recent years. The cooperation with Rio Tinto is significant in XCMG's quest to explore the international high-end market. Wang is hopeful that Rio Tinto, through the strategic cooperation, will provide strategic direction to help the company achieve its international targets.

Davies notes that China is the largest market for Rio Tinto, and is confident that the partnership with XCMG will further enhance the company's efficiency in this market. He believes that the signing of the agreement further reinforces the two companies' relationship, which has been in place for many years.

During the visit, the Rio Tinto delegation visited XCMG Mining Machinery, XCMG Earthmoving, XCMG Road Machinery, XCMG Research Institute and XCMG

Truck. The delegation was impressed by XCMG's modern plant, refined management, modern production line and strong R&D capacity.

Of particular interest to the visiting delegation was XCMG's autonomous and other intelligent technologies, which left Davies and his team convinced that XCMG's mining equipment will be among the leading offerings in the global mining machinery industry in the near future.

A range of XCMG mining equipment is already operating at Rio Tinto's Western Australian iron ore mine, where it is reported to be "running very well". Davies and his team sang praises of the XCMG machines and the complementary service capabilities.



XCMG mining equipment operating at a Rio Tinto mine.



TOP TIPS TO USE YOUR COMPACT EQUIPMENT TO ITS FULLEST

On the construction site, small equipment such as skid steers, compact loaders and backhoe loaders, is used for collateral or smaller work. For companies that deal with road work, urban construction sites, trenching, recycling, agriculture, foundries, quarries and mines, the task of managing the main work falls on the excavator. It's time to change this practice: MB Crusher can help transform skid steers and backhoe loaders into powerful machines capable of handling demanding jobs and still save time and money. It can also benefit the environment.

1. Agile and compact: What can transform them into powerful and revolutionary machines?

It's MB Crusher's ultimate goal: to transform any machine, of any size, into a powerful crusher or screener.

MB equipment can hook up to any brand of skid steers, compact loaders or backhoe loaders from 2,4 to 25 t. The mechanics are innovative and the operation is simple: they allow you to crush and screen any material for immediate reuse or sell.

2. How can you upgrade your loaders, skid steers and backhoes?

All of this directly onsite: by reducing or screening demolition or excavation material, selecting ferrous foundry scraps, processing and reusing waste, screening earthy materials for agricultural uses and landscaping projects.

3. What are the main benefits and who are they for?

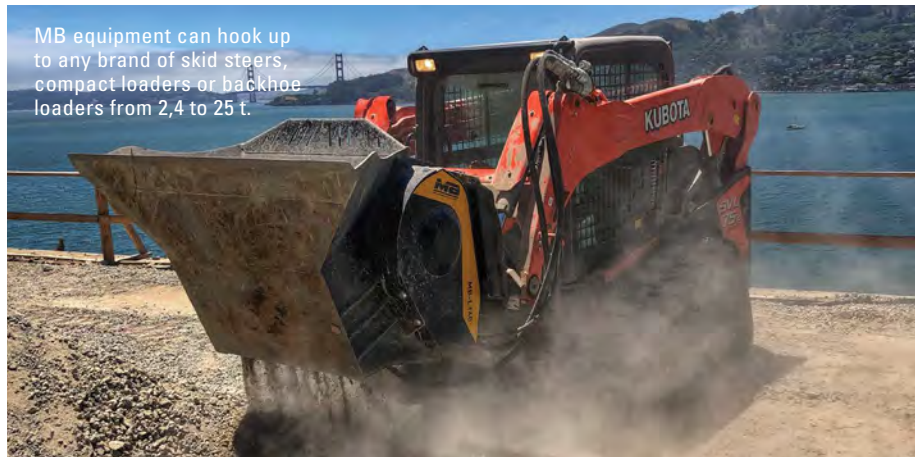
The benefits are countless. The MB Crusher units can transform waste into reusable material, which means saving on hauling expenses, avoiding landfills or specialised treatment centres, saving on purchasing aggregate material, hiring operators and long working hours.

The benefits are important for the environment and nearby urban areas: reduction of dust and emissions, lower truck traffic, less noise and faster job execution.

4. From cost to revenue: how can waste become a source of income?

MB Crusher's mission is to transform waste into reusable material. For a number of different applications, for example, in Bolivia, a crusher bucket and a skid steer have given new purpose to urban demolition waste.

And a company in Spain has transformed inert material from a trenching job, by recycling it on the site. It has eliminated the cost of transportation and purchase of



MB equipment can hook up to any brand of skid steers, compact loaders or backhoe loaders from 2,4 to 25 t.

backfill material. The small MB Crusher line has also been used in many foundries for the selection of ferrous waste or crushing slag, with outstanding time and cost savings.

5. Is it suitable for job sites with difficult or limited access areas?

In the United States, a construction site on a volcanic hill had the mandate to demolish a large structure with concrete pillars, floors and walls. Access to the area was limited, unsafe, with limited room to manoeuvre.

With the MB-L140 crusher installed on a Kubota skid-steer, the company crushed the demo waste and used the crushed concrete that was then used as backfill for the construction of a new road to better access the job site. What was the economic outcome? A 50% saving on the purchase of new material.

6. How do MB Crusher units help preserve the planet, too?

Through effective and economic disposal and recycling of waste, all the resulting material – inert, ferrous, stony, earthy, organic and dry – can be treated and selected without passing through landfills.

Institutions can also benefit from managing solid urban waste. For example, a municipality in Normandy, France, installed the MB-LS170 screening bucket on a backhoe to screen and select the waste collected by street sweepers such as wood, plastic and cans, with no additional costs, faster waste disposal and less impact on the environment

7. Not just for construction sites, but also innovative solutions for agriculture.

The case of sodic soils in Australia is a classic example: millions of hectares were deemed unstable, with a loss estimated in the range of billions. The solution was to use gypsum to counteract the clay and promote the drainage. By using an MB-L140 crusher bucket mounted on an ASV RT unit, the gypsum rocks were reduced to fragments that mineralised the soil and made crops possible, avoiding disaster.

8. Why isn't there a need for specialised personnel?

Because all MB Crusher machines share a quick and simple installation procedure – in fact, the machines use the operating machine's hydraulic system. Management and maintenance can be performed directly on site by the operator without needing specialised personnel. 🌟

Experience the Progress.



Liebherr crawler cranes – LR Series

- Superior lifting capacities, on-line load chart calculation
- Great variety of boom configurations
- Quick and easy assembly
- Easy and cost-effective transportation

Liebherr-Africa (Pty.) Limited
Vlakfontein Road, Springs 1560
Phone: +27 11 365 2000
E-mail: info.laf@liebherr.com
www.facebook.com/LiebherrConstruction
www.liebherr.com

LIEBHERR



DEALER OPPORTUNITY AVAILABLE



- ▶ Commenced operations in 1943
- ▶ Ranked No.1 OEM in China and No.4 globally 2020 KHL Yellow Table
- ▶ One –stop provider for yellow metal
- ▶ **Global dealers 300+, now inviting new dealer in SA for:**
Mining equipment (Excavator, Loader, Rigid truck, ADTs)
Road equipment, Crane& Harbour equipment , MEWP, Forklift...



👤 Liu
☎ 0086 13585474543

✉ rsa@xcmg.com
🌐 www.xcmg.com