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Everything on mining and construction equipment



OPEN CAST MINING: EQSTRA adds Kobelco excavators

MANUFACTURING: Metric opens remanufacturing centre

TRANSPORT: Volvo Trucks opens Bloemfontein branch



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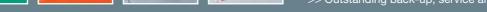




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bauma 2015

he success of bauma Africa 2013 was reflected by the number of exhibitors that have signed up for the 2015 event. I suppose the change of venue may also have had a major effect on the support it has received.

The inaugural bauma Africa international trade fair took place at the Gallagher Estate events complex in Johannesburg in September. There, some 754 exhibitors from 38 countries spent four days engaging with current and potential clients from around the world on latest developments in the construction machinery, building materials and mining machine segments. South African companies were not to be outdone by their international counterparts and pulled out all the stops to feature their products.

Last year, I visited the original site of Conexpo in Las Vegas and was really taken aback by the magnitude of the event. The bauma event in Germany in 2013 had an impressive 530 000 visitors from over 200 countries which converged on the Munich Exhibition Centre in April. Not only did this exhibition of bauma break all previous records for exhibi-

tor numbers and exhibition space, it also attracted the greatest numbers of visitors yet.

The local event, in order to foster co-operation with the international partners has been changed to Bauma Connexpo Africa, which is the result of a joint venture entered into after the event in 2013.

The market for construction and mining equipment in sub-Sahara Africa holds great potential, a fact that is reflected in the number of exhibitors that have signed up for the event. Several major construction machinery suppliers are regarding bauma Africa as an opportunity to unveil new product technologies and offer solutions to their clients. Also, many see this as an opportunity to build on the inaugural show by attracting more industry role players and generating positive spinoffs-for the region, the industry and their customers.

The South African construction industry was particularly hard hit when the infrastructure development which was high, leading to the 2010 FIFA World Cup which was followed by a global depression or depressed growth. It

appears that the cycle has bottomed out with a number of encouraging signs from financial performance results, order book growth and public infrastructure commitments of individual companies. There are, however, a number of risk factors that could impact on the industry but we have managed to overcome many of them in the past. Infrastructure spending is still on the cards, which is always a positive sign for future growth.

Bauma Conexpo Africa has definitely not been mis-timed as it adds a positive tone to some negative political aspects and will give a boost to our future development.

Pierre Sanson

Editor



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Mercedes-Benz

AIMS TO ACHIEVE GREATER FUEL EFFICIENCY AND SAFETY WITH NEW ENHANCEMENTS

By Pierre Sanson

evelopment of fundamental technologies for particularly efficient, environmentally compatible vehicles has been a recurring theme in the history of the company and brand right from the early years. Mercedes-Benz Trucks has been the first to bring numerous relevant technologies to production and market maturity and continues to develop them further even to the level of alternative technologies such as hybrids and fuel-cell drive systems.

Outstanding innovations have been regarded as milestones in the development of more efficient and environmentally compatible commercial vehicles. The Mercedes-Benz powertrain strategy not only offers an impressively wide range of available technologies, but also the greatest possible flexibility in their use. Even within all the conceivable transitional scenarios, it optimally meets the varied requirements of different customers and markets.

Keeping in line with Mercedes-Benz innovative

technology, fuel economy in vehicles can be improved in many ways, including increasing engine efficiency, reducing aerodynamic drag, rolling friction and improving fuel consumption, amongst other things.

Following on the success of the hypoid rear axle for the current Actros range, Mercedes-Benz engineers have produced new efficiency and safety enhancements on the Actros on-highway truck tractors which focus on driveline optimisation and safety. Many of these enhancements such as Telligent Stability Control and driver air bag have been incorporated as standard on the model range for 2015, from the Actros 1844LS/36 DD 4x2 to the flagship Actros 2658LS33.

Two new additions to the range with varied horsepower are the Actros 2641LS/33DD for applications within the medium to long haul segment and the Actros 2646LS/33 which replaces the 2644LS/33. The increased power and torque in these upgraded models

are now more accessible and useable due to the optimised Direct Drive transmission driveline.

The introduction of the Direct Drive transmission (on the 410 hp, 460 hp and 540 hp engines) on the 6x4 tractor further optimises the driveline, which is a welcome innovation to complement the hypoid axle previously introduced. The G281-12 with 12 forward and four reverse gears is a Direct Drive Powershift constant mesh automated manual transmission with integrated engine, transmission and clutch control for improved shifting times and high shift comfort.

The Telligent Stability Control feature, which is now standard on 4x2 and 6x4 air-suspended prime movers, is a complete package of systems covering all aspects of operation in the Actros. Intelligent systems monitor and regulate the vehicle's functions, giving drivers a safer, smoother ride thus prolonging the life of the vehicle.



One of the significant features of the Telligent technology is the braking system which is a standard specification. It comprises a dual-circuit brake system, with internally ventilated disc brakes all round, ABS, ASR and auxiliary brakes such as the engine brake and retarder.

The system relays each signal at lightning speed, much quicker than any mechanical system could. It allows braking power to be applied more sensitively as in a passenger car. The braking force is optimally distributed between tractor and trailer according to the load. The Telligent brake system also ensures that the brake pads on the different axles do not wear at significantly different rates.

Telligent Stability Control recognises potential instability, such as skidding or swerving and counteracts it where possible. Through systematic adjustment of engine torque, precisely measured tractor braking and control of the trailer brake system, helps the driver to avoid tricky situations.

The enhanced, additional safety feature inherent in the air bag integrated in the steering wheel, is linked to a control unit which ignites several propellants within a period of 30 milliseconds as from a precisely defined minimum deceleration in the event of an impact.

One propellant deploys the air bag and a further propellant activates the pretension

device and draws the safety belt as close as possible to the driver's body. In the event of an accident, kinetic energy is absorbed, to prevent direct contact between upper body and steering wheel.

With the optional Telligent Safety Pack, Mercedes-Benz Trucks offers the ultimate Mercedes-Benz Safety Truck with Active Protection that no other manufacturer can currently offer in the local market. The pack consists of Telligent Distance Control and Active Brake Assist II.

The Telligent Distance Control system consists of a radar sensor and control unit which controls the vehicle speed and supports the driver to automatically maintain the distance from the vehicle detected in front of it.

Active Brake Assist II uses the existing radar system of the Telligent Distance Control system which assists the driver when an accident hazard is detected and reduces the vehicle speed by staged braking intervention. During driving, Active Brake Assist II evaluates the traffic situation in front of the vehicle up to a distance of 200 m.

The system uses vehicle data for this purpose and monitors the distance from vehicles driving in front as well as their speed. If the system detects the risk of a potential rear-end collision with a vehicle in front, the driver is informed by means of a three-stage

escalating warning system, corresponding to the actual situation. This warning gives the driver sufficient time to react.

If there is no reaction from the driver to the collision warning, Active Brake Assist II automatically initiates emergency braking (full braking application) if there is a vehicle in front. The warning concept for Active Brake Assist II is designed to allow drivers to take action themselves to avert critical situations.

Mercedes-Benz Trucks continues to be the driving force for sustainable mobility in the future and is working intensively on further developments in all areas.

With the optional Telligent
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Mercedes-Benz Safety Truck
with Active Protection that
no other manufacturer can
currently offer in the local
market. The pack consists of
Telligent Distance Control and
Active Brake Assist II.



EQSTRA ADDS KOBELCO EXCAVATORS

to its best-in-class range

onsidered to be the world's most fuel efficient excavator technology, the Kobelco range of excavators, of up to 85 tons operating weight, is now available in South Africa from Egstra Heavy Equipment (EHE), following the signing of an authorised partnership between EHE and Toyota Tsusho Africa (Pty) Ltd (TTAF). In terms of this partnership, which brings together the strength, reliability and might of two of the major players in the South African market - Eqstra and TTAF, EHE will market the tough, reliable and high performance Kobelco Hydraulic Excavators in South Africa, providing the full suite of sales and aftermarket support services. EHE is part of Egstra's Industrial Equipment Division.

TTAF is a subsidiary company of Toyota Tsusho Corporation, Japan, a Toyota Group company, which has been committed to the development of the South African economy for more than 50 years.

"The beauty of Kobelco Excavators is low fuel consumption with high productivity. This is combined with reduced CO₂ emissions and low noise, low vibration operation. As the newly authorized distributor of Kobelco Excavators in South Africa, we at Toyota Tsusho Africa are very proud to introduce these productive and environmentally friendly excavators," says Yoshitaka Shinhara, Divisional General Manager of TTAF.

"The Kobelco range is the perfect fit with our other Best-in-Class range of heavy equipment, enabling us to provide an excavator for every application," says EHE Managing Director, Ronald Erasmus. "We are proud to be a partner in making these excavators available in South Africa, a brand that is synonymous with the highest quality, reliability and user satisfaction. Kobelco's attention to detail in addressing all its users' requirements goes as far as even the colouring of the machines, selecting a human-friendly blue-green, rather than the traditional intimidating bright yellow."

Forging relationships for life with their customers, EHE, in partnership with TTAF, offers a comprehensive range of services to the industrial sector, which includes long and short term rentals, parts supply, service and maintenance contracts, sales of new and used equipment, and operator driver training.

Kobelco Hydraulic Excavators will be unveiled at Eqstra's stand at Bauma Conexpo Africa 2015, due to take place at Nasrec in Johannesburg from 15 – 18 September.

Eqstra Industrial Equipment ("EIE") provides distribution, leasing, rental and value-added services for industrial, materials handling and agricultural equipment in South Africa, various other African countries, the UK and Ireland. EIE has exclusive distribution

KOBELCO Hydraulic Excavators will be unveiled at Eqstra's stand at Bauma Conexpo Africa 2015, due to take place at Nasrec in Johannesburg from 15 – 18 September.

agreements with best-in-class brands and operates from 6 branches, 4 depots and many dealerships in Southern Africa, with representation in Angola, Botswana, Mozambique, Malawi, Madagascar, Namibia, Zambia and Zimbabwe. The UK industrial equipment business, Impact Fork Trucks Handling (Impact) is the exclusive distributor for Cat Lift Trucks in the UK and Ireland. EIE forms part of the EQSTRA Holdings Limited Group, which is listed on the Johannesburg stock exchange.



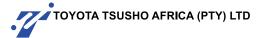


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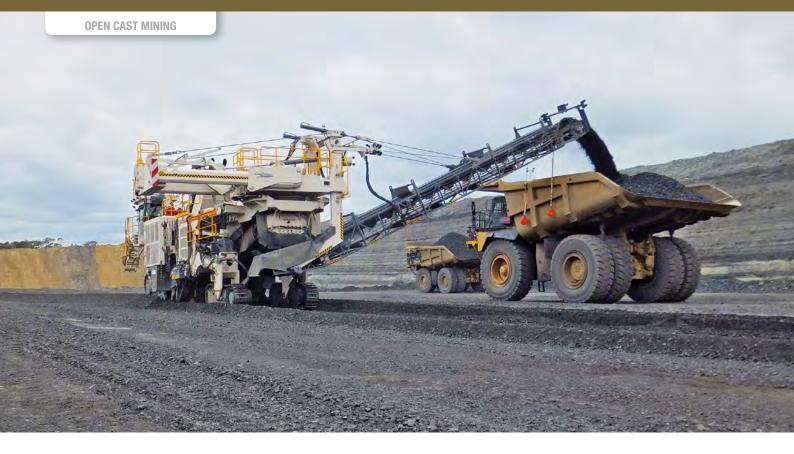
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SURFACE MINING TAKES OVER

from conventional coal mining

he New Acland Mine (NAC), located adjacent to the township of Acland (Queensland), is part of the Australian based New Hope Group. Since opening of mine, coal and interburden have been extracted by means of bulldozers fitted with ripper teeth and assisted by wheel loaders. However, a sharp drop in coal prices compelled the NAC management to look for alternative, more efficient mining methods.

A solution was found: Wirtgen surface mining technology offers the ideal method for the challenging geological conditions in the mine, which comprise up to 27 mostly thin coal seams interspersed by layers of interburden. Compared to conventional methods, the selective surface mining technology simplifies the mining process, thus reducing operating costs and supplying coal of higher quality to the neighboring processing plant.

Wirtgen surface mining has proven its worth as a tried-and-tested technology in numerous coal mining projects. It was no surprise, therefore, that the six-month trial phase with defined target performance levels agreed upon between NAC and Wirtgen was a resounding success: the 4200 SM achieved the projected cutting performance of up to 3 000 t/h in the tough everyday mine environment. The point-attack cutting tools used were subjected to in-depth trials and optimised to fit the specific application as

they were required to cut not only coal but also hard interburden material. Cooperation with Wirtgen customer service, which was on permanent stand-by, was also perfected at an early stage. This enabled many areas which typically offer room for improvement when introducing an entirely new technology to be identified and optimised quickly. Since all of the targeted performance rates were met during the trial phase, NAC decided to purchase the 4200 SM.

To maximise exploitation of the coal deposit, the high-performance 4200 SM cuts and loads the material in a single machine pass, producing an even and easily trafficable surface in the process. It was additionally established during the trial phase that, while offering the same performance, the surface miner replaces two bulldozers and one wheel loader. The resulting savings, mainly in labour and fuel, lead to a significant reduction in operating costs. Additional marks in favour of the 4200 SM include emission measurement results showing significantly reduced machine vibrations and noise levels. Paired with the ergonomically designed cabin, impacts on the operator's health are thus minimised particularly in the long run. A camera system designed exclusively for this operation enables the machine operator to conveniently differentiate between coal and interburden, thus significantly improving coal quality. The strict safety regulations and

machine standards specified by the Australian coal industry were fully met by making the relevant machine modifications prior to shipment.

The cutting drum has been specially designed for operation in soft rock and is ideally suited to mining not only coal (unconfined compressive strength = 20 MPa) but also the significantly harder interburden layers (50 MPa). The 4200 SM mines coal in a selective process at exactly the specified cutting depth, producing a clean cutting surface and guaranteeing high degrees of purity. As a result, there are less truck travels required to transport the material to a special coal-washing plant for further processing and to return the separated tailings to the mine. Compared to the mining method used to date, the 4200 SM also produces a smaller percentage of fines (grain size <2 mm) and a higher percentage of the end product fraction (grain size <38 mm). In the final analysis, this also improves the efficiency of the processing plant.

"I am impressed with the economical, modern and environmentally friendly Wirtgen surface miner. NAC saves hard cash as soon as the miner is in operation," says Andrew McDonald, Managing Director at NAC, praising the highly productive giant machine.





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The DMR has recently promulgated new safety legislation pertaining to all mining operations. At Trysome, we have been living the SAFETY ETHOS since inception in 1991 and our products and solutions are tried and tested.

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- Automatic vehicle-to-vehicle detection and warning system
- Vehicle warnings when entering a restricted zone
- Prevention of unauthorised personnel from operating a vehicle















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- **Boomgates**
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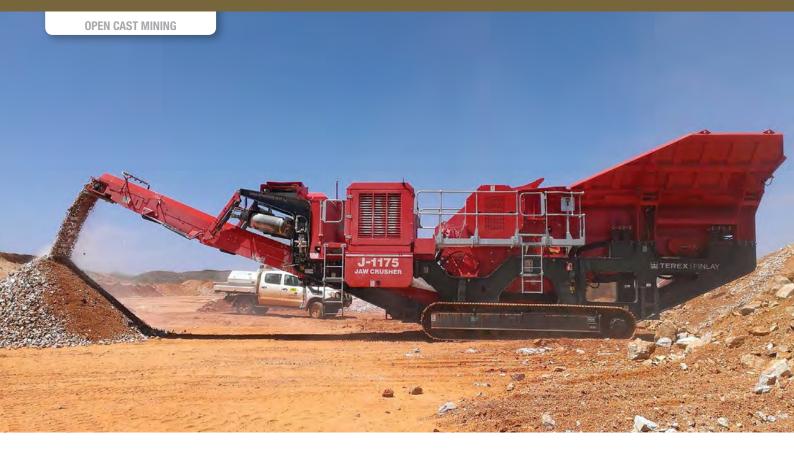
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FINLAY INTRODUCES FLEXIBILITY

with dual power crushing and screening

Bell equipment has introduced the first in a number of exciting new FINLAY product introductions to the Southern African market. The dual power train is a new concept for Finlay crushers and screeners and comprises the J-1175 jaw crusher, C-1540 cone crusher and 694+ inclined screen. These three machines are market leaders in their size category with many units already operational across the African continent. This concept enables operators to operate a fully mobile crushing and screening plant that can be powered from mains or a genset if required.

In applications where a full train is powered by the on-board genset configuration the crushers generate sufficient energy to enable the operator to run the FINLAY 694+ dual power inclined screen for 'free' when used in conjunction with the J-1175 dual power jaw crusher.

The dual powered FINLAY J-1175 jaw crusher offers operators the flexibility to power the plant either by mains electric connection or the onboard genset power pack configuration. Either power option presents operators with significant power, servicing and maintenance cost savings in direct comparison to a diesel/hydraulic powered plant.

The plant incorporates the robust and renowned JW42 high performance, electri-

cally driven, single toggle jaw chamber and a heavy duty VGF feeder to give optimum production in quarrying, mining, demolition and recycling applications. Additional benefits include rapid set up time, ease of maintenance, high reduction ratio, high output capacity and advanced electronic control system.

The jaw chamber is hydrostatically driven, which offers operators reversible operation for clearing blockages that may be experienced in demolition and recycling applications. The hydrostatic system also provides variable chamber speed to suit given applications. Chamber CSS (Closed Side Setting) adjustment is fully hydraulic, and can be changed in a matter of minutes.

This energy efficient and productive machine incorporates the proven Terex[®] 1000 cone crusher with direct electric drive, automatic tramp relief and hydraulic closed side setting (CSS) adjustment.

The dual powered FINLAY C-1540 can be fitted with an optional patented pre-screen module which allows fines materials to bypass prior to being fed to the crushing chamber, offering better wear rates in the crushing chamber. These fines materials can also be prepared separately and discharged via the optional on-board side conveyor.

The large hopper/feeder has automat-

ed metal detection and a purge system to protect the cone and reduce downtime by removing metal contaminants via the purge chute.

The FINLAY 694+ dual power inclined screen provides customers with the option of running this class leading machine by either diesel or electric mode depending on the resources available at each site. As standard the FINLAY 694+ dual power uses 2 x 37 kW IE2 Electric motors which operate at 50 Hz and are suitable for most regions.

The intuitive and user friendly electrical and hydraulic system allows the customer to switch between diesel and electric mode at the flick of a switch. The primary operation and control of the machine remain the same regardless of the selected power. It is possible to power this 694+ inclined screener using the onboard of the J-1175 dual power crusher. This means that operators can essentially run the screener free of cost!

The FINLAY 694+ dual power features a large $6.1 \text{m} \times 1.525 \text{ m}$ (20' x 5') triple deck inclined screen, giving a total screening area of 28 m^2 to provide efficient screening and high capacity.

INTRODUCING THE FINLAY DUAL POWER CRUSHING AND SCREENING RANGE





Dual Power crushers and screeners are electrically driven machines allowing the end user to run from the mains supply with the aim of giving **significant savings on energy costs**. These machines are also fitted with an on-board gen-set allowing the operator to move and use the machine where there is no electrical supply, giving them the flexibility and versatility of the current standard models.

There are two crusher models in the Dual Power range: the J-1175 Dual Power and the C-1540 Dual Power, adding to the already available 694+ Dual Power. Bell is proud to introduce this market leading technology into Southern Africa which is backed by **Bell Equipment's strong reliable support.**

BDUALPOWER **



FINLAY



Advert1/69U/15



MOBILE SCREEN OFFERS

new business opportunities

J Plant Hire, a division of leading Western Cape building and materials supply group, Els Group, recently invested in a Sandvik QA331 mobile screen to increase output from its sand mine. The original intention was to utilise higher volumes in its own projects, however the screen's performance has opened up several new business opportunities.

Pilot Crushtec International is the appointed distributor of Sandvik Construction's mobile range of crushing and screening equipment in southern Africa and the sale was made through Innovexx Co., which represents the company in the Western Cape.

"Our local sales engineer, Jacques Otto, has maintained a long-standing relationship with the Els Group and recommended the use of one of our Sandvik screens to boost production. The outcome has exceeded all expectations. The original intention was to run the machine a few days a week; however, the quality of the end product has found ready acceptance among local building contractors and the Sandvik screen is now working

full-time," says Innovexx Co. director Alessandro Scherf.

Scherf adds that in addition to the screen being fully employed, it has also proved to be fuel efficient thanks to the economy of the CAT engine, which is fitted as standard. Following a recommendation by Otto that a 40 mm top screen would give a better soil for filling than a 25 mm one, OJ Plant Hire chose to utilise the 40 mm top screen.

The Els Group of companies has been active in Bredasdorp for nearly 20 years and has interests in a variety of building-related undertakings, including waterproofing, building supplies, construction and hardware. Owner Ockie Els is delighted with his investment, which has created a number of business opportunities in a region blessed with a thriving agricultural economy.

"The screen has provided us with an opportunity to expand our client base in a number of different areas. Apart from the ability to deliver high quality sand to local builders, we now have a plentiful supply of sand for use as filling material and recently opened up another avenue of new business by securing a contract to supply ready mix," says Els.

If this were not enough, his faith in his R2 million investment was recently reinforced when a representative from Sandvik's Swedish headquarters made a courtesy call to confirm all was in order.

"Owning a machine of this magnitude creates a good impression with your customers. It takes you to another level and gives you a definite competitive advantage. I am positive it will create many further opportunities in the years to come," he concludes.

The Sandvik QA331 mobile screen is designed specifically to meet the needs of sand producers, recyclers and contractors.

Key features at a glance:

- High production rates of up to 300 mtph from large screening area.
- Fuel efficient CAT 75 kW engine ensures low operating costs.
- Banana screen produces a cleaner, higher quality product.
- Hydraulically folding walkways provide ease of maintenance.
- Integrated hydraulic conveyors deliver high volume stockpiling capability.

SAFEMINE HELPS SOUTH AFRICAN MINES

meet new DMR safety regulations

s of 27 May 2015, South Africa's Department of Mineral Resources' regulations are in force, calling upon surface mines to enhance safety for all Trackless Mobile Machinery (TMM) such as haul trucks. To meet the new requirements, South African mines continue to choose SAFEmine safety technology.

Central to SAFEmine's appeal is its world-leading Collision Avoidance System (CAS) which helps mines improve safety and efficiency, through protecting both human and mechanical assets. SAFEmine CAS has been at work in more than 9 000 mining vehicles across South Africa for over five years. In the past couple of months; five additional large mine sites have committed to installing the new, fully compatible, 3rd generation SAFEmine CAS onto their fleets.

SAFEmine CAS is proven to significantly reduce mining accidents and save millions of Rands by reducing the risk of business disruption and maintenance costs. The Maintenance Superintendent at Premier Coal Mine Western Australia, states: "Premier had a more than 53 % reduction in metal-to-metal contacts within the year following SAFEmine

full implementation." The online fleet monitoring tool enables managers to track all vehicles and equipment to increase efficiency and prevent abuse and theft. The entire fleet is viewable in real-time on any smart phone, computer, or tablet.

In response to increasing fatigue-related incidents, SAFEmine has developed a three pillar approach to fatigue monitoring for increased reliability. The appearances of operators, their body clocks, and reaction to traffic when operating are analysed. The FatigueMonitor is the only provider to integrate fatigue monitoring and collision avoidance in one device. Highlights of SAFEmine CAS include:

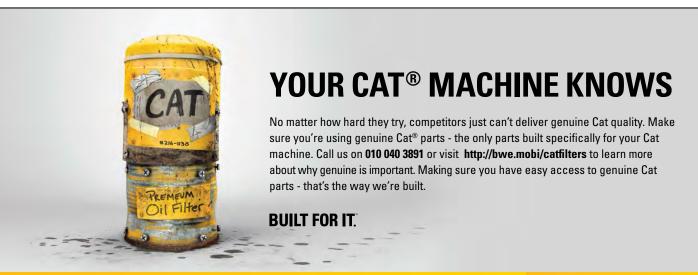
- 360° protection at any speed or visibility
- New technology to detect all obstacles, including pedestrians
- Technology available to slow down and stop equipment such as haul trucks
- 3rd generation available, with new nuisance alarm elimination technology
- Many contractors are already equipped and familiar with SAFEmine CAS

Companies committed to safer surface mining turn to SAFEmine, the leader in Collision Avoidance and Fatigue Monitoring systems,

to deliver extensible solutions that save lives. SAFEmine is part of Hexagon Mining, the only global provider of surface and underground smart mining solutions that integrate design, planning, and operations technologies for safer, more productive mines. SAFEmine is distributed in Southern Africa by its authorised distribution partner Trysome Auto Electrical (Pty) Ltd. Trysome Auto-Electrical, is the largest, single-source supplier of auto-electrical, heavy-duty components and collision avoidance systems in Southern Africa.

Established in 1991 by Edwin William Smith, Trysome is well represented countrywide with its head office in Gauteng and regional offices in Mpumalanga, Western Cape, KwaZulu Natal, Northern Cape and North West. Across the border, Trysome operates branches in Zambia and Mozambique and has recently appointed Authorised Distributors in Botswana and Namibia.

In addition to parts and systems supply, Trysome boasts a Field Service Division that plays a vital role in customer service, offering technical back-up and Man-on-Site services to its customers throughout the region.



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- Cat Extended Life Coolant reduces coolant and additive costs by 500%
- Cat Oils can save as much as 15% in oil costs
- 12 Month warranty on all Cat parts









'COME HOME TO BELL'

at Bauma Conexpo Africa 2015

frica's leading homegrown heavy equipment manufacturer, Bell Equipment, has spent the last several years developing partnerships with other respected global equipment brands and growing its product range across the entire spectrum of construction and mining earthmoving equipment.

At Bauma Conexpo Africa 2015 Bell Equipment will occupy a prime outdoor location, Stand ES 230, where it will showcase its diverse and comprehensive range, introduce new products and give the market a taste of future machine developments.

Bell Equipment Executive General Manager: Group Marketing, Stephen Jones, says: "Our stand will include a pre-production large Articulated Dump Truck from our latest E-series generation of trucks. These trucks are absolute class beaters and have been 100 % locally designed and developed by our team of engineers in Richards Bay

to deliver the lowest cost per ton haulage solution on the world market, complemented by some of the most advanced modern technologies to set the benchmark in safety, comfort and productivity."

Other exciting Bell products on display will include the new L-series Tractor Loader Backhoe, which will go into production locally during 2016, as well as the E-series Rockscaler, which is an upgraded version of a product that has gained much acceptance in underground mining and has a number of customer-focused improvements including a slewing boom and a sealed air-conditioned cabin as standard for improved safety.

Jones continues, "In addition we will showcase our partner products including models from John Deere, Liebherr, Bomag and Finlay."

Well established across the Africa as a onestop equipment shop, backed up by one of the most comprehensive customer support networks on the continent, Bell Equipment has themed its stand at BCA 2015, 'Come Home to Bell' and aims to showcase its product range and to strengthen relationships with customers and reinforce the Bell brand as a leading equipment supplier on the African continent.

"BCA 2015 presents a unique opportunity to interact with a large number of customers and potential customers over a short space of time. It is difficult to get such a high concentration of decision-makers together with your equipment in one place and we look forward to being able to display our products and technologies and engage with decision-makers," says Jones.

CASE TO SHOWCASE FULL OFFERING

at bauma Conexpo Africa 2015



ase Construction Equipment will participate in the second edition of the Bauma Conexpo Africa exhibition, which will be held in Johannesburg from September 15 to 18, 2015. In collaboration with its distributor CSE, the brand will showcase its full line of equipment and complete solutions for construction businesses, which include retail financing, expert service support and strong parts backup.

On the back of the success of its first edition in 2013, expectations for Bauma Conexpo Africa 2015 are of a high attendance — as many as 20 000 visitors with the majority coming from South Africa and other Sub-Saharan African countries. With its presence at this event, Case aims to raise its profile and create awareness of the comprehensive support it is able to provide customers in South Africa and other markets in the region through its strong dealer network.

"The African continent offers great opportunities of growth," explains Andy Blandford, Vice President CNH Industrial Construction Equipment for Europe, Africa and the Middle East. "The Maghreb region and Sub-Saharan Africa — and in particular South Africa — are key markets for us. Bauma Conexpo Africa provides us with the perfect platform to meet our customers and show them how we are able to help them to get the job done and run their business effectively."

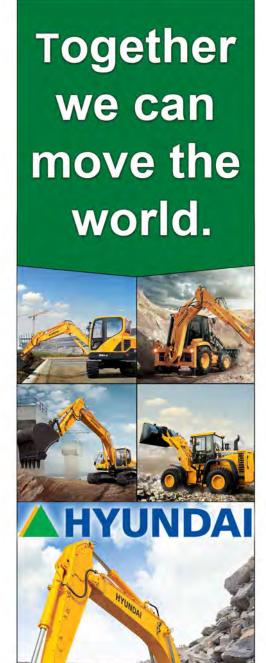
A full line of equipment to meet the specific needs of African construction businesses. The products that will be on display on the Case stand are representative of the brand's wide offering and showcase its

ability to offer customers a complete solution for their specific needs. On show will be the Case skid steer loaders and backhoe loaders, both trademark product lines in the brand's offering in African markets.

Among them will be the new 570T backhoe loader, which has been specifically designed and engineered to match the requirements of customers in the region who look for a reliable and performing machine, and a fast return on their investment. This model shares the DNA of the long lineage of Case backhoe loaders, built on the company's long history of industry firsts which include the world's first factory-built tractor loader backhoe introduced in 1957

Also on display will be the 821F wheel loader, which is particularly appreciated in the mining and quarrying industries. The F Series wheel loader delivers fast acceleration, fast cycle times, high travel speeds and productivity, together with reduced fuel consumption. The benefits that the F Series brings to construction businesses have led to these machines' steadily growing success in the region.

Case B Series crawler excavators and graders have also been meeting with increasing success as the demand for these product lines has grown, especially in the East Africa markets. The Case stand will show the CX210B and CX290B crawler excavators on steel tracks. Case customers in South Africa can also benefit from the tailored financing packages and extended warranty programmes offered by Case dealers and provided by CNH Industrial Capital, a specialist in financing for the construction industry with over 50 years' experience.



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CATERPILLAR'S E-SERIES 2

mini excavator adds a new dimension

anufactured at Caterpillar's Athens factory in Georgia, USA, the latest generation Cat Cat 305.5E2 CR (Compact Radius) mini excavator has now been launched into the Southern African market for diverse, high performance applications across the building, construction and allied industrial segments, including the refractory and mining sectors.

A multi-task workhorse suited for anything from trenching to tunnel wall scaling (when fitted with a hammer), the Cat 305.5E2 CR has an operating weight of approximately 5 335 kg (with cab and standard stick) and a transport length (with boom) of 5 330 mm, making it well-suited for towing or truck loaded transport, and rapid deployment. The shoe width is 400 mm, with rubber tracked undercarriage fitted as standard.

Like all E2 Series models, the Cat 305.5E2 CR comes equipped with a new, innovative cab design and a high definition hydraulics system. The pin back door on the cab

offers a wider entry into an operator environment with industry-leading comfort, ergonomically designed 100 % pilot controls, adjustable arm rests, updated air and heat controls, and excellent visibility for superior productivity and safety on the job site.

Other key features include 200° bucket rotation; dozer blade floats; the Cat 305.5E2 CR's compact radius design (the upper body stays within the width of the undercarriage during rotation); and two way hydraulic lines, which make the machine work tool ready. The Cat 305.5E2 is compatible with all 5 tonne Cat E Series work tools, including couplers, thumbs, buckets, hammers, augers, shears and rippers. An optional hydraulic quick coupler further extends its versatility, enabling rapid tool changeovers for diverse on-site tasks.

Barloworld Equipment product marketing manager Desigen Naicker explains that the 200° bucket rotation allows deeper flat back trenches without having to reposition the machine. In addition, more material re-

tention is achieved at the top of the lift cycle while truck loading.

Power is provided by a Cat 2.4 model engine generating a rated net power output of 32,9 kW (ISO 9249). Excelling in mass excavation roles, the maximum bucket breakout force is 50,9 kN, with a maximum dig depth and height of 3 470 mm and 5 330 mm.

On the ground, precision is delivered by the machine's high definition hydraulic system. This load sensing, flow sharing set-up provides improved efficiency, controllability and reduced operating costs. Additional savings are achieved by the Cat 305.5E2 CR's new 'Power on Demand' feature, which replaces the previous generation Eco mode. Power on Demand ensures optimal fuel burn by automatically selecting the appropriate engine rating selection to match each work task.

Barloworld Equipment is the Cat dealer for southern Africa.

REVOLUTIONISING INDUSTRIAL CLEANING

in Southern Africa

he traditional method of floor maintenance has always been to add a polish layer on top in order to give it a shiny appearance. Cleaning on a regular basis, however, does not prevent the ultimate deterioration of this layer. Hence the floor quickly loses its shiny appearance and becomes susceptible to scuff marks and more permanent damage in the long term.

"The answer to this perennial problem has been to reapply the surface polish layer. What this means is that such floors require periodic maintenance," says Andreas Hasselmose, sales manager: Southern Africa at Superb Flooring Systems.

"Diamond-media maintenance pads, which can be fitted to any cleaning machine, have revolutionised the industrial cleaning sector, particularly Europe and the US. One area where the Twister range is gaining traction in South Africa is on epoxy-coated floors and polished concrete floors in warehouse and logistics applications," Hasselmose elaborates. These epoxy floors scuff easily, which accelerates wear-and-tear and reduces lifespan.

"Normally such scuff marks would need to be removed with an acid wash or jet spray application. Our Twister pads, however, provide a cost-effective and efficient means of maintaining epoxy floors."

An added benefit is that the Twister pads require minimal water and no chemicals, which is an important environmental consideration. "The cleaning sector uses a lot of chemicals, which has a marked environmental impact. Any technology that can reduce the sector's reliance on such chemical products is hugely welcome," Hasselmose says.

Superb Flooring Systems has just introduced its latest Blue Twister pad into the local market. The pad, itself manufactured from recycled PET (polyethylene terephthalate), has a layer containing billions of microscopic diamonds that clean and polish the floor mechanically. The Blue Twister pad is ideal for most common floor surfaces such as terrazzo, ceramic tiles, linoleum, vinyl/plastic, natural stone and concrete. "The Blue Twister pad has been developed specifically for uncoated, hard resilient floors. A single pad has a

lifespan sufficient to cover up to 45 000 m², which makes it an extremely cost-effective option," Hasselmose notes.

He points out that Superb Flooring Systems, through the PMSA Group, is able to offer a total flooring solution for its customers, from initial installation to eventual maintenance and upkeep. "The industrial cleaning sector in South Africa focuses largely on rough, unfinished floor surfaces, from raw concrete to bitumen. However, a new trend, apart from the advent of epoxy coatings, is polished concrete."

HTC also offers a complete range of polishing and grinding machines, from walk-behind to ride-on and even remote controlled machines. "The bigger the area in question, the more mechanised you want your system to be, as this ramps up the productivity significantly," says Hasselmose. Apart from importing machinery and ancillary equipment such as the Twister pads from HTC of Sweden, the local company also offers customer-specific training and full aftermarket support.



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KOHLER ENGINES:

ready-to-use power

ompact size, outstanding power density, low fuel consumption, noise and vibration, and excellent reliability: these are the distinctive characteristics of the Power Unit line of KDI Diesel engines.

KDI Power Unit is a 'plug & play' solution that represents an effective answer for generator manufacturers looking for a high-performance drive system that can easily be implemented into their product ranges. Owing to its seamless installation, the KDI Power Unit line offers the particularly advantageous characteristics of compact size and light weight.

Kohler Engines has engineered a complete, cutting-edge line for the low- and medium-power generator sector, covering a range of 20 to 60 kVA at 50 Hz (1 500 rpm) and 20 to 70 kVA at 60 Hz (1 800 rpm), respectively.

The main feature of the new Power Unit range offered by Kohler Engines is the highly innovative layout, born of a design philosophy which makes it virtually unique on the market and offers end users operational advantages in addition to manufacturing and logistical benefits.

From an engineering pint of view, the main advantage is the adoption of the direct mechanical injection system. This is true for both naturally aspirated and turbocharged engines and is in place of the traditional architecture, which used a pre-chamber. This choice, together with the four valves per cylinder, meets emissions legislation and offers better, cleaner and more efficient combustion with lower fuel consumption.

The high power density which can be reached using this architecture allows KDI engines to obtain the same power outputs while using smaller displacements than those required to date. This allows:

- End users to use machines with lower fuel consumption (up to 3% less than other direct injection engines) which are also more easily managed in mobile applications.
- OEMs to obtain significant reductions in generator dimensions for the same power output, quantifiable as between 15 % and 30 % smaller than the typical dimensions (with important effects both on manufacturing and transport costs, as more units can be transported in the same space).

The more efficient combustion also decreases the heat released by the engine, meaning lower cooling requirements. This allows the radiator and fan size to be reduced permitting the engine to be installed in even smaller units.

The special design used by the Kohler Engines Power Unit range, combined with in-

novations such as a more rigid engine block and optimised internal components, has also brought about significant reductions to operating noise. This is an important advantage for manufacturers who can limit the soundproofing materials used and for end users, who can count on quieter machines to be used in any condition.

The ease of implementation of the Kohler Power Unit range of engines is further enhanced by the 'plug & play' design, which takes form in the availability of a package of standard components and accessories. This has been specifically calibrated to provide a solution complete in every detail and ready for installation.

The KDI family of engines has been developed in a differentiated manner by energy supply frequency and emissions standards in order to supply solutions to meet the requirements of all destination markets, but also with the addition of a series of optional extras and accessories which will allow OEMs to develop generation systems for use in the most wide-ranging sectors of application.

The outstanding reliability of engines, designed for a life-cycle of up to 10 000 hours and with operating intervals which can reach 1 000 hours, make the Power Unit range of engines an exceptionally high-performance and technologically advanced solution.



METRIC AUTOMOTIVE ENGINEERING

a world class remanufacturing centre

etric Automotive Engineering is positioning itself as a world class remanufacturing centre. "Some companies believe that diesel engine component repair or remanufacture can only be done properly in Europe or America. This is not true. We have facilities and competencies that are comparable to anywhere in the world. In addition, it is far more cost effective to carry out such repairs or remanufacture locally due to the exchange rate," Andrew Yorke, operations director, at Metric Automotive Engineering, says.

The company is South Africa's most comprehensively equipped diesel engine component remanufacturer. Established as a family business in 1969, Metric Automotive Engineering has an operating philosophy of investing the latest technology and quality equipment. Yorke says that it is critical to stay abreast of changes in industry, one of which is the move towards much larger heavy diesel engines.

"Larger engines mean much larger components and two of our most recent investments in new equipment are the largest crankshaft grinding machine in Africa and a state-of-the-art new generation three axis CNC machine," Yorke says.

The crankshaft grinding machine is capable of grinding shafts of up to 4.7 metres long and with weights of up to 5 tons. It will allow the grinding of crankshafts from industrial

compressors right through to the V16 locomotive diesel engine. Improved grinding tolerances will be achieved as the machine is paired with set of compensators which will help to eliminate ovality and taper.

The CNC machining centres is the only machine of its kind in Africa. This machine is capable of line boring, surfacing and blue-printing blocks up to 6 metres in length, and has boosted Metric Automotive Engineering capacity to handle the huge engine blocks that are found in the railways, marine and heavy equipment sectors.

Metric Automotive Engineering has an established reputation for the quality remanufacture of diesel engine components and offers services which include cylinder head remanufacture, cylinder block line boring, milling, honing and boring, camshaft grinding, crankshaft grinding, engine assembly and dynamometer testing.

On the fuel injection side, Yorke says that the technological focus is on fuel economy and emissions levels. "There have been huge advancements with this technology and it is important that companies offering services in this field stay up to date with the latest international trends.

South Africa has a distinct advantage in being able to access the latest advances once they have been through the developmental stage in the international arena. This means

that the adoption of new trends is far easier and efficient.

However, Yorke is quick to point out that not all global technology is applicable to the African market. "Harsh operating conditions and remote locations add to the challenges in Africa and fuel contamination is a major problem, whether it is just dirt and water in the filling station tanks or buying blended diesel at the roadside because it is cheaper," he explains

Reef Fuel Injection Services offers a full diagnosis and fault analysis service to help customers get to grips with these operating conditions. Yorke points out that while older fuel systems could tolerate a certain level of fuel contamination, the newer systems comprise advanced electronics and are much more susceptible to fuel contamination.

The company has invested in the latest diagnostic equipment and its team has the necessary technical skill to assist customers. It offers Bosch, Delphi and Denso approved fuel injection services and is acknowledged as a specialist in CAT fuel systems.

Looking at growth opportunities, Yorke says that both companies are well placed to service customer across Africa. "Africa is a growth area for us and we have the necessary infrastructure and skills in place to service multi-national companies that operate in the region," Yorke concludes.

GIBELA ENDS SA'S 40 YEAR GAP

in train manufacturing

outh Africa's 40-odd year gap when it comes to train-building technology is about to close as the Gibela Rail Transport Consortium gears up to start the construction of its R1 billion, 85 000 m² factory complex at Dunnottar in Ekurhuleni, Construction is scheduled to start before the end of this year.

When the factory has been completed and comes into production, building trains at a hitherto unheard of peak rate of 62 trains a year, South Africa will have taken a visible and significant leap into the world of high-tech train manufacturing.

The ramifications of what the Gibela-PRA-SA nexus means for South Africa are extensive as this project will, in keeping with PRASA's mandate, help restore the viability of South Africa's commuter rail system.

Gibela's R51-billion contract to supply PRASA with 600 new trains over 10 years is only one part of the whole. South Africa will also benefit from a contract that seamlessly incorporates skills and technology transfer from Gibela's French parent company, Alstom, with local sourcing of a range of specialised components that will combine to contribute to South Africa's industrial renaissance.

In a contract of this size and duration, transparency lies at the heart of all Gibela's business interactions. Gibela's CEO Marc Granger insists that, "This is a non-negotiable for the company. Suppliers, and indeed all stakeholders, need to gauge demand and capacity before committing to playing their part in restoring South Africa's rail industry. Developing a sustainable industry takes time and Gibela knows that facing challenges head-on and openly is critical to the project."

Trains are built by people. That is the mantra of Gibela and Alstom.

Once up and running, the Dunnottar facility will provide employment for at least 1 500 people, most of whom will be skilled artisans. The recruitment process is at an advanced planning stage for permanent positions, with clear career paths for those selected. There are likely to be many more applicants than positions available, and

the selection process will be demanding. Preference will be given to those who have academic qualifications as well as artisanal skills. Most of those recruited will be drawn from areas adjacent to the manufacturing facility but in consideration of the scarcity of the required skills the net will be cast wider across provincial confines. It is, however, worthwhile noting that opportunities exist in the Gibela contract for training, of those who are not qualified, in various rail-related skills for possible jobs in the rail industry.

At the outset, artisans possessing a range of skills, including leadership, will be selected for intensive training at Alstom's Brazilian facility where the first 20 of the PRASA trains are currently being manufactured in a move calculated to enable such training ahead of the start of the South African manufacturing programme. It is training will not only hone the artisans' skills but will provide them with the ability to pass on their skills to their colleagues in South Africa on their return.

More than 20 Gibela employees, the majority of whom are engineers, are already in France, Italy, Belgium and Brazil where they are receiving training in a cross-section of advanced skills that will be critical in supporting a manufacturing rate that will, according to Granger, "test the abilities of the most experienced and large original equipment manufacturers." This group, too, will return to South Africa, ready to pass on the skills they have acquired to their colleagues as Gibela ramps up from the current staff complement of 112 to 350 by the end of the company's March 2016 financial year.

Local sourcing is not simply a question of buying local products off the shelf. Parts and components needed to build the modern PRASA trains will themselves be state of the art. This means a special relationship with new and established South African suppliers — not only those who will occupy premises at the Dunnottar factory site but also others further afield. A robust, sustainable local supplier base needs to be developed to achieve the company's 65% local content obligations.

The foundations towards the strengthening of ties with local suppliers are being established — Gibela's Supplier Development team has been interacting with local suppliers to leverage the company's expertise

Gibela's R51-billion contract to supply PRASA with 600 new trains over 10 years is only one part of the whole. South Africa will also benefit from a contract that seamlessly incorporates skills and technology transfer from **Gibela's French parent** company, Alstom, with local sourcing of a range of specialised components that will combine to contribute to South Africa's industrial renaissance.

and that of Alstom to equip them with capabilities to be competitive and to manufacture at the required rat these relationships and the transparent exchange of information that challenges such as lack of industrialisation and industrial capacity shortages can be overcome and the supply of long-lead items (on time, on budget and in the right quantities) assured.

Several successes have already been recorded and critical to these is capacity-building, which is resulting in win-win solutions for Gibela and its suppliers and, most importantly, their access to export markets.

The Brazilian manufacturing programme for the first 20 trains has advanced to an extent where the first train with its six cars is in the testing phase and well on course for shipment to South Africa in September ahead of on-shore delivery in November. All six cars of train number two are in the fitting phase and the production flow for the rest is on track. "We are pleased with the progress made and our Brazilian colleagues are getting ready to welcome South African artisans to impart skills and also benefit from language and cross-cultural exchanges," says Granger.



NEW FIVE-AXLE GMK CRANES

meet customer needs

anitowoc has introduced two new five-axle Grove all-terrain cranes to join the recently launched GMK5250L. The new GMK5180-1 and GMK5200-1 cranes share several outstanding features and advantages found on the GMK5250L, as well as an optimised counterweight package for maximum flexibility. These innovative new additions to the Grove range enable customers to select the right crane for their market, allowing them to maximise return on investment.

The new cranes offer optimal boom and jib combinations, featuring a 64 m main boom which can be extended with two 8 m inserts and an 18 m swing-away jib with 40° offset. The 180 t capacity GMK5180-1 has a maximum counterweight of 50 t, and the 200 t capacity GMK5200-1 has a maximum counterweigh of 70 t. With the optimised boom length combined with the highly competitive load charts featured on the new Groves, Manitowoc is setting new standards in the five-axle, all-terrain crane category.

"The addition of these new five-axle Grove all terrain cranes means we can offer our customers the widest choice in terms of boom length and capacity," said Jens Ennen, senior vice president for all-terrain and truck cranes at Manitowoc. "All-terrain cranes in this class are highly popular for rental work and well-suited to all kinds of jobs from construction to industrial lifts and tower crane assembly. The new GMK5180-1 and

GMK5200-1 cranes offer all the technical benefits of the GMK5250L, including the excellent maneuverability provided by the VIAB turbo clutch as well as the interchangeability of counterweights with the GMK6300L for better versatility."

Together with the GMK5250L, the new Grove five-axle cranes are the first in the industry to offer a VIAB turbo retarder clutch, which eliminates both fluid overheating and clutch burning, while enabling wear-free starting and braking. It also contributes to fuel savings. And in common with new Grove launches, the GMK5180-1 and GMK5200-1 are powered by a single engine - a Tier IV Final/EUROMOT 4 Mercedes-Benz OM471LA, a six cylinder diesel engine with a 390 kW (520 hp) rating and maximum torque of 2,460 Nm. The engine drives the carrier and powers the superstructure. Using only a single engine means lower fuel consumption during operation (up to 30% less diesel), reduced overall weight and less maintenance, meaning the crane is far more economical.

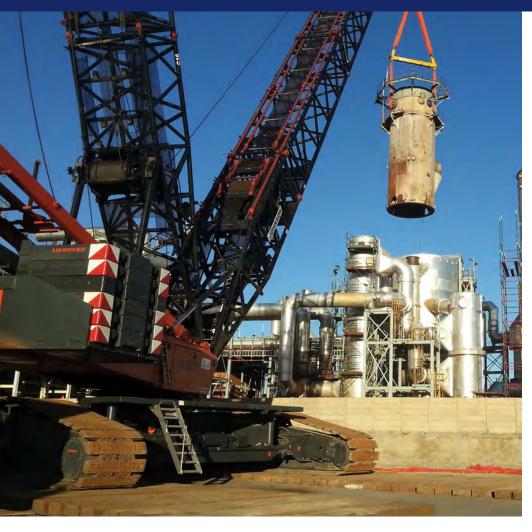
As with the Grove GMK5250L, the GMK5180-1 and GMK5200-1 offer excellent roadability, with a variety of axle load configurations, allowing the cranes to meet the requirements of virtually any market. Special attention has been given to the appropriate axle group spacing, and in countries where the local requirement is for axle loadings of up to 16.5 t (such as the UK), the

cranes are able to move on the highway with up to 21 t of counterweight.

The five-axle cranes can be moved on the job site with their full counterweight, saving valuable project time that would otherwise be spent installing or removing sections. The counterweight slabs are interchangeable with other models, and the new Groves also benefit from their use of common parts found in other Grove cranes, optimising logistics and reducing transport costs for customers. In addition, the self-rigging auxiliary hoist introduced on the GMK5250L can be used on both new models.

On site movements are made easier with the inclusion of Grove's patented Megatrak independent suspension as well as the all-wheel steer system, which means no axles need to be lifted while moving — again, enabling the optimum amount of counterweight to be carried, supported by the active suspension control.

The standardised CCS is a user-friendly interface that Manitowoc is introducing on all new all-terrain crane models, as well as crawler cranes, rough-terrain cranes, truck cranes and tower cranes. The CCS components and operating software have been specifically designed, developed and tested by Manitowoc Engineering and Innovation teams worldwide to ensure the highest reliability standards. The cab also features a new ergonomic jog dial and new joysticks.





JOHNSON CRANE HIRE CRAWLER CRANES

provide the heaviest lifts

ndertaking a heavy lift is not a case of 'one size fits all' but rather about selecting the most appropriate lifting solution for a given project or contract. This is according to Johnson Crane Hire, which boasts a heavy lifting capacity unmatched on the continent.

"Ultimately, a successful heavy lift is determined by the technical expertise of the heavy lift supplier. Johnson Crane Hire has a breadth of resident knowledge that enables it to provide best practice heavy lift solutions in a turnkey project approach that includes rigging and transportation," says James Robinson, heavy lift manager for the crawler cranes and projects division at Johnson Crane Hire. "We are able to offer flexibility in terms of heavy lifting solutions because we operate a crawler crane fleet and a hydraulic mobile crane fleet as well as alternative lifting solutions."

Robinson points out that the three largest cranes in the Johnson Crane Hire fleet are its 750 t and 600 t lattice crawlers and its most recent addition — a 750 t truck mounted lattice mobile unit. "This level of heavy lifting capacity provides continuity

and shows our level of commitment to the market by providing access to an unequalled combination of heavy lifting capacity and technical expertise."

Robinson cautions that there is a critical need to recognise that a lattice boom crawler crane offers a vastly greater lifting capacity when compared to mobile hydraulic crane lifting capacities. It is not uncommon to find people making the mistake of comparing one with the other as the nomenclature can be misleading.

As an example, Robinson points out that the 250 t lattice boom crawler competes against a heavy lift 400 ton hydraulic mobile crane. These machines have equivalent lifting capacity, but this not obvious to those that do not understand the differences between lattice boom machines and mobile cranes. The nomenclature should not be used to differentiate between capacities and capabilities.

"In explanation, an hydraulically operated mobile crane's lift capacity is rated on what is referred to as the load moment. Most hydraulic cranes are rated at their capacity at 3 m, whereas the rating for a lattice boom

crane is based on a larger load moment, which can be anywhere between 7 m and 14 m and this capacity is based on its structural integrity. In essence, a lattice boom crawler crane is capable of performing far heavier lifts and offers greater flexibility in terms of its application because of its pick and carry capability," he says.

There are distinct limits with regard to the amount of counterweight that can be placed on an hydraulic mobile crane and this is where a crawler crane excels. The lattice boom configuration allows for the attachment of an additional counterweight most often referred to as the super-lift ballast. Crawler cranes are able to increase their load moment by balancing the load to be lifted against the super lift ballast.

Johnson Crane Hire has a ten year history in the crawler crane market and has amassed a number of impressive lifts, including a recent heavy lift at Zimplats. "We were contracted to remove an old mill weighing 225 t, with a radius of 31 m, and to replace it with a new one weighing 170 t. We brought in an LR 1600-2 (600 t) crawler crane from Europe to perform the work. The





crane is now part of our permanent fleet," Robinson says.

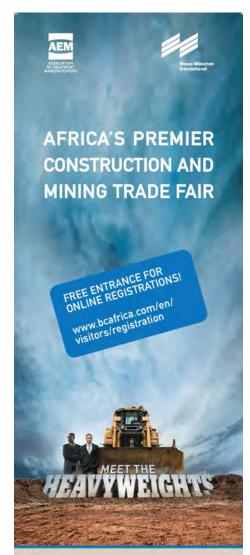
Johnson Crane Hire also used the LR 1750 (750 t) crawler crane to lift a 280 t tippler in Mozambique for the Nacala port upgrade project. A notable feat achieved by the team was the lifting of the 280 t assembly in one execution. The company is also actively involved in heavy lifts for the major expansion underway at a diamond mine in South Africa. A recent lift at this mine required the lifting of a 110 t structure with luffer and full super lift configuration at a 55 m radius. There are additional lifts planned for equipment of 200 t at 35 m in the same configuration.

On all lifts, the company provides a full pre-lift feasibility study that includes computer simulated drawings, generating method statements, full risk assessments and load studies. Operation of the well maintained crawler fleet is supported by an experienced technical team with indepth knowledge.

Safety in the complex operation of heavy lifts is paramount. "Adherence to safe

operation comprises a number of critical elements. First, our machines are current technology and well maintained, and our operators are skilled and comprehensively trained. In addition, we implement carefully documented and implemented safety systems, which comply with all industry safety standards. This is complemented by the risk assessments conducted before each lift. We are justifiably proud of the fact that safety as a culture is ingrained in every Johnson Crane Hire employee," says Robinson. Safety in fact forms part of the company's holistic lifting package. referred to as the 'SMART' (Safety, Maintenance, Availability, Reliability and Total cost effectiveness) philosophy.

Johnson Crane Hire has an acknowledged track record in delivering fit for purpose heavy lift solutions for the power, petrochemical, refinery, industrial, mining and civil infrastructure industries, throughout Africa.











customises lifting solutions

lephant Lifting Equipment has expanded its product offering to include larger overhead cranes from 30 tons upwards. "We took the decision to increase our existing 10 ton capacity and have successfully supplied a number of 30 ton capacity overhead cranes into the local mining industry," says Grant Walton, Elephant Lifting Equipment managing director.

Walton says that a significant feature of the Tusker overhead crane is that it has been designed without a rope guide. This results in reduced maintenance costs and decreased downtime. The hoist is extremely robust as it has fewer working components and its simple design readily lends itself to the demanding local operating conditions. The overhead crane is designed to accommodate a wireless remote system with range limiting features that facilitate optimum safety and a digital readout capability which indicates the hoist's load.

An accredited company that has fulfilled all the requirements necessary to be issued

with an LME (Lifting Machinery Entity) number, Elephant Lifting Equipment has a proven track record in the supply and load testing of overhead cranes, chain hoists and electric hoists. The company's team of qualified artisans is registered with the Engineering Council of South Africa (ECSA) as Lifting Machinery Inspectors (LMI).

"The main focus with our lifting tackle is on traceability. This means that a recognisable brand logo is apparent on all equipment we supply. This not only underpins the fact that stringent quality control systems are in place during the production cycle, but it provides customers with the complete reassurance that these products are manufactured to the highest standards," says Walton.

He explains that each piece of lifting tackle supplied has a unique certificate that details the design standard that is strictly adhered to in the manufacturing process. "We do not permit any compromise on the product's structural integrity. All of our products are designed with safety in mind, in strict



conformance to South African legislation that protects the user from accidental overloads or shock load."

In an industry first, the company offers existing customers an online certificate verification system, whereby the customer, at any stage, is able to access all certificates issued since the inception of the programme. Certificates include new supply, inspection and load testing.

Elephant Lifting Equipment is a single source solutions provider, supplying customers with the design, fabrication, engineering, installation, commissioning, support and service, load testing, inspections, repair and refurbishment of all lifting equipment. The incumbent technical expertise of its highly skilled and knowledgeable engineering team enables the company to devise a range of lifting equipment that is designed for African conditions. All equipment is mechanically simple without compromising on the features that are required to provide reliable and safe lifting capability.

"It is important to possess the technical acumen to assess each particular application and recommend the most appropriate solution, which encompasses safety, efficiency and cost effectiveness. An example of fit for purpose solutions is that a light duty workshop crane, fitted with a robust chain hoist, would be used for general lifting with a lower duty cycle, whereas at the opposite end of the spectrum one finds a production crane with a higher duty cycle," says Walton.

Close discussion with customers regarding the particulars of each application will ascertain working load limit, the environment in which lifting is done, the duty cycle, as well as the electrical and drive requirement. "Our in-house engineering capability will take all these factors into account and design a suitable solution. In addition to supplying the overhead crane, we also consider the supply of all below the hook attachments and can provide custom made lifting and spreader beams, as well as various slings and components," Walton concludes.



CAT ARTICULATED

fire truck a world first

he colour is distinctively red, which is unusual for a Cat machine, but then again this is an emergency response vehicle, and a very unique one, which took close to a year to design and configure.

Built around a Cat 740B articulated truck chassis, Johannesburg based specialist body builders and fluid handling specialists, Cobra Petro Projects, have developed what is believed to be a world first: an all-terrain vehicle that combines and integrates a rescue and fire-fighting aerial sky lift platform with an onboard 21 000 litre tank incorporating an AFFF (Aqueous Fire-Fighting Foam) compartment, pumping equipment, plus allied hose and cannon connections. The truck also has an onboard fire suppression system.

It's a formidable machine purpose-built for Kumba Iron Ore's Sishen mine that meets exacting safety and performance standards.

"Globally, conventional designs to date have seen aerial platforms mounted on rigid on-highway vehicles," explains Cobra Petro Projects' managing director, Lloyd Darby, "but never to our knowledge on an articulated truck and not in combination with a water bowser tank system." Cobra secured the order from southern African Cat dealer, Barloworld Equipment.

The sky lift is designed to reach a vertical height of around 28 m (with the stabilisers down) and supports a basket with a 325 kg carrying capacity for transferring personnel to safety during a fire. A stretcher attachment facilitates rescue operations for injured personnel. The basket rotates 360 degrees endlessly via a rotary union arrangement in the turret and is connected via telescopic pipe work to the water tank. The sky lift draws its 24 V power from the Cat diesel engine, whilst the fire-fighting pumps operate off the hoist hydraulic system.

The aerial technology was provided by Finnish original equipment manufacturer, Bronto Skylift, in consultation with their South African agent, Fire Raiders, the latter responsible for installing the fire-fighting equipment. Bronto has extensive experience in designing stair ladder systems for fire brigade trucks worldwide, but this project definitely put their engineering team to the test in finding an optimal solution. Technical input was also provided by Caterpillar's articulated truck manufacturing centre in Peterlee, England.

One of the biggest challenges was the need to identify the best position for the truck's 21 000 litre tank, which needed to be positioned on top of the sky lift platform tied in to the chassis, thereby optimising the centre of gravity and weight distribution.

The final gross vehicle mass is around 70 tonnes, of which the cab and chassis accounts for approximately 28 000 kg.

During a fire, the main tank has the capability of deploying 2 900 litres per minute from a height up to 28 m and an estimated range of close to 45 m. The truck also comes equipped with lay flat hose connections, as well as hose reels for bush fires (with an output rate of between 150 to 200 litres per minutes).

Another distinctive feature is the integrated 1 800 litre AFFF tank section. AFFF technology significantly improves fire-fighting capabilities by depriving oxygen at the source of the flames. Three settings enable either a one, three or six percent foam additive. "One litre of foam to 100 litres of water (a one percent mixture) significantly amplifies your fire-fighting capabilities."

Water replenishment of the 21 000 litre tank takes around 7 minutes via dam water sources, and even faster via the truck's mine gooseneck connections.

Once all the design details were finalised on the Cat 740B fire-truck, assembly moved along rapidly, taking just six weeks to complete and commission a master-piece in mechanical engineer that establishes a new machine class for off-road fire and rescue.



HYDRALADA FROM GOSCOR HIGH-REACH

makes for fruitful pickings

art of the Goscor Group of Companies and the Imperial Group, Goscor High-Reach has over 10 years experience as a leading supplier of superior quality, famous brand work-at-height equipment to Southern Africa's agricultural, construction and allied industries. "The Hydralada is a new concept to the local market," says Managing Director, George Landsberg, who identified a gap in the agricultural market for a no-nonsense rugged, cost effective work-at-height machine.

Landsberg paid a visit to Hydralada Company based in Hastings, New Zealand, where approximately 2 500 Hydralada machines are in operation in the direct vicinity. Seeing the Hydralada in action ticked all the feature boxes for Landsberg - superior quality, rugged, reliable, compact, minimal service requirements and operator friendly and he immediately recognised a winner. "These features deliver all the benefits of economical operational and service costs as well as increased productivity which, for end users, translates to increased production, low total cost of equipment ownership and quick return on investment."

Hydralada Company has been manufacturing and supplying the finest elevating work platforms for 40 years and is one of the longest established manufacturers of this type of equipment in Australasia. The

Hydralada is the biggest machine of its kind in the world. With the appointment of Goscor High-Reach as the exclusive distributor of the Hydralada range to Southern Africa, the African continent becomes the latest export destination along with the USA, Canada, Europe and South America.

Currently four Hydralada models are available from Goscor High-Reach: The 540, 640 dual-caster, 640 twin-caster and 750 with platform lift heights of 7.4 m, 8.4 m and 9.5 m respectively. The 640 is particularly suited to avocado picking while the 540's low tail profile makes it the perfect choice for work in tight spaces. The 750 is currently the biggest unit of its kind in South Africa. "We also offer the Hydralada Twin Lift which is specially designed to carry a fruit loaded storage bin and accommodate up to four persons. With a 2.0 m lift platform height, it is the future for small to medium trees," predicts Landsberg. The machine is powered by a Kohler petrol or diesel engine, known for its efficiency and environmental compliance.

The versatile Hydralada machine makes light work of an array of fruit orchard applications including picking pip- and stone-fruit (avocados, citrus fruits, kiwi fruit, dates, etc.), pruning and training branches and erecting protective high shade nets. It's equally at home on the rest of the farm putting up sheds, etc. The

compact picker's innovative design allows for superior mobility and versatility in m edium to high density orchards, providing access to areas previously off-limits to standard power ladders. Boasting the lowest tail profile in the industry, it also operates easily amongst lower hanging branches and fruit.

There is no doubt that Hydralada machines are engineered for productivity and two outstanding design features separate the units from other comparable units available on the local market to position the picker in a category of its own. The operator controls the Hydralada by foot as opposed to by hand. Foot pedals are recessed under a rubber mat inside the robust slew cage so fruit or branches cannot wedge underneath the pedals. While the operator moves up or down his hands remain free at all times enabling him to pick or prune, erect or maintain shade netting, etc. without interruption, making him more efficient and thus more productive. The second feature is the positioning of the slew cage, which faces the operator away from the machine. With the picker behind him, the operator has full access to the fruit trees. "These features add to the unit's extreme operator friendliness; comfortable operators are less fatigued, work safer and are more productive," adds Landsberg.



NOOTEBOOM MANOOVR:

A ground-breaking innovation



For even greater versatility, the units are available with twin castor or dual wheels. The twin castor's wider wheel base delivers greater stability on steeper gradients while the narrower profile of the dual castor version can turn faster and offers better maneuverability in smaller spaces. A third tandem option is also available for extremely rough terrains and comprises a four wheel drive oscillating walking beam for traversing large rocks.

The Hydralada is supplied standard with a 54 kg harvest bag as well as an hydraulically operated power-pruner, the Hydraloppa with a powerful 45 mm cutting capacity. Extra counter-weights to increase balance on steep gradients are available. With a weight of 1 to 2 tons, the compact Hydralada is easy to transport and can be conveniently towed behind a bakkie at a recommended speed of 30 kph.

Goscor High-Reach supports the Hydralada range with a full after-sales service that includes parts, spares and maintenance. The company also offers fully accredited SETA, IWH and IPAF training from its facilities in Alrode, Johannesburg or on customers' sites to ensure that the machines are used to their full potential and customers reap the maximum benefits offered by this remarkable machine.

The MANOOVR generation of Nooteboom makes its debut at the next BedrijfsautoRAI, staged in Amsterdam from 20 to 24 October. The MANOOVR is a completely new development and its load floor height of just 780 mm in combination with a permissible axle load of 12 tonnes makes it so unique that to be a patent has been applied for it in the Netherlands. It was designed with just one goal in mind: the best specification in the market on all the key points. And they succeeded: the Nooteboom MANOOVR is in all respects superior to semi-trailers with any type of independent suspension.

The new semi low-loaders, based on the MANOOVR technology, are available with 3 to 10 axles. The newly developed suspension offers a permissible axle load of 12 tonnes throughout Europe - including the Netherlands. Combined with a 780 mm load floor height, 500 mm suspension stroke and a steering angle of up to 70 degrees, the MANOOVR is the ultimate solution for every operator in abnormal transport.

The MANOOVR is revolutionary due to its simplicity, requires very little maintenance and is light. The semi low-loader is perfectly aligned at any ride height, which contributes to a long life for the tyres. Combined with the high residual value of Nooteboom trailers this keeps the running cost per kilometre extremely low. The important advantages offered by the MANOOVR induced various customers to purchase the new Nooteboom semi low-loader while it was still on the drawing-board. This is the power of Nooteboom: well thought-out, robust, innovative and, above all, developed to exactly meet the requirements of the many loyal Nooteboom customers. The MANOOVR: a world first at the BedrijfsautoRAI that will add a new dimension to special transport.





Buses take shape inside the production facility.





The Scania SG280 genset installed at Busco's manufacturing facility.

WHEN TIME IS MONEY

you need power at hand

Photos and article: Richard Jansen van Vuuren

As a direct customer of Eskom, who can no longer guarantee an uninterrupted supply of electricity, a bus-manufacturer whose entire operation is reliant on it has made a decision to put power back under its own control.

he manufacturing sector is showing a decline of 28 % for the current quarter and Willie van Zyl, managing member of Busco Marketing, is not surprised.

"In addition to the problems associated with load-shedding – combined with more-frequent unscheduled power interruptions – we can no longer afford to have our production line standing idle during power outages," he explains.

"Local bus manufacturers are running on extremely low margins at the moment. In

fact, we are seeing smaller profit margins at this time than we were in 1974. With this in mind, Busco has always ensured it runs on a tightly-monitored system to reduce operational cost as far as possible. But even with a lean budget such as ours, if our production line stands idle it costs the company upwards of R30 000 per hour. For this reason we made a decision to purchase a Scania SG280 genset," he points out.

For a company that has a management team of six people, a small administrative

team, and production of roughly 70 staff this cost, which cannot be recuperated as it is based on time lost, is devastating.

Busco Marketing has been operating for 19 years with members of the management team having been involved in the sector prior to establishing the company. It works closely with several bus chassis manufacturers to address the need for uniquely designed and developed bus bodywork to meet the standards of the ever changing needs of bus operators and their passengers.





A Scania bus rolls off the assembly line.





Willie van Zyl, managing member of Busco Marketing with Rune Walter, export sales manager: Scania engines and gensets.

Scania gensets are available in two variations to suit installations.

Prime power: For continuous operation and unlimited yearly operation time at varying load. A 10 % overload power can be supplied for one hour in a twelve hour period. These units are available for fuel optimised and EU Stage IIIA compliant gensets.

Standby power: This rating is for the supply of continuous electrical power (at variable load) in the event of a reliable utility power failure. No overload on these units is permitted. These units are available for fuel optimised gensets.

The production line sees between 10 and 14 buses a month roll out depending on specification and finishing. All of its production bays are fully accounted for until the end of the year which means any disruptions will be far-reaching in terms of cost.

The genset installed in February 2015 at Busco's production facility produces 280 kVa which, as Van Zyl points out, is probably larger than what is required, but he much prefers a unit that performs well within its capability than one operating under stress – which severely affects fuel consumption. The entire facility can be run off the genset when required including the production line's biggest power user – the welding section.

Van Zyl chose not to electronically automate the switch from supplied power to genset power and rather switch the sources manually as this allows for better fuel economy

Genset type	SG280	SG280
Application	Prime	Standby
50 Hz, 380-415 V, 200/115 V	250 kVa	280 kVa
	200 kWe	225 kWe
60 Hz, 440-480 V	280 kVa	315 kVa
	225 kWe	250 kWe
60 Hz, 200/115 V	270 kVa	300 kVa
	215 kWe	240 kWe
*Ratings at 0.8 pf		

as the unit then only runs when it is required and not every time the power cuts – for instance during the night or on a Sunday.

"Our genset currently runs for anywhere between six and eight hours a week but we have also required it to run for periods of eight hours straight on the odd occasion. My initial predicative calculations indicated that it would achieve an efficiency of around 22 litres per hour and I've been pleasantly surprised that we are actually achieving a much lower figure of 16 litres per hour," explains Van Zyl. •







CUMMINS'S NEW RDC AND

manufacturing plant ensures service delivery excellence

Service delivery and overall customer satisfaction across the Cummins supply chain in Southern Africa is set to improve dramatically, following the official opening of the 20 000 m² state-of-the-art Cummins Regional Distribution Centre (RDC), Filtration and Coolant manufacturing plant in Johannesburg.

Cummins Supply Chain Director for Africa, Ged Mackell states this new purpose-built facility is part of its global strategy to move its resources closer to its customers. This Southern Africa regional distribution centre for parts and filters covers 10 000 m², while the engine and generator storage warehouse covers a further 6 000 m² area.

"In addition, we are introducing a best-inclass, coolant blending plant and air filter manufacturing plant that comprises $4\,000\,\text{m}^2$ of the facility. The plant will also be home to the environmentally-friendly Fleetguard ES Compleat organic acid technology (OAT) coolant formulation," says Feroze Chowdary, Director of Africa Components.

Mackell states that the need for the RDC, located in Waterfall Commercial Park, was realised as a result of a strategy network study conducted by Cummins Africa. "The study revealed that, in order to support our forecasted growth on the African continent, Cummins would have to invest in supply chain capacity and capability that would be resilient, competitive and create preference for Cummins

by current and future customers."

Construction of the RDC took one year, and Mackell is confident that it will enhance the company's capabilities in Africa, allowing it to optimise customer service, inventory and logistics costs. "The Southern Africa RDC will vastly improve service offerings across the region through enhanced stock availability, shorter lead times, lower end-to-end logistics costs, and value-added logistics solutions. The RDC has also facilitated the consolidation of various distribution points under a single roof."

Another important aspect of the establishment of the RDC is that we have executed a successful relocation programme. "Twenty three employees from our Kelvinview and Pietermaritzburg warehouse facilities as well as 24 employees from our Pietermaritzburg filtration plant have been relocated to continue their work at the new RDC location. There are currently 72 employees located onsite, and there may be a need to hire additional staff in the near future," adds Mackell.

What's more, RDC staff members have also been upskilled by undergoing comprehensive training on best-of-breed warehouse management, materials planning and order management applications. Owing to the fact that new state-of-the-art material handling equipment was introduced to the RDC, all staff underwent certified training on the new reach trucks, order pickers and forklifts. The

RDC is run by Cummins Global Logistics which performs supply chain operations on behalf of the other Cummins business units.

Mackell adds that inventory relocation was another challenge. "A considerable amount of inventory was moved from original sites to the RDC during April 2015 in preparation for the go-live in May 2015. Although this was an undertaking that required considerable manpower, customer service was not compromised, as employees remained committed to their tasks throughout the duration of the move."

Mackell is optimistic of the future outlook for the RDC. "In the past, our distributors ordered directly from the parent distribution centres located in Belgium, Singapore and the USA with long lead times and often paying premium freight. The establishment of the new RDC will result in increased overall parts and filtration availability with greater depth and breadth of product stocking. This RDC will service 12 Southern Africa countries and enhance our brand promise of, "We are Cummins you can depend on us."

Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service diesel and natural gas engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems.



TATA SUPER ACE EX2 CAB-OVER PICK-UP

undergoes improvements

he compact Tata Super Ace one ton cab-over pick-up, which was launched in South Africa in 2012, has undergone a host of improvements and updates with the introduction of the latest EX2 model. This is now a unique model in the local light commercial vehicle market following the withdrawal of the Daihatsu brand and its similar Gran Max forward control pick-up from South Africa last year. The Super Ace EX2 has no fewer than 60 specification changes compared to its predecessor.

"A number of these changes are skin deep, but they all contribute to an ever better product with markedly higher quality levels," says Kyri Michael, the new CEO of Accordian Investments, the company in the Associated Motor Holdings division of the Imperial Group responsible for Tata cars and light commercials.

"Many of the changes and quality improvements are the result of feedback from customers and dealers in South Africa, indicating the importance with which Tata Motors, the largest motor company in India, rates local market needs.

The Super Ace has the longest load bed of one-ton pick-ups in SA at 2.63 m and the drop side body has a deck height of only 60 cm which makes for ease of loading and unloading. The load body, which is 1.5 m wide, gives a total load area of 3.8 m². It is unimpeded by wheelwells as is the case with conventional pick-ups. It has a turning circle of only 10.2 m which provides easy manoeuvrability in congested traffic conditions.

These features make the Tata Super Ace ideal for a host of urban applications from couriers to nurseries, gardening services, plumbers, building suppliers, handymen and furniture stores. A number of different canopies and a rack for carrying ladders and the like are already available from Tata dealers to suit various usage applications.

Among the technical changes in the Super Ace EX2 are: a four-layer insulation package to reduce the transmission of heat to the occupants in the cab, a change in the position of the engine oil dipstick which has resulted in an alteration to the seat design, an updated cooling system with a larger radiator, chrome-plated pads on the gearbox forks to make gear shifting smoother, while a water separator has been added to the fuel system and the seat belt length has been increased by 300 mm to suit the wider girths of some South Africans.

There are also a number of cosmetic changes, of which the most noticeable is change in the colour of the interior from grey to black. Other changes that differentiate the EX2 model are the incorporation of cup holders and an oddments tray on top of the engine cover, washable floor covering, a 'Turbo' mascot on the left hand door, a one-ton sticker on the tailgate, wheel covers on the LE model, a chrome lip on the front grille of the DLE variant and EX2 badging.

Both models are well equipped, with standard power steering, remote central locking and engine immobiliser, heater/demister, fabric seat covering, adjustable bucket seats for the driver and passenger, digital clock, lockable

glovebox, 12 Vdc power outlet, height-adjustable headlights, lockable fuel flap, rear protection bat, battery guard, collapsible steering column, load sensitive brake equaliser and side impact beams.

The more expensive DLE model adds air conditioning, wheel covers, power windows, fog lamps, remote adjustment for the exterior rear-view mirrors, grab handles and colour-coded bumpers.

The engine and transmission are all designed in-house by Tata Motors. The four-cylinder turbo intercooled diesel power unit of 1,4 I develops 52 kW of power at 4 500 r/min and peak torque is 135 Nm at 2 500 r/min. The engine drives the rear axle through a five-speed manual transmission.

Claimed fuel economy is 7,2I/100 km on the combined cycle. Maximum gradeability is 39 % and the claimed top speed is 125 km/h.

The independent front suspension and leaf sprung rear axle provide a comfortable ride. Braking is by a disc/drum combination with a valve to balance hydraulic pressure according to the load.

"Now that we have the only compact one-ton forward control pick-up in the local market, we believe we can grow our market share substantially, particularly with the raft of improvements, competitive pricing and value-added benefits included in the retail price. The new Super Ace EX2 offers SMME's a great product for their smaller businesses," concludes Kyri Michael.

DAF TRUCKS

continue to prove their worth

ast Rand-based container transport company Yellow Jersey Logistics has placed an order for ten DAFXF105.460 FTT trucks with Babcock. These vehicles, hailed in the marketplace as the top performance trucks in South Africa following a recent independent truck test, are being supplied as part of a total solution that includes a repair and maintenance contracts.

"Our customer enjoyed a single point of contact throughout the entire deal, from transport solution to finance," says Piet Kemp, DAF sales executive. "The trucks have been optimised for South African conditions. With fuel consumption proved to be the best on the road and a competitive repair and maintenance contract, the customer is guaranteed the lowest cost of ownership. The average uptime of the trucks operating in the country is well over 95% with most fleets at over 99 %."

Yellow Jersey Logistics will use these

vehicles primarily on one of South Africa's busiest transport routes, between Gauteng and Durban.

Kemp adds that the DAF XF105 delivers unsurpassed driver satisfaction and high reliability, two factors that were key criteria when DAF developed the model. The truck has the most spacious cab in its class and offers maximum comfort to the driver.

The DAF XF105 is powered by a Paccar MX 340 six-cylinder, turbocharged and intercooled engine that delivers 462 hp and a torque of 2 300 Nm for optimum pulling power and a smooth ride. The driveline is carefully balanced to maximise performance under all operating conditions, and to make the most of the engine's low fuel consumption. Drivers have a choice between a clutchless ZF 12-speed AS-Tronic automatic gearbox and a manual mode gear change, to deliver power to the acclaimed DAF hypoid rear axle.

The robust XF-chassis is made of high quality steel, resulting in an extremely strong but lightweight chassis for high payloads.

Freek van Tonder, owner and MD of Yellow Jersey Logistics, has specific criteria for truck purchases, and Babcock ticked all the boxes.

"Financing is important and this was addressed through Babcock Financial Services, a dedicated finance company that provides finance for the purchase of DAF trucks," he says. "Since we don't do our own servicing and maintenance, we needed to be confident that Babcock would be able to offer full support of these trucks through maintenance agreements, along with a high standard of technical ability and spares availability. Their dealer network certainly met our requirements on this.

"In addition, since we renew our fleet every 36 months, Babcock offered a trade back after this period, ensuring that our replace-



"Financing is important and this was addressed through Babcock Financial Services, a dedicated finance company that provides finance for the purchase of DAF trucks."

ment cycle remains intact. Driver comfort is another big factor to us and this requirement is well provided for in the DAFX105.460 trucks. In addition, the figures we've received on fuel consumption were favourable.

"Another plus factor was that although Babcock and DAF are major international concerns, we enjoy personalised, rapid response service through one local point of contact. We look forward to receiving all ten vehicles into our fleet in the coming months and to building a strong partnership."







FAW MAKES BOLD PLANS

to increase African footprint

AW SA plans to support sales in almost all the right-hand drive African countries. The left-hand drive African countries may still import from China directly. However, our plan is to assemble left-hand drive vehicles in order to supply African Union countries in future. This way, they too can get duty advantages." This development, as explained by Yusheng Zhang, CEO of Vehicle Manufacturers SA (Pty) Ltd, forms part of the company's strategy into Africa, beyond the SADC region.

From the cost point of view, African buyers can save 'complete vehicle' import duty from 25% to 40%. Another advantage of importing through FAW SA is that customers can get their vehicles within 30 days of order; much sooner than from China, which normally requires three months between order placement and delivery.

"Besides the special South African-spec vehicles, we also supply specifically modified vehicles for Africa. An example of this is the specially configured units which we exported early this year to Kenya — the five FAW J5P truck tractor units. Tanzania is able to use the same vehicle, and delivery of these orders are being finalised as we speak," says Zhang.

"However, we remain circumspect about drastically changing our local production complexity by adding too many different models for production at our Coega-based plant. It remains in our interest to keep our

production plant simple, and to continue to maintain the highest levels of quality, rather than chase huge production diversity without adequate up-skilling and possibly a loss of focus on our core value — 'Quality at a Fair Price," affirms Zhang.

Vehicle Manufacturers SA (Pty) Ltd acts as an import conduit on models not built locally. For example, in 2014 the Kenyan dealer sold about 650 FAW units of which the best sellers were the 6x4 truck, CA4322. This model is No.1 in their extra-heavy tractor segment, produced in China, and brought in through South Africa. To date, the Kenyan dealer has purchased 45 units through FAW SA.

A Tanzanian dealer sold about 1 000 units in 2014 of which the best sellers were the 6x4 tractor and 6x4 15m³ tippers. While most of the 2014 sales units were imported directly from China, the Tanzanian dealer has started this year to import a small number of trucks through FAW SA. So far, seven units have been dispatched from Coega, near Port Elizabeth, where the trucks are either assembled from CKD packs or come in as FBUs for export to Tanzania.

"For aftersales support, FAW SA is already supplying parts to those African dealers who import SA-spec models. Dealers who import African-spec models from FAW SA still source their parts stock from China directly, because the purchase process is familiar to them and uptime in not affected."

While FAW Vehicle Manufacturers SA con-

tinues to invest in its local aftersales operations, such as parts stockholding and training, it has no plans at present to expand parts stockholding into Africa.

The expansion into Africa also requires some support in customer workshops and customer technical training. FAW SA continues to give African dealers full technical support where needed. "Besides it is much more efficient than sending their technicians to China to get trained or to wait for FAW China to come to Africa to sort the technical problems," adds Zhang.

Feedback thus far from FAW dealers in Africa is extremely positive. They are impressed with the quality workmanship, and pleased by the attention to detail evident from everyone at FAW Vehicle Manufacturers SA (Pty) Ltd.

Yusheng Zhang explains: "One of the reasons for our success has been partnerships with so many other world class regions and organisations. We take our partnerships seriously and we see our business relationship within Africa as one of the most important of these partnerships. Our fundamental vision for this region, using South Africa as a base, is to ensure that the FAW brand becomes a household name across the length and breadth of this great continent and, in so doing, we hope to significantly contribute to job creation and the general stimulation of the local and African economies.



ALE TRANSPORTED STATOR GENERATOR

for Kusile

LE, a leading international heavy transport and installation specialits, was awarded the contract for the loading, transportation, offloading and installation of a 360 t stator generator at the Kusile power plant in Mpumalanga.

The Kusile power station project will comprise six units; each rated at 800 MW installed capacity for a total of 4 800 MW. Once completed Kusile will be the fourth largest coal-fired power station in the world. At a total cost of some R118.5 billion, the power station will gradually be brought into service commencing in 2017, when Kusile Unit 1 will enter commercial operations.

The 360 t stator generator was stored at the ALE storage facility in Richards Bay under roof. The first stage involved loading and re-loading the stator generator. It was lifted with ALE's four post lift system (4PLS) and 12 axle lines of conventional trailers in a three file configuration, which was driven

underneath. The stator generator was then lowered onto the flat top transportation combination and released from the lifting system.

The load was moved to the laydown area just outside the storage facility at ALE's yard in Richards Bay. The lifting system was relocated to the laydown area and was used to offload the stator to the ground.

For transportation scope to Kusile power station, 24 axle lines of conventional trailers in a three file configuration were utilised. The lifting system was used to re-load the stator onto the 24 axle lines of Goldhofer in a three file combination. The stator was transported using 4x heavy-duty 8x8 Faun trucks, two 8x4 Mercedes Benz trucks and a single 6x6 Mercedes Benz truck, all from ALE's yard which is situated 630 km from Kusile power station. All driving was carried out during daylight hours and under police escort. It took 14 days to transport the stator

generator from Richards Bay to Kusile power station.

Once the stator arrived at the power station, it was lifted off the trailer using the ALE 4PLS and lowered down onto the ground. The stator generator will be stored on-site at the laydown area for a month and then reloaded onto 10 axle lines of SPMT in a four file configuration and transported to Kusile Turbine Hall 2, where will involve lifting the stator from the trailer up to a height of 20 m, rotating the stator in mid air and subsequently laying it down in the specially constructed bed where it will be secured. The lifting cradle and gantry system were specially designed and manufactured by ALE for this application.

ALE is a first class solutions provider who are pushing the boundaries and breaking world records with industry leading innovative equipment.



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HINO ADDS FIVE MORE DERIVATIVES

to popular MCV range

he Hino Day recently held at Gerotek gave the press the opportunity to try out the new Hino 300 range of trucks which has grown from eight to 13 variants. Ernie Trautman, Vice President of Hino SA was on hand to introduce the new range and explained, "The Hino 300 and its Toyota Dyna predecessors have been among the most popular ranges of MCVs locally since the arrival of Dyna in South Africa in 1965,"

Trautman went on to add, "over the decades there has been growing sophistication in this market, resulting in the demand for more derivatives to cater for specific customer needs. Recently, these requirements have included an increasing number of requests for more models with automatic transmission and crew cab bodies first introduced on the new Hino 300 range when it was launched here in 2013. Our latest range realignment takes these changing requirements into account, with four models now offered with automatic transmission and three with crew cabs."

Two more models – the 614 and 714 SWB – are now offered with Hino's six-speed A860E fully automatic transmission, which is already fitted to the Hino 300 815 automatic models and has the fifth and sixth gears as overdrive ratios for improved fuel economy.

Automatic transmission is important in cutting driver fatigue while reducing maintenance costs as there are no more replacements of clutch components.

In addition, a crew cab is introduced on 714 and 915 manual transmission variants, while the wheelbase of the 815 automatic transmission models has had its

wheelbase shortened in reaction to feedback from customers and Hino dealers.

The Hino 300 range now offers an ideal transport solution for urban, inter-city and regional deliveries with an approximate body and payload allowance of between 3 390 and 5 950 kg.

The Hino 300 was designed with the driver in mind. Large door openings with big footsteps make entry and egress easy, while the cab is spacious, with plenty of headroom, legroom and in-cab storage. The driver's seat is fitted on an inclined rail and is adjustable to accommodate people between 147 cm and 203 cm in height.

The dashboard has legible dials with a multi-function display, while all the hand controls have been ergonomically designed for convenience and ease of use.

Creature comforts for the occupants include standard fitment of air conditioning, an audio system and electric windows, while a foldable gear lever enhances freedom of movement around the cab, when the truck is stationary.

There is also air conditioning and additional bottle holders in the rear section of the crew cab, which can accommodate four occupants.

Safety and security received high priority in the design of the Hino 300 and safety features include anti-skid ABS brakes, seat belt pre-tensioners, side impact beams and driver and passenger air bags. There is a seatbelt warning light and buzzer to ensure the seatbelts are used. A large windscreen, large side windows and narrow A posts ensure excellent visibility for the driver.

A transponder key-operated ignition and central locking system are important standard security features as is microdot vehicle identification.

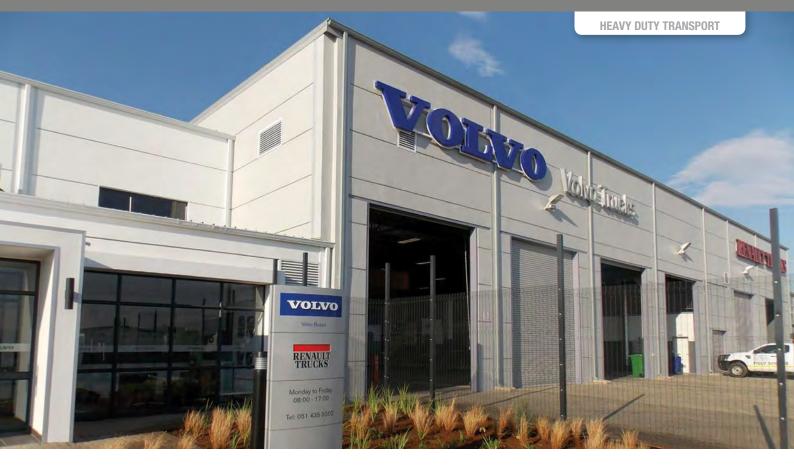
All the Hino 300 models are powered by the four-litre N04C Hino four-cylinder turbo intercooled diesel engine in varying stages of tune, which provides outputs of either 100 kW of power and 392 Nm of torque or 110 kW of power and 420 Nm of torque.

The engine is mated to either a Hino M550 five-speed or MYY6S six-speed manual transmission or the six-speed A860E automatic transmission.

Drive to the rear wheels goes through a full floating single reduction hypoid rear axle with ratios to provide optimum performance and fuel economy for each model.

The range is backed by a raft of value-added Hino-Care services, including an unlimited kilometre/24-month warranty, 20 000 km service intervals, towing assistance and 24-hour roadside assistance while financial packages as well as maintenance and service plans can be tailor-made to suit customer or operational requirements.

"We are delighted that the new additions to the Hino 300 range will make us even more competitive in the keenly-contested medium commercial vehicle market in South Africa. The enlarged range emphasises the importance we place on customer and dealer feedback while our customers continue to benefit from our strategy of continuous improvement," Ernie Trautmann.



VOLVO TRUCKS AND RENAULT TRUCKS DEALER

opens in Bloemfontein

Volvo Group SA has opened a new key Volvo Trucks and Renault Trucks dealership in Bloemfontein at an investment of R45 million.

The facility is strategically situated next to the N8 route, which connects Upington, Kimberley, Bloemfontein and Maseru in Lesotho, and close to other major transport corridors including the N1 between Cape Town and Gauteng and Limpopo. The company's Bloemfontein dealership will also act as a regional hub of support for the Volvo Trucks and Renault Trucks branches in Kimberley and Beaufort West.

"This is the first dealership that has been built according to the Volvo Group's new multibrand image in South Africa," says Christian Coolsaet, Managing Director of Volvo Trucks and Renault Trucks in South Africa. "We have taken a long-term view in terms of the expansion of our business and investment in the Bloemfontein dealership, and in the process we are strengthening our commitment to the region and our customers."

The dealership facility was designed to be as energy efficient as possible in accordance with the Volvo Group's core values of quality, safety and environmental care.

The Volvo Trucks and Renault Trucks Bloem-

fontein dealership has a staff complement of 36 trained industry experts and technicians. Services offered include a complete spectrum of truck sales, service, maintenance, finance and parts support. In addition, the dealership offers brake roller testing, 24-hour roadside assistance and parts availability, lifting equipment, auto-electrical repairs as well as convenient drivers' restrooms.

"Some of our key fleet owners operate in the region and we are proud to able to offer them round-the-clock support in order to keep their fleets going and well-maintained," Coolsaet says.

The past 20 months have been eventful for Volvo Trucks and Renault Trucks, as the company has successfully launched new product line-ups for both brands during this period. Both brands experienced their best sales performances ever during 2014, and the company is excited about the future of Volvo Trucks and Renault Trucks in the region.

Coolsaet says that the company's focus is on supporting their customers every step of the way, and providing them with quality service, advice and products that add profit and value to their businesses over the long term.

"As one of the world's leading commercial ve-

hicle manufacturers, we focus a lot of attention on aspects such as advanced training, the innovative use of technology, communication, financial and business guidance, as well the implementation of international best practices, in order to enhance our dealers' service to our customers," explains Coolsaet.

With the Volvo Group being on the cutting edge of innovation in the commercial vehicle industry, it leads the way in supporting fleet owners in a modern, practical way. These innovations include telematics gateways, interactive driver mobile applications and advanced fleet management systems.

Going into the future, it will become imperative for truck manufacturers to explore and understand a region's local operating environment, and subsequently adapt their business approaches to meet African fleet owners' precise transport requirements.

"Having operated in the region for over 13 years, we believe that we are able to meet these requirements and offer local customers the best transport solutions available — ones that make a tangible difference to their businesses in real time," concludes Coolsaet.

FAST AND ACCURATE ALCOHOL AND DRUG TESTING

essential for outsourced medical practitioners

By Rhys Evans, Director of ALCO-Safe



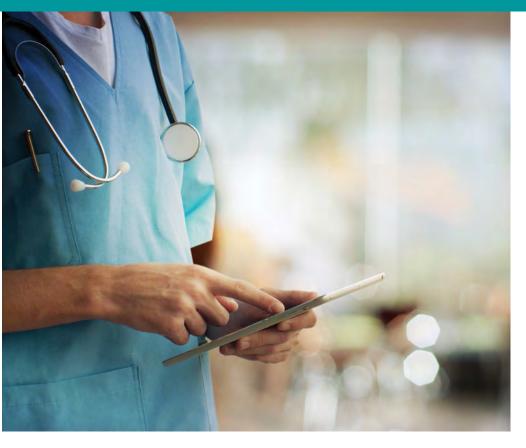


ealth and safety are a growing concern for many businesses, especially those operating in high-risk industries such as construction, manufacturing and transportation. Ensuring compliance with the Operational Health and Safety Act (OHSA) requires that all employees have a full medical, including alcohol and drug testing, when they join the company and at least once a year. This requires the services of a nurse or medical practitioner. However, as many of these businesses cannot justify the expense of such a staff member full time, they are increasingly looking to outsource this service. These outsourced medical practitioners perform an essential service, but are faced with a number of challenges themselves, and expediting the process of testing for drug and alcohol use and reporting on this testing is chief among them. Fast, accurate alcohol and drug detection equipment that assists with the reporting process has become essential to help outsourced medical practitioners maximise value while minimising the time it takes to provide their services.

Outsourcing the on-site clinic function is a trend that is gaining impetus in the South African market for a number of reasons. For

many organisations, this is not a full time role, and therefore it is not cost effective to retain a full-time nurse. In addition, many smaller companies are starting up within construction and transportation, which need to adhere to health and safety regulations but which cannot afford a full on-site clinic. Utilising the services of an outsourced medical practitioner or nurse is the ideal solution, as they can be called in when needed for annual check-ups as well as screening of new employees.

For medical practitioners, this growing trend toward outsourcing offers significant opportunity for self-employment. However, their ability to earn is limited by the number of medical assessments and health checks they are able to perform. One of the most time consuming aspects of their role has typically been testing for alcohol and drug use, as not only does the equipment take a long time to provide results, these results then have to be manually captured in a spread sheet for reporting purposes. Written files with records of who was tested and their results are also prone to being lost, which proves problematic as this is often the only copy until information is captured electronically.





Speed and accuracy of drug and alcohol testing equipment is essential, as any delays with the testing can negatively impact an organisation's productivity and thus the reputation of the outsourced practitioner. In addition, annual testing reports must be delivered timeously. New testing systems for both alcohol and drugs can expedite this process, and furthermore enable data to be stored on the devices themselves and then downloaded later, greatly speeding the process and improving risk management with regard to lost data.

New alcohol testing equipment enables information such as name, surname and ID number to be input into the device after a test, and this information is then stored with test data. All information is therefore kept in one place and can be downloaded onto a computer, automatically generating a spread sheet with names, time and date of test, result and so on. Reports can there-

fore be generated far quicker and sent to the customer, not only saving time for the practitioner but delivering enhanced service to the customer. In addition, these solutions enable a rapid and highly accurate result to be delivered, ensuring that tests can be conducted quickly, and that false positives are kept to a minimum and confidence in the tests can be maintained.

New drug testing equipment provides similar functionality, by enabling the results of all tests to be saved electronically on the testing device, and printed out directly from the machine. This information can also be downloaded to a computer and placed in a spread sheet, and the practitioner simply needs to add the names and ID numbers of the test subjects, saving significant amounts of time. In addition, these tests use saliva, which is far less invasive for participants and enables a medical practitioner to test employees of both sexes. The test can be

used to detect between two and six commonly abused drugs, depending on the configuration required, again providing significant time saving.

Alcohol and drug use are part and parcel of many industries, particularly those that are high risk and stressful. However, these same industries are also the ones that need to adhere most strictly to the OHSA, as judgment-impairing substances are a major contributor to workplace accidents and incidents. All organisations operating in such high-risk fields must conduct at the very least, annual check-ups for drug and alcohol use, and preferably more often. Making use of an outsourced practitioner makes sense in many instances, and those practitioners that leverage the power of advanced drug and alcohol testing technology can ensure fast, accurate results and reporting to help minimise risk.





SKF TO BUILD TEST CENTRE IN GERMANY

SKF invested in the construction of a large-size bearing (LSB) test centre in Schweinfurt, Germany. The investment, which totals SEK 360 million, is being supported by both the German Government and State of Bavaria, who are contributing SEK 28 million in funding.

The test centre have two LSB test rigs; one for testing bearings used in wind turbine main shafts and one for applications across a wider scope of industries, including marine, mining, construction and steel.

The bearing test rig dedicated to the wind energy segment will be the first in the world capable of testing single rotor bearings as well as mainshaft bearing arrangements in a realistic application environment. Utilising original customer components, engineers are able to better tailor SKF's bearings to customer's exact needs.

The other test rig offers unique capabilities to improve simulation tools that support large-size bearing development and tailoring solutions for a variety of industries.

This new facility significantly cuts the length of time the testing process takes, reducing associated energy consumption and CO_2 emissions. Recycling residual heat from both test rigs also contribute to lower energy usage.

Construction of the bearing test centre will commence during the summer of 2015 and is expected to be completed during the first half of 2017.

CHICAGO PNEUMATIC UNVEILS BRIGHTER LED LIGHT TOWER



International construction equipment manufacturer Chicago Pneumatic has unveiled its new ultra-bright LED light tower. The CPLB 6 light tower utilises four 350 W LEDs to provide a lighting efficacy of up to 200 lux. By using LEDs rather than conventional halide lights, the CPLB 6 light tower is 20 % brighter than most standard light towers and can reduce energy use by more than 70 %

Using LED luminaires with special optics, the light tower provides ultra-bright light equivalent to the lighting efficacy of four standard 1 000 W halide lights. With a hydraulic mast height of 8 m, the new towers are capable of projecting 50 lux over 35 m away. The improved output ensures runtimes can be maximised, providing increased work times and greater site visibility and safety.

The compact fuel engine uses three times less fuel than many other light towers available, reducing both fuel consumption and emissions by over 70 per cent. When compared to similar products, the CPLB 6 light towers were found to reduce maintenance costs by around a third, due to the extended 500-hour service intervals.

ERRATUM

HYUNDAI H930S LOADER BACKHOE SERIES

The incorrect picture was published in the July issue of Capital equipment News.

We apologise for the error and now publish the correct picture of the Hyundai H930s loader backhoe.





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