#### MINING DEVELOPMENTS

May/ June 2025 Issue

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# WFW advises Guinea as Simandou mega-project closes

he US\$15 billion Simandou project, the largest greenfield integrated mine and infrastructure investment in Africa to date, on which Watson Farley & Williams has been advising the Republic of Guinea, has now completed, including the required Guinean and Chinese regulatory approvals.

Closing was followed by both the second anniversary celebration for Compagnie du Transguinéen, the joint venture consortium that will own and manage the Simandou rail and port infrastructure, and the signing of the first locomotive order to service the project. CTG is comprised of Guinea, Baowu Group leading a consortium of Chinese steel manufacturers and other investors), Simfer Jersey (a joint venture between Rio Tinto and a consortium led by China's state-owned Chalco Iron Ore Holdings) and WCS (a consortium comprising the Winning International Group, China Hongqiao Group, Guinean mining logistics company UMS, as well China's Yantai Port Group).

Whilst Simandou revolves around the exploitation of four iron ore blocks in southern Guinea, the project goes far beyond mining and includes the construction and operation of a 600+ km multi-use railway line

connecting the blocks to a large, newly constructed state-of-the-art mineral port to export up to 120 million t of iron internationally. This new rail and port infrastructure will act as a catalyst for transforming Guinea's economic development, unlocking prosperity well beyond the Simandou corridor as well as empowering local communities and reducing poverty nationwide.

With all the project's core agreements requiring compliance with the highest ESG standards, Simandou also delivers a significant new source of high-grade iron ore that will strengthen the decarbonisation of the steel industry helping combat global climate change.

The multidisciplinary cross-border WFW team that advised Guinea was led by Dubai Projects Partner Alhassane Barry working closely with London Corporate Partner and Global Mining & Commodities Sector Co-Head Jan Mellmann and Paris Regulatory & Public Law Partner Arnaud Troizier, as well as ESG Partners Sarah Ellington and Nick Walker, Corporate Partner Chris Kilburn and Tax Partner Richard Stephens in London; Dispute Resolution Partner Franck

Poindessault, Tax Partner Romain Girtanner and Regulatory, Public Law & Competition Senior Consultant Lucien Rapp in Paris; Tax and Regulatory Partner Daniel Pilarski in New York: and Projects Partner Mhairi Main Garcia in Dubai. They were supported in London by Counsel Valentina Keys (ESG) and Senior Associates Thomas Newlyn (Corporate), David Bath (Corporate) and Rhiannon Elias (Projects) and Associates Sulaiman Hoosen (Corporate), Idil Yusuf (Corporate) and Philippa Beasley (ESG); in Paris by Counsel Hélène Ibos (Tax) and Associates Maximilian Cristescu (Tax) and Mohamed Douib (Corporate); and in Dubai by Associates Amoetsoe Mkwena and Benjamin Ruffet (Projects).

Alhassane and Jan commented: "The strength and depth of our experience in our core sectors and ability to work seamlessly and collaboratively across our international network meant we were able to provide Guinea a truly global legal team to help it complete this historic project which represents a new era for the development of the African mining sector".

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## Ultra-reliable SKF Explorer tapered roller bearings keep mining dump trucks rolling

KF designs, develops and manufactures a range of premium quality products to meet the demands of the mining sector, which is notorious for punishing conditions that test machines, equipment and components to their very limit. Irrespective of how severe the conditions, machine reliability is always a prerequisite to ensure sustainable mining operations; even a few minutes of downtime of critical machinery due to the failure of even the smallest of component causes production stoppages that can result in significant monetary losses.

Dump trucks are the transportation lifelines of mining operations and as long as they are on the move, mines are prospering. SKF Explorer tapered roller bearings have been specifically developed for mining dump trucks with reliability top of mind; these bearings are renowned for their dependability in essentially all conditions – extreme temperatures, dust, mud or stones.

SKF Explorer tapered roller bearings are typically used as bearing solutions in applications where there is a need to increase performance, reduce friction or increase power density. SKF based the development of these bearings on real-world experience and dialogues with discerning partners. Owing to

their superior reliability and rotational delivery at the right time, these bearings are trusted by some of the most prestigious mines globally and the preferred choice of operators to keep their dump trucks in motion.

SKF tapered roller bearings are manufactured in accordance with the SKF Explorer class and incorporate the organisation's combined areas of expertise in terms of design, tribology, metallurgy and lubrication.

A bearing is essentially a collection of individual components that work together. The construction of a tapered roller bearing features a cup and cone assembly that accommodates loads and provides low friction during operation. The cup is comprised of an outer ring while the cone assembly consists of an inner ring, a cage and rollers, all designed to handle combined loads. The bearings' optimised surface finish further enhances reliability while the separable and interchangeable components facilitate mounting and maintenance. SKF offers a wide range of tapered roller bearing designs including single, double and four-row as well as matched tapered roller bearings. The units are customisable to match specific conditions i.e. speed, load, contamination, temperature or vibration

conditions. SKF Explorer cylindrical and CARB toroidal roller bearings present reliable, compact, efficient and cost-effective solutions for planetary gearboxes. Both bearing types offer high carrying capacity.

Alongside its comprehensive bearing portfolio, SKF also leads industry with condition monitoring and lubrication systems that further optimise customers' asset management. Insight into the health of machines allow for preventative maintenance while automated lubrication systems enhance machine lifecycle, delivering high operational reliability and augmented performance.

In addition to premium quality, reliable product, system and technology solutions, service excellence is equally fundamental to successful operations. As a customer-driven organisation, SKF delivers on both. Customers can rely on smart stocking of products and parts, a strategic network of authorised distributors and specialist teams of skilled technicians who offer professional service and fast turnaround times for maximised machine uptime.

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#### Contributions

The editors welcome news items, press releases, articles and photographs relating to the Mining Industry.

These will be considered and, if accepted, published. No responsibility will be accepted should contributions be lost, damaged or incorrectly printed.

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### Southern Palladium submits EIA for Bengwenyama project

ual-listed Southern Palladium has submitted the environmental-impact assessment (EIA) report for its 70%owned Bengwenyama platinum group metal project, located on the eastern limb of the Bushveld Complex in South Africa, to the country's Department of Mineral Resource and Energy (DMRE), which is in the process of being split from the energy portfolio and renamed the Department of Mineral and Petroleum Resources.

Southern Palladium MD Johan Odendaal explains that, in alignment with regulatory requirements and the company's dedication to environmental stewardship, a scoping study was completed on February 14.

Subsequently, an extensive EIA process was carried out in full compliance with the EIA

"These studies ensure that our project adheres to legal standards and best practices, reflecting our commitment to sustainable and responsible mining," he says.

He notes that the EIA studies, along with the consultation process, were finalised and the report submitted on July 10, adding that the company received an acknowledgment letter from the DMRE on July 22.

Southern Palladium says the letter acts as an acknowledgement by the DMRE that the core parameters of the EIA submission have been met correctly by the company and that the detailed review can begin for issuance of environmental authorisation.

In turn, the environmental authorisation permit will form part of Southern Palladium's forthcoming mining right application (MRA), following the completion of a prefeasibility

"We remain confident that the MRA process will be successfully concluded by the end of the first quarter of 2025, with the formal granting of the mining right by the DMRE expected shortly thereafter.

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"This will position Southern Palladium to advance the Bengwenyama project, delivering significant value to our stakeholders and contributing to the economic development of the region," says Odendaal.

The company says additional permit applications are also in progress. These include a waste management licence (WML) application and a water-use licence (WUL) application, which will be submitted for water uses associated with the Bengwenyama

The EIA submission, along with the WML and WUL submissions, form part of the comprehensive review process for Southern Palladium's MRA. The WML and WUL applications are scheduled to be completed and submitted by December

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#### SKF unleashes successful raid action in South Africa's Mother City in an ongoing bid to stamp out counterfeit bearings

uthorities, with collaborative support from SKF, recently conducted a large, highly effective raid action on a very well-known bearing seller of SKF bearings in Cape Town. The bearing seller, who has been on SKF's radar for quite some time, has been selling counterfeit SKF bearings to numerous customers in the region.

"We gathered intelligence from our Cape Town Authorised Distributor as well as from our customer who unknowingly purchased counterfeit products," explains Lynette Nieuwenhuizen, SKF Contracts Manager, Territory Sales & Brand Protection Champion. "Thanks to a great team effort. determination and smart investigations, we managed to seize over fifteen bags filled with various types and sizes of counterfeit SKF products during the raid." Nieuwenhuizen confirms that they are collaborating with police and legal authorities in further pursuit

"Our Authorised Distributors and customers

are our eyes and ears in the market and they subsequently play a pivotal role in providing intelligence. Their valuable input will assist us in carrying out more raids in the future," says Nieuwenhuizen.

"We solicit everyone's support in spreading awareness around the negative effects and outcomes linked to counterfeits for SKF in terms of loss of business." Nieuwenhuizen also points out that the use of counterfeits can essentially be catastrophic for customers. Inferior bearings are known for failing prematurely, causing machine and equipment breakdowns that subsequently lead to downtime. This unlocks a domino cost-loss effect; alongside production losses, end-users also face maintenance and replacement part costs. Additionally, counterfeit products are detrimental to both SKF and customers' efforts towards sustainability.

SKF is extremely pleased with the raid's successful outcome and pledges continued support of the market to ensure that only

genuine SKF products are used. "As the custodians of our quality brand, we will continue our efforts to protect our valued customers and Authorised Distributors from

Nieuwenhuizen emphasises that SKF Authorised Distributors offer customers the best sales channel for sourcing genuine products and the responsibility therefore rests on their shoulders to ensure that their supply chain is always free of counterfeits. Doing its part, SKF also takes proactive initiatives to ensure their network of Authorised Distributors always remain clean from counterfeit

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SKF conducts successful raid action on bearing seller in Cape Town in a bid to stamp out counterfeit bearings

#### **Epiroc, Harvest Floor and Palesa** Pads proudly join hands to help eradicate 'period poverty' amongst young women in South Africa



he World Bank defines poverty as 'a lack of shelter, being sick and not being able to get medical care, not having access to school, not having a job, fear for the future, hunger and trying to survive day-to-day.' Adding to this grim picture is the plight of many impoverished women and young girls who do not have access to



menstrual products (let alone have the ability to afford this vital hygiene product) with accompanying physical, mental and emotional challenges. It is estimated that 30% of South African girls miss up to a week of school every month during their menstruation cycle, leading to many dropping out of school, limiting their ability to enter the formal job market and subsequently feeding the cycle of

In a bid to stamp out 'period poverty', Judy Vilakazi, Regional Corporate Responsibility (CR) Manager, Epiroc South Africa, recently initiated a three-way partnership with Palesa Pads and Harvest Floor which saw the donation of 2000 reusable Palesa Pads to 500 girls at four schools in Limpopo in Q4 2023. Harvest Floor is a Gearvest initiative so it was the obvious choice to select schools near their offices in Mogalakwena that are in dire need of support with water, sanitation, feeding schemes and education. Each of the 500 girls received four Palesa sanitary pads, one of each size/absorbency (MINI, MIDI, MAXI, MEGA), an instructional leaflet containing



valuable menstrual health information as well as instructions on how to use and wash Palesa Pad, all packaged in a pretty box.

Judy explains that the initiative started when Harvest Floor invited Epiroc to participate in a golf day, the proceeds of which would go to four schools located in Limpopo Province that were selected by the organisation. "Giving back to local schools is very much aligned with our CSR strategy so we wanted to go one step further by donating reusable sanitary pads to the female learners at these schools. We therefore invited Palesa Pads, with whom we have shared similar initiatives since 2020, to join the partnership."

Judy says that this is their first collaboration with Harvest Floor. She points out that their mission ties in perfectly with Epiroc's corporate responsibility guidelines and they are impressed by the work done by the NPO (non-profit organisation) in the Mapela community. Established in 2020, Harvest Floor's mission is to empower disadvantaged communities in rural areas by providing essential resources within education. "Harvest Floor is committed to creating a world where all individuals have access to the resources within education that they need to thrive," note Jennifer Mashiane, Marketing Manager and Lorna Enslin, Managing Director. "We envision a future where disadvantaged education centres in the rural areas have sufficient education support and



nutritious food, clean water and basic health supplies. We strive to empower individuals in these communities by providing educational opportunities and skills development programs that enable them to break the cycle of poverty and build a brighter future for themselves."

Founder and CEO of Palesa Pads, Sherie 'Palesa' de Wet says, "We have enjoyed working with Epiroc over the past few years, empowering almost 2000 girls over the past



three years. In collaboration with Epiroc we have also visited smaller, often forgotten communities and we appreciate Judy's commitment to disadvantaged communities." Sherie confirms that since the establishment of the organisation in 2017, 650 000 Palesa Pads have been donated, helping some 130 000 girls during their menstrual cycle.

Palesa Pads (Palesa means 'flower' in Sotho, Pedi and seTswana) provides a sustainable solution to menstrual hygiene management as their reusable sanitary pads can be washed and reused each month for up to five years which spans a girl's entire high school career. These sanitary pads are manufactured from highquality fabric and contain no chemicals to prevent irritation and unpleasant odours. The core is an absorbent toweling and the entire pad is covered in a strong waterproof fabric for maximum protection, comfort and longevity; all fabrics are completely stain-

Sherie also points out that the reusable sanitary pads are manufactured locally by Palesa Pads Foundation's sister organisation, Palesa Pads Pty Ltd. in Meyerton, South of Johannesburg, Gauteng. "We are creating meaningful employment by training previously disadvantaged ladies how to sew the pads." She adds that Palesa Pads are also better for the environment; because they are washed and reused each month they do not contribute to landfill.

"We want to give our support wherever possible to promote this challenge faced by many schoolgirls across the country and we are honoured that Epiroc saw fit to initiate a partnership with Palesa Pads, giving us the opportunity to help ensure that girls never miss a single day of school due to their menstrual cycles," affirm Jennifer and Lorna.

Judy concludes: "Epiroc is proud to be a partner of such an essential and deserving programme. Education is the most important weapon - it transforms lives. We remain committed to promoting quality education and playing our part in bringing change to young girls' lives by helping them to stay in school."



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Waterless Community Projects

# Pambili produces first gold at Zimbabwe mine

ambili Natural Resources Corporation has produced its first gold from its Golden Valley mine in Zimbabwe's Matabeleland province.

Although formal mining has yet to re-start at Golden Valley, Pambili has completed some underground development in preparation for the drilling programme, which is due to start later this month. Some 630 t of material from this underground development, together with historic sands on surface, were processed through the Golden Valley plant to recover 235 g (7.5 oz) of gold at a recovery of 0.52

The imminent restart of the toll-milling operation, together with further cleanup of historic sands on the site, is expected to yield additional gold before underground mining begins. However, given the nature of the material being processed, the Company is not yet able to predict what this will yield.

Jon Harris, Chief Executive Officer of Pambili Natural Resources, commented: "The first gold production from the Golden Valley Project really is exciting news for

The decision to process material from the offreef underground development was based on the visible mineralisation observed within that material and the experience of the local team.

The fact we were able to produce gold from this off-reef material and the reworking of old sands supports our belief in the upside potential of Golden

As recommended in the recent Technical Report, the Company will endeavour to establish the true extent of this potential

through our planned underground and surface drilling programs, both of which will commence this month. As we continue to learn more about its large-scale potential, Golden Valley stands to become an increasingly valuable asset for Pambili."





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#### SKF Maxilube lubrication system optimises bearing and machine operation for Moroccan paper mill

KF enhanced personnel safety, increased machine reliability, boosted uptime and delivered substantial time and cost savings for a leading paper mill in Morocco with the installation of a complete Maxilube lubrication system on a paper

The customer had little control over the lubrication of bearings on one of their paper machines. Extremely restricted safety procedures prohibit any approach to the running machine. The customer's only solution therefore was to grease the bearings in the wet end when the machine was standing still during programmed stoppages. As lubrication could only be performed on the bearings every 35 to 60 days, lubrication was insufficient when the machine's running time increased, causing bearings to overheat and ultimately fail prematurely.

The customer subsequently requested SKF to supply and install a lubrication system on the wet end of the paper machine. Following numerous meetings and discussions with the SKF Morocco team, the customer chose the Maxilube monitored dual line solution. As the installation had to take place during planned machine downtime when all maintenance operations were carried out, SKF only had a five-day window period in which to install the entire lubrication system and was the only supplier who was willing to accept this tight deadline.

When the customer postponed the project for approximately four years, SKF faced new challenges. The customer contacted SKF in August 2023, requesting that the team again commence work on the lubrication solution. The complete lubrication system had to be installed before the end of October 2023 to take advantage of the scheduled fiveday machine shutdown. Challenge accepted!

Thanks to the support from SKF's Muurame factory as well as the efforts of all the commercial colleagues at the Customer Service, SKF managed to get the equipment three days prior to the start of the customer's technical shutdown, which greatly assisted the team with the necessary preparation work.

The monitored Maxilube lubrication system is connected to a dualset unit with two MPB pumps for automatic drum change when one of the drums is empty. The lubrication solution also includes SGA distributors with cycle and alarm sensors installed on the distributors to monitor the efficiency of

lubrication operations. All components are manufactured from AISI316 stainless steel to ensure lasting reliability. The flexible system has the potential to connect alarms to the customer's DCS going forward.

The SKF team completed the project within and testing to final commissioning and hand over; this included five days of downtime

According to the customer, SKF achieved the

best score amongst all the other projects that

were running on the machine at the same

time. Extremely satisfied

and professionalism, the

Morocco team's

ten days - from equipment delivery, assembly during machine shutdown.

with the SKF

efficiency

customer

For further information,

please contact: Samantha Joubert,

Marketing Manager Tel: +27 (0)11 821 3602 Fax: +27 (0) 86 681 4342

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SKF Maxilube lubrication solution enhances personnel safety, increases machine reliability, boosts uptime for Moroccan paper mill

### Merafe reports R720m halfyear profit on higher chrome ore prices, weaker currency

OHANNESBURG – Johannesburg Stock Exchange-listed Merafe has reported a profit of R720-million for the six months ended June 30, on higher realised chrome ore prices and a weaker rand:dollar exchange rate. But downward pressure on chrome ore prices has started and is expected to translate to lower ferrochrome prices, Merafe CEO Zanele Matlala outlined in the half-year presentation covered by Mining Weekly.

Ferrochrome prices remain strained and cost increases continue to put pressure on margins and the company is expecting the second half of 2024 to be softer given a weaker market

Nevertheless, the board of Merafe has declared an interim gross cash dividend of 20c, on a par with that for the corresponding period of last year.

Merafe's revenue and operating income are primarily generated from the Glencore-Merafe Chrome Venture, which is one of the global

market leaders in ferrochrome production, with a total installed capacity of 2.3-million tonnes of ferrochrome a year.

Merafe shares 20.5% of the earnings before interest, taxation, depreciation and amortisation from the venture, its reportable segment being the mining and beneficiation of chrome ore into ferrochrome and the extraction of associated minerals.

Operationally, ferrochrome and chrome ore production were lower, with some improvement in electricity supply and

Global stainless-steel production increased and demand for ferrochrome followed a similar trend, with rand weakness against the dollar providing some cushion, Global stainless-steel production increased by 9% to 31.3-million tons. The biggest increase came from China, which grew stainless steel production by 12%.

Ferrochrome demand increased by 10% to 7.9-million tons, in line with standard steel production growth.

China continues to dominate global stainlesssteel production, accounting for more than 63%. Global ferrochrome production increased by 7% to 16.1-million tons. Nearly all this growth came from China, which has been introducing new cost-efficient capacity and which grew by about 29%. South African production decreased by 21% to 3.1-million tons following the growth in ferrochrome production in China, where chrome imports grew by 27% to 8.5-million tons, with the bulk of the chrome coming from South Africa.

Merafe had cash and cash equivalents of R1 717-million as at June 30



#### SKF LGGB 2 biodegradable grease earns EU Ecolabel certification

KF is proud to announce that their renowned LGGB 2 biodegradable grease has been granted EU Ecolabel

"This Certification is proof of SKF's relentless commitment to reducing our products' impact on the environmental and enables us to contribute to the objectives of a climate neutral, clean, circular economy and a toxic-free environment," says Eddie Martens, SKF Product Manager - MaPro.

"The Certification was achieved following months of rigorous testing and evaluation of our LGGB 2 grease, from environmental impact and sourcing of the product's packaging material to our manufacturing processes," explains Martens.

SKF LGGB 2 low toxicity lubricating grease offers the perfect solution for applications where contamination of the environment (soil and water) is a concern. The agricultural and industrial sectors are increasingly recognising

**LGGB 2/18** 

Biodegradable

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SKF Bearing Grease

the importance of adopting eco-friendly practices and the LGGB 2 grease is typically applied to agricultural, construction and earthmoving equipment as well as being widely used by water treatment plants.

Representing the new standard for biodegradable products, the EU Ecolabel gives recognition to the grease's respect of strict environmental criteria on decreasing negative impacts on biodiversity and minimised use of harmful substances. EU Ecolabel Lubricant products meet numerous criteria that guarantee reduced impact on soil, air and the aquatic environment during use, reduced CO<sup>2</sup> emissions, incorporation of a high percentage of renewable raw materials and a limited use of hazardous substances.

The multi-criteria EU Ecolabel covers a wide range of industrial and consumer goods, tackling the main environmental impacts of products along their full lifecycle, from extraction of raw material to disposal. The process also assesses the product's chemical

composition. The EU Ecolabel encourages responsible business and benefits the environment in several ways: By referencing true 'green' products, the Ecolabel empowers

sustainable choices. The Ecolabel signifies that products are durable and easy to

**LGGB 2/5** 

SKF Bearing Grease

It minimises the impact of substances released into the environment and the use of harmful chemicals and emissions into soil, water and air.

Established by the European Commission in 1992, the EU Ecolabel is defined by the Regulation (EC) No 66/2010 of the European Parliament and of the Council. The criteria for lubricants are established in the Commission decision (EU) 2018/1702 of 8 November 2018.



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SKF LGGB 2 biodegradable grease earns EU Ecolabel certification

# Lotus signs uranium mine development agreement with Malawi Government

otus Resources Limited has announced it has signed a Mine Development Agreement (MDA) with the Government of Malawi (GoM), for its Kayelekera uranium mine, a major milestone in its redevelopment.

This Agreement ensures the mine will operate under a stable fiscal regime and provides the necessary confidence to investors.

#### Highlight

MDA secures a stable fiscal regime for the operations.

MDA guarantees a Stability Period of 10 years during which the Project will not be subject to any detrimental changes to the fiscal regime. oKey tax terms are aligned with the Restart DFS assumptions, including royalty rate of 5% and corporate tax rate of 30%.

Relief provided on Resource Rental Tax and Withholding Tax, specifically as it applies to

dividends to non-residents.

Exemptions for import and export duties, excise and VAT on capital goods and specified consumables directly related to mine production.

MDA includes internationally recognised principles relating to legal protection on security of tenure, dispute resolution and expropriation

MDA demonstrates the commitment by the GoM to develop the local mining industry, a key pillar of Malawi 2063, their new economic vision.

Rio Tinto's increased shareholding in Sovereign Metals, which holds another key mining project in Malawi, also indicates the increased attractiveness of Malawi as a mining destination. Lotus has a cash balance of US\$34.1 million (unaudited), exclusive of restricted cash of US\$15.0 million, on 30 June 2024.

Lotus Managing Director Keith Bowes commented: "We are extremely pleased to have finalised our MDA with the Malawian Government, I would like to thank all parties involved in these negotiations, especially the Presidential Delivery Unit who were instrumental in finalising the agreement. The relevant ministries including mining, finance, and justice have all been very supportive in our negotiations as we have gone through multiple iterations of the MDA. It has been a timely conclusion to these negotiations as we have seen increased demand for the Kayelekera product from a number of utilities which coincides with the current perceived shortages and strong prices in the market. With the completion of the MDA, we can now move ahead quickly with concluding some of our offtake discussions?



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# Atlas Copco proudly introduces B-Air, the world's first battery-powered portable air compressor

tlas Copco built the first piston air compressors in 1904 and 25 years ago, the organisation was first to introduce the revolutionary Variable Speed Drive (VSD) compressor technology. Staying true to this pioneering spirit and forward-thinking philosophy, Atlas Copco now unveils the first battery-operated portable screw compressor that incorporates VSD and PACE (Pressure Adjusted through Cognitive Electronics) technology!

The B-Air 185-12 is not only an innovation that is set to transform the industry, but is also a sustainable game-changer for the environment. It is compact and portable, reliable, clean (no local emissions), energy efficient and quiet. Due to its mobility, the machine has been engineered by Atlas Copco with autonomy top of mind. The compressor gets maximum performance out of its battery to provide a working pressure of 5 to 12 bar (72 to 175 psi) and free air delivery of 5,3 to 3,7 m<sup>3</sup> / min. The 55kWh battery can be connected to the grid or to a renewable power source. Once fully charged, the battery will power the machine for at least one full working shift in typical conditions and applications. "Operators will be able to operate their pneumatic equipment during load shedding, ensuring uninterrupted production and high productivity," says Atlas Copco Power Technique's Portable Products Business Line Manager, David Stanford.

The exceptionally energy efficient, ultra-quiet, 37 kW Permanent Magnet (PM) motor, is at the core of the B-Air. "VSD technology works best with rotary screw compressors as their flow rate and power consumption are virtually proportional to speed," explains Stanford. "The rotary screw elements adapt in sync with the motor so that the amount of compressed air delivered matches air demand. Owing to this PM motor - VSD combination, the compressor is 50% more energy efficient than

a fixed speed unit in partial or unloaded conditions. As the compressor operates under these types of conditions for most of its working life, it means that operating costs are significantly reduced over the machine's lifespan."

The incorporation of PACE technology into the B-Air takes efficiency to a whole new level. This intuitive electronic pressure regulation system adjusts its output depending on the requirements, and allows multiple pressure and flow combinations, delivering the widest operating pressure range within a single compressor. Compared to a regular compressor which is limited to a certain pressure and flow rate, a compressor equipped with PACE has the ability to provide extra flow at lower pressure levels. This technology allows the motor speed to be adjusted according to the load, resulting in substantial energy and cost savings.

With only a few clicks of the digital controller,

operators can easily find the perfect combination by selecting a pressure increments of 0.1 bar (2 psi). "This smart technology enables users to accommoda te different applications with one compressor notes ' Stanford

"For example, the operator can, on the same machine, select 6 bar (90 psi) to power a handheld tool, or 10,3 bar (150 psi) and 12 bar (175 psi) respectively for sandblasting and cable blowing applications."

The compressor offers complete flexibility because it can essentially operate anywhere. The IP-66 rated PM motor is uniquely designed by Atlas Copco to withstand stringent outdoor applications and is completely sealed from water and dust ingress. The liquid-cooled battery pack is contained in a triple enclosure that provides excellent protection. The B-Air is able to operate reliably in ambient temperatures ranging from -25°C to +40°C (with a standard heater and a minimum battery cell temperature of -20°C), offering the ideal compressed air solution for harsh applications that have to be addressed in a sustainable way.





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# Atlas Copco's NGPs 2-9 PSA range of Nitrogen Generators sets new quality and efficiency standards in on-site nitrogen generation

tlas Copco Compressor Technique extends its existing and proven NGP nitrogen generator range with the introduction of the NGPs 2-9 PSA (Pressure Swing Adsorption) range of generators. This latest quality air innovation from the global industrial solutions specialist is designed and engineered to meet diverse nitrogen applications across a wide spectrum of industries.

Dean Adriaanse, Product Manager at Atlas Copco Compressor Technique, remarks on the significance of the NGPs 2-9 PSA range: "The introduction of this next-generation nitrogen generator, which delivers superior air purities of between 95 – 99.999%, fills the gap below our existing offering. We are now able to offer users nitrogen flows between 2-9 Nm³/hour which was not previously covered by the NGP8-130+ range. This expansion ensures that we continue to meet the transformatory needs of our customers while upholding our commitment to excellence."

With a strong focus on air purity, performance, versatility, reliability, and cost-efficiency, Atlas Copco's new NGPs 2-9 PSA range is packed with advanced features that deliver value adding benefits for users. Before unpacking the machine's capabilities, Adriaanse shares the many advantages of on-site nitrogen generation. "Rated fourth after gas, electricity and water, nitrogen is an integral part of production processes in countless industries who are dependent on reliable supply and consistent high gas purity."

To demonstrate the true added value of on-site nitrogen generation, Adriaanse draws a comparison between investing in a nitrogen generator versus buying or leasing pressurised cylinders of liquid nitrogen. "Bulky nitrogen containers must be transported (CO<sup>2</sup> emissions), handled (safety risk), stored (space) and administered (resources) with

costs linked to each logistical stage. Moreover, potential challenges such as stock shortages, supply and transport issues can disrupt production with costly outcomes."

"By installing a nitrogen generator on site, users can eliminate all these headaches, hazards and costs and simply reap the benefits of having a constant and seamless supply of nitrogen that will never run out, at guaranteed high purity levels," affirms Adriaanse. "The NGPs 2-9 PSA range has been designed for continuous duty and uninterrupted operation, empowering users to control their nitrogen supply with confidence."

Adriaanse also points out that the unit cost of nitrogen gas is significantly lower compared to gas cylinders and that there is no wasted gas, thus adding even more to the bottom line. "Coupled with best-in-class air/energy consumption and high air purity levels, these generators deliver uncompromising efficiency."

Designed for seamless integration into existing compressed air networks, the user-friendly, plug-and-play NGPs 2-9 PSA range is ready to use without the need for costly installations. Featuring a small environmental footprint and quiet operation, the compact machine can operate on the production floor. An advanced controller with remote monitoring capabilities streamlines operation.

Delivering low operational and ownership costs, reliability, efficiency, unparalleled air purity and safety, on-site nitrogen generation is a sound investment in optimising production processes and future-proofing operations in industries such as oil & gas, chemical, pharmaceutical, electronics, and waste water treatment. The NGPs 2-9 PSA range caters to a wide selection of applications, including microbreweries, 3D printing, laboratories, Modified Atmospheric Packaging (MAP) for

food, chemical blanketing, heat treatment, laser cutting, electronics recycling, battery production/recycling, soldering, as well as wire/cable production.

Atlas Copco is plugged into dynamic and constantly evolving markets and remains resolute in its commitment to providing cutting-edge solutions that sustainably drive efficiencies and cost effective outcomes for customers. The NGPs 2-9 PSA nitrogen generator range represents a milestone in innovation, empowering businesses to unlock new levels of efficiency and sustainable productivity.

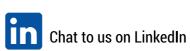






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connected lubrication systems, state-of-the-art condition monitoring, data analytics and machine learning, SKF engineers increase mean time between failures (MTBF), extend machine longevity and lower energy consumption for customers.

Reducing, reusing and recycling are key elements of sustainability and here too SKF South Africa leads the market. Pivotal here is SKF's specialist Bearing Remanufacturing Centre, which, established in 2008, gives high-value bearings a second, third and even fourth life. Reusing rather than replacing keeps customers' costs down, reduces lead times and material consumption. Moreover, bearings not eligible for remanufacture can be recycled to produce new bearings, effectively closing the loop. SKF's remanufactured bearings and units conform to the same quality specifications as new SKF bearings and units.

SKF South Africa has a competitive edge when it comes to its comprehensive product portfolio of bearings and bearing units, axle boxes, bearing mounting/dismounting equipment, lubrication and condition monitoring solutions for the rail segment. The establishment of the TBU Centre further elevates SKF's value chain and unlocks the tremendous potential presented by this important transport sector on the African continent.

Along with premium quality product and service solutions, steadfast customers, a dedicated distributor network and a committed SKF team of employees continue to drive the SKF success story. Since the appointment of its first distributor in 1970, SKF South Africa went on to develop a strategic network of authorised independent industrial distributors along with lubrication, commercial vehicle and agricultural distributors in South Africa and neighbouring countries in a bid to deliver engineering, product and service solutions to customers' doorsteps.

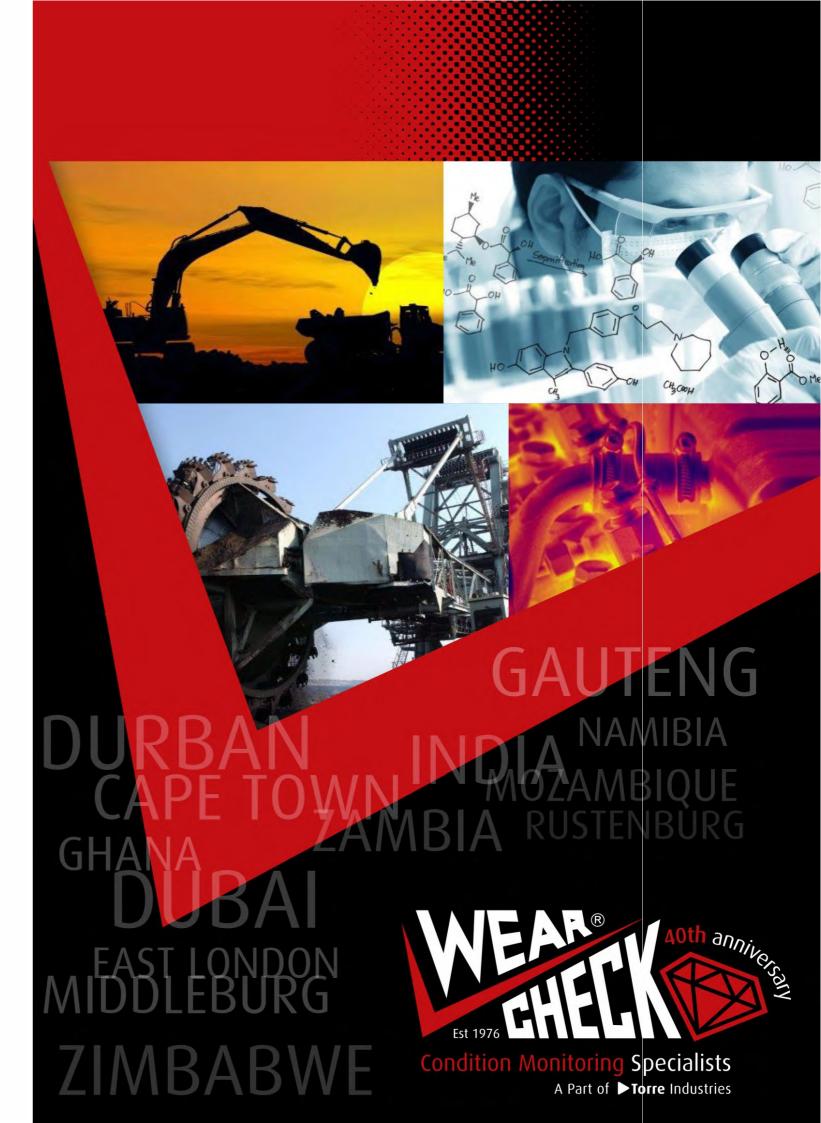
SKF invests in long-term customer partnerships, delivering ever more advanced and energy efficient solutions that support the company's strong narrative of optimising the performance, life, reliability and efficiency of customers' rotating assets.

SKF is defined not only the quality of its products and services but also by the values it embraces - empowerment, high ethics, diversity and inclusion, and teamwork drive SKF employees' decision-making processes and interactions internally as well as with customers and distributors.

With an unblemished reputation for excellence in products and services, SKF South Africa looks to the future, keeping in step with market trends and requirements, ready to unpack the African continent's vast potential. SKF South Africa continues to hone its products, technologies, services, experience, knowledge, capabilities and competencies. In so doing, SKF ensures that it continues its journey of delivering the right solutions that are aligned with a dynamic, rapidly developing industrial and digital landscape to future proof customers' operations for competitive edge and ultimate business sustainability.

SKF is a world-leading provider of innovative solutions that help industries become more competitive and sustainable. By making products lighter, more efficient, longer lasting, and repairable, we help our customers improve their rotating equipment performance and reduce their environmental impact. Our offering around the rotating shaft includes bearings, seals, lubrication management, condition monitoring, and services. Founded in 1907, SKF is represented in approximately 129 countries and has around 17,000 distributor locations worldwide. Annual sales in 2022 were SEK 96,933 million and the number of employees was 42,641. www.skf.com





### Enhancing safety on South Africa's roads with SKF TKSU 10 Ultra Sonic Leak Detectors



egardless of where an air pressurised system is being used, be it in commercial vehicle air brake systems, passenger vehicle suspension systems, workshop or production line pneumatic tools, pneumatic lifts or even dentists' drill, an air leak negatively affects the performance of the pneumatic system with a host of costly consequences. In addition to downtime and added work load on air compressor (wear and tear and increased energy consumption), excessive air leaks that go undetected in the brake systems of commercial vehicles can result in brake failures, posing a serious threat to road safety.

SKF, in collaboration with its Authorised Distributor, Supreme Bearings, came to the assistance of a longstanding customer in the



transport sector who was having issues with air leak detection on their heavy vehicles' pneumatic brake systems.

SKF Product Manager, MaPro, Eddie Martens, explains that testing the pressure drop off within a system will indicate a leak but does not necessarily indicate where the leak is. "With a fluid it is readily picked up due to the presence of a drip or wet spot, but with air, the only telltale sign is sound. However, the sound of a micro leak is outside the range of the human ear, essentially making detection impossible. Where there is one micro leak there may be many."

"We decided to conduct a courtesy call at the workshop of the transport company who has been a customer of Supreme Bearings in the Free State for some 20 years. Together with Supreme Bearings, we demonstrated the SKF TKSU 10, putting our Ultra Sonic Leak Detector through its paces."

As the name implies, the SKF TKSU 10, via its ultrasound measurement sensor, rapidly detects ultrasonic leaks in a host of pneumatic and vacuum systems including commercial vehicle brakes, compressed air lines, steam traps and hydraulic cylinders that may have internal bypasses. Benefits include rediced load and maintennace costs and improved equipment operation and reliability.

The customer was extremely impressed with the versatility and user friendliness of the SKF Ultrasonic Leak Detector. "With the added value of safety, which is understandably at the top of our customer's benefit list, the transport company immediately purchased two TKSU 10 units," states Martens. The Ultra Sonic Leak Detectors assist in the final control of the heavy vehicles' pneumatic braking systems after service as well as prior to being put back into full service.

The light weight, easy-to-use TKSU 10 can detect leaks from a distance. Moreover, noise cancelling headphones facilitate leak detection even in noisy industrial environments. The instrument features adjustable sensitivity and the intuitive LED display gives the user guidance on leak detection results. The SKF TKSU 10 is designed for use in all industries

utilising compressed air, and is particularly recommended by SKF for paper and chemical industries, as well as workshops with airdriven power tools and many other pneumatic applications.

According to Martens, the customer reports extreme satisfaction with the performance of the two TKSU 10 units over the past two years. "The staff took to the user-friendly units seamlessly without the need to attend training courses, resulting in quick and efficient service turnaround times that put the heavy vehicles back on the road in no time, secured in the knowledge that their braking systems are airleak free and safe.

Martens confirms that the success of the TKSU 10 units has led to the customer purchasing other SKF products. "We also supplied a record order of wheel bearings for their heavy vehicles," he concludes.





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