

# MINING DEVELOPMENTS

August September 2024

MAGAZINE



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## New SKF LGNL 3 grease can take the load **SKF**

SKF is proud to introduce its new LGNL 3 general purpose, high load bearing grease that caters to the lubrication requirements of a wide range of industries and applications.

"One of our primary goals was to develop a lithium-free grease that will match or even outperform our renowned SKF LGMT 3 grease at a lower cost, using the LGMT 3 grease as a benchmark," explains Eddie Martens, SKF Product Manager - MaPro. "Based on a thorough research and grease-formulating process, the new high-spec LGNL 3 grease will outperform high quality NLGI 3 lithium-based greases on several parameters including mechanical stability, load carrying capacity, wear protection, and grease life, presenting a worthy non-lithium alternative to our own lithium greases. We will of course continue to supply those applications that require our quality range of lithium greases."

SKF LGNL 3 grease offers a wealth of key technical benefits that will add significant value for customers. Advantages include very long grease life, great mechanical stability, excellent load carrying capacity, a wide temperature range and excellent anti-

wear properties. In terms of commercial benefits, grease consolidation opportunities will lead to stock savings for end users. Martens adds that due to the LGNL 3 grease's independence from the lithium market, which is mainly driven by electrification trends, customers can also look forward to cost benefits over the mid- and long term.

"Grease compatibility, which refers to the extent to which two greases can be temporarily mixed together without showing extensive hardening or softening of the mixture, is extremely important," says Martens and warns that either one of these outcomes could endanger the lubrication of the bearing. A grease compatibility test aims to provide certainty about the risks associated with the transition from one grease to another in the event that a thorough cleaning cannot be performed due to operational conditions. SKF LGNL 3 has been tested against LGMT 3, LGEM 2, LGHB 2, LGHP 2 and LGWA 2 and shows good compatibility with all five products. Martens advises that if customers are unsure about the compatibility of the grease they are currently using, they are welcome to contact

their nearest SKF Authorised Distributor or SKF for assistance.

In addition to vertical shaft and high load applications, SKF's new LGNL 3 grease is suitable for use on pumps and fans, mills and crushers, as well as on wheel bearings of passenger and commercial vehicles and trailers.



**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.**

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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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# 1914 – 2024: SKF South Africa celebrates 110 years of optimising customers' rotational assets through its premium value solutions offering



Established in 1914 by Swedish Holding Company, SKF AB, SKF South Africa is proudly celebrating its rich 110 year heritage of delivering premium value solutions to customers across South and Southern Africa.

As the first subsidiary on the African continent, SKF South Africa, then known as SKEFKO (South Africa) Ball Bearing Company Limited, based in Pritchard Street, Johannesburg, went on to evolve from a bearings and engineering services supplier to develop innovative products and advanced technologies that seamlessly integrate with the digital era and meet the demands of modern day industry.

Today, SKF South Africa leads the South and Southern African market as an OEM (Original Equipment Manufacturer) supplier of bearings, seals, power transmission and lubrication products, supported by professional mechanical engineering and Remanufacturing services. These state-of-the-product and technology solutions are widely used within around 40 market sectors across the region including mining, materials handling, automotive (passenger and commercial vehicles), solar and wind energy, railways, machine tools, medical, food & beverage and paper industries.

A number of important developments and milestones during SKF South Africa's distinguished 110-year history include: The relocation in 2019 of its Jet Park, Johannesburg headquarters to larger, purpose-built premises, to accommodate future development and growth. With the design of the new building, which is also situated in Johannesburg's prominent Jet

Park industrial area, aligns with SKF's net zero drive; the building's 383 kWp solar system delivers approximately 30% more than the company's average needs with the warehouse, workshops, offices, logistics, etc. essentially operating completely off-grid from 08h30 to around 16h30. Being a grid-tied system, energy is not stored in batteries onsite. However, SKF ensures that the excess electricity is not going to waste by feeding it back to the Municipality free of charge.

2023 Earmarked the launch of SKF's Circular Economy Centre (previously known as the SKF Solutions Factory) as well as the TBU Bearing Refurbishment Centre. With the deliberate intention of making a meaningful contribution to sustainability, the Circular Economy Centre comprises an organic collection of SKF services. The Centre houses a combination of quality circular economy product and service solutions including SKF's Bearing Remanufacturing Centre, Project Engineering, seal manufacturing services, RecondOil and a range of Onsite Services.

Machine efficiency and reliability are sustainability game changers. Through the provision of innovative designs, superior quality products, advanced technologies,



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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](http://www.skf.com)*



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

Atlas 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 in increments of 0.1 bar (2 psi). "This smart technology enables users to accommodate

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.



# Atlas Copco's compressed air solutions for efficient pneumatic conveying

A rapidly growing global population is driving the endless need for goods hence there is an ever-growing demand for the movement of bulk materials. "Moving goods through pipes from one point to another using air i.e. pneumatic conveying, is an extremely efficient method of transporting a great variety of products, provided that the right system is used and that it's done correctly," states JC Lombard, Atlas Copco Compressor Technique Business Line Manager, Oil-free Air Division.

Air can be used to move materials ranging from powders, sand and grains to pellets, plastics and fly ash. Given the tremendous versatility and efficiency of pneumatic conveying, combined with the process's ability to move vast types of different materials, it's easily one of the most widely used forms of materials handling. Unsurprisingly pneumatic conveying is favoured by a great many diverse industries such as food & beverage, pharmaceuticals, mining, and even waste water treatment. Atlas Copco Compressor Technique offers a broad range of pneumatic conveying solutions that include air compressors, air blowers (screw, lobe, centrifugal and turbo) and ancillary products to meet the bespoke needs of these industries.

"Due to the wide range of materials that can be transported via pneumatic conveying, a one-size-fits-all solution is simply not possible," continues Lombard. "While some materials can be moved more quickly and in greater volumes, other more fragile materials require careful transportation to avoid damage. Conveying of powdery substances for example, can create dust and some substances can potentially be explosive."

To meet the varying requirements of the materials, there are different pneumatic conveying methods i.e. Dilute phase, Dense phase and Transient phase. Lombard says that it's therefore imperative to know the properties and requirements of the material that will be conveyed in order to be able to select the most appropriate conveying system that will guarantee optimum performance and product quality, and mitigate the risk of potential blockages and

combustion.

Dilute phase uses a blower or low-pressure compressor to send material through the pipeline in a high-velocity stream, as though the material is floating, without material accumulation at the bottom of the pipe. As this process moves material at high speed, it is ideal for transporting any form of granular materials. Dense phase conveying operates at a slower velocity, ensuring gentle handling over longer distances. This method is suitable for more fragile materials like powdered ceramics. The transient phase, which is the stage in-between the Dilute and Dense phases, sends some of the material 'flying' through the pipeline while some of it is moved along the sides.

Atlas Copco also offers pressure and vacuum conveying systems. "Pressure conveying is ideal for effectively 'pushing' bulk materials over long distances and is used in cement production for instance to move cement from the silo through a pipeline for processing," explains Lombard. "In contrast, vacuum conveying, also known as negative conveying, uses air suction to draw materials through a pipeline, reducing contamination risks. This method is favoured by pharmaceutical manufacturers for transporting sensitive powders through a sealed system, ensuring product purity and product safety."

The versatility of Atlas Copco's low-pressure blowers makes these machines suitable for highly regulated industries like food & beverage and pharmaceutical where product purity is non-negotiable. These machines are also ideal for multi-applications typically found in the cement industry that relies on efficient pneumatic conveying for various stages of production,

from conveying materials at the start of the production process, to bagging the final product.

The mining industry uses low-pressure technologies during heap leaching; low pressure air is blown through the leaching pad to enhance the scientific chemical process of dissolving minerals from the ore, leading to extraction efficiency. Low-pressure systems are also key to effective wastewater treatment, supporting the aeration, sedimentation, and filtration processes necessary for coping with high the volumes of contaminated water produced by mining operations. Lombard points out that the continuous and effective operation of these low-pressure technologies will lead to compliance with environmental regulations and minimise the negative impacts of mining on ecosystems.

Choosing the right pneumatic conveyance system is critical as it will contribute to cutting down costs through reduced energy expenses and unloading durations as well as the prevention of blockages with associated downtime, unproductivity and even potential product damage.

Lombard notes however that calculating the optimal size of the compressor or blower for a particular pneumatic conveying application requires experience, expert skills and specialised software. "We are able to assist our customers in overcoming these challenges. Following a site inspection by Compressor Technique's team of specialists, we are able to recommend the best, most efficient pneumatic conveying solution for each application ensuring uninterrupted, efficient operations and product integrity for ultimate sustainable business success,"





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

Atlas 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 (CO² 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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# Enhancing safety on South Africa's roads with SKF TKSU 10 Ultra Sonic Leak Detectors



Regardless 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 reduced load and maintenance 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

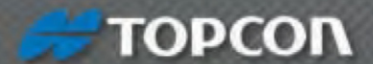
detection even in noisy industrial environments. The instrument features adjustable sensitivity and the intuitive LED display gives the user guidance on leak detection results. The SKF TKSU 10 is designed for use in all industries utilising compressed air, and is particularly recommended by SKF for paper and chemical industries, as well as workshops with air-driven 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 air-leak 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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# Hansen Motorsport and SKF align for 2024 World RX season



Hansen Motorsport, at the forefront of rallycross for over 30 years, will be forming an alliance for the 2024 FIA World Rallycross Championship with SKF, one of the longest-standing companies globally and a leader in the manufacturing of bearings, seals, and other industrial components. SKF is a Swedish bearing and seal manufacturing company founded in Gothenburg, not far from the Hansen Motorsport Headquarters, in 1907. SKF Automotive supplies bearings, seals and related products for automotive applications, and its Vehicle Aftermarket division focuses on the supply of replacement parts to the automotive aftermarket.

For 2024, two of the most historic companies in their respective fields will be combining their wealth of experience, with SKF supplying wheel bearings for the Hansen World RX Team's race cars in the World RX championship.

As 2019 World RX Drivers' Champion Timmy Hansen and 2023 World RX runner-up Kevin Hansen push their all-electric Peugeot 208 RX1e cars to the limit.

This year World RX is re-introducing RX1 combustion cars running on sustainable fuels against their all-electric counterparts – introduced to the grid two years ago. Facing the challenges of a new format, SKF's bearings will minimize friction and maximize performance as the Hansen World RX Team pursues the World RX title alongside its sustainability goals.

Kenneth Hansen, Team Principal at Hansen World RX Team, said: "SKF is reliability and performance combined in one brand, which is exactly what a race team looks for.

What's more, knowing that SKF is pushing their sustainability work makes their product a perfect fit for us. Having a supplier that shares our commitments and contributes to our goals, by lowering friction and reducing consumption and energy loss, will play a big part in the upcoming season. Philipp Herlein, the head of Vehicle Aftermarket at SKF, emphasized, "We have been in this sport a long time, and in their industry for even longer. We continue to polish and perfect everything that we do. With our extensive Original Equipment (OE) knowledge and our longstanding presence in the automotive industry, including our commitment to sustainability through advanced automotive technology, we are well-equipped to supply parts to the racing team. We are excited about the opportunity to collaborate and contribute to their success this year"

"We are honoured to partner with Hansen Motorsport for the 2024 FIA World Rallycross Championship. Our collaboration represents the fusion of two power companies, each with a rich history of excellence in their respective fields. By supplying our high-performance wheel bearings to the Hansen World RX Team, we aim to contribute to their pursuit of victory while aligning with their sustainability objectives. We look forward to a successful season together."

The 2024 World RX schedule features five double-header events, with the campaign kicking off in Höljes, Sweden (6-7 July). Following the 'Magic Weekend' season-opener, the championship heads to Hungary where the drivers will take on Nyírád's 'Red Cauldron'. Two well-known World RX venues follow in Mettet, Belgium and Montalegre in Portugal, ahead of an exciting season finale as the series heads overseas to Australia.

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*SKF offers customized bearings, seals, related products and services for wheel-end, driveline, engine, e-powertrain, suspension, and steering applications to manufacturers of cars, light and heavy trucks, trailers, buses, and two-wheelers. We also supply the vehicle aftermarket with premium spare parts, both directly and indirectly, through a network of more than 10,000 distributors.*  
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# SKF and EPWR Gear Up for a Sustainable Racing Season in STCC

The Scandinavian Touring Car Championship (STCC) season marks the world's first 100% electric national touring car championship with the EPWR concept, reflecting a significant step towards sustainable motorsport.

SKF, a leading supplier in various motorsport areas and partner of championships such as Formula 1 and NASCAR, expresses enthusiasm alongside EPWR, a part of PWR Group, for the upcoming STCC start featuring new electric cars.

"We are excited to contribute our expertise to EPWR's electric touring cars, showcasing our dedication to promoting eco-friendly mobility solutions. The products and solutions provided by SKF are designed not only to enhance the performance of EPWR's vehicles but also to advance the sustainability agenda in motorsport", stated Philipp Herlein, Head Global Vehicle Aftermarket at SKF.

EPWR has produced and released 12 all-electric race cars to all teams competing in

the STCC season, which is premiering in Gothenburg on June 8th-9th. These cars feature several key products and solutions from SKF, showcasing a commitment to sustainable motorsport.

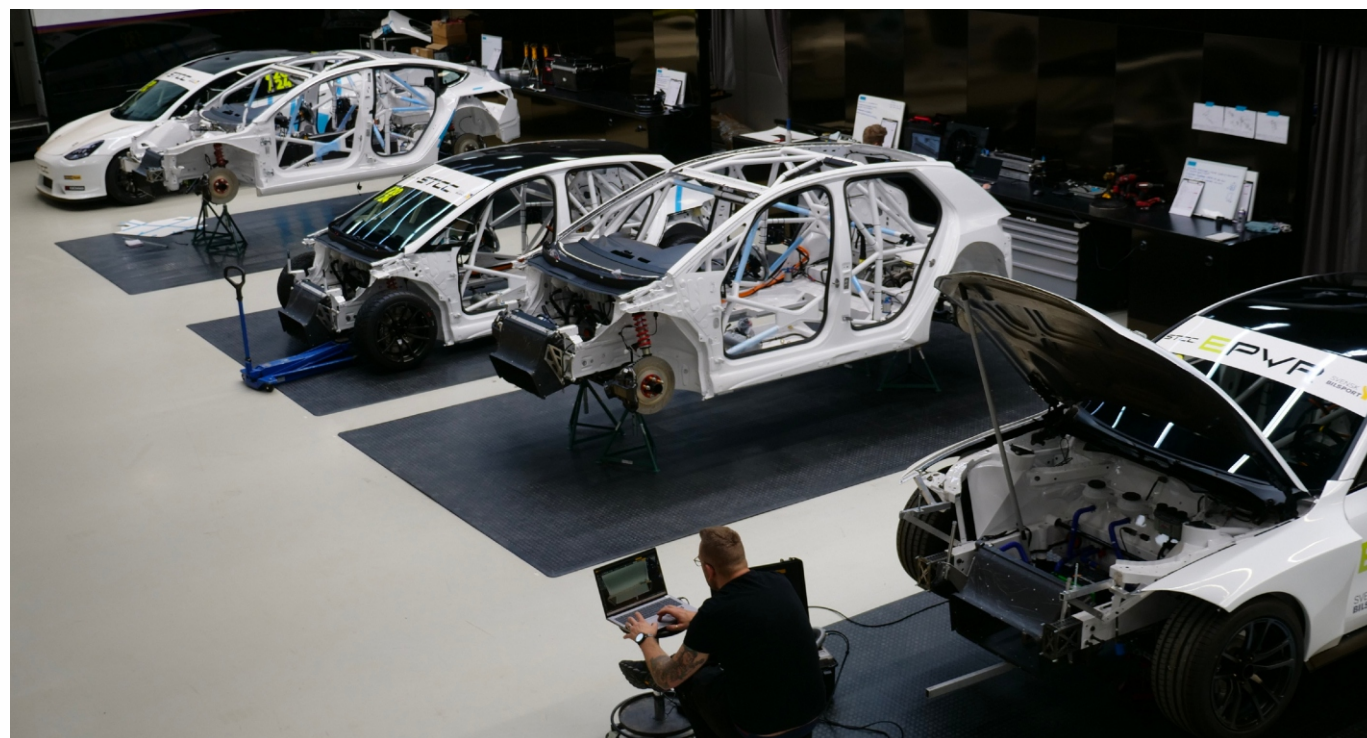
"SKF carries a proud Swedish heritage of cutting-edge technology in both automotive and motorsport, and we are thrilled to have them onboard as a partner to keep pushing for a sustainable future within the sport. The SKF products take the efficiency and reliability of EPWR race cars one step further forward, a key part in our work to limit the environmental impact without compromising quality." Micke Jansson, CEO of PWR Group,

Within the framework of the EPWR concept, the main focus is to take original chassis and transform them into high-performance racing cars through innovative processes of recycling and renewal. These vehicles represent significant advancements in the evolution of racing, with EPWR leading the way by laying the foundation for the world's first fully electric touring car racing series in collaboration with STCC. The rapid



development of electric cars is pushing boundaries, particularly on the racetrack where cars undergo rigorous testing like never before.

**SKF Automotive**  
*SKF offers customized bearings, seals, related products and services for wheel-end, driveline, engine, e-powertrain, suspension, and steering applications to manufacturers of cars, light and heavy trucks, trailers, buses, and two-wheelers. We also supply the vehicle aftermarket with premium spare parts, both directly and indirectly, through a network of more than 10,000 distributors.*


A collage of four images: a construction site with a large excavator, chemical structures, a microscope, and a heat map. A large red diagonal stripe runs across the collage.

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# SKF Cooper sealed split spherical roller bearings: Simplify maintenance & enhance safety through in-situ bearing replacement

In the event of bearing failure, a full day is typically required to remove and replace traditional bearings in the trapped positions on the shaft and to realign the driveline. This, of course, also means a whole day of plant downtime plus all the costs associated with lost production, replacement parts, unproductivity and resources having to be pulled of tasks to attend to the repair.

SKF has the solution; introducing the SKF Cooper sealed split spherical roller bearing (SRB). "The innovative design of this robust bearing allows for safe, time-saving replacement of bearings in the trapped position," states SKF South Africa's Territory Sales Engineer: Eastern Limpopo/ Mpumalanga/Eswatini, Duncan Mngomezulu. "As there is no need to dismount the drive coupling or the cantilevered drive during replacement, there is little disturbance to the shaft alignment or driveline, subsequently avoiding timeous realignment."

Mngomezulu unpacks the many advantages delivered by in-situ bearing replacement. "Let's begin with mean time to repair (MTTR) which can be reduced by as much as 70%. Putting this into perspective, this means that a repair time of 12 hours can be shortened to just 3.5 hours! Leading on from this, taking into account that on average, 43% of accidents in the mining and cement industry occur while workers perform maintenance or checks on conveyors, shorter periods of exposure to the repair site greatly reduces safety risks. In a nut shell, simplifying maintenance enhances safety."

SKF Cooper sealed split spherical roller bearings are designed to meet the high demands of industries running heavy-duty operations such as mining, mineral processing, cement, pulp & paper, metals, power generation and food & beverage, that will harness the benefits of improved bearing reliability, increased machine performance and enhanced safety for

optimised operations and sustainable production. This bearing solution serves a range of equipment including conveyor pulleys, bucket elevators, escalators, mixers and agitators, and horizontal grinding mill pinions.

SKF Cooper split spherical roller bearings are manufactured to ISO Normal precision and running accuracy. The split bearing outer ring has the same external dimension as a standard ISO spherical bearing outer ring. SKF Cooper sealed split SRB is compatible with SKF metric and inch split block housings such as SNLD, SMS and SAF/SDAF.

The wire-cut inner and outer ring-manufacturing technique and sealing of the SKF Cooper split bearings ensure longer service life (MTBF) compared to other split bearings. The steel inner ring clamping rings permit the SKF Cooper split bearings to sustain higher axial loading than other forms of split bearing and ensures better clamping against axial movement. As the maximum permissible axial loading is not generally as high as a non-split spherical roller bearing mounted on an adapter sleeve, SKF advises that it should be checked against application requirements. The design of the SKF Cooper bearing reduces the risk of shaft fretting.

The SKF Cooper bearing uses ISO 281:2007 to calculate the L10m modified rating life of the split spherical roller bearing. Incorporation of bearing sealing as standard typically increases the rating life by at least two times longer than the rating life of open (unsealed) bearings because of the improved exclusion of contamination.

The sealed solutions on the SKF Cooper sealed split SRBs, which are available as standard, increase protection against contamination and reduce the need for maintenance. The seals have a limit of -40 to +90 °C ambient temperatures.



"We recommend that the bearing is checked for adequate lubrication for normal operating conditions," advises Mngomezulu. "SKF Cooper bearing components are heat stable up to 120°C at continuous operation with recommended use of ISO VG 220 oil or ISO VG 320 oil as required."

Wrapping up, Mngomezulu affirms that countless customers around the globe report tremendous time and monetary savings after replacing their tradition bearings with a SKF Cooper sealed split bearing. "A noteworthy success story is a coal mine in the USA that, by replacing their traditional bearings with SKF Cooper bearings on their conveyor head pulleys that operate around 18 hours per day, saved over 10 hours of downtime and avoided over a hundred thousand dollars in lost production!"

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# SKF LGGB 2 biodegradable grease earns EU Ecolabel certification

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

“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 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<sub>2</sub> 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 recycle.
- 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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Nutec fibre-cement high performance properties and added benefits include: the use of safe renewable fibres; considerable tensile strength with enhanced dynamic load bearing properties; excellent thermal properties; water-and wind resistance; hail resistance; fire resistance and resistance to fungus, rodents and acid.



➤ Everite Building Products, is an appointed licensee by the Xella Group to manufacturer Hebel Autoclaved Aerated Concrete (AAC). Everite Building Products is the only manufacturer of AAC in Africa.

AAC as a building material has gained a considerable share of the international construction market since its inception in 1923 in Sweden and today maintains its reputation of the building material of the future. It is viewed as a revolutionary material that offers a unique combination of strength, light-weight, thermal insulation, sound absorption, unsurpassed fire resistance and unprecedented ease of construction.

Since commissioning the AAC plant in 2017, Everite Building Products has enjoyed considerable success in specification of the product to landmark projects in South Africa.



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# Transformational leadership: Dennis Vietze soon to hand over management of Wacker Neuson South- and Sub-Sahara Africa

After more than seven years, Dennis Vietze, the Managing Director of Wacker Neuson South and Sub-Saharan Africa, is set to bid farewell to the South African shores to take on the helm of Wacker Neuson Australia & New Zealand effective October 1st, 2024.

Since commencing his African odyssey on the 1st of June, 2017, Dennis Vietze has driven the impressive transformation of Wacker Neuson South and Sub-Saharan Africa. Under his leadership, coupled with the dedication of his team, steadfast dealer partners, and unwavering customer loyalty, the company has achieved great success. Notably, turnover doubled from 2020 to 2023, reflecting a period of sustained growth.

The baton of leadership will be passed to Stefan le Roux, the current Sales Manager of Wacker Neuson South and Sub-Saharan Africa. Le Roux, who has been instrumental in achieving remarkable sales successes in the region, is poised to lead Wacker Neuson South and Sub-Saharan Africa to new heights.

Speaking on the transition, Alexander Greschner, Chief Sales Officer of the Wacker Neuson Group, stated, "We are happy to appoint Mr. Vietze, a seasoned colleague with extensive intercultural experience, to lead Wacker Neuson Australia & New Zealand. We are confident in Mr. le Roux's ability to steer Wacker Neuson South and Sub-Saharan Africa towards continued success, given his deep-rooted expertise in the agricultural and construction sectors."

Central to Vietze's tenure were strategic initiatives that have reshaped the landscape of the construction and agricultural sectors. A robust dealer expansion strategy has significantly widened the company's African footprint, bringing innovative solutions closer to customers. Moreover, the introduction of the new Spanish brand, ENAR, under the Wacker Neuson umbrella,

and pioneering digital innovations, such as Smart Glasses, have positioned Wacker Neuson as a trailblazer in the industry. Recognizing the burgeoning potential of the agricultural sector, Vietze spearheaded efforts to harness its strength, resulting in a balanced turnover split of 50% construction and 50% agriculture. This strategic pivot underscores Vietze's astute understanding of market dynamics and his commitment to driving sustainable growth.

Until the official changeover, Vietze remains with Wacker Neuson South and Sub-Saharan Africa, transitioning leadership to Stefan le Roux. Together, they will ensure that business continues as usual and that the company continues to excel, even in changing times. Wacker Neuson remains committed to providing world-class products, top-notch service, and unwavering support to customers and dealer partners.

*Wacker Neuson – all it takes! Wacker Neuson makes this promise to customers worldwide with a comprehensive product range of construction machines and equipment, spare parts and services. Among other things, the product portfolio includes internal and external vibrators for concrete consolidation, vibratory wet screeds for concrete surface finishing, vibratory rammers, vibratory plates and rollers for soil compaction, demolition and cutting equipment, lighting, generators, pumps and heating as well as excavators, wheel loaders, telehandlers, skid steer loaders and dumpers within the range of compact construction machines.*



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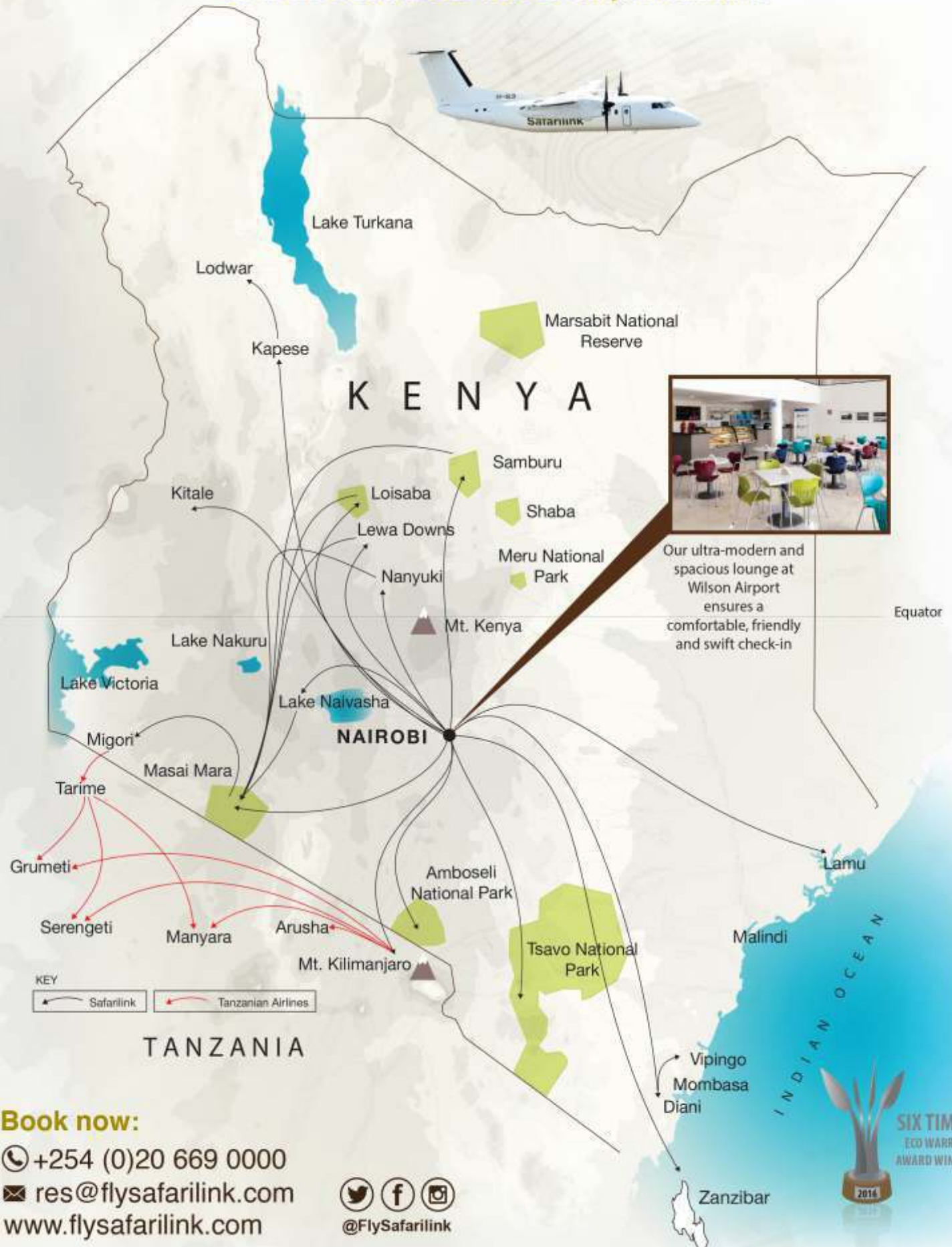
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