WEAR CHECK
Condition Monitoring Specialists
THE MONITOR
ISSUE 93

TOP MARKS FOR WEARCHECK IN SANDVIK SUPPLIER ANALYSIS

Swedish company Sandvik is a global, high-tech engineering group providing solutions that enhance productivity, profitability and sustainability for the manufacturing, mining and infrastructure industries.

WearCheck Zimbabwe has provided condition monitoring services to Sandvik's Zimbabwean operations since 2006. In a 2024 supplier evaluation, Sandvik awarded WearCheck the highest possible score – an "A".

To ensure the level of quality and performance that the market expects from Sandvik Mining and Construction Zimbabwe, Sandvik also expects this standard from its suppliers. Therefore, Sandvik continuously performs supplier evaluations.

The criteria that were evaluated in the Sandvik assessment include the quality of goods and service provided, responsiveness, On Time and In Full (OTIF), compliance with laws and regulations, as well as cost savings and prices offered.

The team from Sandvik Construction explains, 'The goal of these evaluations is to support high-performing suppliers and to improve the qualifications of under-performing suppliers. These evaluations are indicators of quality and logistic performance. WearCheck is classified as an A supplier – the highest rating possible.

From left to right. Evan Meyer, Fraizer Valisu, Bookkeeper, Emmanuel Mhari, Adoline Vanasio, Rangarirai Mlambo, George Munyanyi, Givemore Mamvura, Gladys Mpala, Admire Katanda, Trust Madanhi, Shesby Chabaya, and 3 trainees.

SANDVIK

We would like to inform you that you have been classified as:

A – Supplier

A	**75 – 100 Points**
B	**65 – 74 Points**
C	**50 – 64 Points**
D	**49 and below Points**

'We would like to thank you for your excellent contribution and services, look forward to your continuous support.'

Very well done to the team at WearCheck Zimbabwe on your excellent rating – we are very proud of you!

WearCheck India awarded ISO accreditation once again

National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

WEARCHECK LABORATORIES INDIA PVT. LTD.

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

16 B KAMAKOTI NAGAR MAIN ROAD, CHENNAI, TAMIL NADU, INDIA

in the field of

TESTING

Certificate Number: TC-12825

Issue Date: 05/01/2024 Valid Until: 04/01/2026

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: Wearcheck Laboratories India Pvt. Ltd.

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

WearCheck's laboratory in Chennai, India, has again earned ISO 17025 accreditation by the National Accreditation Board for Testing and Calibration (NABL India) – a national accreditation body that evaluates and recognises laboratories, calibration and measurement providers, and reference material producers.

WearCheck's latest accreditation, which is valid from 2024 to 2026, now includes additional testing – including for sulfur in diesel, and colour and grease testing with the Inductively Coupled Plasma (ICP).

WearCheck India national manager, Nissar Ahamed, is proud of his team for passing the stringent audit with ease. Congratulations to WearCheck India!

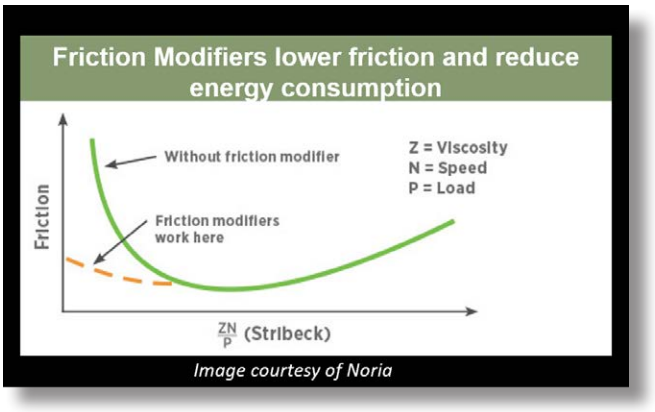
TECHNICAL TIP: LUBE SERIES
Friction modifiers – the smooth operators in your oil

BY STEVEN LUMLEY, TECHNICAL MANAGER

What are they?	Organic fatty acids and amines, high-molecular-weight organic phosphorus and phosphoric acid ester
What do they do?	Alter coefficient of friction
How do they do it?	Preferential adsorption of surface-active materials

One of the most important features of a lubricant is the reduction of friction between two surfaces. Besides the base oil, additives, like friction modifiers, are added to perform this function.

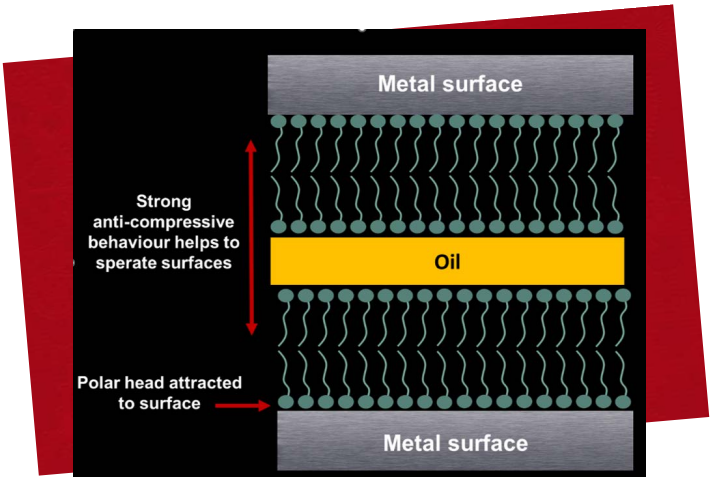
So, what is a friction modifier?
Put simply, friction is the force of resistance to motion that is present between two bodies in contact. To modify an entity is to make a partial or minor change to it, so, in a nutshell, friction modifier additives modify or partially alter the coefficient of friction between metal surfaces.



The development of friction modifier additives traces its origins back to the early 1900s, but it was only from mid-century, thanks to advancements in chemistry and materials science, that the use of this additive became more common in lubricant formulations.

Friction modifiers were originally used to formulate limited slip-gear oils, automatic transmission and multipurpose tractor fluids. Their use, however, escalated in the late 1970s due to the oil embargo, which thrusted fuel economy into the limelight and led to the introduction of friction modifiers in engine oils.

Friction modifier additives can be classified into different categories based on their chemical composition and mechanism of action, but are generally grouped into two categories; organic and inorganic friction modifiers.



Organic Friction Modifiers (OFMs) are compounds that contain carbon-hydrogen bonds that are often derived from organic molecules such as fatty acids, esters, amines or amides. OFMs typically have a polar head-group which enables the OFM to adsorb onto the metal surface, and a non-polar hydrocarbon backbone which maintains oil solubility and to enable film formation between contacting surfaces.

Inorganic Friction Modifiers are typically derived from minerals or metals and may include solid lubricants like molybdenum disulfide, graphite, or other metallic compounds. These modifiers undergo chemical reactions with the metal surfaces with which they come into contact, leading to the formation of chemical bonds between the modifier and the metal. This process, known as chemisorption, can result in the formation of low-shear-strength films that provide effective lubrication and reduce friction between the surfaces.

OFMs are most widely used in lubricant formulations primarily due to their versatility, compatibility with various base oils and additives, and effectiveness in reducing friction and wear. Additionally, because they are based primarily on hydrogen, carbon, nitrogen and oxygen, they also present a more environmentally friendly alternative - especially in the face of rising emission-control standards.

OFM molecules consist of two parts: a polar end (head) and an oil-soluble end (tail). The head attaches itself to the metal surface to create a cushion for the metal surface against another metal surface. The tail part of the modifier stands up like carpet strands; vertically stacked besides each other in a nano-sized sheet covering the metal surface. These molecules hold up when cushioned surfaces come into light contact with each other. This forms a thick boundary film that is softer than metal surfaces. These films are difficult to compress, good for boundary and mixed lubrication regimes, easy to shear and good for smooth, easy startup from static to dynamic conditions.

Contined on page 3...

Product Pick: AdBlue®

Selective Catalytic Reduction (SCR) is an advanced emissions-control technology that is used in diesel engines to reduce nitrogen oxide (NOx) emissions. It works by injecting a liquid reductant agent into the exhaust stream of a diesel engine. The most common reductant used in SCR systems is urea, which is often referred to as Diesel Exhaust Fluid (DEF), or more commonly by its commercialised name of AdBlue®.

AdBlue® is an aqueous urea solution composed of 32.5% urea and 67.5% deionised water. The water acts as a solvent to ensure the solid urea - which is in the form of colourless crystals - becomes a liquid solution. AdBlue® is odourless, non toxic and is perfectly safe to handle.

Purity requirements for AdBlue® are high and, among the specific requirements, it is stipulated that metals - such as sodium, potassium, calcium, magnesium, copper, zinc, iron or chromium - as well as the content of ash-forming phosphates, must be kept at low levels in SCR-grade urea.

As a result of these purity requirements, storage and handling of AdBlue® is of utmost importance, as is regular testing for quality assurance, compliance with emission regulations and to ensure efficient performance of the SCR system and the engine as a whole.

To this end, WearCheck is proud to announce that its water testing division now offers an AdBlue® testing service in accordance with the ISO 22241-3 international standard.

As the condition monitoring industry strives towards greener and more sustainable practices, the role of SCR technology becomes increasingly integral in the battle against harmful emissions, and AdBlue® testing emerges as a crucial component in ensuring the efficacy of this solution.

CONTINUED FROM LUBE SERIES PAGE 2...

While their primary function is to reduce friction between moving surfaces, they can also contribute to the anti-wear properties of lubricating oils, as these protective layers act as barriers, reducing direct metal-to-metal contact and minimising wear, specifically in boundary lubrication conditions, which ultimately helps extend the lifespan of mechanical components. It is for this reason that they are often referred to as boundary lubrication additives.

These days friction modifiers are commonly found in automotive engine oils, transmission fluids, and industrial lubricants. In transmission fluids, friction modifiers are used to improve engagement on clutches. In engine oils, friction modifiers are used to improve fuel economy by reducing friction, which is crucial for increased efficiency and durability.
The need for energy efficiency is leading to the growing use of additives that reduce friction in thin film boundary and mixed lubrication conditions. As such, friction modifier additives play a crucial role in the development of lubricating oils in that they offer improved performance, efficiency, and durability for a wide range of automotive and industrial applications. As technology continues to advance, these additives will continue to evolve to meet the changing needs of the industry.

Be sure to catch the next instalment of the Lube Series in the WearCheck *Monitor* newsletter, where we will explore the world of anti-wear additives.

WORLD OF WATER: understanding the impact of heavy metals on drinking water

In many African countries, access to clean and safe drinking water remains a significant concern for many communities. One of the most pressing issues affecting water quality in South Africa is the presence of heavy metals. Heavy metals are naturally occurring elements that can seep into groundwater sources, posing serious health risks to those who consume contaminated water.

Understanding the sources and effects of heavy metals on drinking water is crucial for safeguarding public health and ensuring water security.

Heavy metals can enter water sources through various natural and anthropogenic pathways. In South Africa, industrial activities such as mining, manufacturing, and agricultural runoff are major contributors to heavy metal pollution. Mining releases significant amounts of heavy metals like lead, mercury, cadmium, and arsenic into the environment, contaminating both surface water and groundwater. Additionally, improper disposal of industrial waste and sewage can further exacerbate the problem, leading to widespread contamination of water sources.

Some heavy metals commonly found in drinking and ground water:

- Lead (Pb): commonly found in old plumbing systems and industrial areas.
- Arsenic (As): naturally occurring in some geological formations.
- Mercury (Hg): can be present due to industrial activities.
- Cadmium (Cd): found in industrial areas and through the use of fertilisers.
- Chromium (Cr): can come from industrial discharges and mining activities.
- Copper (Cu): can leach from copper pipes or be present in industrial effluents.
- Zinc (Zn): commonly found in industrial discharges and urban runoff.

Groundwater, which serves as a primary source of drinking water for many communities in SA, is particularly vulnerable to heavy metal contamination. Unlike surface water, groundwater is not easily accessible for treatment, making it challenging to remove heavy metal pollutants effectively. As a result, populations reliant on groundwater for drinking and irrigation may face heightened health risks due to prolonged exposure to heavy metals.

The presence of heavy metals in drinking water can have severe health consequences, even at low concentrations. Chronic exposure to heavy metals has been linked to a range of health issues, including neurological disorders, kidney damage, developmental delays in children, and various types of cancer. Moreover, certain heavy metals like lead and mercury can accumulate in the body over time, leading to long-term health problems.

Given the potential health hazards associated with heavy metal contamination, regular testing of drinking water is essential for identifying and mitigating risks. In SA, where access to clean water is already limited in many regions, routine water testing becomes paramount for ensuring the safety of communities.

Testing should be conducted at both the source and point of consumption to detect any changes in water quality.

Individuals relying on private boreholes or wells for drinking water should be especially vigilant about testing for heavy metals. Furthermore, communities located near industrial sites or areas with a history of mining activity should prioritise water testing to assess the extent of heavy metal contamination.

To protect against the harmful effects of heavy metals, it is important to take steps to prevent contamination of drinking water and groundwater. This includes properly disposing of hazardous waste, controlling industrial emissions, and following responsible agricultural practices. Each municipality has local by-laws, which can be found on each municipal website and which are implemented to conserve and protect the environment and communities.

In SA, the presence of heavy metals in drinking water poses a significant threat to public health and environmental sustainability. Addressing this issue requires a concerted effort from government agencies, industries, and local communities to minimise heavy metal pollution and ensure access to safe and clean water for all. By raising awareness about the sources and effects of heavy metals on drinking water and promoting regular water testing practices, we can work towards safeguarding the health and well-being of current and future generations.

South Africa is a mineral-rich country with a long history of mining activities. Additionally, South Africa has diverse agricultural areas that support various crops and livestock due to its varied climate and topography.

These regions vary in terms of climate, soil types, and agricultural practices, allowing for a diverse range of crops and livestock to be produced across the country. Keep in mind that agricultural practices can evolve, and new developments are constantly occurring.

The table below outlines the heavy metals, potential health damage and the SA province in which concentrations of the metals may be found:

Heavy metal	SANS241 limit	Possible health impact	Province
Al- Aluminium	< 0.3 mg/L	Kidney and nervous system disease and disorders, Anaemia, osteomalacia, glucose intolerance, and cardiac arrest	Western Cape, Eastern Cape, Limpopo, Mpumalanga, Free State, Northern Cape
As- Arsenic	< 10 µg/L	High concentrations can result in Arsenic poisoning, which is normally chronic. (Predominant symptom = skin lesions). High concentrations of As can cause acute poisoning, with sensory loss in peripheral nerves and gastrointestinal symptoms. As may be absorbed through the skin even from bathwater with As concentrations.	Gauteng, Western Cape, Eastern Cape, Limpopo, Mpumalanga, Free State, Northern Cape
Cd- Cadmium	< 3 µg/L	Exposure may build up cadmium in the kidneys, causing kidney disease and fragile bones. Cadmium is considered a cancer-causing agent.	Gauteng, KwaZulu Natal, North West
Cu- Copper	< 2 mg/L	Copper does not generally have negative health effects, but can be detrimental to sensitive individuals with Wilson's disease. At high concentrations, copper can cause nausea and vomiting and acute kidney and liver damage.	Gauteng, Western Cape, KwaZulu Natal, Eastern Cape, Limpopo, Mpumalanga, North West, Free State, Northern Cape
Cr- Chromium	< 50 µg/L	Chronic exposure is known to increase lung cancer, intestinal and major organ damage to livers, kidneys and nerves. Several adverse effects include serious skin irritation, rashes, contact dermatitis, and allergic reactions.	Gauteng, KwaZulu Natal, North West
Fe- Iron	< 2 mg/L	Intake of high levels of iron can result in acute poisoning in infants and young children. Eventual chronic poisoning- haemochromatosis- can occur over a prolonged period of excessive daily iron intake.	Western Cape, Eastern Cape, Limpopo, Mpumalanga, Free State, Northern Cape
Hg- Mercury	< 6 µg/L	Acute exposure can lead to severe brain, kidney and lung damage. Symptoms include chest pain, breathing difficulties, coughing and, in extreme cases, death. Chronic exposure can have long-term effects including neurological disorders, kidney damage and developmental delays in children.	Gauteng, Mpumalanga, North West
Mn- Manganese	< 400 µg/L	High exposure has been associated with causing neurological problems in infants and children, including behaviour, speech and memory difficulties, lower IQ, lack of coordination, and so on. Younger children are more likely to absorb this manganese than older age groups. Drinking this water has also been associated with incurring a syndrome that resembles Parkinson's. For this reason, clean water is especially vital for pregnant women and children. Please keep an eye on the Manganese.	Western Cape, Eastern Cape, Limpopo, Mpumalanga, Free State, Northern Cape
Ni- Nickel	< 70 µg/L	Individuals who accidentally drank light-green water containing 250 ppm of nickel from a contaminated drinking fountain had stomach aches and suffered adverse effects in their blood (increased red blood cells) and kidneys (increased protein in the urine).	Gauteng, KwaZulu Natal, North West
U- Uranium	< 30 µg/L	This is a common radioactive element that exists naturally all over the world. You can't see, smell, or taste uranium. The main health concern following uranium exposure is kidney damage. Radiation from high levels of uranium is not known to cause cancer.	Gauteng, Mpumalanga, North West, Free State, Northern Cape
Pb- Lead	< 10 µg/L	Low levels of Lead exposure are of particular concern to vulnerable individuals such as young adults, children, infants and foetuses, potentially causing physical problems (slowed growth, hearing issues, anaemia) and behavioural problems- learning changes. High Lead levels can accumulate in the body over time and may lead to cardiovascular effects (hypertension), decreased kidney function and reproductive problems in both men and women.	Gauteng, KwaZulu Natal, North West
Zn- Zinc	< 5 mg/L	High concentrations above 3mg/L result in water opalescence (greasy film developing) when boiled, with an undesirable harsh taste. Excessive levels may result in acute toxicity. Health effects include; vomiting, fever, nausea, stomach cramps and diarrhoea.	Gauteng, Western Cape, KwaZulu Natal, Eastern Cape, Limpopo, Mpumalanga, North West, Free State, Northern Cape

MAKING HEADWAY

LONG SERVICE VALUED

Long-serving employees are the bedrock of any company, embodying its culture, values, and accumulated wisdom – and this is absolutely the case at WearCheck.

In this issue of *Monitor*, we salute several dedicated WearCheck staffers who have been part of the team for many years.

Gustav Lourens
reliability analyst

Thelma Horsfield
general manager water division

Kay Meyrick
sales developer

The WearCheck family is gaining new members to add to the company's technical expertise and to address a growing workload. The new talent has been integrated seamlessly into the various WearCheck laboratories and offices around South Africa.

We extend a hearty welcome to these new employees:

Welcome, Dr Phil!

Philemon Selemela, laboratory technician, has joined WearCheck's Johannesburg laboratory, where he is responsible for testing transformer oil samples.

Philemon has successfully completed a diploma in Analytical Chemistry, and previously worked in a coal-testing laboratory and at a power station. In his spare time, Philemon (or known by his nickname, "Dr Phil") is involved with public speaking, writing books and acting as a life coach.

Welcome, Charlize!

Charlize Kruger, laboratory assistant, has joined WearCheck's lab in Joburg, where she ensures that all oil samples received in the laboratory are accurately and timeously analysed according to our ISO accreditations.

Currently studying psychology through UNISA, Charlize worked as a teaching assistant for three years, so she has full insight into deadlines and quality requirements. For those brave enough to join Charlize in her hobbies – she loves working with snakes and tarantulas!

Saluting Sinawo!

Sinawo Mthini, laboratory assistant, has joined WearCheck's Cape Town laboratory, where she is responsible for testing transformer oil samples.

Armed with a diploma in Analytical Chemistry, Sinawo previously worked at a brewing company. On weekends, she enjoys reading, singing and pottering in the kitchen.

Welcome, Ivana!

Ivana Naidoo, KZN customer support officer, is now part of the Wearcheck team in Durban.

Ivana holds a bachelor of commerce degree in business management, and brings with her a wealth of experience in the administration field.

Ivana's other claim to fame is that she is a selenophile - she is fascinated by the moon. Watch this space for the next lady on the moon!

OIL ANALYSIS CASE STUDY: THE TEICHMANN GROUP

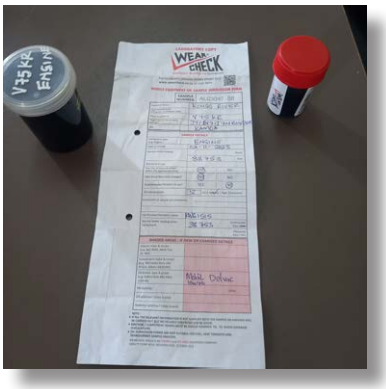
The Teichmann Group - a WearCheck customer for over 10 years - is a diverse group of companies with proven expertise in multi-disciplined construction services, mining and agriculture solutions, across the African continent.

The Teichmann Group has registered operations and offices in many African countries. WearCheck provides condition monitoring services to Teichmann across a range of industries in several countries, including South Africa, Zambia, Mozambique (South/North) and the Democratic Republic of Congo (DRC) (South/North).

Seen here is the WearCheck oil sample pump - an instrument used for sampling at the Teichmann Group's client site in the DRC

The Teichmann Group's DRC sites operate an extensive range of mining and construction machinery. For example, at the Kamoa Kakula Copper mine site, the group has more than 400 units monitored on WearCheck's oil analysis programme, and a total of 1,300 plant items monitored throughout the group.

Alvin Poobalan, group plant administrator for The Teichmann Group, confirms that the company has benefited by avoiding major component failure due to WearCheck's ongoing condition monitoring, which serves as an excellent preventive maintenance measure throughout the group.



The diligent Teichmann Group maintenance crew prepares the sample bottle and the accompanying submission form neatly

Says Alvin, 'I would like to say well done to WearCheck's diagnostic team for their great work. Their predictions are always 100% correct. The advanced reporting structures for each plant make it easy to gain quick access to the information that we need in order to plan maintenance. We are also grateful to the efficient IT support team at WearCheck for always being ready to assist with any queries.'

From the WearCheck team – a hearty "thank you!" to Alvin and the Teichmann Group for your ongoing, loyal support, we look forward to providing condition monitoring services to you for many years to come.

A Teichmann Group technician prepares the oil sample for submission to WearCheck for analysis

The Teichmann Group's Kamoa workshop team is pictured, with some of the assets which are monitored on WearCheck's oil analysis programme

TEICHMANN™

OUT AND ABOUT

WearCheck's technicians regularly give training courses to customers, to ensure that all the processes in the relevant condition monitoring techniques are properly understood and applied, for maximum gain by the customer.

Courses are run either on site for a particular customer, or in a public venue and attended by multiple different companies.

Recently, WearCheck Mozambique conducted oil analysis training for Vulcan International, which operates the Moatize Coal Mine in Tete, Mozambique.

Delegates who completed the course gave positive feedback, including the following praise from the team, 'Thank you for taking the time to respond to our request. The points covered were extremely important and clarified the doubts that remained in our minds in order to guarantee improvement in the process, from collection, shipping and analysis of samples, to provide greater reliability to our assets.

'Submitting samples electronically showed that it generates gains in terms of time and reduces waste in the use of paper in the process, and avoids possible failures.'

Delegates from Vulcan International attended oil analysis training by WearCheck Mozambique recently. Course presenters Gabriel Perengue (blue shirt, cap) and Helder Ernesto (grey shirt, cap) are seen here with course participantsr

TRAINING IN THE DRC

WearCheck Zambia's Boniface Yuwama, who handles sales and technical support for the company, recently conducted oil analysis training at the Kamoa Copper Mine in Kolwezi, DRC.

Pictured here are some of the course delegates, from L to R: Simon (from WearCheck's agent, Mukuba Trading), Joe (Kalala Garage Workshop Foreman), trainer Boniface Yuwama from WearCheck Zambia and Glory (oil sampler from Mukuba Trading)

MINING INDABA 2024

Another successful Mining Indaba done and dusted! Our MD, Neil Robinson, was even fortunate enough to win a coveted 830E-AC Dump Truck model in the Komatsu lucky draw. Thank you Komatsu!

WearCheck's agents extend the company's reach across Africa

WearCheck has partnered with businesses in several African countries, where access to condition monitoring is limited. Through the partnerships, local industries can send used oil samples for analysis to WearCheck, and sign up for other condition monitoring services that are offered by WearCheck.

Here, we feature three of our latest African partners, that operate in Lesotho, Nigeria, and Algeria.

LESOTHO AGENT

3D Creations is WearCheck's Lesotho-based partner. An independent company, it was established in 2020, in the prestigious Lekhalaneng Fantastic building in Maseru. Its primary focus is providing top-tier oil analysis services and selling high-quality lubricants.

3D Creations is on a mission to become the foremost provider for lubricants and oil analysis services in Lesotho, and is proud of its milestone achievement of becoming an authorised agent for WearCheck, which the 3D Creations team views as a testament to its commitment to excellence in the industry.

Specialising in comprehensive oil analysis services for turbines, industrial machinery, transformers, engines, coolants, fuels, water, and more, 3D Creations also offers a wide range of lubricants for various applications, including machines, vehicles, and industrial equipment. The company's target market includes industrial companies, transportation & logistics businesses, mines, agricultural enterprises, large-scale businesses with heavy machinery, government agencies, workshops and individuals, across Lesotho.

Leading the dedicated team, which includes an efficient assistant and a skilled driver, is Mohapi Ramokhoabane, who boasts over five years of experience in the lubricants industry.

The core values of 3D Creations include integrity, innovation, customer-centricity, transparency, continuous improvement, and delivering exceptional value to clients.

Mohapi Ramokhoabane of 3D Creations is WearCheck's agent in Lesotho

WearCheck Lesotho agent contact details:
Mohapi Ramokhoabane, 3D Creations
Email: mohapilr@gmail.com
Phone/WhatsApp: 00266 570-692-35 or +266 570 692 35

NIGERIA AGENT

Technicians from Kenozi are seen here conducting cleaning of petroleum storage tanks

In Nigeria, Kenozi Integrated Logistics is the official agent for WearCheck. Kenozi was established to offer condition monitoring solutions to a wide variety of industrial sectors in Nigeria, including oil and gas, marine and energy. Founded in 2011, the company is backed by staff with expertise in several key areas, such as land & marine logistics, procurement and SCM, maintenance of elevators, forklift maintenance, cleaning of petroleum storage tanks, inline-caliper pigging and more.

The Kenozi team has served a wide range of clients in the oil exploration and production facilities, gas production and processing facilities.

WearCheck Nigeria agent contact details:
Victor Ejemuta, Kenozi Integrated logistics, 23B Hunponu Wusu Street off Hakeem Dickson Road, Lekki Phase 1. Lagos. Nigeria
Email: info@kenozi.com.ng or Kenozi0618@gmail.com
Website: https://kenozi.com.ng/
Phone: +234 706 072 5120

QUALITY - it's at the heart of everything we do!

Each year in November, WearCheck observes World Quality Month, a global celebration that resonates profoundly with the company's service ethics. This annual observance aligns seamlessly with our core mission – delivering unparalleled quality services.

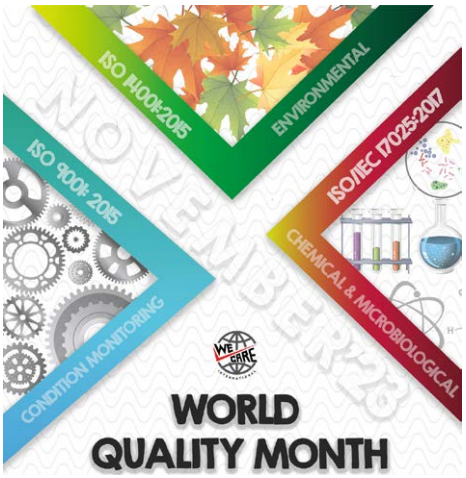
At WearCheck, our commitment to Continuous Quality Improvement (CQI) is unwavering. Rigorous audits from esteemed bodies such as SANS (South African National Standards) and SABS (South African Bureau of Standards) are routine for our services.

Distinguishing itself on the African continent, WearCheck stands as the sole company holding multiple quality confirmation certificates, including ISO 9001:2015, ISO 14001:2015 certification, and ISO/IEC 17025:2017 accreditation. These accolades undergo regular scrutiny, with our track record showcasing a flawless renewal of accreditations and certifications.

Peace of mind

Our relentless pursuit of top-notch service is a source of pride, offering our clients the assurance that WearCheck's laboratory results and analytics are scientifically accurate, fostering peace of mind.

ISO 14001, earned in January 2005, underscores WearCheck's commitment to international standards governing environmental responsibilities. ISO 9001, initially awarded in 1996, acknowledges our integrated design, development, and provision of condition monitoring services to global standards. ISO/IEC 17025, the international benchmark for laboratory competence, was first awarded to WearCheck's Water Laboratory in 2003, followed by our Specialist Laboratory in 2012. Since then, our Water Laboratory has added various methods to our schedule, the latest being Microbiology methods under ISO/IEC 17025:2017 Accreditation.



Benefits for our customers

The benefits for our clients are manifold. The globally recognised ISO 9001:2015 standard holds sway, with some customers insisting on certified companies due to the assurance that management systems undergo continual assessment and enhancement.

The advantages extend to improved quality and service, punctual delivery, a right-first-time approach, minimised error incidence, enhanced reporting and communications, superior products and services, dependable production scheduling and delivery, and the perpetuation of standards through annual assessments.

The ISO system not only fosters an efficient management process but is also a prerequisite for tendering in certain public sector projects. Beyond the tangible benefits, certification sends a positive message to both customers and staff, simultaneously reducing costs by spotlighting time-saving procedures. At WearCheck, World Quality Month is not just a celebration; it's a reaffirmation of our unwavering commitment to excellence.

ALGERIA AGENT

CONTINUED FROM AFRICAN AGENTS STORY PAGE 9...

TouControls SARL is WearCheck's agent in Algeria. Founded in 2003, Toucontrols SARL has established itself over the years as one of Algeria's leading control, verification and inspection companies. It has a presence within Algerian industrial sites and ports, making its services easily accessible for customers in a wide range of industrial and marine sectors. Toucontrols SARL has a staff complement of 60 to help meet the needs and requirements of each customer as quickly as possible.

WearCheck Algeria agent contact details:
TouControls SARL, 01 Rue Colonel Chabani, 16000, Alger, Algeria
Email: oilservices@toucontrols.com
Phone: 213 (6) 60 401 643 or +213 (6) 60 401 743

Toucontrols SARL is WearCheck's Algeria-based agent

The value of training

"Anyone who keeps learning stays young."
— Henry Ford

WearCheck's training courses are built with the wise words of the Greek philosopher Socrates in mind – education is the kindling of a flame, not the filling of a vessel. The end result is maintenance crew that are inspired to constantly improve maintenance operations, thereby enhancing a customer's return on investment into condition monitoring

WearCheck's customer training courses include oil analysis courses and condition monitoring training for maintenance practitioners operating at various levels within an organisation.

Customer training courses run by WearCheck, and the duration:

Course	Days
Precision Shaft Alignment	2, incl. practical
Precision Balancing	2
Vibration Analysis ISO CAT I	5, incl. exam
Vibration Analysis ISO CAT II	5, incl. exam
Vibration Analysis ISO CAT III	6, incl. exam
Infrared CAT I	5, incl. exam
Oil Analysis 1	2
Oil Analysis 2	1
WearCheck Customised	2

Oil Analysis courses 2024

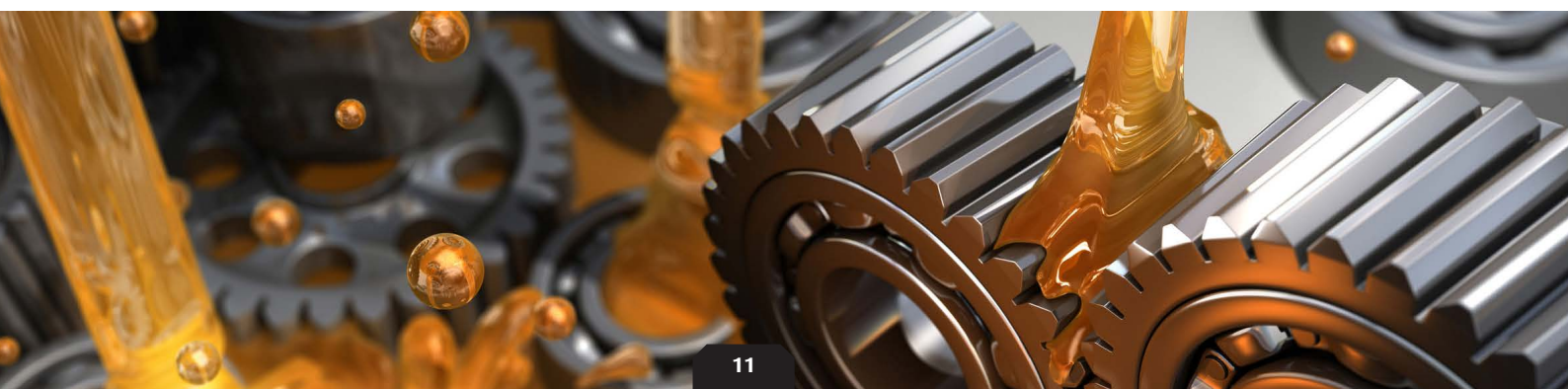
	Oil Analysis 1: Understanding oil and its analysis (2 CPD points)	Oil Analysis 2: Report interpretation (1 CPD point)
Location	**Two day workshop**	**One day workshop**
Bloemfontein	July 09, 10	July 11
Cape Town	August 20, 21	August 22
Durban	August 13, 14	August 15
Johannesburg 1	May 07, 08	May 09
Johannesburg 2	September 10, 11	September 12
Kathu	June 11, 13	June 14
Middelburg	May 14, 15	May 16
Nelspruit	November 12, 13	November 14
Oranjemund	June 04, 05	June 06
Rustenburg	October 08, 09	October 10

All the public courses listed in the WearCheck training schedule can be presented at the customer's site of preference in South Africa or abroad. Courses are also offered online.

We have the pleasure of offering customised training content to suit your requirements, your dates and your locaton. Customised training on offer includes sampling of lubricating and transformer oils, lubricant storage and handling, introducton to oils and concise oil analysis for workshop technicians.

For more details on course content and prices, click here: https://www.wearcheck.co.za/training.html.

To book the above courses, please contact Michelle van Dyk on training@wearcheck.co.za or call +27 31 700 5460 or +27 82 381 3321



MOBIUS TRAINING

Course	CPD points	Date 2	Date 3
Vibration Analysis – CAT I *	5	May 13-17	Sep 09-13
Vibration Analysis – CAT II *	5	Jun 10-14	Oct 14-18
Vibration Analysis – CAT III *	5	Jul 08-15	Nov 11-18
Infrared CAT I		May 24-28	Oct 07-11
Precision Balancing		Aug 12-13	Dec 02-03
Precision Alignment		Aug 14-15	Dec 04-05

WearCheck has been an accredited training partner for the internationally acclaimed Mobius Institute since 2015, and all the Mobius courses can be attended online or in person. All Mobius courses are presented at various venues throughout Africa, and many of them have an online option.

For more information or to book a Mobius training course, please contact Louis Peacock on +27 71 680 2967 or louisp@wearcheck.co.za.

** 6 day course, with the exam written on the following Monday.*

LUBE TIP

Reservoir baffles are used to prevent fluid that has just returned to the tank, from passing directly back to the pump inlet. For a number of reasons, a longer transit path is considered beneficial - it encourages better heat conduction from the fluid, better contamination and air separation, and better mixing with the bulk fluid. This is usually accomplished by separating the inlet and outline by as long of a flow path as feasible.

UPCOMING EXPOS 2024

Enlit Africa: 21 - 23 May

Chamber of Mines Namibia: 07-08 August

Electra Mining: 02 - 06 September

HIGHLIGHT YOUR SUCCESS

If oil analysis has helped prevent a major failure or saved your company money, we would like to feature this in *Monitor*. Our writer will contact you for the details and will write the article for your approval. Simply email marketing@wearcheck.co.za and we will contact you.

TECHNICAL BULLETIN TOPICS?

Is there a particular subject you would like to see featured in a *Technical Bulletin*? Simply email your suggestion to marketing@wearcheck.co.za. Before you do this, why not check out the more than 85 titles already available on the web site: www.wearcheck.co.za

Planet-friendly option

WearCheck no longer prints hard copies of our *Monitor* and *Technical Bulletin* publications. Should you wish to be included on our digital mailing list please scan the QR code or e-mail a subscribe request to: marketing@wearcheck.co.za.

Head Office KwaZulu-Natal
No. 4 The Terrace,
Westway Office Park,
Westville, KZN, 3610
PO Box 15108,
Westmead, KZN, 3608
t +27 31 700 5460
e support@wearcheck.co.za

Gauteng Office
55 Angus Crescent, Long
Meadow Business Estate ext.1
Edenvale, Gauteng, 1609
t +27 11 392 6322
e support@wearcheck.co.za

WEAR CHECK®
Condition Monitoring Specialists

www.wearcheck.co.za

South African Branches

Bloemfontein	+27 51 101 0930
Eastern Cape	+27 41 360 1535
Klerksdorp	+27 83 281 6896
Middelburg/Witbank	+27 13 246 2966
Northern Cape	+27 66 474 8628
Rustenburg	+27 83 938 1410
Western Cape	+27 21 001 2100

International Branches

Botswana (Agent)	+267 311 6829
DRC	+260 977 622 287
Ghana (Tarkwa)	+233 54 431 6512
Ghana (Kumasi)	+233 54 229 8912
India	+91 44 4557 5039
Mauritius	+230 483 5660
Mozambique	+258 857 92 7933
Namibia	+264 81 129 6078
Pakistan (Agent)	+92 32 3425 7278
UAE	+971 6 740 1700
Uganda (Agent)	+256 78 529 6994
Zambia	+260 212 210 161
Zimbabwe	+263 24 244 6369