



NEW TEST KIT FOR HEAT TRANSFER OIL

WearCheck's new heat transfer oil test kit has been designed to enhance efficiency in industrial sector machinery.

Certain industries make extensive use of heat transfer systems, and the analysis of heat transfer oil is often overlooked. Degraded or contaminated oil can cause damage to the system through reduced thermal efficiencies, and can also compromise pumps.

Health and safety is another major area of concern - a compromised fluid can become a fire or explosion risk. Consequently, the general consensus is that heat transfer oils should be tested regularly.

Laboratory manager Paul Swan elaborates, 'the test profile targets key areas of the oil's performance, contamination and degradation. For instance,



The new heat transfer oil test promotes industrial efficiency by preventing your system from failure such as this.

oxidation will result in elevated acid levels as well as an increased viscosity, and the by-products of oxidation will lead to deposits in the system resulting in lower thermal efficiencies.'

'Oxidation can be caused by excessive operating temperatures and / or the presence of metallic catalyts



Mark Govender demonstrates some of the new lab equipment for testing heat transfer oil

such as iron or copper. A second, well-documented problem is that of thermal cracking. Here the oil's chemical backbone is broken up into smaller, more volatile components. A significant variance between the closed cup and open cup flash point indicates a build up of these lighter fractions which pose real fire and explosion risks.

'By providing a comprehensive test profile, not only the problem, but also the root of the problem, can be discovered. Once problems are addressed through root cause analysis, improvements to system efficiency and greater reliability can be achieved, with peace of mind knowing that health and safety issues have also been addressed.'

The heat transfer test kit is convenient, cost-efficient and uniquely available from WearCheck on the African continent.

The new heat transfer oil test kit is added to WearCheck's expanding repertoire of niche products - including Aircraft, Marine, Coolant, Diesel and Transformer oil kits.

Have **you** had your heat transfer oil tested?

TEST	TEST METHOD
Viscosity at 40°C	ASTM D7279
Viscosity at 100°C	ASTM D7279
Viscosity Index	ASTM D2270
Density at 20°C	ASTM D4052
Total Acid Number	ASTM D974
Moisture (ppm)	ASTM D6304
Flash Point PMCC	ASTM D93
Flash point COC	ASTM D92
Fire Point COC	ASTM D92
Conradson Carbon Residue	ASTM D189
Pentane Insolubles	ASTM D4055
Elemental concentration (Al, Cr, Cu, Fe, Ba, Ca, P, Zn, Na, Si)	ASTM D5185
Particle Count (4, 6, 14, 20, 25, 50, 75, 100 micron & ISO code)	ISO 4406 (1999)

LONG TERM DEDICATION PAYS DIVIDENDS

Several WearCheck staffers recently reached major milestones in their length of service to the company.

Managing director Neil Robinson congratulated the employees as he presented their long-service certificates. 'Your years of dedication and loyalty to the WearCheck family are highly appreciated. We're able to offer efficient customer service through long-serving, well-trained staff members who are familiar with our operation and our clients.'

'A dedicated workforce translates into a well-oiled team that provides slick customer service through the development of key skills over time, job experience and, importantly, customer knowledge.'

Pinetown staff who received certificates:

- Vigie Manikum, Pinetown laboratory supervisor (35 years)
- Patricia Ncibilika, sample room assistant (25 years)
- Melanie Hynd, quality administrator (20 years)
- Edna Mthembu, sample room assistant (10 years)
- Nomusa Mdunge, cleaner (10 years)
- Karen Govindsamy, software support (10 years)
- Rosina Hadebe, laboratory assistant, (5 years),
- Kay Meyrick, sales developer (5 years)

At WearCheck Johannesburg, certificates were awarded to:

- Christopher Joshua, WSL laboratory supervisor (10 years)
- Senzo Mthethwa, stores assistant (5 years)



WearCheck managing director, Neil Robinson, is surrounded by long-serving WearCheck ladies in Pinetown.

They are, clockwise from bottom left: Melanie Hynd, Vigie Manikum, Patricia Ncibilika, Edna Mthembu, Karen Govindsamy, Kay Meyrick



Nomusa Mdunge



Rosina Hadebe



Christopher Joshua



Senzo Mthethwa

These ten WearCheck staffers have worked for the company for a staggering 135 years, combined!

WEARCHECK EXPANDS INTO NAMIBIA

The WearCheck flag is now flying over Namibia, with the appointment of area agent Pierre du Plooy. Backed by 14 years experience in the lubrication industry and extensive training with WearCheck in South Africa, Pierre knows the value of proper oil analysis.



Pierre du Plooy is WearCheck's agent in Namibia

West Coast customers no longer have to deal with cross border sample hassles, as Pierre oversees sending the oil samples to the Pinetown laboratory for testing, and passes on the results to his clients.

Although based in Walvis Bay, Pierre services oil analysis clients from all over Namibia. WearCheck kits and sample bottles can be purchased directly from him.

Pierre offers customers a range of extra services, including assistance with online report viewing, sampling procedures, completion of documentation, and account administration. Pierre will gladly assist with any queries regarding WearCheck, and will facilitate WearCheck training courses for Namibian customers.

Pierre du Plooy can be contacted as follows:

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Cell: +264 81 316 2345
Email: pierre@wearcheck.co.za

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Swabou Building,
Office 2-2,
Walvis Bay,
Namibia.



IT'S A SMALL WORLD

Technical enquiries about oil analysis were recently received from:

- A maintenance management specialist for an airline company in Warsaw, Poland.
- The director of a technical services company in Mumbai, India.

GOOD RETURNS FROM INVESTMENT IN OIL ANALYSIS

Many of the customers who signed up with WearCheck at the launch of their oil analysis service in the '70s, remain customers to this day.

Neil Robinson, WearCheck's managing director, is proud that the company has maintained business relationships that span more than three decades.

'Our focus is on minimising customers' downtime and keeping operations running smoothly, thereby ensuring that oil analysis provides good returns.

'We believe that one of the main reasons our long-term customers are still around is because they made the sensible investment in the best available oil analysis service - WearCheck - which has enabled them to make good business decisions, and thereby to keep operating.'

And the customers agree that oil analysis is a critical part of their operations:

Eppo Broos, technical director of Blasting and Excavating: [In this position, he has used WearCheck for 16 years. His predecessor also used WearCheck for many years.]



"Oil analysis has proved to be 100% accurate time and again for us - out of the millions of samples that WearCheck has analysed for us, every single time that a problem has been predicted through oil analysis, and the

machinery has been inspected, sure enough - the problem is there, and the diagnosis has proved to be 100% accurate. I could mention so many examples where oil analysis has saved us downtime and machine failure through the precise detection of a problem before it has even become a problem."

Etienne Coetzee, technical analyst, Grinaker LTA Mining: [Grinaker LTA has been a WearCheck customer for over 30 years.]



"I stopped counting the engines that have been saved by oil analysis, when I reached 100!"

Ian Burford, plant manager, Quarry Cats, a subsidiary company of Group Five: [He began using WearCheck in 1984 when working with LTA, and has continued ever since.]



'Oil analysis is definitely one of the best maintenance tools available, especially when it is well-managed by the customer. Over the years, oil analysis has saved us a fortune through early detection of problems. Just yesterday we saved a machine that would have cost over R400 000 to replace!'

LONG-TERM LOYALTY BENEFITS CUSTOMERS AND STAFF

Employees who remain at the same company for more than ten consecutive years these days are rare, yet WearCheck has many of these, and in fact, one of the longest serving WearCheck staffers is Vigie Manikum, who has worked at WearCheck for a staggering 35 loyal years - that's more than three decades in the oil analysis industry!

After an initial stint doing admin for WearCheck in 1975, Vigie moved into the lab, working her way up from junior assistant to lab supervisor.

In that time, the lab's focus changed from soil testing for NPA road construction, to oil analysis across many industries and in many countries, as WearCheck expanded.

Says Vigie, 'Our lab is always busy. I enjoy tackling each day's different challenges, and it is refreshing to always have cutting-edge

technology in the lab - this makes my job a pleasure.

'35 years have flown by at WearCheck. I still fondly remember the founders Lesley and Wally Crawford, and Gary Brown, who were wonderful mentors. Today we have a great team, and our core focus is on giving WearCheck customers the best possible service.

And what is Vigie's secret recipe for job-satisfaction and a successful career? 'Good attitude leads to good altitude,' she smiles.



Vigie Manikum, lab supervisor

WEARCHECK FORMS TIES WITH **ASSET MANAGEMENT COMPANY**

WearCheck has formed an association with asset management company, Pragma Africa.

Says WearCheck managing director, Neil Robinson, 'Among other things, Pragma sells and administers databases for maintenance systems. These are designed to reduce costs and optimise maintenance planning and scheduling, which complements WearCheck's service. We are exploring ways of developing the synergy that exists between the two companies.'

'We believe that, in physical asset management, success boils down to one measure - return on assets,' says Alan Tait, managing director of Pragma Africa. 'Your physical asset, whether it is a facility, a production line, a fleet of vehicles or a utility, must deliver the service or the goods it is designed for at the optimum cost with maximum output.'



For more information about Pragma, visit www.pragmaworld.net

FAREWELL FELICITY

When WearCheck first appointed Felicity Howden Public Relations nearly twenty years ago, the majority of communication around WearCheck's publicity was still done via snail-mail or fax... cell phones, email, internet and digital pics weren't even a glimmer on the horizon yet.

Now, after producing the first Technical Bulletin (1993) and early Monitor editions, and every issue since for the last two decades, as well as many other PR projects for WearCheck, it is time to bid farewell to Felicity.

Along with husband John, Felicity heads off to England in March, where she will enjoy 'semi-retirement' while exploring life in Yorkshire, and spending time with family there.

WearCheck's managing director, Neil Robinson, wished Felicity farewell. 'On behalf of all of us at WearCheck, especially those staff members who have been here since Felicity first joined our team in the early '90s, we thank you for your professional and ever-efficient PR services - through this, you have helped raise the bar on communication with our customers, our staff and potential customers - all over the world. This has been vital for the ongoing development of our business.

You will be sadly missed - South Africa's loss is surely England's gain.'

Although excited about living abroad, Felicity was very sad to say goodbye to her clients, particularly WearCheck. 'It really has been a pleasure working with WearCheck over the past twenty years.'

'It has been a privilege to work with people I liked and respected, and whose professionalism and enthusiasm for their work made me care about the development and future of WearCheck.'

TOP QUALITY AUDITORS



Sincere congratulations to Prinda Narasi of the Pinetown office (left) and Josephine Rakolota of the Johannesburg office who were selected as quality auditors of the year for 2010. They are both pictured here with managing director, Neil Robinson, who congratulated them on their achievement and thanked them for their dedication to the company's quality management system.

LUBE TIP

Water absorption in fluids

The amount of water that a given fluid will absorb depends upon its base stock, viscosity, additive package, and temperature. The amount of water that can dissolve in a fluid is termed its saturation level. The saturation level for a hydraulic fluid is 200-300 ppm while for a lubricating oil it is around 500-600 ppm. Oil is cloudy when it is above its saturation level. The saturation level for a synthetic fluid is generally much higher than for a mineral base fluid.

Extract from the Noria Corporation's 'Lube-tips Newsletter'



Bon Voyage, Felicity.

SAFETY FIRST

WearCheck was awarded the Set Point Divisional Prize for the best Health and Safety (H&S) performance in 2010. This award is presented annually to the division with the highest H&S score as audited by Makrosafe.

WearCheck has been a member of the Set Point Group since 1999.

'I would like to say thank you and congratulations to everyone, but especially the Health and Safety committee and those additional people who are willing to give up their time and expertise to ensure our healthy and safe working environment,' said WearCheck managing director, Neil Robinson.

The trophy is displayed in Pinetown office reception area although it recognises the contribution made by each and every office and person in the company.



WearCheck's Health and Safety committee proudly displays the trophy awarded by Set Point to the division with the best H&S performance during 2010 (from left) Melanie Hynd, Neil Robinson, Michelle Padayachee, Shashay Narainpersad, Meshach Govender and, in front, Paul Swan

WESTERN CAPE WELCOMES WEARCHECK

WearCheck's new Cape Town office, which opened in July 2010, has been warmly welcomed by a burgeoning customer base in the region, including organisations from the maritime, road transport, aircraft, electrical, construction and earthmoving sectors.

WearCheck now boasts certification by two international marine agencies - Lloyds of London and Paris-based Bureau Veritas, highlighting the benefits of oil analysis for the local maritime industry.

Cape Town branch co-ordinator Werner Buys and his team offer on-site sampling and a diesel filtration service in addition to the full spectrum of WearCheck services. Greases, fuels, coolants, filters and transformer oils can also be analysed to provide a one-stop fluid analysis service.

Werner has six years' experience in oil, fuel and transformer oil analysis, including a stint in WearCheck's lab at Lumwana copper mine

in Zambia and a stint in WearCheck's fuel and transformer lab.

Says Werner, 'With customers ranging from international shipping lines to earth-moving, haulage and many others, our focus is constantly expanding to address the needs of the different sectors.'

'Our focus has also expanded to other industries, including the power stations, the mass transport sector and several municipal and provincial organisations.'

WearCheck Cape Town branch co-ordinator, Werner Buys



PRODUCT PICK - MARINE ANALYSIS

Oils perform many different jobs on board large sea-going vessels and range from mineral to full synthetic, and gear lubes to hydraulic fluids and highly advanced engine oils. WearCheck undertakes oil analysis for all marine vessels on samples from ship engines, gearboxes and hydraulics. The test profile includes wear metals, contaminants,



additives and lubricant condition plus Total Base Number (TBN) on engine samples.

Product code: WMM10

WearCheck is certified by Lloyds of London and Paris-based Bureau Veritas to perform oil analysis. The company also services a number of major South African and Namibian marine organisations, as well as international oil drilling companies with floating platforms off the African coast.

2011 TRAINING COURSES

VENUE	NETCHECK: SOFTWARE PACKAGE	OIL ANALYSIS ONE: UNDERSTANDING OIL AND ITS ANALYSIS	OIL ANALYSIS TWO: REPORT INTERPRETATION	OIL ANALYSIS THREE: MANAGEMENT
Johannesburg	17 Oct	18-19 Oct	20 Oct	21 Oct
Namibia		17-18 May	19 May	20 May
Cape Town		23-24 Aug	25 Aug	26 Aug
Middelburg		12-13 July	14 July	15 July
Steelpoort		19-20 July	21 July	22 July
Pinetown	15 Aug	16-17 Aug	18 Aug	19 Aug
Rustenburg		20-21 Sept	22 Sept	23 Sept

Costs

Oil Analysis One covers two full days and costs R3 990 plus VAT. Oil Analysis Two and the NetCheck course cover one full day each and each costs R1 995 plus VAT. Oil Analysis Three is a half-day course and costs R850 plus VAT. All courses include course material, refreshments, giveaways and certificates. Prices are subject to change.

For more details on course content, view Training at www.wearcheck.co.za.

For all bookings phone Michelle van Dyk on (011) 392-6322 or email training@wearcheck.co.za.

All courses can also be presented at the customer's premises for a minimum of seven delegates. WearCheck also offers two more on-site courses:

- WearCheck Practical (in English or Zulu), a half day course costing R475.20 plus VAT per delegate
- WearCheck Customised - oil analysis for workshop technicians, a full day course costing R1 161.60 plus VAT - per delegate.

For on-site training, there may be an additional charge for the lecturer's travel and accommodation, if needed.

Arrange a training course near you

Training courses can also be arranged in any of the following areas:

Bloemfontein • Cape Town • Kimberley • Makopane • Middelburg • Nelspruit • Port Elizabeth • Rustenburg • Steelpoort • Botswana
Namibia • Tanzania (Mwanza) • Zambia (Kitwe)

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 melanie@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 melanie@wearcheck.co.za. Before you do this, why not check out the 50 titles already available on the web site: www.wearcheck.co.za/bulletins.htm

JOINING TOGETHER TO SUPPORT THE PLANET

If you would prefer to receive future issues of WearCheck Monitor and Technical Bulletin via e-mail in pdf format instead of in printed form, please e-mail a request to: support@wearcheck.co.za. This option also applies to printed reports.

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