

A MESSAGE TO OUR CUSTOMERS - WITH THANKS

As 2005 draws to a close, it is an opportune time to think back on the achievements and challenges of the past year and to reflect on the enormously important role that our customers play in the continued success of our company.

We thank you for your valued support and we wish you a peaceful festive season and a prosperous 2006.

Every year at this time, Wearcheck makes a donation to READ, a non-profit making organisation which promotes literacy throughout the country and empowers those less fortunate than ourselves to build a better life.



NEW MD TAKES THE HELM



Wearcheck's new managing director, Neil Robinson (seated) is flanked by his executive team - finance and HR manager Karen van Staden, IS manager Larry Baddock and diagnostic manager John Evans.

Neil Robinson, formerly Wearcheck's technical manager, has been appointed managing director of the company

Lesley Stewart, Wearcheck's founder and managing director up to now, has moved into the position of chairman.

Neil will be backed up by the existing management team of Karen van Staden as finance and HR manager, Larry Baddock as IS manager and John Evans as diagnostic manager.

Neil has had a distinguished career at Wearcheck since joining the company in 1997 as chemist. He holds an honours degree in Applied Chemistry from DeMontfort University in Leicester in the United Kingdom and is a graduate of the Royal Society of Chemists. He held the position of laboratory manager before being promoted to Wearcheck technical manager in 2002.

He assumed the role of managing director at the beginning of September with confidence and enthusiasm.

'It is a privilege to be asked to lead a company like Wearcheck with its solid customer base, committed and capable staff, superior quality standards, technological advances and sound management practices,' Neil said.

'I relish the opportunity I have been given to build on

this solid foundation and guide the company through the challenges and opportunities that lie ahead as we take Wearcheck from being known as purely an oil analysis company to being a total solutions provider, in the fields of condition monitoring, lubrication and training.'

Lesley commented, 'I have always said that, when the time was right, I would hand the company over in good order to competent people I have faith in. This is the first step in that process. I am looking forward to leaving the day to day management of the company in the capable hands of the management team and moving into my new role as chairman and sounding board.'



Lesley Stewart has been appointed chairman of Wearcheck.

THUMBS UP FOR CUSTOMER SERVICE

Most Wearcheck customers who responded to the recent customer service survey were extremely positive in their feedback, rating the company excellent or good in a range of different categories - from staff knowledge and accessibility to the accuracy of results and the quality of technical support.

'More than 180 customers participated in this year's survey,' said managing director, Neil Robinson. 'We place great store by this feedback as it helps guide our forward planning and fuels our commitment to continuous improvement. Thank you to everyone who responded for your valuable input.'

Respondents were asked to name one selling point they would use to recommend Wearcheck to a friend or associate. These were some of the replies:

- Full package professionalism.
- We as a company believe that having our oils tested by Wearcheck gives our customers the satisfaction that we are serious about the quality

of product and service we supply.

- Wearcheck picks up on the problems before the problems pick on you.
- Reliable and professional people eager to give a very good service level.
- I would definitely (recommend the company) but everybody I know uses Wearcheck already.
- For the price you pay you get value for money.
- Oil analysis is not a game. The results could potentially save you millions, keeping your fleet up and running. Wearcheck offer this service and a whole lot more.
- Wearcheck offers an independent, professional, unbiased diagnosis of oil condition.
- The NetCheck program that allows you to instantly receive results via e-mail and pull up all details in trended form for comparing results with a database history allowing equipment to be monitored, trended and reported on at all times from many places at once.
- The best oil analysis program there is.

EXCELLENT RESPONSE TO NEW TRAINING ACADEMY

Wearcheck and ABB's new Machinery and Lubrication Academy got off to a flying start in August with more than 30 delegates attending the first two courses at the ABB School of Maintenance in Sunninghill, Sandton.

Paul von Zeuner, ABB's general manager, said that he was delighted with feedback on the courses. The course presenter - Wwearcheck's Jan Backer - scored in excess of 90% and delegates rated the course material higher than 80%. This was prepared by Jan and Wwearcheck diagnostic manager, John Evans.

The courses are developed specifically for South African operating conditions.

Machinery and Lubrication Level One, a three-day course costing R5 197 (plus VAT), is aimed at all maintenance professionals including technicians, engineers and managers. It covers:

- Basics of lubrication
- Oil sampling principles
- Fluid property analysis
- Proactive maintenance and contamination control
- Machine wear and analysing wear modes
- Classification of oils
- Grease and its analysis

Machinery and Lubrication Level Two, a two-day course costing R4 147 (plus VAT), is designed

for people of all levels of expertise performing maintenance, engineering and administrative functions such as production and purchasing. It includes:

- Maintenance philosophies
- Designing a total fluid management programme that includes oil analysis
- Why oil analysis sometimes does not work
- Six most expensive oil analysis tests
- Ways to make oil analysis work
- Alarms and limits
- Getting the most from your oil analysis reports
- Integrating oil analysis with other CM techniques
- Savings calculations
- Case studies
- Data interpretation

2006 COURSE DATES

MLA Course 1	MLA Course 2
13-15 February	16-17 February
19-21 June	22-23 June
2-4 October	5-6 October

For more information and bookings phone Lisa-Anne Fairley at ABB on (011) 236-7342 or Wendy Holiday at Wwearcheck on (011) 392-6322.

HUGE OIL ANALYSIS COST SAVINGS IN THE USA

In the last issue we featured some of the 160 responses received by US magazine, Tribology and Lubrication Technology, when they asked members of the Society of Tribologists and Lubrication Engineers to relate an experience where oil analysis saved a piece of equipment or system, and estimate the savings. In this issue we feature feedback from more members.

- One of our customers was using EP gear oil in a worm gear. We showed wear relating to using the wrong product. They switched to our synthetic oil and saved more than \$20,000 a year.
- Upon start up of a large steam turbine, oil analysis discovered a very large amount of iron in the lubricating oil. There were no outward appearances of a problem. Investigation revealed the unit's turning gear had not locked in the disengage position and was bumping against the bull gear on the turbine shaft, shearing off metal particles and depositing them into the lube oil. This catch allowed operations to take action and prevent complete failure of the turning gear and allowed quick clean up of the oil, thus preventing major damage to the turbine bearings. The catch was estimated to have saved a million dollars in repairs and downtime.
- Just last week we saved a Detroit Series 60D diesel engine from failure. The report came back with high potassium and sodium but no glycol present. We monitored for the customer and, of course, it was a bad cylinder head gasket.
- A shaft-mount gear reducer's lubricant had a high total acid number. The lubricant was changed upon receiving the analysis results. Saving: the gear reducer's cost of \$85,000.
- We started performing oil analysis on a lot of our critical gearboxes. Our PMs were set up so that the technician would do a group of gearboxes at one time. In taking the initial round of samples, our technician found one gearbox that had a lot of metal in the oil. It turns out that this gearbox had been mislabeled, and the oil had not been changed in six years. This was an easy catch but one that might not have been found if we didn't have a person specializing in this area. The effect of a failed gearbox would have been lost production and easily could have run into tens of thousands of dollars.
- The number of new diesel engines we've saved sure pays for a lot of oil samples.

WEARCHECK SUPPORTS ARBOR DAY

Green fingers: Karen van Staden, Wearcheck's finance and HR manager, helps Cheryl Fynn, a teacher at Ashley Primary School, and one of their learners to plant a Natal Laburnum tree during national Arbor Week as part of the school's bid to achieve Green Flag status from the Wildlife Society. Last year Wearcheck donated a number of



Neil Robinson (back left) and Lesley Stewart (front right) get to know some of the visiting members of the SA Society for Quality.

QUALITY CONTACT

Wearcheck hosted the KZN branch of the SA Society for Quality during August.

Says quality administrator Melanie Hynd, 'The society's membership comes from a vast range of industries and businesses – so meetings like these give members an idea of who does what. At this function we showed members how we entrench quality with the way we work'.

BUDGET NOW FOR 2006 TRAINING

If you are finalising your 2006 training budgets now, make a note of the Wearcheck courses which will be run at the company's Kempton Park offices from 6 -10 February, from 5 - 9 June and from 16 - 20 October; and at the Pinetown offices from 6 - 10 March and 14 - 18 August.

They are all full day courses and cost R 1500 except the management course which is half day and costs R550 (both excluding VAT). They will be run in this order:

Monday:	NetCheck: Software package
Tuesday:	Wearcheck One: Oil analysis orientation
Wednesday:	Wearcheck Two: Understanding oil and its analysis
Thursday:	Wearcheck Three: Report interpretation
Friday:	Wearcheck Four: Management

For bookings phone Wendy on (011) 392-6322.

indigenous shrubs for a 'butterfly bank' aimed at attracting these colourful creatures to the playground. Wearcheck recently became the first oil analysis company in Africa to achieve ISO 14001 registration for its environmental management system.



TURNAROUND TIME IS TOPS

'As turnaround time is of paramount importance to our customers, we pay a great deal of attention to our performance in this regard,' says MD Neil Robinson.

'Our statistics show that this year on average Wearcheck processed 55.4% of all samples received in the Pinetown laboratory in under 12 hours and at least 97.7% of samples within 24 hours.'

'The small number of samples that take longer than this, is usually due to circumstances beyond our control,' he said.

'Samples with missing information or samples whose origin cannot be clearly identified may take a bit longer as the data processing department may need to query certain details.'

'We classify 'turnaround' as the time from when the sample enters our computer system until the report is generated. Unfortunately we have no control over how long it takes for the sample to reach us or how accurate the accompanying data is.'

The other reason that a report may be delayed is, if a sample appears to have severe problems, it may be sent back to the laboratory for further testing and additional diagnosis.

Customers may be interested to know that, although Wearcheck obviously runs an oil testing laboratory, the actual analysis is carried out in a process that resembles a production line. This takes place to ensure quick turnaround time for the large number of tests that are performed on each sample. As a result, samples received late in the day may not enter the process stream until the next morning.

In an emergency, Wearcheck will pull out all the stops to process a sample as quickly as possible.

To make sure your samples achieve optimum turnaround time, ask for a copy of the step-by-step data sheet 'How to fill in a Wearcheck submission form' or view it under 'Publications' on the web site: www.wearcheck.co.za.

LUBE TIP

DOES HEAT REDUCE LUBRICANT LIFE?

QUESTION

'I've heard that a lubricant's life is cut in half for every 10 degrees C (18 degrees F) increase in operating temperature. Is there any truth to this?'

ANSWER

Yes, this is generally true. The concept is based on the Arrhenius Rate Rule, named for 19th Century Swedish chemist Svante Arrhenius. Heat increases both the collision rate of molecules and the activation energy of the reaction. The higher activation energy helps overcome the barrier (or natural resistance) molecules have to chemical reactions.

With oils, the chemical reaction that typically causes base oil degradation and additive depletion is oxidation. The activation energy required to induce oxidation in oil is high compared to other chemical reactions. The presence of contaminants such as water and certain metal particles in the oil can considerably speed up the process, that is, increasing the activation rate. For most in-service mineral oils with typical contaminants, the activation energy for oxidation corresponds to a doubling for every 10 degrees C temperature increment.

Why does a refrigerator keep food from spoiling? Spoiling is a chemical reaction like oil oxidation but proceeds at a much higher rate constant. Compared to a refrigerator (4 degrees F), food will spoil at a rate 142 times faster at room temperature (77 degrees F). In other words, the speed of reaction in a freezer is much slower than at room temperature.

- Courtesy of Noria Corporation

LUCKY WINNER!



Wearcheck's Jan Backer hands the lucky draw prize for this year's customer service survey to Blanchet Strydom of Kelgrán - Rustenburg Quarry. Blanchet won a weekend away for two at any Protea Hotel in South Africa.

If you would prefer to receive future issues of Wearcheck Monitor and Technical Bulletin via e-mail instead of in printed form, please e-mail a request to: support@wearcheck.co.za

THE LEADING OIL ANALYSIS COMPANY IN AFRICA

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Honeywell



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