

## US jet engine manufacturer gives Wearcheck top rating

'WEARCHECK's staff and equipment are definitely some of the best that I have seen - it is certainly one of the top three or four laboratories we deal with throughout the world.'

So says Robbie Phillips, Allied Signal Aerospace engineer, who visited South Africa in May to conduct Wearcheck's four-yearly laboratory audit and confirm the company's status as the official oil analysis company for Allied Signal (formerly Garrett) turbine engines in Africa.

Allied Signal Aerospace, based in Phoenix Arizona, is one of the world's largest manufacturers of gas turbine engines.

'Wearcheck is well-staffed, well-maintained and they have full oil analysis capabilities,' Mr Phillips went on to say.

'They appear to strive to keep the latest and greatest available technology and the quality of their work is top-class.'

### Approved

During his week at the Pinetown laboratory, Mr Phillips trained two of Wearcheck's new diagnosticians - Michelle Gregory and James Higgs - to become approved Allied Signal technicians qualified to do oil and filter analysis on TFE 731, TPE 331 and ATF 3 turbine engines.

In addition, Wearcheck's two existing accredited technicians, Gary Brown and Daan Burger, successfully completed their annual recertification test.

'Time is of the essence in SOAP (Spectrometric Oil Analysis Programme) analysis for jet engines,' said Mr Phillips. 'Without Wearcheck functioning as our African laboratory and providing our customers here with the critical same-day service, the samples would have to be sent to the UK for analysis - making a one-day

service impossible.'

Michelle and James were impressed by Mr Phillips' expertise and knowledge. 'He has had comprehensive direct experience of component failure investigation, so when you ask him a question, you get a very thorough answer.'

'Testing jet filters is incredibly hi-tech, and a great deal of responsibility rests on your shoulders when you provide a diagnosis. The downtime lost by an aeroplane which is grounded for inspection based on your recommendation could be very costly. However, it could also save the owners a lot of money. There is absolutely no margin for error.'

Mr Phillips does at least one international trip every year to Allied Signal's accredited laboratories throughout the world and also has a close association with Wearcheck Canada.

'I am never sure what to expect before visiting a lab for the first time, but I received my latest copy of Wearcheck Monitor prior to my South African trip, so I was able to familiarise myself with many of the people and techniques before I arrived which was most helpful.'



Allied Signal Aerospace engineer Robbie Phillips (centre) conducts a training session with Wearcheck diagnosticians James Higgs and Michelle Gregory.

## Customer care research yields positive results

A FOCUS GROUP attended by a selection of KwaZulu-Natal customers during March provided valuable feedback on the company's customer care programme.

The group was generally extremely positive about Wearcheck with most rating the company as either good or excellent on most of the issues raised. These ranged from friendliness and responsiveness of staff to professionalism, efficiency of service and consistency of diagnosis.

Most of the respondents had been using Wearcheck for a number of years and were well qualified to comment on the company's capabilities.

In general, the group was impressed with Wearcheck's commitment to pursue and invest in the latest technology and equipment.

Most were happy with the training offered by Wearcheck and were convinced of the benefits of educating their own staff to use oil analysis more effectively.

The cost of analysis did not appear to be a factor with most respondents believing that the savings justified the cost.

Wearcheck is already addressing two issues raised by the group:

- ◆ additional technical support and customer service staff have been appointed so that customers are visited more regularly, and
  - ◆ Wearcheck has been introducing specialised reports as the need arises. At present, separate specialised reports are produced for the industrial, mobile, aviation and marine sectors.
- Organised to assist management with strategic and marketing planning, focus group research forms part of Wearcheck's ongoing efforts to improve customer service.

## Illovo Sugar's Sezela Mill saves on production and repair costs through wear debris analysis

OIL ANALYSIS has been an important part of the maintenance programme at Illovo Sugar's Sezela Mill on the KwaZulu-Natal South Coast for the past five years.

A total of 77 units of equipment are on the Wearcheck programme with 62 of these holding priority one status - key units that would cause loss of production if they were to fail.

Ferrogram (wear debris analysis) testing was introduced at the mill - which crushes 2,3 million tons of cane per year - at the beginning of last year's cane season and again towards the end of the year to provide an overview of the machinery for the off-crop maintenance period.

'It has already proved its worth,' says Sezela's CBM technician, Bradley Diedricks, 'preventing the failure of a priority one cane conveyor gearbox and saving us R 300 000.'

'Oil samples showed abnormal wear on the unit,' he explains. 'We then commissioned a ferrogram (wear

debris analysis) test and a bearing problem was diagnosed.'

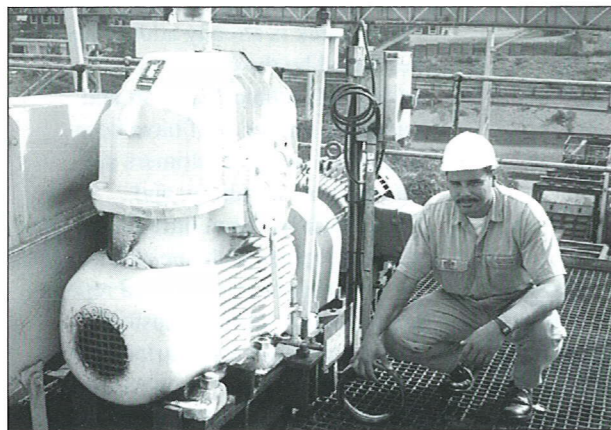
The unit was repaired but, after a second wear debris analysis, bearing wear was again detected, and inspection of the gearbox revealed that bearing failure was imminent.

'The wear debris analysis alerted us to the severity of the problem,' says Bradley. 'If this had not been picked up we would have had to replace the gearbox and lose eight to ten hours in downtime, instead of simply changing the bearings during a planned maintenance break.'

'This is one example of how oil analysis, including ferrometry, has saved the mill money.'

'Many industries, including sugar mills, are slowly moving away from traditional maintenance and adopting a reliability centred maintenance (RCM) approach.'

'Our predictive maintenance programme would not be complete without oil analysis.'



CBM technician Bradley Diedricks explains how oil analysis and ferrometry prevented the failure of a cane conveyor gearbox at Illovo Sugar's Sezela Mill.

## NEW CONTRACTS

### Delta deal

WEARCHECK has been selected to serve as official oil analysis company for an attractive after-sales warranty agreement on the new F-Series trucks introduced by Delta Motor Corporation.

In terms of the warranty requirements, all trucks will undergo oil analysis by Wearcheck each time they are serviced, with the servicing dealer receiving the full Wearcheck report. Customers will receive the report on request.

The new F-Series trucks are fitted with Isuzu engines instead of the commonly used ADEs. They are wholly manufactured in Japan, imported in kit form, and then assembled at Delta's Port Elizabeth factory.

Because Isuzu engines are new in South Africa and therefore don't have a wear history, Wearcheck will create a wear profile for the new vehicles.

### Hyundai standardises on Wearcheck

HYUNDAI Plant & Equipment have switched to Wearcheck's oil analysis programme, mainly because many of their customers were using Wearcheck and it was proving difficult to correlate databases generated by different oil analysis companies.

### RTS selects Wearcheck for Coke fleet

AMALGAMATED Beverage Industries, which handles all Coca Cola deliveries, has contracted out the maintenance of its extensive fleet to Rental Transport Systems. RTS has, in turn, selected Wearcheck as its oil analysis company.

### Cathy Bolton-Naude

CATHY Bolton-Naude, Wearcheck's new Gauteng branch administrator, has 12 years of experience in oil analysis.

Starting her career with CMS in Johannesburg as part of the initial administration team, she steadily worked her way up from reception through positions in the accounts department and the laboratory to sales and marketing manager.

This in-depth exposure to the industry, along with diplomas in industrial relations and marketing and sales management, has given Cathy a solid grounding for her new position at Wearcheck.

Cathy has great plans for her role as Gauteng branch administrator.

'I am extremely people-oriented and committed to providing the service excellence that our customers deserve. To achieve this we will need to work as a team and optimise communication between the Pinetown and Gauteng offices.'

They say that the oil analysis industry gets into your blood, a view Cathy endorses.

'The best part about this industry is the concept of oil

## NEW FACES



Cathy Bolton-Naude

analysis - like testing a blood sample and diagnosing why a person is ill, you can do the same for your plant and equipment. I find it fascinating.'

A great believer in self-development, Cathy is currently studying leadership and public speaking.

On weekends, Cathy enjoys shooting and go-cart racing - she has been mesmerised by cars and other vehicles since she was tiny.

### Brigette Ashe



Brigette Ashe

SYSTEMS administrator Brigette Ashe is responsible for the smooth running of Wearcheck's data processing operation.

No newcomer to Wearcheck, she used to help out in the data processing department and the laboratory during school holidays, so was quite at home when she joined the company in February this year.

A social science graduate from the University of Natal in Pietermaritzburg, Brigette's first position was as a reservations consultant for Flexi-Holiday Club and Quaestor Management and Property Services. Here she co-ordinated international and local reservations and private rentals, and liaised with clients.

This experience is standing her in good stead in her current position where she often handles customer queries and liaises with various Wearcheck departments.

'I am a firm believer in creating good channels of communication,' says Brigette who, along with the seven staff members under her supervision, works at the heart of Wearcheck's largely computerised operation.

'It is essential that we are sensitive to the workings of other departments and that we maintain high levels of accuracy, regardless of the volume of work coming through to us.'

Brigette utilises her creative skills by designing greeting cards and embroidering cross-stitch wall hangings. In her quieter moments she enjoys walking, reading and listening to music.

## How is Wearcheck enviro-friendly?

IN THIS day and age no company can afford to be without a healthy regard for the environment and Wearcheck is no exception.

Says technical director, Lesley Crawford, 'Oil analysis is, by its nature, an environment-friendly process. It helps improve the combustion efficiency of engines by monitoring and optimising fuel system efficiency, thereby decreasing harmful emissions.'

Care for the environment is also an integral part of Wearcheck's everyday operation:

- ◆ Costly fume cupboards were installed in the Pinetown laboratory to ensure that the air remains exceptionally clean by international standards.
- ◆ A high degree of automation has resulted in a virtually paperless laboratory, considerably reducing the company's paper consumption.
- ◆ The use of solvents in the lab is kept to a minimum and most solvents used are recycled in the company's own solvent recovery plant.
- ◆ The new sample bottles and postal containers introduced

last year were specially designed to be recyclable or reusable. They are also smaller, using less plastic during manufacture.

This year Wearcheck has installed a bottle washing plant in the Pinetown laboratory. Developed by laboratory manager Alistair Geach and chemical engineering student Trevor Richardson, it washes and sterilises 1000 used plastic postal containers daily, for immediate re-use. The sample bottles are drained and sent to a specialist company for recycling.

## MAKING HEADWAY

JILL DURANT has been promoted to operations co-ordinator responsible for monitoring the quality control system which ensures that Wearcheck's output is consistently accurate.

The onus is on Jill to follow up all non-conformance reports within the processes to which the oil samples are subjected, ensuring that everything has been rectified and eliminating any opportunities for the error to recur.

Equipped with a BSc in microbiology and biochem-

istry from Stellenbosch University, Jill has been working at Wearcheck since she graduated six years ago, and is well acquainted with the technicalities of oil analysis.

An old hand at looking after customers from her years of running Wearcheck's Infocheck support, Jill will now concentrate on liaising with customers countrywide and maintaining close contact with the Gauteng office.

Says Jill, 'I am also enjoying getting involved in a bit of marketing. It is refreshing to



Jill Durant

tackle new responsibilities and broaden my experience base.'

Jill's hobbies are gardening, sewing, walking and reading.

## Wearcheck Technical Training Courses July - November 1997

Date	Course	Venue
21 July	2	Johannesburg
22 July	3	Johannesburg
23/24 July	4	Johannesburg
11 August	2	Pinetown
12 August	3	Pinetown
13/14 August	4	Pinetown
8 September	2	Pinetown
9 September	3	Pinetown
10/11 September	4	Pinetown
15 September	2	Johannesburg
16 September	3	Johannesburg
17/18 September	4	Johannesburg
6 October	2	Pinetown
7 October	3	Pinetown
8/9 October	4	Pinetown
13 October	2	Johannesburg
14 October	3	Johannesburg
15/16 October	4	Johannesburg
10 November	2	Johannesburg
11 November	3	Johannesburg
12/13 November	4	Johannesburg
17 November	2	Pinetown
18 November	3	Pinetown
19/20 November	4	Pinetown

**Course 1:** *A practical introduction to oil analysis* (8h30 - 12h30). By arrangement. Cost: R120 (Wearcheck customers), R165 (others).

**Course 2:** *The application of analysis and an introduction to troubleshooting* (8h30 - 16h30). Cost: R395 (Wearcheck customers), R550 (others).

**Course 3:** *Troubleshooting series* (8h30 - 16h30). Cost: R395 (Wearcheck customers), R550 (others).

**Course 4:** *The technical management of oil analysis and lubrication* (Day 1: 8h30 - 16h30, Day 2: 8h30 - 12h30). Cost: R760 (Wearcheck customers), R990 (others).

All prices include VAT.

For bookings phone Melanie Hynd on (031) 700-5460.

## Where to find us

### GAUTENG

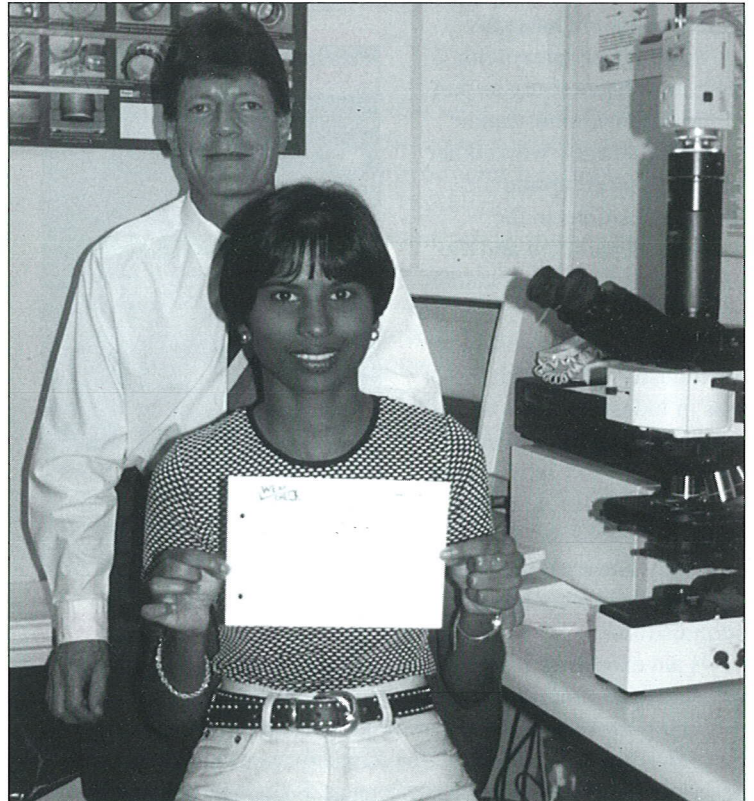
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For extra copies contact Melanie Hynd in KwaZulu-Natal or Cathy Bolton-Naude in Gauteng.

## Quick and easy oil sample to ferrogram upgrade card



Diagnostician Rowan Maartens and customer services assistant, Vasthie Naidoo show off the new ferrogram upgrade card.

WEARCHECK has introduced a quick and easy system for customers to upgrade normal oil samples to ferrogram wear debris analysis samples.

To start with, it is recommended that all customers keep a small stock of ferrogram upgrade cards, so that they are readily available when needed.

They can be bought from Wearcheck at a cost of R135 (plus VAT) each.

Then, when an oil sample needs to be upgraded, the customer simply quotes the number in the top right-hand corner of the ferrogram upgrade card to the diagnostician over the phone. The diagnostician then keys the number into the system and triggers the wear debris analysis.

It is important that all of the following information is entered on the card:

- ◆ The sample number of the original oil sample
- ◆ The component

- ◆ The fleet/plant or machine number
- ◆ The name of the company
- ◆ The individual's signature
- ◆ The date

When the card is completed the customer faxes it back to Wearcheck as confirmation and keeps the card until the wear debris analysis report is received.

'We have introduced the system to save customers the hassle of getting an order number and a separate authorisation each time ferrogram wear debris analysis is required,' says managing director Wally Crawford.

'This is particularly important when time is of the essence.'

The ferrogram upgrade card may only be used once and if the number quoted has already been used, the computerised system will not be able to trigger the ferrogram wear debris analysis.