### **SABS ISO 9002** first for Wearcheck

WEARCHECK Africa is the first oil analysis company in South Africa to be awarded ISO 9002 accreditation.

At a special ceremony on 15 August at which the ISO 9002 flag was raised, Mr John Peart, the SABS's assessment services manager in KwaZulu-Natal, said that ISO 9000 formed the basis for the development of quality management systems in 70 countries around the globe and that the SABS certification scheme was the only one in South Africa to be accredited by a world authority, Raad Voor de Certificatie of Holland.

#### Right first time

'ISO 9000 recognises Wearcheck's ability to provide customer satisfaction in a cost-effective manner and to adhere to the 'right first time' concept which makes a company a leader in its field,' he said.

Giles Chaplin of Chaplin Quality Systems Engineering, who assisted Wearcheck with their programme, commented, 'The fact that the company was able to achieve listing to ISO 9002 on their first attempt after an implementation programme of only nine months is proof of Wearcheck's uncompromising attitude towards quality and technical



Raising the ISO 9002 flag are, left to right: Wearcheck directors Lesley Crawford, Gary Brown and Wally Crawford with John Peart, SABS assessment services manager for KwaZulu-Natal.

professionalism.

'The success of the programme is also attributable to the dedication of highlyskilled, motivated and well trained staff.'

Technical director Lesley Crawford who manages the quality programme, said that the ISO rating gave customers the assurance that the high quality standards set by the company would be consistently maintained.

Wearcheck Africa is the fourth Wearcheck International company to achieve this rating, following the example of member companies in Britain, Belgium Germany.

### **Wearcheck International** meeting yields positive results

STRATEGIC links between member companies were strengthened at the 1996 annual meeting of the International Wearcheck Group (IWCG) - now known as Wearcheck International (WCI) - held in Canada during Wearcheck Africa was represented by Wally and Lesley Crawford and information systems manager Gary Dorman.

'We are continuing to collaborate on the development of software as part of our ongoing programme to increase automation of all

our systems where possible,' says managing director Wally Crawford. 'By utilising the talents and technology of all members, this process will be fast-tracked.

'We now have an Intranet link in place to help standardise and enhance communication between members. This means that all Internet correspondence between the eight WCI member companies is automatically received by all parties via secure areas on the World Wide Web. The Intranet also allows for immediate, online collaboration on documents, enabling several peo-

ple sitting at their desks in different countries to work on the same document simultaneously.'

Agreement was also reached on a staff exchange scheme enabling employees from one member company to visit any other WCI company, either to gain firsthand experience of a particular operation or to offer specialised skills for training purposes.

'We all rate international experience as extremely

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# New FIPS produces snapshots of magnified wear debris

WEARCHECK's rotary particle depositor (RPD) and high power microscope combination has taken on a new dimension with the purchase of a flexible image processing system (FIPS) complete with camera and image capturing facility, enabling Wearcheck to produce postcard size photographs of magnified wear debris particles.

'This is just one of the advanced features of the FIPS,' says Wearcheck technical consultant, John Evans. 'Being able to produce photographs for customers in under 90 seconds is a very powerful tool. There is no

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valuable with tangible benefits for both parties,' said Wally. 'It is also an effective motivational tool for staff.'

Another major benefit of the conference was an indepth discussion on the quality and availability of oil analysis equipment throughout the world based on the first-hand experiences of the member companies.

'By keeping abreast of the latest developments internationally we are able to achieve our aim of maintaining the highest technological standards. We have just purchased a new flexible image processing system (FIPS) and are in the process of commissioning a new Arlab inductively-coupled plasma (ICP) spectrometer. Once again, the WCI meeting confirmed that Wearcheck Africa's advanced systems match or surpass the best available globally.'

doubt that the old saying 'a picture is worth a thousand words' is true when trying to describe complex wear particle patterns which have been magnified up to 1000 times.

'A photograph also conveys the urgency of a potential problem rapidly and effectively ... and speed is of the essence when dealing with equipment worth hundreds of thousands of rand. It will definitely save time and money for customers.'

#### **Images stored**

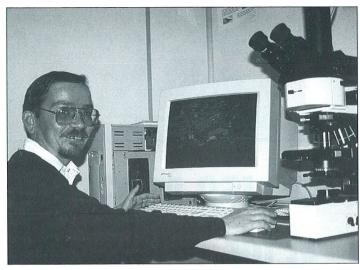
The FIPS also allows magnified images to be enhanced and stored in either colour or black and white on computer, and they can be retrieved at the touch of a button.

'When a second sample is taken, it can easily be compared against the original to check for deterioration,' says John.

Any enhancements such as highlighting or typed notes which are added to the image on the computer screen can be printed out on the photographs. A single postcard size print can also feature up to 25 individual images.

#### **Wear modes**

'Wearcheck's RPD and microscope combination enables ferrous (magnetic) wear particles from oil samples to be deposited onto a slide in thin layers, according to size,' explains John. 'When the particles are examined under the microscope the diagnosticians are able to identify different types of wear modes from their size, shape, colour, texture and edge detail - for example,



Wearcheck technical consultant John Evans works on the company's new flexible image processing system (FIPS).

excessive rolling fatigue indicative of roller bearing element wear.'

The new FIPS permits even more detailed analysis of wear debris. It can measure the total particles in a field of view, specifying minimum and maximum particle size, the maximum, minimum or average feret (diameter) as well as the area, perimeter and total statistics for all the particles being considered. This includes:

- optical density, one or two dimensional
- the properties of individual particles
- the percentage area covered by particular types of particles
- the ratios of different types of particles
- angles between particles and edge details.

The new instrument also makes group discussions amongst the diagnosticians far easier. By calling an image up on the video screen, everyone present has a clear view of the slide under discussion without each person having to take a turn at the microscope.

'This is a great time-saver and makes it easy to pinpoint individual particles which are under discussion without having to give a detailed explanation of where they are positioned on the slide. It will also be extremely useful for training laboratory staff.'

The FIPS can also give pseudo ISO 4406 measurements for oil cleanliness and mimics optical enhancement on the microscope without resorting to expensive optics, lenses and filters.

#### **Faster**

'As we become more familiar with the new instrument we are discovering more features which enable us to perform faster, more accurate diagnoses,' said John. 'This is in line with our ongoing commitment to use the latest technology available to achieve the highest possible quality standards for clients.'

### New Jo'burg office progresses

CONSTRUCTION work on Wearcheck's new Johannes-burg sales office and training centre is on schedule and, if all goes according to plan, the move will take place on 29 November.

The building is situated in an attractive office cluster development in Croydon, a five-minute drive from Johannesburg International Airport.

# Wearcheck Canada hosts 1996 WCI meeting

WEARCHECK Canada, the largest of the five major oil analysis companies in that country, is based near Toronto, a city renowned for its SkyDome - the first sports complex to boast a retractable domed roof, and for the world's tallest free-standing tower, the 600m high CN Tower.

Hosts of the 1996 Wearcheck International (WCI) annual meeting, Wearcheck Canada processes over 100 000 samples each year for a variety of customers, including the Canadian Navy, Komatsu and Esso.

In a recent marketing restructure, the company has classified customers into three main categories - industrial, mobile and aviation - each with different pricing structures and services.

'This development better reflects our ability to offer customers a specialised service,' says general manager, Bill Quesnel.

#### Fuel analysis

'We have also spiced up our fuel analysis programme by making more use of gas chromatography. This looks at the qualities of fuels from mainly diesel equipment which has broken down or is performing poorly as a result of suspected sabotage.

'We are finding that, as the cost of the known brands of diesel fuel increases, the smaller independent companies are attempting to produce their own No. 2 diesel fuels. Although these meet the ASTM requirements they offer poor fuel quality, resulting in increased fuel system failures. Moves to remove all sulphur from fuels for environmental reasons are also affecting fuel quality and



Bill Quesnel, general manager of Wearcheck Canada

impacting on equipment maintenance.'

The company has strengthened its customer care programme over the past year, introducing surveys, regular newsletters and technical publications including a Question and Answer Bulletin in response to client queries. Reports are sent out in French or English, depending on customer preference.

As the accredited oil analysis company for Garrett jet engines in Canada since 1990, the company has saved 32 inflight shutdowns for an air charter company in the past two years.

Wearcheck Canada recently completed a major upgrade in software and is a key player in the development of standardised software and Internet links for Wearcheck International. The company hopes to attain ISO 9002 listing before the end the year.

Commenting on the recent WCI meeting, Bill said: 'Each year we are progressively cementing the links between our companies through a shared vision and are beginning to see real benefits through the gradual standardisation of operating procedures.'

AN AGENT for a consortium of Argentinean companies, Obrasur South America, has been using Wearcheck Africa to process their oil samples for many years, after comparing the service offered by several oil analysis companies around the globe.

Says Daniel Sansot, son of Obrasur South America president Guillermo Sansot, 'We compared companies in several countries including Argentina, the USA and Puerto Rico, and found that Wearcheck offered the most comprehensive and costeffective service.

'Oil analysis performed locally in Argentina is far more expensive than in South Africa without offering the same quality of service.'

Oil samples are couriered directly from Obrasur S.A. in Buenos Aires to Wearcheck's Pinetown laboratory. After analysis, the report is faxed to Daniel who forwards the information to the relevant company in Argentina.

#### **Fast turnaround**

'Sample turnaround time is usually between 24 and 48 hours - so that even emergencies can be sorted out within a day, especially with the time difference between the two countries,' says Daniel. 'We also use the Internet as a means of communicating results.'

Daniel, based in

### Wearcheck's client base extends to Argentina

Johannesburg, discovered Wearcheck Africa when he was involved in the sale of oil additives several years ago and needed reliable oil analysis results from an independent source to back up his claims. He completed a survey of oil analysis companies locally before selecting Wearcheck and, when his father Guillermo entered the market, he was well aware of Wearcheck's capabilities.

#### **Buenos Aires**

Guillermo has travelled from Buenos Aires to South Africa twice, visiting Wearcheck's Pinetown laboratory on both occasions.

Wearcheck managing director Wally Crawford said that the company enjoyed an excellent working relationship with the Sansots. 'Although we don't actively seek work this far afield - they certainly qualify as our most distant customers - it is a pleasure doing business with them.'

#### **Infocheck courses for Gauteng**

FOLLOWING a successful three-day Infocheck training course at the University of Stellenbosch during September, Wearcheck will run a second course in Johannesburg from 5 - 7 November.

The course teaches delegates how to make optimal use of the Infocheck package, focusing on how to study the reports in detail and the practical operation of the system.

'The Stellenbosch course also included a tour of the university's tribology department in the faculty of engineering, which was of great interest to delegates,' said course leader Jill Durant.

Bookings can be made through Jill on (031) 700-5460.

#### **Products**

WEARCHECK has developed a comprehensive range of sample kits and accessories, many of which have been designed specifically for the industries they serve.

#### **Automotive**

Postage pre-paid oil sample kits (10 per box)

Courier kits (20 per box)

#### **Industrial**

Postage pre-paid oil sample kits (10 per box)
Courier kits (20 per box)
Courier Plus pre-paid priority mail envelopes are available for use with courier kits for overnight delivery (available in 1's).

#### **Marine**

Postage pre-paid oil sample kits (10 per box)

#### Aircraft (all 1 per box)

Sundry turbine filterless kits (G2)

Sundry piston filterless kits (G4)

Garrett kits with filters:

- TPE331 14HR/GR (G1)
- TPE331 standard (G3)
- TFE731 (G7)

#### **Accessories**

Imported "thief" guns or pumps with either engine or gearbox tubing.

Valves, available in Metric or Imperial

Connectors, utilised with the valves

#### **Outlets**

Wearcheck kits and accessories are available to all customers at these outlets:

#### **Gauteng:**

Wearcheck Africa

3 Bedford Plaza, Skeen Boulevard, BEDFORD-VIEW Tel: (011) 455-3342

Barlows Equipment Company Electron Ave Ext, ISANDO Tel: (011) 392-1190

Barlows Power Systems

Electron Ave Ext, ISANDO Tel: (011) 392-3834

Barlows Equipment Company Newtron Ave, Matlosane Industrial Sites, KLERKS-DORP Tel: (018) 82-296

## Wide product range and distribution network for customer convenience

Barlows Equipment Company Trichardt Vlei Gedeelte No. 16, TRICHARDT

Tel: (0136) 34-7751

Barlows Equipment Company 4 Waverley Park, Darling St, East Lynn, PRETORIA Tel: (012) 800-1254

Barlows Equipment Company Cnr Waterval Ave & Coetzer St, RUSTENBURG Tel: (01421) 26714

Barlows Equipment Company 706 Heyneke St, Industrial Sites, NELSPRUIT Tel:(01311) 2-3264

Barlows Equipment Company Stand 1425, 22nd St, Industrial Sites, PIETERSBURG

Tel: (01521) 93-1881/4

Barlows Equipment Company Cnr Kilo and Litre St, Ext 11, MIDDELBURG Tel: (0132) 46-2021

#### **Western Cape:**

Barlows Equipment Company Kasselvlei Rd, Bellville South, BELLVILLE Tel: (021) 951-4113

Barlows Equipment Company Inry St, SPRINGBOK Tel: (0251) 2-1134/8

Barlows Equipment Company Albert Rd, GEORGE Tel: (0441) 74-2227

#### **Eastern Cape:**

Barlows Equipment Company Struanway, Struandale, North End,

PORT ELIZABETH Tel: (041) 42-1001

Barlows Equipment Company 28 Osmond Rd, Wilsonia, EAST LONDON

Tel: (0431) 45-1713

#### **Northern Cape:**

Barlows Equipment Company Kimdustria, KIMBERLEY Tel: (0531) 2-1311

Barlows Equipment Company Industrial Sites,

**KURUMAN** 

Tel: (01471) 2-1138/2163/4

#### **Orange Free State:**

Barlows Equipment Company 224 Church St, BLOEMFONTEIN Tel: (051) 34-3911 Barlows Equipment Company

Barlows Equipment Company 133b Power Rd, Ext 8, WELKOM

WELKOM Tel: (0171) 5-3079

#### **KwaZulu-Natal:**

Wearcheck Africa 9 Le Mans Place, WESTMEAD

Tel: (031) 700-5460

Barlows Equipment Company 21 Shepstone Rd,

NEW GERMANY Tel: (031) 72-1341

Barlows Equipment Company Alugang St, Alton Industrial

Township, RICHARDS BAY Tel: (0351) 97-4711

Barlows Equipment Company

Bloekom St, VRYHEID Tel: (0381) 3011/4065/6

#### **AFRICA**

#### **Botswana:**

Bemco1226 Haile Selassie Rd, GABORONE Industrial Sites Tel: (09267) 35-1781

#### Lesotho:

Maluti Equipment Co Site 26, Cnr Moshoeshoe & Raboshabane Rds MASERU Industrial Area Tel: (09266) 31-5709

#### Namibia:

Namtrac

123 Republic Rd, WIND-HOEK Tel: (061) 23-2026

Namtrac

Bahnhof St, OTJIWARONGO Tel: (0651) 3121/2

Namtrac

4th St, WALVIS BAY Tel: (0642) 3454/3455



Customer services assistant Vanessa Naidoo displays a selection of the company's products.

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For extra copies of Wearcheck Monitor, please contact Melanie Hynd in KwaZulu-Natal or Pauline Malherbe in Gauteng.