

# CUSTOMER CHRONICLES



NEWS YOU CAN USE FROM BARLOWORLD EQUIPMENT AND CAT 1<sup>ST</sup> QUARTER 2009

POWER ON DEMAND PAGE 8



## 40 Below

*Cat machines form backbone of SA's Antarctica mission*

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SA Agulhas leaves Cape Town harbour en route for Antarctica with its fleet of Caterpillar machines on board.

### Guess what?

If Antarctica's ice sheet is released by melting, the amount of water would cause the sea level to rise more than 60m worldwide.

South Africa has been conducting Antarctic research since the International Geophysical year of 1957/58 and is one of the original 12 signatories to the Antarctic Treaty, which came into force in June 1961.

### FACT BOX

#### Did you know that Barloworld Equipment is..?

- The No.1 Cat filter dealer in the world
- The No.1 Cat oils dealer in the Europe Africa Middle East (EAME) region
- The No.1 parts dealer in the EAME region
- The No.1 preventive maintenance products dealer in the EAME region
- A leader in 360° integrated solutions, especially with HC and large mining product.



**E**ach time the SA Agulhas research and supply ship leaves Cape Town harbour and heads south for Antarctica (a distance of some 4 260km), on board are a fleet of Caterpillar machines, chosen for their reliability and endurance, that will accompany a group of scientists, medics and technical personnel as they embark on a thirteen month stint at the SANAE 4 island base. The latter is one of a number of scientific stations managed and run by South Africa's Department of Environmental Affairs & Tourism (DEAT), with a brief to monitor weather conditions and how global warming affects climate change across this ecologically sensitive and critical landmass.

The SA Agulhas remains down in Antarctica until March and then makes



the return journey to its home port of Cape Town. A critical weather window exists around the Antarctic ice shelf and once winter begins in earnest the sea around the island freezes solid for hundreds of miles and even an intrepid icebreaker like the SA Agulhas has little chance of negotiating the pack ice. (Summer temperatures can drop to as low as minus 25 degrees Celsius and reach a cool minus 45 in the winter months.)

Isolated from the outside world, the South African research team is then left to carry out their scientific research projects, relying totally on their food and fuel stores over the next 13 months, as well as their fleet of Caterpillar machines for all their cargo haulage, materials handling and personnel transport requirements. Naturally, under these circumstances, high machine availability is a critical requirement.



The Caterpillar machines at SANAE 4 – characterised by their distinctive orange paintwork – presently number thirteen and run on Polar Diesel, a specialist fuel formulation, as well as Cat arctic oils to ensure 24/7 operation in this challenging operating environment.

Fitted with special snow / scraper blades that are around 30% larger than standard, SANAE 4's dozers are deployed in applications that include clearing snow build-ups, and are equipped with long and wide undercarriages to ensure stability, in addition to heat pressurised sleeper cabs to ensure that operators remain comfortable when working in these freezing temperatures.

► (To page 2)

## 2 | LUBRICATION

◀ (From page 1)

### 40 Below (continued)

"All the Cat machines are maintained by Barloworld Equipment Bellville and depart on the SA Agulhas in early December to remain at Antarctica for thirteen months," explains Wally Parsons, senior product manager, Barloworld Equipment Isando, who completed two four month stints at SANAE 4 during the mid 1980's. "After this period, designated machines are shipped back to Bellville to be tested and repaired. Routine maintenance on site is carried out by artisans based at SANAE 4."

In 1986/87 two new D4Es and two new Cat D6Hs were delivered to SANAE 4 and Parsons, then based at Barloworld Equipment Bellville as an instructor, went down to Antarctica to train the maintenance teams and operators, as well as to carry out an assessment of SANAE 4's future fleet requirements. A need had been identified for larger and faster units to

complement the existing dozers and in 1998 the fleet was joined by a Cat Challenger 65 unit, plus two Cat DV 87s, both tractor models equipped with extended undercarriages. Like the dozers delivered in 1985/86, these machines are still running on the island and have proven to be truly valuable workhorses.

During the 350km trip inland to SANAE 4's mountain station, for example, DEAT's Caterpillar dozers faithfully inch their way forward at a constant rate of 4km per hour without stopping except to change drivers and re-fuel, taking approximately four days to reach their destination with their 25 ton payloads. Considering the challenges of the terrain and the possibility of inclement weather, it's reassuring for South Africa's Antarctica mission to know that they can rely on their Cat machines to bring them safely home.

## Caterpillar hydraulic XT-3ES, XT-5ES and XT-6ES Re-usable Couplings



**The decisions you make on your equipment's hydraulic system have a direct impact on your bottom line.**

Reliable, efficient, well-maintained hydraulics help you do more work each day, while keeping costs in line.

YOU HAVE THE MOST COMPETITIVE MACHINES AND we have built a cost saving feature into your machine.

**"The last coupling you'll ever need"**

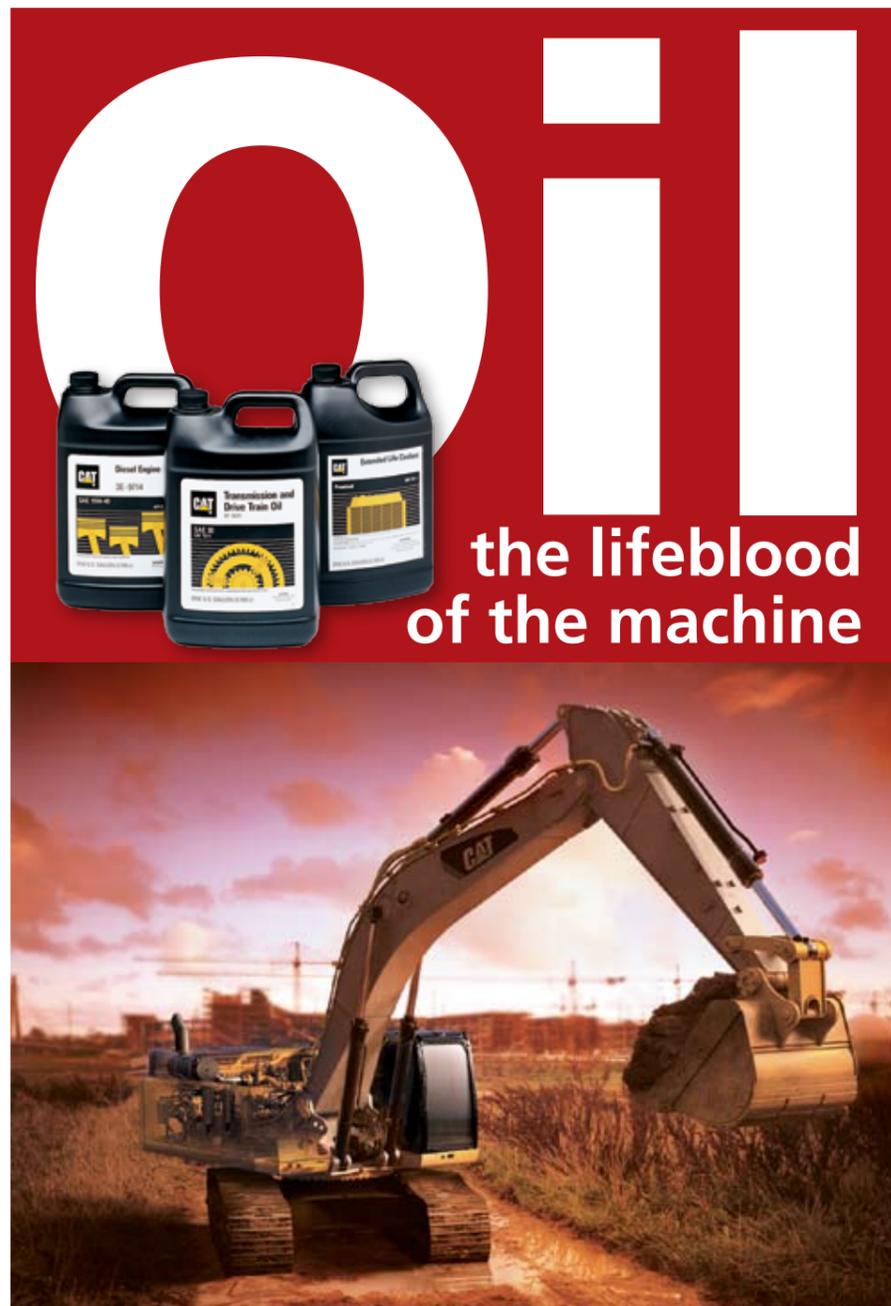
### Caterpillar Re-usable Couplings

"You don't change your rim every time you need tires, so why replace the coupling when you only need a hose?"

- Re-usable couplings: a Caterpillar exclusive two piece coupling system, saving you on average 40% off the cost of permanent couplings.
- Re-usable couplings are available on all Hi Pressure applications starting from the legendary XT Range, XT-3ES®, XT -5ES® and XT -6ES®.
- Cat XT-3ES and XT-6ES hoses are designed to work at half of SAE bend radius, allowing tighter routing.
- Cat hoses are impulse tested to 1 million cycles, twice the industry requirements.
- Caterpillar re-useable couplings are lifetime guaranteed.
- Caterpillar has been manufacturing its own hose products since the 60's.

**Not sure how to make use of this offer? Speak to your Customer Service Rep or Parts man now. He will be able to assist you with your needs.**

Call 011 929 0000 or  
visit [www.barloworld-equipment.com](http://www.barloworld-equipment.com)



**C**oupled with its engine design programmes, Caterpillar has gone to exhaustive lengths to ensure that its oil and lubrication programmes meet the most exacting requirements, recently upgrading its engine oil specification to ECF2 over and above the API CI4 (American Petroleum Institute) specification. This ongoing quality commitment is further underlined by the fact that Caterpillar is one of only a few OEMs that formulates and blends its own lubricants. (Typically, OEMs buy their oils from a petroleum supplier and then re-brand.)

A Group 2 Base Stock, Cat Oil is semi-synthetic. Approximately 80% of each drum of Cat Oil sold to the market is made up of this base stock – the balance comprising Cat approved additives, and the rest of the formulation.

Some years ago, Caterpillar introduced extended engine oil drain intervals on all new products as just one of its strategies to pass on operational savings to customers, increasing the timeframe from 250 to 500 hours. However, as Wally Parsons, senior product manager: after-sales at Barloworld Equipment points out, there are other areas on the machines which are also passing on huge cost benefits. For example, the cooling system has

been treated with Cat ELC, extending coolant life to 12 000 hours.

"By using Caterpillar's SOS Oil Sampling condition monitoring programme some customers have even been able to extend oil drain intervals to longer periods. For example, we have customers who have used the SOS test sample service to extend their hydraulic oil drain interval up to 14 000 hours, using the same oil that was the original fill with the new machine," Parsons explains.

### Commercial oils

"We encourage customers to use Cat Oil for a number of reasons, not least of which is that it's perfectly matched to Caterpillar's engines to ensure maximum machine performance," Parsons continues. "Instances have been recorded where customers have used commercial oils and components have not performed to specification. Changing to Cat Oil overcame the problem."

Barloworld Equipment offers a total solutions package to customers and maintains a full inventory of oils and lubrication fluids. The company also provides a lubrication survey service for its customers to determine which oils are required for both Cat and non-Cat equipment, which helps to significantly control operational expenditure costs.

# Laying the rails for SA's fastest network

*Cat's IT62H toolcarrier: A three-in-one solution*

**R**oad commuters passing through Gauteng's Midrand area will have noticed the steady expansion of the Gautrain Rapid Rail Link's imposing new depot facility and marshalling yard situated within close proximity to the N1 freeway.

Construction of the civil works and structural phases of the project are now well advanced under the direction of the Bombela Consortium Joint Venture (BCJV), with specialised areas being allocated to appointed sub-contractors. One of the most important of these is Isithimela Rail Services, which is currently pushing ahead with the track laying phase, initially for the surface sections, and then for the underground systems as well.

On the surface phases, two hardworking Caterpillar IT62H integrated toolcarriers, supplied by sole southern African distributor, Barloworld Equipment, are working alongside Isithimela Rail Services' construction teams to meet the demanding daily rail laying targets. A major benefit of the Cat IT62H toolcarriers are the diverse roles that they perform as a forklift, crane, or as a front end loader, and these roles constantly change during each working shift on this fast-paced project. The IT62H toolcarriers are 'on the hop' all the time, either loading ballast, carrying sleepers, or dragging rail with the jibs.

According to Steve Kimlin, construction manager for Isithimela Rail Services, in the hands of a skilled operator, the Cat IT62H comfortably works in and around on-site personnel. "This is a unit which produces a natural interface between man and machine," he explains.

The Caterpillar IT62H's have a great lifting capacity. For example, a unit can



Track laying with the Caterpillar IT62H toolcarrier.

**THE CATERPILLAR IT62H'S HAVE A GREAT LIFTING CAPACITY. FOR EXAMPLE, A UNIT CAN COMFORTABLY HANDLE A SINGLE PALLET LOAD CONTAINING 25 CONCRETE SLEEPERS. (EACH SLEEPER WEIGHS APPROXIMATELY 300KG.)**

comfortably handle a single pallet load containing 25 concrete sleepers. (Each sleeper weighs approximately 300kg.)

In performing these and other tasks, Cat's IT62H comes with load-sensing hydraulics to boost fuel efficiency, together with an MPC3 valve allowing combined lift and tilt movements. A hydraulic quick coupler system enables the operator to change attachments within seconds; whilst the IT62H's 8-bar linkage design is optimised to maximise reach, especially when manipulating pallets with forks.

## 160km of track

Kimlin says that the total amount of track comes to approximately 160km

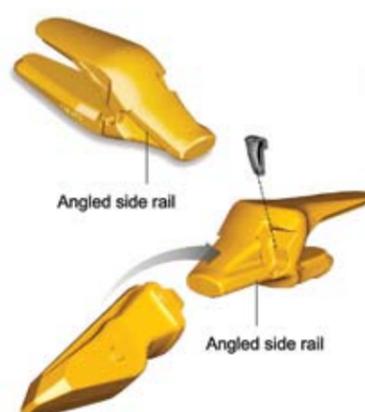
of which around 18km passes through the subway tunnels; the remainder being out in the open. The work rate is intense with the Isithimela Rail Services' teams achieving a distance of between 400 and 500m of track laid per day.

Each 216m rail length is composed of 12 individual sections that have been welded together at the Midrand yard; and the final end product is referred to as a 'big string'. Where practical, Kimlin says that lengths of up to 2,5kms can be built using this approach.

# STAY SHARP

Barloworld Equipment's introduction of Caterpillar's new K-Series Tooth System ensures that ground engaging tools ... **Stay Sharper, Hold Tighter, Change Easier** and **MOVE MORE & BURN LESS.**

THE CAT<sup>®</sup> K-SERIES TOOTH SYSTEM



## 4 | TRAINING

# High-tech grader simulator: mastering joystick controls



Willie Haasbroek, head of Barloworld Equipment's Operator Academy, at the helm of the Cat M-Series simulator. Inset: Graphic 3D views provide a realistic training experience.

**U**ntil a few years ago, motor grader operators had to contend with a multitude of levers and switches, whilst simultaneously having to guide the machine with a steering wheel. Aside from the skills required to achieve specified grades, the co-ordination needed to manage these controls on a conventional motor grader has made this item of plant one of the most difficult to learn how to operate.

However, the advent of Caterpillar's class leading M-Series motor graders has shifted the boundaries on machine operation with the introduction of joystick controls, which replace the levers and steering wheel. This makes it possible for new operators to master the operation of a grader in a much shorter time than was previously possible. Additionally, veteran operators who experience the difference have soon seen the advantages in terms of ergonomics, improved work rates and more precise grade control.

To introduce both new and experienced operators to Caterpillar's M-Series, Barloworld Equipment's Training Academy in Isando has invested in a new state-of-the-art simulator which customers can use to train their operators. For new owners of Cat M-Series graders, or for those considering buying one of these new machines, the training session on the simulator will prove invaluable in getting your operator up to speed.

Willie Haasbroek, head of Barloworld Equipment's Training Academy, says that the emphasis of the course is on familiarising operators in the use of M-Series joystick controls, and not on how to grade, or achieve final levels.

"The simulator is also ideal as a conversion tool for experienced operators with long service on conventional machines, such as the Cat H-Series graders," Haasbroek explains. "There are five different test modules. The first level focuses on joystick familiarisation; whilst the next series teaches operators how to

drive the machine (with and without the blade deployed). Each level is scored and feedback given. It's a 3D interactive programme which is very similar to a video game. If anything, after a while operators will find it hard to tear themselves away as they strive to beat the maximum scores."

## HARNESS THE POWER OF SMART IRON

**The key to profitable mining is information, and mines around the world are employing advanced Caterpillar® technologies to get the information they need to maximize their operations.**

For example, the Caterpillar MineStar® technology, a mine monitoring and control system, is producing big benefits for one U.S. coal company. MineStar manages loading and haulage operations, monitors delays and tracks performance. The mine estimates the system has increased the efficiency of its large-haul-truck fleet by 10 percent.

Mines are improving machine efficiency, increasing productivity and improving mine safety with Caterpillar technologies, such as:

- MineStar Fleet Commander
- MineStar Health
- CAES
- AQUILA™ Drill System
- AQUILA™ Dragline System

Information matters at your mine. Caterpillar is dedicated to delivering technologies that help you get the most from mining. Barloworld Equipment, helping smart miners mine smarter.

For more information call Barloworld Equipment on 011 929 0000 or our call centre on 0800 21 22 48 or visit [www.barloworld-equipment.com](http://www.barloworld-equipment.com)

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## 2009 outlook for the Operator Academy

Willie Haasbroek, head of Barloworld Equipment's Operator Training Academy, says that an estimated 600 students will be trained to NQF Level II: Plant Operations, during the course of 2009. The bulk of this training will take place at customer sites nationally and covers the full spectrum of Caterpillar machines sold and supported by Barloworld Equipment.

For those operators seeking a higher level of proficiency, a NQF Level III course is presently available, but Haasbroek says that there has been little or no demand from prospective students in industry.

"In December 2008, the South African Qualifications Authority undertook a review of the plant operations qualification and a decision was taken to remove the NQF Level III option on all machine classes, with the exception of motor graders," explains Haasbroek. "However, the new NQF Level III course being proposed will prove to be an invaluable one as it will focus purely on final level grading – an area where there is a serious shortage of skilled operators at present."

## Barloworld Equipment sets new artisan training record

Tackling the artisan skills shortage head on, Barloworld Equipment's Polokwane branch has set a new internal record following the introduction of an accelerated training programme.

BWE Polokwane's first group of six NQF3 artisan trainees qualified in just 4,5 months instead of the standard 12 month programme. In addition to in class training in Polokwane, the course work included a three month rotation at Barloworld Equipment's Component Rebuild Centres (CRC's) in Boksburg and Isando.

"All six of our learners were assessed and found competent during their assessment," says Riaan Lubbe, training supervisor, Barloworld Equipment, Polokwane.

# Optimised life cycle costing

## Calculating the best utilisation model

**E**quipment Management is the overall management of site specific processes and activities involved throughout the entire lifecycle of the machine. This cycle begins with the delivery of the machine and continues through the day-to-day operation and maintenance to major repairs and rebuilds. Every decision made during this cycle will have an impact on the cost per ton achieved. By utilising Barloworld Equipment's Management Solutions resources, maximising the value of machines can be achieved – Best Practices.

Broadly speaking, there tend to be two schools of thought when it comes to machine optimisation and life cycle cost (LCC) management. The first views the "After failure" model as the most practical way to achieve maximum cost per ton throughput, whilst the second adopts a "Repair before Failure" approach.

"The first approach (After failure) is short-sighted and will certainly end up costing the client more in the end, as well as escalating repair costs as machine hours climb, plus reducing the resale value longer-term," explains Angus Graham, group product manager at Barloworld Equipment.

"The only true measure of the value of your equipment investment is to select the right machine for each production task and to implement a predictive maintenance programme that includes budget provision for anticipated expenditure. In this respect, component management is a vital tool in reducing total machine operating costs. Component management also has a direct impact on increasing component life. This is one of the most effective ways to reduce the total machine cost per hour."

Barloworld Equipment has a dedicated pool of specialists and risk analysts at its Isando facility which support the

company's frontline sales and product support teams within southern Africa. Together, this combined expertise and experience proves invaluable in assisting mining and construction customers in matching the right machines for each specific application, using specially developed Caterpillar software programs to prepare a medium to longer term service maintenance costing model. This enables companies to incorporate fleet expenditure into their working cost projections so that anticipated spikes in annual fleet service programmes are anticipated and budgeted for and don't eat unexpectedly into profit margins. Specialists at Barloworld Equipment are also well placed to provide advice on the best time to repair or replace a particular unit, as well as to assist companies with forward planning on machine upgrades so that major components such as engine replacements can be ordered well in advance from the factory. By implementing an historical trend analysis, Barloworld can also demonstrate "before and after" savings when going the LCC route.

A cost buildup should be relevant to an environment, and the need to reinforce a maintenance strategy is important to avoid destroying equity in a business. "Understanding our customers 'wants and needs' is key to developing an accurate LCC model. By helping our customers develop maintenance strategies that are aligned to their operational needs, we can then identify, minimise and reduce all associated risks their operation is exposed to," adds Brandon Stonefield, equipment solutions specialist, Equipment Management Group, Barloworld Equipment.

Please contact your nearest Product Support Representatives for further information.

Article compiled by Brandon Stonefield and Richard Askham.



## Cat 962H – the new standard for midsize loaders

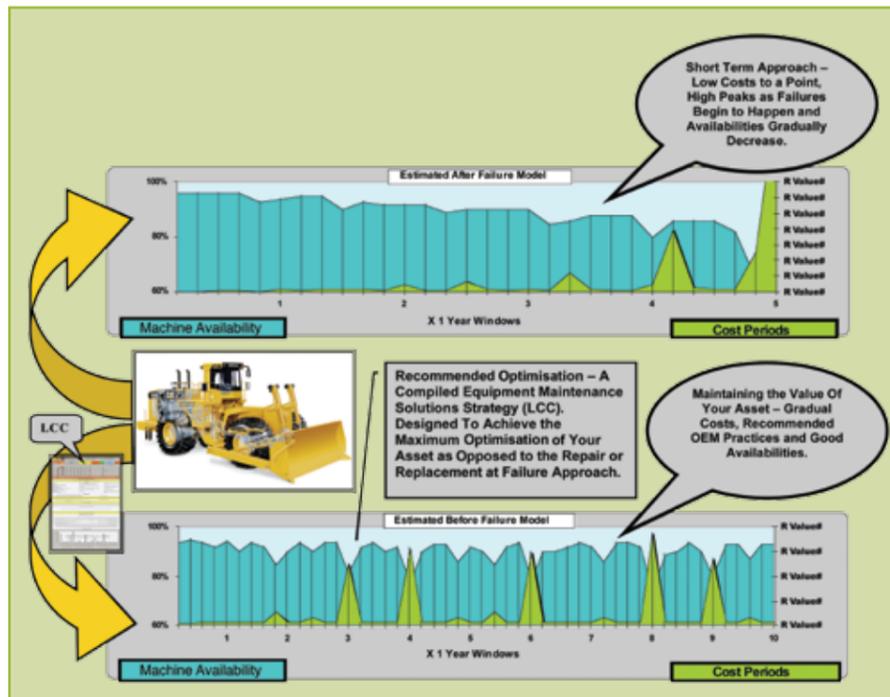
Performance you can feel with the capability to work in the most demanding applications. Unmatched operator comfort and efficiency in a world class cab. Revolutionary electronics and hydraulics for low-effort operation. Increased productivity with lower owning and operating costs.

### Features

- ACERT Technology Maintains Performance, Efficiency and Durability While Meeting Emissions Regulations
- Improved Cycle Times With Load-Sensing Hydraulic System
- Aggregate Autodig for greater efficiency
- Lower fuel consumption (-40% during idling) and -5% overall



For more information call Barloworld Equipment on 011 929 0000 or our call centre on 0800 21 22 48 or visit [www.barloworld-equipment.com](http://www.barloworld-equipment.com)

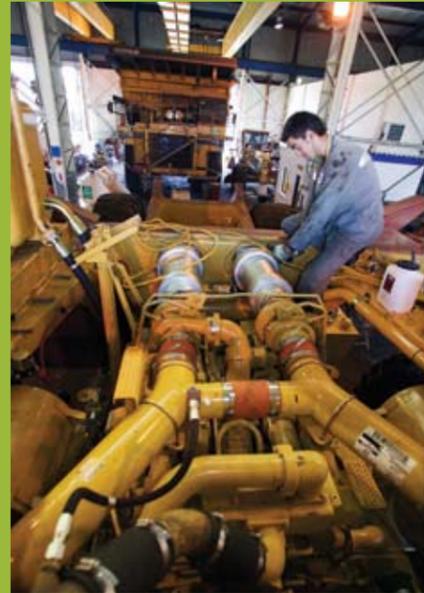


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## 6 | MAINTENANCE

# Engineered for a second life

*Cat certified rebuild & Cat certified power train*



*Work in progress on a Cat 777 rebuild at one of Barloworld Equipment's maintenance centres.*

**"THE ESTIMATED COST FOR A CAT CERTIFIED REBUILD CAN BE AS LITTLE AS 65% OF THE PRICE OF A BRAND NEW MACHINE..."**

**In these challenging economic times, it's reassuring to know that a Caterpillar machine is one of the best investments in productivity that money can buy. This is because Caterpillars are "built to be rebuilt" for a second life, so your investment keeps on rolling and earning – and at a fraction of the cost of buying a new machine.**

It's generally common knowledge that the cumulative owning cost per hour of a new machine during its initial operation is high and operating costs are low. However, the longer a machine is owned, the lower its owning costs become and at the same time cumulative operating costs per hour increase; whilst over the same period, the net revenue a machine produces decreases with its age and use due to lower availability. When the machine's cumulative net revenue per hour becomes less than the total cumulative owning and operating costs per hour, the machine will steadily start eating into profit margins.

At this point, the question is: Should I replace, or should I extend my original investment by opting for a rebuild and save?

## Cat certified, or dealer rebuild?

Caterpillar offers two rebuild programmes, namely Cat Certified Rebuild and Cat Certified Power Train. In both instances, the programmes must meet the strict standards specified by Caterpillar, including the incorporation of the latest critical engineering updates for specified Cat models.

Alternatively, customers have the option of specifying a Dealer Rebuild. In the case of the latter, the customer has the choice of selecting a customised rebuild without needing to carry out the mandatory product updates required when going the Cat Certified Rebuild route.

The estimated cost for a Cat Certified Rebuild can be as little as 65% of the price of a brand new machine; whilst a Dealer Rebuild costs around 50%. However, only Cat Certified Rebuild units will be issued with a new serial number.

On the Cat Certified Rebuild programme, the entire machine is rebuilt, including the power train; whilst on the Cat Certified Power Train option only the power train is completely rebuilt. Either option will depend on the current condition of the machine.

## Ten steps

There are ten steps that Barloworld Equipment takes in determining whether your machine is right for a Cat Certified Rebuild or power train overhaul. First there's an inspection and evaluation. Once the rebuild plan is established, the next phase is the complete disassembly of the machine or its power train (depending on the option selected). The next stages are reconditioning; engineering updates; power train tests; reassembly; performance testing; repainting; new serial number or product identification; and, finally, customer evaluation.

"After a thorough evaluation, including more than 350 tests and inspections, as well as the replacement of more than 7 000 parts, the end result is a 'like

## Cat Certified Rebuild

- Restores machine to "like new" performance.
- More than 350 tests and inspections, including turbocharger boost, throttle response, stall speed rpm, transmission and steering clutch response, and hydraulic and relief valve pressures.
- Automatic replacement of approximately 7 000 parts, including hoses, belts, seals, gaskets, bearings, switches and gauges.
- Examination, straightening, reinforcing and welding of frames.
- Replacement of worn linkage pins and shaft bearings.
- Reconditioning of hydraulic systems, engine, transmission and torque converter.
- Repainting of the machine.
- A Certified Rebuild product identification number is assigned.

## Cat Certified Power Train

- Restores power train to "like new" performance.
- Covers the radiator, engine, transmission, torque converter, final drive and axle.
- Approximately 200 tests and inspections of the power train components are conducted.
- Replacement or reconditioning of approximately 3 000 parts, including power train electrical switches, sensors, sending units, electronic control modules, engine wiring harnesses, bearings, gaskets, seals and coolant hoses.
- Critical engineering improvements and updates.

new' machine and warranty," explains Wally Parsons, senior product manager: after-sales at Barloworld Equipment. "However, the Cat Certified Rebuild programme doesn't end with the rebuild process. The value of your machine is further increased with parts warranties, plus an extended power train coverage option from Caterpillar."

Caterpillar provides a warranty on all replaced components, together with the choice of an Extended Power Train Coverage package. Tailored to meet varying operational requirements, clients can select one of three options, namely, two years or 6 000 service hours; three years or 5 000 service

hours; or two years or 10 000 service hours (for mining machine power trains only).

Adds Parsons: "The expected life after a Cat Certified Rebuild should be in the region of 60 to 80% of the original hours achieved, making this an outstanding investment that keeps on working to achieve higher profit margins at a lower upfront capital outlay. It's time to rebuild."

### Here's a real example:

**Model: Caterpillar 777D rigid truck**  
First life hours achieved: 35 000  
Expected second life hours: 25 000  
Total life on frame hours: 60 000

# Drive train management

*Better ways to extend component life*

This is the second in a four part series on optimum machine condition monitoring and performance.

## Part 2

Seven elements that will keep your drive train systems in great shape.



### PREVENTIVE MAINTENANCE

Regular preventive maintenance is the most cost-effective way to keep your drive train systems operating at peak performance.

Preventive maintenance:

- Allows you to schedule downtime and plan for maintenance and repair costs.
- Helps prevent major failures and failures of related parts.
- Saves you money because you can often repair before failure.
- Maximises parts reusability.
- Optimises equipment life to keep your machines on the job.
- Increases machine resale value.



### S•O•S FLUID ANALYSIS

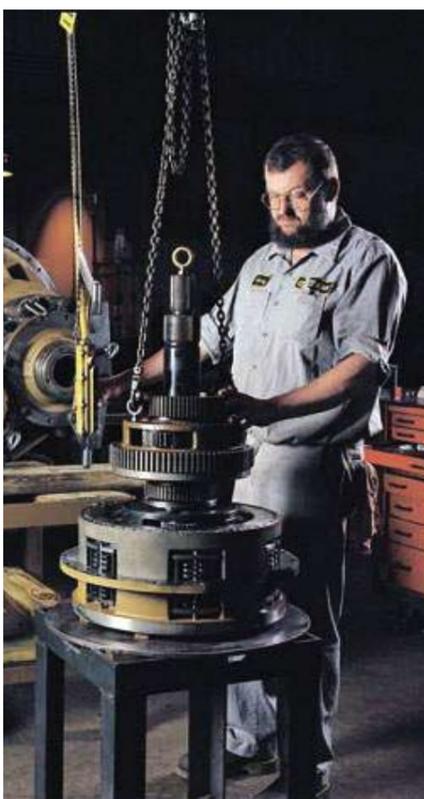
Oil sampling at scheduled intervals detects shortcomings in your maintenance procedures and forecasts wear-related problems. Our S•O•S fluid analysis programme is well recognised for its ability to detect potential problems early.

S•O•S fluid analysis is different from other analysis programmes because it focuses on component condition, not just oil condition. Since we understand your Cat drive train system, we can help you analyse S•O•S reports, determine what additional tests need to be performed, and decide on the proper corrective action.



### INSPECTIONS

Your daily visual inspection routine should include a complete visual and operational check of your drive train system. Cat drive train components will generally indicate problems with advanced warning signs, such as strange noises, leaks, slippage, and overheating.



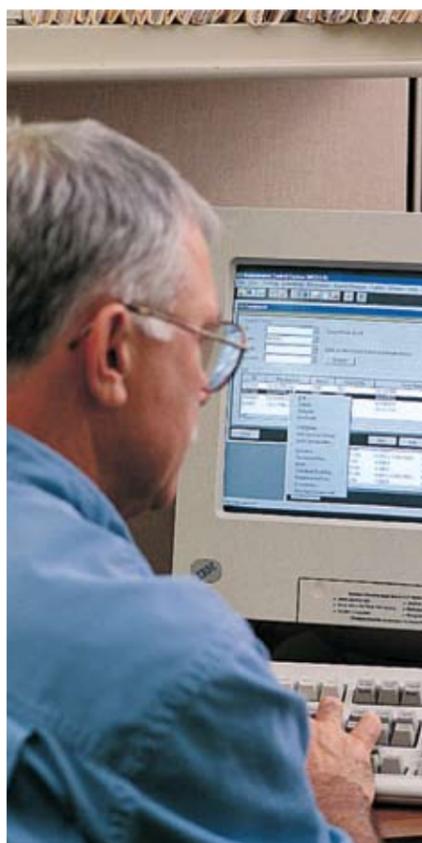
### REPAIR MANAGEMENT

Repair management helps you control repair costs and downtime by enabling you to select options at the time of repair. To take advantage of repair management, you must respond to repair indicators quickly – so you can repair before failure.



### TRAINING

Your operators are the key to getting maximum life from your drive train system. An effective, ongoing training programme ensures that they operate and maintain your drive train system properly. It also helps you lower costs by reducing the chance of drive train failures caused by faulty maintenance practices. We work with you to customise a training programme for your personnel.



### SCHEDULING

Develop effective schedules. Good scheduling means maintenance, inspections, and planned repairs are done on time. Your scheduling programme doesn't need to be complex — just effective.



### RECORD KEEPING

Keep accurate records. An accurate record keeping system documents drive train history by detailing component life and cost information. It enables you to locate problem areas that may cause higher costs or increased downtime.

# 8 | POWER & HYDRAULICS

## We've got the power



**T**he Barloworld group has formed a focused business unit known as Barloworld Power to capitalise on opportunities presented by the growing demand for generator power supply by the industrial and commercial sectors in southern Africa.

Barloworld Power incorporates all the components of the Group's former Energy business and will focus initially on Barloworld's Caterpillar dealerships in southern Africa. Barloworld Power remains the sole distributor in all these territories for Cat power generating equipment for prime and standby purposes, from retail sets to complete power stations, as well as for Perkins, Cat and MaK diesel and gas engines. Together, these engine product lines

"WE ARE INVESTING IN PEOPLE AND FACILITIES TO MEET THE STRINGENT DEMANDS OF THE GROWING ANGOLAN OFFSHORE OIL AND GAS INDUSTRY."

give Barloworld a comprehensive marine propulsion and terrestrial engine solutions capability with units ranging from 10kVA to 16 000kVA or multiples for larger applications.

"Barloworld is the southern Africa leader in the provision of power solutions to the electrical power generation, industrial, OEM, trucking, locomotive and marine markets," says Kenny Gaynor, executive director



Kenny Gaynor (left) executive director responsible for Barloworld Power, and Muzi Kubeka, senior general manager of Barloworld Power, with an 800kVA Cat generator destined to provide standby power for an office park in Johannesburg.



responsible for Barloworld Power. "We are also investing in people and facilities to meet the stringent demands of the growing Angolan offshore oil and gas industry."

The scope of the business extends to the provision of turnkey diesel and gas power generation solutions through Barloworld Power's recently expanded Customised Solution Centre in Boksburg.

The turnkey power solutions offered to mining customers, as well as the

retail (off the shelf) aspects of the business have been given individual focus. "Our turnkey solutions business has been significantly strengthened by the addition of our new Design and Engineering Centre, offering tailored design solutions together with world class project management capabilities," says Gaynor.

A substantial investment in new tooling and equipment will assist the Boksburg facility to handle an expected doubling in kilowatt output in the next year.

# Cylinder rod durability: the secret's in the seals

*Better designs, better material, better value*



When it's time to repair, you shouldn't overlook any part, regardless of size. Even parts as small as seals have a big impact on machine performance, contamination control and operating cost. That's why Caterpillar is dedicated to designing the best performing seal in the industry.

Cat rod seals are designed to work together to deliver optimum sealing performance and lower cost in Cat hydraulic systems, something you risk when purchasing other brands of seals. All rod seals – wiper, U-cup and buffer seals – feature a proprietary urethane material and patented designs.

When you need new hydraulic cylinder rod seals, don't install doubt. Turn to us for genuine Cat seals. Discover the difference that better designs and better materials make.

### Better Design

Cat wiper, U-cup and buffer seals feature design improvements that enhance performance, reduce leakage and increase seal life.

### Better Material

Cat hydraulic cylinder rod seals feature a proprietary urethane material that delivers improved performance over the material used in previous seals. This proprietary material provides:

- **Better compression set:** Compression set measures a material's ability to respond to its original shape after compression. Cat urethane material offers up to a

25% improvement in compression set capacities over previous materials, without sacrificing tensile strength or seal hardness levels.

- **Wider temperature application:** Cat hydraulic cylinder rod seals can work in a wider range of operating temperatures than previous designs, without seal degradation.

### Better Value

In our shop, resealing hydraulic cylinders involves more than installing new seals. To help you get the full life out of the new seals, we light hone cylinder tubes. We also practice contamination control, have tooling for proper disassembly and assembly, re-assemble to Cat specs, and have pressure test capability.



A RANGE OF COMPETITIVE FINANCIAL OPTIONS.

HASSLE FREE RENTAL