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Making progress possible Unique challenges in Madagascar

> SystemOne[™] what you think

Road constructors get complete range



Multiple personality

The Caterpillar MP Series Multi-processor improves productivity in demolition applications by increasing the versatility of your machine. Thanks to sets of interchangeable jaws that are easily attached to the single basic housing, it can tackle a broad range of tasks.

The MP multiprocessor is the most versatile demolition tool on the market.

Choose the leader in work tools Cat[®] work tools help minimize cost of ownership by ensuring you get the best from your machines. Let the strength, durability and reliability of Cat work tools add power to your business. For more information about the full range and the extensive dealer-, service- and spare parts organization, contact your local dealer or visit **www.cat-worktools.com**.





CATERPILLAR

Professionals rely on Cat



CATERPILLAR®

DEAR READER, More than usual, this issue of Cat Magazine celebrates the internationalism of the Cat community. With SUGGESTED LETTER FROM YOUR Ories about Cat people

MANAGEMENT TO YOUR CLIENTS om Spain, Germany, the . USA, and Madagascar – it's

truly a widespread collection. But one thing that unites all these people is their 'can-do' attitude.

In these pages you can read how the construction company Colas and our local dealer are making a difference to people's lives in Madagascar. About how one Cat owner's idea in Germany is making dreams come true in a 'Monster Park'. And about how Caterpillar itself is making cabs more comfortable and safer than ever. And all of this is just a glimpse of what's happening globally, every day – making progress possible with a 'can-do' attitude.

We can all feel proud - enjoy reading about your 'can-do' industry.

Best regards,

ama Street

Laura Streeter Editor-in-chief

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MAKING PROGRESS POSSIBLE By overcoming unique challenges in Madagascar	6
MAD ABOUT FOOTBALL If Cat machines were footballers, what's the best team?	11
CAT 631G DRIVING OPPORTUNITY Geoff Ashcroft realises his childhood dream	12
ALL THE ROAD CONSTRUCTION Machines you need – from one source	14
SYSTEMONE [™] UNDERCARRIAGE What you think of it	16
WELCOME TO MONSTER PARK Where kids from 8 to 80 play with earthmovers	17
PEOPLE Your comfort and safety – in his hands	18

Above is just a taste of what's in this issue of Cat Magazine - there's plenty more news and views. If you would like to see additional subjects in the next issue contact our publishers on CatMagazine@cat.com.

CATERPILLAR INVENTOR ENTERS HALL OF FAME

One of Caterpillar's founders, Benjamin Holt, recently entered the "US Inventors Hall of Fame". By inventing the track-type tractor in 1904 he set the standard for earthmoving innovation that has inspired five generations of Caterpillar employees.

Today, Caterpillar has 3,800 inventors who have contributed to more than 6,800 patents, with nearly 1,200 of those being granted within the last five years. And it all began with Benjamin Holt.

WE WANT YOUR OPINION

Tell us what you think of Cat Magazine and get a free Cat screensaver. Just log on to www.CatMag/ReaderSurvey and click your opinion. In less than 5 minutes you can tell us what you like – and what you don't. Then we'll do our best to put your opinions into action.

35-YEAR OLD CAT UNCOVERS OLD FORT

Our continuing search for old Cat machines still hard at work has led us to the French Alps. Here we found Renaud Bellucci using



a Cat D4D to renovate the old fort by removing the tonnes of earth used by the army to camouflage the building during the war. Renaud was transforming it into a picturesque hostel and exhibition centre for business conferences and seminars.

"The Cat has got 25,000 working hours on the metre," says the French Cat enthusiast "and not always under 'normal' working conditions. But it has never let me down. It's the ideal machine to do this kind of work. It's easy to handle, powerful enough, robust. I am only missing the ripper."

Do you know of an old-timer Cat? Contact us at catmagazine@cat.com

METRES HIGH

That's how high the tyres are on our largest mining truck, the 380-tonne-capacity 797B.

As you can see from this picture most people wouldn't be able to reach the top of the tyre even when standing on the shoulders of a colleague.





LOCAL WEBSITES FOR LOCAL CUSTOMERS

Now you can check out Caterpillar product info in your own language on www.Cat.com. There is information in more than 11 European and 3 Middle Eastern languages. And more are planned, log on today and see if your language is there.

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IS THIS THE WORLD'S LARGEST COLLECTION?



Of all the 500, Fred's favourite model is the D4 / D8H Track Type Tractor.

When Fred Edwards read in Cat Magazine that a collector in Finland had over 200 models he immediately phoned his local Caterpillar dealer, Finning in the UK, to announce that he had more than 500. Fred is a site manager at the Withnell Brick Works, for Biffa Waste Services, and has been collecting for 40 years. He keeps most of his prize possessions in his 'Rome Grader' garden shed, which is so named because it has a grader plate above the door. As you enter Fred's shed you are greeted by a vast display of Cat baseball caps, woolly hats, keyrings, pocket watches, and other memorabilia, but only when he opens the futuristic shutter do you realise the enormity of Fred's dedication: hundreds of models lovingly displayed behind glass. Fred estimates his collection to be worth over £15k (22k Euros), and reckons it must be one of the largest in the world. If you know of any larger, let us know.

CAT RENTAL HELPS GORILLAS

One of the more unusual projects involving Cat operators and machines was the recent building of a new gorilla house at the Johannesburg zoo. Not only is this a rare type of project, the Barloworld Cat Rental Store donated the manpower and the equipment (a Cat 226 loader and a 185 CFM compressor) free of charge. This was because the job was identified as a 'social responsibility project' - as part of South Africa's ongoing efforts to build a caring society, individuals and businesses are encouraged to contribute to initiatives that benefit the community. In this case not only the zoo's visitors benefited, but also its inhabitants. Well done.

M A K I N G P R O G R E S P O S S I B L E

By overcoming unique challenges in Madagascar

The unmistakable Colas orange provides instant recognition and is seen on all of the company's equipment including Cat machines.

Right now there's a new smile on people's faces in northwest Madagascar: they are looking forward to the future with a little more enthusiasm than before. The reason? A new road is being built, one that will connect this isolated region to the rest of the island, linking it with infrastructure, cities and ports. Soon economic and cultural exchange will be possible – creating jobs, education and training. Progress will be possible.

And the local people are getting excited: "I'll be able to walk home from work and get there before it's dark," says Albert Mararichard a 28-year old farm worker. "There will also be more busses, and they'll be cheaper too," says his friend Jacques. "It will create more employment," says another. "It's already brought many jobs – including mine!"

HOW TO BUILD A 300KM ROAD IN ONE C ISOLATED REGIONS

Eight simple steps...



Use a 500-tonne capacity barge to get your machines delivered by sea.



Gather and train 2,000 workers.



Build temporary roads to locate the plant where you need it.

It's a massive project: the road will be 300km long and will take three years to plan and build. It will require a fleet of more than 300 earthmoving machines and generator sets, manned and maintained by 600 machine operators, 100 service technicians and 1,300 support workers. Once finished it will have consumed more than 1.5 million tonnes of gravel, 85,000 tonnes of asphalt, and 34,000 cubic metres of concrete. And Colas, the French construction company that won the contract, is having to do everything itself – from scratch.

"We have to do everything ourselves."

"For a road building project in Europe, you would simply phone your suppliers and ask for a certain amount of asphalt, for example," says Selim Bejaoui, one of the project's three section managers. "But with no roads or ports in the region, no supplier can deliver. So we have to make all of the gravel, asphalt and concrete assemblies ourselves, onsite." As you would expect, the logistics and financial planning have been (and continue to be) a gigantic challenge.

"That's why we spent 12 months preparing for this operation," says Thomas Dablin, equipment engineer. "When we came here there was nothing. We had to bring all our plant and equipment in by landing craft – the type used by the military to transport tanks. We also had to search for and build five quarries. Then we set up our own radio communications network; mobile phones don't work out here. And we had to build three service centres. We had to manufacture and/or ship in everything, even our own beds for the accommodation camps. And before we could start the road, we needed to construct several access roads."

But it wasn't just a matter of shipping tonnes of equipment in and getting started. Everything had to be planned and timed to perfection. The quarries, for example were not only strategically located along the 300km stretch to minimise the gravel's transportation costs, they also had to be built and disassembled in sequence to coincide with the road's progress and to optimise plant and staff usage. Another example of the complexities was the size of the workforce. Although Colas, with its almost 50-year presence in Madagascar, brought in many workers from other parts of the island, it needed almost 1,000 new workers, recruited locally. All of whom required training and management. This was one of the main reasons why Colas won the contract: its capacity and expertise in training



Build accommodation for your ex pat engineers.



Locate and build five rock quarries and rock crushing plants.



Build three concrete fabrication plants, as well as an asphalt and emulsion plant.

F THE WORLD'S MOST

workers was vital, as the Madagascan construction industry has seen major growth and experienced workers are difficult to find. Training was the only option, and Colas has the expertise.

The first 12 months was all about planning and preparation. And not surprisingly for a project of this scale, not everything ran smoothly. "For example, we knew that water supplies were crucial for our concrete plants which use up to 60,000 litres per day," says Denis Plazolle, assistant site manager. "Again, this would not normally be a problem elsewhere in the world, but in Madagascar there is no rain for eight months in the year and most of the rivers dry up. So we drilled and built several water pumps and shipped in five water-carrying lorries, each with a 14 cubic metre capacity. But within weeks it was obvious we needed more. We now have 25 water lorries - some with a capacity of 33 cubic metres. Which shows that even when you plan meticulously in advance, you never stop planning," Denis says with a knowing smile.

Reliability is more essential than ever

Another major difference between road building here and in Europe is the delivery lead-time for spares. Parts that usually take just a couple of days to be delivered in Europe could take up to four weeks to get to Madagascar. "That's why equipment reliability is even more essential than usual," explains Serge Sergeant, mechanical manager. "You simply cannot afford having a machine go down and be unproductive. That's why we bought €5 million worth of new Caterpillar machines to enhance our existing €80 million fleet. Our local Madagascan Caterpillar dealer 'Henri Fraise' helped a great deal in specifying and answering our needs, as well as sharing their service and repair resources. They even put one of their own service technicians, Christophe, as a fulltime man in our main on-site repair shop."

That type of cooperation seems to run throughout the whole project, and international teamwork is seen at all levels. Caterpillar is delighted to supply the machines and work tools, Henri Fraise has been hard at work providing additional training and service support (and rental machines where necessary), the European Union has financed the project as part of its international aid programme, and Colas has brought all of its substantial African expertise and 'can do' attitude to the project. "It simply would not have been possible without the cooperation of all these parties including the Madagascan government and Madagascan people," said Frédéric Roussel, head of Colas Madagascar.

Making a difference

Marc Vincotte, overall project manager, summed up what it feels like to be part of this unique project: "Building a road in Africa is different. Not only because it presents unique logistics and engineering challenges, but also because you're really close to the local people, who are in awe of the whole organisation and equipment. Each day you interact with these people. You get to know how much they want the road. And you know that you're not only making a road but making a difference to people's lives. That's a very enriching feeling."



KEY FACTS AND FIGURES

Consumables

By the time the project is finished the Colas team will have made, moved and used the following: Gravel: 1.5 million tonnes Earthworks: 1.86 million cubic metres Asphalt: 85,000 tonnes Bitumen emulsion: 6,640 tonnes Concrete: 34,600 cubic metres Bridges: 44

Main machines used Motor graders: 31 Wheel loaders: 32 Wheel excavators: 12 Track type excavators: 26 Track type tractors: 10 Backhoe loaders: 6 Small compactors: 31 Mixed compactors: 31 3T tyre compactors: 11 5T tyre compactors: 12 Asphalt pavers: 7 Ready-mix trucks: 10 Shipping spreader trucks: 12 Bitumen sprayer trucks: 11 Generators: 71

Fabrication plants

Stabilisation: 2 Crushing: 3 Concrete mixing: 7 Emulsion: 1 Asphalt: 1 "You're not only making a road but making a difference to people's lives."

MAD ABOUT FOOTBALL

"As Spaniards we're mad about football," says Felipe Crespi, owner of the Spanish construction company that's made a name for itself as a football pitch specialist. "Every village in Mallorca needs a good pitch. And because my company has a special partnership with a turf laying company we can offer a complete solution. Business is booming: we've built 15 pitches and have another 29 planned."

So how do you build a football pitch?

"It is a bit like making a road: one that's 90m wide and 120m long. First you use a motor grader to level the land. Then a multi terrain loader to spread an even layer of sand across the area – this is a crucial part of the job, because this is where you build in the drainage as well. After that we lay the asphalt, on top of which is laid a layer of earth-like materials and the turf."

All of Felipe's MTLs are Caterpillar. "I believe in these machines and I have a great relationship with my Caterpillar dealer Barloworld Finanzauto," he says. "It's these machines – plus a really skilled operator - that make a pitch great."

It was Felipe's enthusiasm that got Cat Magazine thinking about football too, and we wondered "If Cat machines were football players what would our dream team be?" Below is our answer, if you have a better line-up, give us a call.



Felipe Crespi, owner of Obras Publicas Crespi SL.

"There's only one thing better than playing on a great football pitch... and that's building one!"

① Goal: Telehandler The long reach to keep a clean sheet.

③③ Fullbacks: Wheeled excavators Quick and high work rate

④ Centre: Track type tractor For a rock solid defense

Initial States State

⑦ Centre fwd: Motor grader For elegant, perfect finishing

Image: Second Second

(1) (1) Inside fwd: Backhoe loaders Versatile and quick



CAT - 631G DRIVING

"As it pulls up alongside me I'm struck by the size of the wheels and the lofty climb to the cab."

0

OPPORTUNITY

Operating a motor scraper has been something of a childhood dream for freelance journalist Geoff Ashcroft. Caterpillar's Malaga Demonstration and Learning Center (MDLC) team helped realise that dream.

As a boy, I spent hours watching motor scrapers scythe through the countryside as muck-shifting contractors built roads and infrastructure. How could there be so much power and strength? How could they move dirt so easily? And just what would they be like to operate?

The beast I'm looking to tame is a 500hp Cat 631G scraper... It carries as much payload as a 740 articulated dump truck, and in the right conditions can be filled with 40 tonnes of dirt in about 30 seconds, albeit with help from a D10 dozer.

Emmanuel 'Skinny' Chatelain, Cat's chief demonstrator at MDLC, appears on the horizon in the 631G. As it pulls up alongside me I'm struck by the size of the wheels and the lofty climb to the cab. Just getting the door open demands full reach of my arm above head height to grab the door latch. Suddenly, the 631G has become an intimidating beast.

Settling into the seat, Skinny runs through the controls and explains how to use the joystick. It raises and lowers the front apron to determine soil flow into the bowl, controls the cutting height of the bowl, and operates the ejector plate for unloading.

There are two thumb-operated buttons on the joystick: one locks the transmission in gear to prevent unwanted gear changes from the 8-speed powershift box and keeps a constant speed for loading and unloading; the other control brings the cushion hitch. Because the cushion hitch floats to absorb vertical movement on the run, it needs to be locked down when loading.

Sliding the transmission lever into "D", I ease on the throttle and head for the cut. There's guesswork involved in opening the apron then lowering the cutting edge into the dirt, while remembering to lock the cushion hitch down and hold the transmission in second gear.

I open the throttle and run into the cut, holding the diff-lock in with my right foot - the seat's slewed 30 degrees to help me watch the cutting edge and bowl, so my left foot sits on the throttle.

I push the joystick forward to drop the bowl, but the 631G soon runs out of traction and grinds to a halt. The D10R squares up behind, and with a firm bump, the dozer takes control of loading. I attempt to help, feeling the throttle to coax the 631G's front wheels into taking some of the strain off the D10R.

The bowl soon fills, and dirt cascades over the sides. It's a good bowl-full, and I remember Skinny telling me its not how much you get in the bowl, it's how often you fill it, so I promptly raise the cutting edge, drop the apron, unlock the cushion hitch and release the transmission hold. The scraper launches out of the cut, changing up rapidly, but trading ride comfort for speed and productivity.

It's a short haul to the fill site, and scrubbing off forward speed, I lock the cushion hitch down, hold second gear, raise the apron and start ejecting the bowl, spreading its contents in a neat, even layer.

I return to the cut and the D10 makes light work of loading. Just 30 seconds later, the 631G takes off like an athlete responding to a starting pistol.

I'm pleased with my efforts and how well I've filled the bowl but don't think

there's a productivity bonus heading my way. As I enter the fill site and raise the apron to eject 40 tonnes of dirt, I find the bowl is too high off the ground and rather than spread the load, its as good as dumped and this makes the scraper's front wheels struggle for traction. The D10 is called over to help me out.

But after a few more attempts at filling and emptying the 631G, I eventually get a proper feel for the correct dump height and get the machine spreading its load properly with the bowl and compacting it with the tyres.

There's no doubt that scrapers still remain a specialist machine. It's a tool for the operator who really is a cut-above the rest – and he needs to be. Given that such machines load and unload on the move, there really is no let-up for the scraper operator and I knew I'd had my hands full.

Thanks Caterpillar, for the chance to learn to operate and understand this impressive machine.







All the road construction machines you need... from A to Z

Earlier this year Caterpillar introduced new paving machines to make its road construction offer the most complete package anywhere in the industry. Cat Magazine asked Hamid Lavassani, Caterpillar's road construction manager, what this means to contractors.

"It means cost savings... time savings... and peace of mind."

"Now for the first time ever, you can buy or rent all your road construction equipment from one source: your local Caterpillar dealer. Which gives you great purchasing power and the way forward to the best deal possible. It also means you have a single point of contact, you won't spend valuable time trying to coordinate complex financing and servicing negotiations with several different suppliers. And because all Cat machines have the same look and feel – designed for easy operation and easy maintenance – you'll reduce operator training time and costs," explained Hamid.

"But the greatest benefit of this unique complete package is the peace of mind that you get. Just one call and you'll get the best advice and the prompt action you need to keep your operation at the peak of productivity."

Answering today's challenges

The complete range of road construction equipment (from base preparation and soil stabilization to soil compaction, through to asphalt and paving, compaction and maintenance) is truly a unique opportunity. And it comes at a time when the road building industry is facing increasingly demanding challenges. More than ever, road contractors must get the job right the first time, within tighter budgets and according to more challenging specifications. And, as the concept of penalties for underperformance is being talked about more and more, it is vital that road builders have the products and services that offer maximum reliability.

"That's why Caterpillar and its dealer network run that extra mile in terms of new product development," says Hamid. "All our new products are tested for 1000s of hours on real job sites. We know that the paver and the cold planer are the vital

A quick look at the new machines:



AP-600 wheel-type Asphalt Paver

- 16,000kg class upgraded from the BB-760, ideal for medium to high production
- Handles hot or modified bitumous mix or aggregate
- Engine: six-cylinder diesel, generating 129kW (173hp) at 2200rpm.

AP-755 track-type Asphalt Paver

- 19,000kg class- upgraded from the BB-781, ideal for high production and optimum quality paving
- Handles hot or modified bitumous mix or aggregate
- Two rubber crawlers provide excellent traction
- Engine: six-cylinder diesel, generating 149kW (202hp) at 2300rpm.

elements for site productivity. If either of these go down then production stops. So we do everything possible to keep these machines in top condition."



"Caterpillar is the only manufacturer to offer the complete package of road construction equipment. Everything you need from one supplier."

Hamid Lavassani, Caterpillar's road construction manager

ROTARY MIXERS • TRACK TYPE TRACTORS • MOTOR GRADERS • SOIL COMPACTORS • COLD PLANERS • PAVERS • ASPHALT COMPACTORS



RM-500 Rotary Mixer

- Upgraded from the popular RM-350B with many
 performance, reliability and operator comfort features
- One machine for both full-depth reclamation and /or soil stabilization
- Universal rotor with maximum cutting depth of 457mm
- Soil and combination rotors 508mm cutting depth.

CB-300 E-Series Vibratory Asphalt Compactors and CB-224E XW

- Upgraded from the CB-200 E-Series with new dual vibration frequency to increase versatility
- One machine for both asphalt and soil jobs
- Reduced noise in low-frequency
- Auto-vibe provides superior vibration control and improved compaction.

SystemOne[™] Undercarriage WHAT YOU THINK OF IT

When Caterpillar launched SystemOne - its latest evolution in undercarriage technology – the associated publicity and press reviews featured the bold and exciting promise of reducing undercarriage operating costs between 30 to 70 percent. But there's no substitute for asking real owners what they think. So we did, and here's what they said:

"After 3500 hours and only 30% wear, we have already beaten our previous undercarriage life."

Says Sarah Collins, plant director at Stokey Plant Hire Ltd, UK. The company has 26 machines including three Cat D6Rs fitted with SystemOne. "We would certainly recommend it. Mainly because it lasts longer. Even if we take our machine into a very severe application with high abrasion, we will still achieve a lower cost per hour than the traditional undercarriage. Not having to do a pin and bush turn creates more savings, especially as due to health and safety we need to bring the machine into a shop, increasing downtime. These savings, combined with the extra life, definitely justify the initial extra outlay."



"We believe cost per hour is significantly less than a conventional undercarriage."

Says Pete Tye, workshop manager at Barton Plant Ltd., who negotiated a guaranteed cost per hour from his local Caterpillar dealer. Pete also said that his comparisons made with a standard SALT undercarriage at a particularly abrasive site showed that SystemOne tracks had significantly less wear.



Fully tested before we made the promise

As the only equipment manufacturer to produce its own undercarriage, Caterpillar had to be completely sure that the promise of "30 to 70 percent" savings was achievable for all customers. That's why SystemOne was put through extensive pre-production field-testing involving machines working on genuine jobsites for more than 250,000 hours – all without a single undercarriage failure.

Welcome to Monster Park

Where kids from 8 to 80 play with earthmovers

It's one of those ideas that seem obvious... after you've been told about it. One that makes you say: "Why didn't I think of that?" It involves nothing more than a few earthmoving machines and a five-hectare sand pit, but it gets people queuing up and paying for the privilege of playing with 'mechanical monsters'.

It's the idea of Gerhard Seibold in Germany. Normally he runs his own heavy construction company, but during the weekends he lets members of the public get their hands on his excavators, dozers, and loaders – for a small fee of course.

"Most of the visitors are men who get one of our gift vouchers from their wife or girlfriend," he says. "Others are friends or workmates who simply fancy the challenge of earthmoving, to test their skills or hunt for treasures. Others bring their sons. You don't need a license, but we do insist on giving everyone an orientation, after that anyone can enjoy pushing tonnes of earth around and digging huge holes."

One of the most popular machines is the massive Caterpillar D9G dozer – once a familiar sight on construction sites all over the world in the sixties. Still running like new, this 30year old iron giant is a powerful, noisy thrill machine.

But it's not all about thrills. There is also a more serious side to Gerhard's Monster Park: he provides real excavator training to people wishing to become operators, and they can earn a license to operate construction machinery.

So as with all great ideas – everyone benefits.



"You can kill anything, except for a Cat D9G," says Gerhard Seibold, which is why it's one of the most popular attractions at his Monster Park. Seen here painted with the eyes and mouth of a true fearless beast.

Dick Sevier

Your comfort and safety – in his hands

When you first see Dick Sevier, he looks like everything you would expect from a Cat man with 28 years experience: strong, reliable, honest, and genuine. And when he speaks it's the verbal equivalent of watching a highly skilled operator handle a wheel loader: on answering a question he quietly gathers his thoughts (manoeuvres into position), begins speaking, not too fast not too slow (picks up the load), and concludes with a memorable point (places it exactly where needed). All without hesitation or repetition. Here's what he said.

How do you design a new cab?

We take an existing cab and ask how we can improve it. We ask operators what they like and what they don't like in terms of comfort, safety, and productivity. We ask technical experts about the latest developments in things like air conditioning, seat suspension, and roll over protection systems. Then over the next 18 months a team of 100 engineers takes a computer-aided design and creates several prototypes. These are field-tested for six months, 10 hours a day on real job sites, during which time we fine-tune the cab. It's then ready for release.

No two people are built the same, how do you make the cab comfortable for everyone?

Adjustable seats. But it's not only adjustability, the dimensions and proportions of our seats and their relative position to the controls ensure that they can provide the correct seating and back support for 90 percent of the world's adult population – everyone between 160cm and 193cm in height and who weighs between 47.5kg and 136kg.

How long should a seat last?

Our seats use highly durable materials, and like all the components of a Cat cab, they are tested to destruction, so we know Dick Sevier is a manager in the Caterpillar engineering group that designs, tests and fine-tunes all new cabs – from the seats and windows to the dashboards and pedals. Cat Magazine asked how it's done.

that they easily last the expected lifetime of the engine: about 10,000 hours.

How often do you meet with operators and discuss improvements?

All the time, whenever we have the chance. But formally, our engineers make jobsite visits every year. That's where we spend the whole day with the operators, ride the machine, and generally talk about how things can be better.

What makes a Caterpillar cab better than the rest?

Cat cabs are different in terms of safety, for example because we use stronger materials in the roll over protection. We've also optimized comfort in terms of visibility, air conditioning, heating, and air suspension seats. When you feel better you work better too.

But I think what really makes a Cat cabin stand out is the way it looks and feels. Everything is more rounded, easier to reach, with nice positive response from the controls. Also, everything is packed with more functionality – the dashboard often has a flat panel monitor, the levers are no longer just levers... they're more like PlayStation joysticks with buttons and pressure pads. What's more, all Cat cabs have a common layout so no matter what machine you're using you know instinctively where everything is.

Finally, what's your favourite Cat machine?

A 793 truck – you get one big thrill 7 metres up from the ground traveling at 50km an hour, realising that you are handling something the size of a house.



A Caterpillar D2 tractor lands by parachute in the South Pole. Its mission: to help build a permanent scientific station. The seven-tonne D2 was dropped with four parachutes, its tracks, blade, and cab were dropped separately and then reassembled on site.

Other notable events of 1956

Elvis Presley enters the United States music charts for the first time, with 'Heartbreak Hotel'.



At the Melbourne Olympics, Soviet gymnast Larisa Latynina wins the first of her 18 medals including 9 gold: the highest medal count in the modern era.



IBM introduces the world's first hard disk – with a capacity of 100Kb. Today's PCs have an average of 200Gbytes hard disk capacity.



12000 Hours 1 Change 100[%] Satisfaction

New **Cat**[®] **D-Series Mid-size Hydraulic Excavators** will cut your daily running costs and reduce your overall cost of ownership. With Cat Extented Life Coolant, you will achieve industry-leading 12 000 hour engine coolant change intervals. And there are many other great features. For more information, call us today.



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