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**CONSTRUCTION • PUBLIC WORKS • NATURAL RESOURCES** 

Volume 11 · Number 2 · February 2006 · English Edition



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### **InfraStructures**

English Edition

#### Volume 11 Number 2 February 2006

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#### A Word From the Publisher

InfraStructures covers the industry like no other magazine in Canada. Since our readers use their heavy machinery and specialized equipment to do all kinds of works, it is natural that the articles and stories published in InfraStructures reflect the wide spectrum of techniques that are available, or that will be in the near future. This is why we spend countless hours researching for you the upcoming trends in equipment and technologies and travel all over the world to cover trade shows.

In the March issue, you will find more stories on what will be displayed at Intermat 2006. We hope this will convince you to travel to Paris and to see for yourself the new equipment offered by all the major manufacturers and the other smaller, less well known perhaps, more focused innovators in their field.

Tell us what you think of InfraStructures, and complete the form to make sure that our list is as complete and as up to date as possible.

We hope that you will enjoy reading this issue of InfraStructures and keep in mind that as InfraStructures grows in the coming years, we will always strive to put in more content and more stories in an even better package.

Editor/Publisher



On the cover:

A tire handling machine is used by a mechanic of Centre de Pneus DD to change a tire on a loader in a Saint-Eustache quarry, north of Montreal, Quebec.

#### REFLECTIVE ROOF COATINGS INSTITUTE FORMED

Several companies engaged in the development and manufacture of reflective roof coating materials have banded together to form the Reflective Roof Coatings Institute (RRCI).

The purposes of the Institute are: to promote the benefits of reflective roof coatings in extending the life of roof systems while reducing energy consumption and demand for the building envelope; to promote the highest standards in product promotion,

application training and product performance within the reflective roof coating industry; to promote the development and research of data relating to the application, performance and value of reflective roof coatings; and to advance the best interests of the reflective roof coatings industry.

The first organizational meeting was held in Chicago in November where Jim Leonard, president of ERSystems, Rockford, Minnesota, was named the interim president of RRCI. "Because of the growing importance of the California Energy Commission's Title 24

program, we felt the time was right to form an organization that would not only promote reflective roof coatings but also provide a means to educate the end-users of their benefits", stated Mr. Leonard at the recent organization meeting.

At present the RRCI is engaged in actively recruiting new members and have had twenty companies become Founding Members of the Institute. Ken Bowman, president of the Robstan Group, Inc – an association management company located in Kansas City, Missouri – has been retained to act



# A New Larue Hydrostatic Snowblower for Halifax International Airport

Last December, J.A. Larue Inc. delivered a Larue model T85 high speed high output airport snow-blower to the Halifax International airport in Nova Scotia.

The Larue model T85 features dual Detroit Diesel engines, a 665 HP for the blower head and a 300 HP for the tractor. Its blowing capacity is 5000 t/h.

Source: J.A. Larue Inc.

**Cummins 2007 ISL for Vocational Market** 

Cummins Inc. announced during World of Concrete 2006 that the 2007 ISL delivers increased performance and fuel efficiency for vocational customers. It combines the lightest weight of any engine in its class and the highest power-to-weight ratio. The 2007 ISL will feature an enhanced high pressure injection

system and a variable geometry turbocharger.

The popular ISL engine will also add proven cooled exhaust gas recirculation technology and an integrated particulate filter as will all Cummins 2007 on-highway diesel engines for North America to meet the U.S. EPA and CARB standards for 2007.

Source: Cummins Inc.

as the executive director and help manage RRCI. Bowman said, "With our experience in managing construction related associations, we are very proud that the Robstan Group has been chosen to be RRCI's partners in getting this association started."

"At the next meeting of RRCI in Las Vegas on February 12, 2006, we will continue the business of establishing the Institute but we are also going to have general sessions to discuss issues facing our industry. We feel this meeting will be a great start for RRCI in helping provide an educational venue for reflective roof coatings", stated Mr. Leonard.

There are three categories of membership in RRCI: Manufacturer, Raw Material Supplier and Associate, which includes sales representatives, design professionals, consultants, architects and engineers.

Source: Reflective Roof Coatings Institute

#### CONTINENTAL TIRES SELECTED BY AUTOCAR AS STANDARD EQUIPMENT

Continental Tire North America Inc. (CTNA) is announcing that Continental truck tires have been selected as the standard equipment specification on all Autocar Xpeditor trucks. The supplier partnership between CTNA and Autocar will provide customers the opportunity to experience a premium truck and tire combination.

Autocar's vice president of sales and marketing, Tom Vatter, states, "Since day one at Autocar, a key part of our strategy is to seek out the strongest component manufacturers and build a strong partnership with them. We have been very successful in doing just that. CTNA falls right into our game plan. Continental tires are a high quality product and are well respected in the industries we sell into. I believe this will strengthen the overall value of the Xpeditor."

Clif Armstrong, CTNA's director of original equipment and marketing adds, "The Continental HSU and HDL are proven to be some of the best performing tires in the industry. Pairing Autocar's advanced Xpeditor truck design with the technology driven performance of the Continental Tire lineup is truly an exciting supplier partnership that will benefit industry professionals."

The optimized tread design of Continental's HSU provides not only excellent traction but also long original tread life. The 20-ply rating provides additional customer assurance that these tires safely maximize loads at recommended inflation pressures. With a speed rating of 105 km/h, the HSU meets

the highest speed rating in the industry. The tire's casing is enhanced with a thick under tread and an advanced stone ejection system which provides added protection against stone drilling and punctures. The robust sidewall curb rib assists in impeding damage caused by curbing, cuts and abrasions. All Continental steer tires feature the patented Visual Alignment Indicators that increases the user's opportunity to visually identify an alignment problem before the tires are worn.

Continental's premium HDL has proven itself as a premier tire in the waste and concrete industries. Its innovative lug angles provides outstanding traction in all conditions, as well as even tread wear throughout the long life of the tread. The state-of-the-art stone ejection system helps safeguard against casing penetrations. A standard 16-ply casing ensures top of the line tire integrity and provides reassurance that carrying capacities can be met at optimal inflation.



Continental Tire North America, Inc., based in Charlotte, North Carolina, is a group company of Germany-based Continental Corporation, a leading supplier of brake systems, chassis components, vehicle electronics, tires and technical elastomers.

Source: Continental Tire North America

#### RITCHIE BROS. AUCTIONEERS ACQUIRES DENNIS BILISKE AUCTIONEERS

Ritchie Bros. Auctioneers Incorporated

announced the completion of the acquisition of the auction business of Dennis Biliske Auctioneers, a North-Dakota-based auctioneer of agricultural equipment and real estate – including a 25-acre agricultural auction facility. This acquisition is part of an initiative intended to further establish Ritchie Bros.' presence in the agricultural equipment and land auction markets in the United States. Dennis Biliske, auctioneer and president of Dennis Biliske Auctioneers, now leads

Ritchie Bros.' agricultural operations in North Dakota, Minnesota and the surrounding region.

"The addition of Dennis Biliske and his team to the Ritchie Bros.' organization is an important venture into the very large and fragmented U.S. agricultural equipment and real estate auction markets," said Peter Blake, CEO of Ritchie Bros. Auctioneers. "Dennis has always had a customer-focused business, which is an excellent fit with our organization."

Dennis Biliske, Area Manager for Ritchie Bros. Auctioneers, said: "We are looking forward to introducing Ritchie Bros. unreserved auctions to our customers. We will continue to serve the marketplace, conducting both small and large unreserved auctions at our location or theirs. As always, we are able to offer guarantees and outright purchases, as well as traditional straight commission sales. By joining forces, our customers will now have access to a global market. It's a win-win situation for everyone involved."

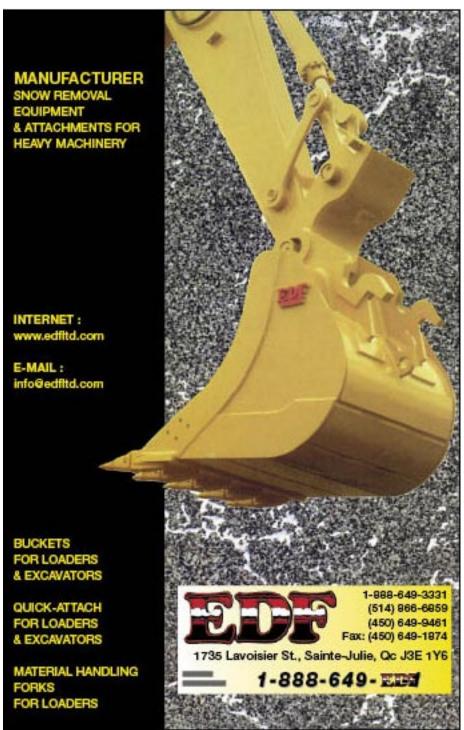
Kevin Tink, Ritchie Bros. Vice President of the Canada and U.S. Agricultural Division, commented: "The farming community, as well as Biliske customers, will see a seamless transition. The same faces will be present, committed to maximizing sale results through the services and benefits that the Ritchie Bros. network has to offer. As Dennis suggested, this is a win-win for our customers and for our company."

Terms of the transaction will not be disclosed; management considers it to be not material relative to the Company's consolidated operations.

The Ritchie Bros. 2006 auction calendar starts in Phoenix, Arizona in February. Over 90 other auctions are already scheduled for 2006 including over 60 agricultural auctions in Canada and the United States. The first auction to be held at the Buxton, North Dakota facility is scheduled to take place on February 23, 2006. Information about equipment that will be sold and all upcoming auctions is available on the Company's web site, www.rbauction.com.

Source: Ritchie Bros. Auctioneers Incorporated





#### Metallurgical Breakthrough Eliminates Bushing Turns



SC-2, a new alloy coating for dozer undercarriages from John Deere, provides the best combination of hardness, toughness, wear resistance and corrosion resistance properties of any coating on the market. In fact, SC-2 is so durable that an undercarriage featuring SC-2 coated bushings does not need bushing turns to hold up over the long term.

SC-2 coated bushings are compatible with existing John Deere undercarriage designs, and will fit many other brands of dozers, as well, according to Tim Wodrich, undercarriage engineering supervisor. "The new SC-2 metallurgy is a giant step forward in the field of undercarriage design – it delivers twice the wear life over standard bushings," said Mr. Wodrich. "SC-2 will take a huge bite out of downtime, now that turning bushings is no longer necessary."

The John Deere SC-2 Extended-Life Undercarriage features coated bushings that are the result of a patented process called Gopalite™ developed by John Deere senior staff metallurgist Dr. Gopal Revankar. The process produces a water-based slurry from a heavy alloy-metal powder and several organic additives. The slurry formula suspends the alloy powder and is used to apply the coating to the part surface,

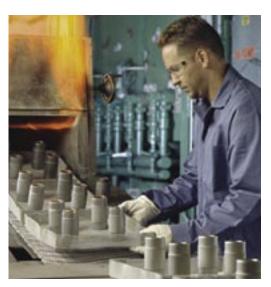
producing a coating that is uniform in both thickness and consistency. The ingredients and techniques used greatly reduce the slurry coating's susceptibility to breaking when subjected to high impact.

"Our new process uses a much higher temperature than is typical, along with special atmospheres. This gives parts superior wear characteristics compared to chrome plating – and, like chrome plating, SC-2 is corrosion resistant," said Dr. Revankar. "The process also is much more environmentally friendly than chrome plating – it does not emit all the caustic carcinogenic vapors that the EPA frowns on."

Intensive laboratory tests prove conclusively that SC-2 coating is 25% harder than chrome plating, according to Dr. Gopal Revankar. SC-2 coated steel held up four times better than parts not protected by SC-2 in a sand abrasion test. A brutal impact test also was performed in which a 220 lbs weight

was dropped 500 times on an SC-2 coated bushing from a height of 30 in. and the coating remained undamaged. In another lab test, an SC-2 coated bushing was fractured in a hydraulic press and the coating stayed fused to the steel.

The coating also has been tested in the field for the past three years, running on dozers that work year-round with high-impact loads in extremely abrasive soil conditions, including fine sand. Each dozer had one chain with SC-2 coated bushings, and the other chain was equipped with normal production bushings.



"In each dozer, the SC-2 coated bushings showed more than 100% improvement in wear life over the production bushings," said Tim Wodrich. "This coating can take the severest pounding an undercarriage application can dish out."

Source: John Deere

# **Compendium of Canadian Mining Suppliers**

The Canadian Association of Mining Equipment and Services is pleased to announce the initial distribution of the 2005/2006 CAMESE Compendium of Canadian Mining Suppliers.

This 156-page magazine sourcebook contains useful information about the dynamic, technologically-advanced, environmentally-sound suppliers that help keep Canadian mines among the most efficient in the world. Profiles of over 250 of Canada's prime suppliers of mining equipment and services are included.

This Compendium is the tenth of an annual series. A total of 20 000 copies will be distributed to mining decision makers by mail and at international mining trade shows. Much of the material in the Compendium, as well as an effective product and service search facility, is also available on the Internet at the association's comprehensive web site at www.camese.org

CAMESE is a non-sales trade association that exists to help Canadian mining suppliers export to world mining markets, and to assist foreign buyers, dealers and others in finding suitable Canadian business partners in the mining supply sector.

Source: CAMESE, www.camese.org

# Schwing S39SX: the Machine for All Construction Site Conditions



At Bauma 2004, the Schwing S 39 SX truck-mounted concrete pump was presented to the public for the first time. This machine has the longest distribution boom on a 3-axle chassis under 26 t gross weight in the world and the completely new "SX-H" outrigger system which requires smaller floor spaces.

But any machine can look good at an exhibition. Until a concrete pump has been used under the different construction site conditions, it is not possible to get a complete picture of how a machine really performs. One of the first uses to which the Schwing S 39 SX truck-mounted concrete pump was put in Germany was the concreting of a new rain overflow basin at the Kupferzell sewage plant. This involved pumping 400 m³ F3

consistency C35/45 concrete with 0/32 mm aggregate within six hours. The concrete was transported and placed by Kocher-Jagst Transportbeton GmbH & Co. KG, Niedernhall, Germany. This company was the first customer in Germany to use a concrete pump of this type. After several months in practical use, the production shop manager, Franz Holz assessed the situation and gave a positive report. What impressed him in particular was the stability, capacity and cost effectiveness of the S 39 SX. And these features must have impressed other customers because more than 150 units have been dispatched worldwide since the machine was presented 15 months ago.

Because of the SX H system, the machine's multifunctionality can be exploited



both outside the city and on city center construction sites which have little space. Setting up possibilities are available to the operator which were previously undreamed of due to the room between the front, space-saving SX bowed outriggers and the rear right-angled telescopic H outriggers. This not only means shorter set-up times but also a floor space which is 80% smaller than that of machines with folding outriggers. The manoeuvrability of the concrete pump unit mounted on an MB Actros 2641 suits practical conditions. Or, as Kocher-Jagst machine operator Gerhard Wirth pointed out: "Wherever a four-axle agitator truck can come in, there is also room for my thirty-niner." Apart from that, special permission from the authorities is not needed since the total length is less than twelve metres.

#### "ELECTRONIC BRAIN" MAKES WORK EASIER FOR THE MACHINE OPERATOR

The vector control system is another reason why work on the construction site is simplified for the pump driver. This modular "electronic brain" enables the machine operator to communicate with his Schwing concrete pump. He can call up operating data and record machine status data at any time. A plain text menu driven graphics

display is provided to make things even easier. Since the vector control system can be extended, the control platform can take additional systems with new functions.

#### END HOSE STOP VALVE PREVENTS CONCRETE OVERRUN

Kocher-Jagst is one of the first customers who has retrofitted their existing Schwing KVM 34 X and KVM 24-4 H concrete pumps with concrete stop valves. Thus, it has been taken for granted that the new machine would also be fitted with this pneumatic valve. The valve acts on the end hose from the outside and holds back the concrete in the pipeline. For the machine operator, this is a great

advantage when slewing over previously concreted and floated surfaces since the construction site, machine and surroundings are kept clean and free of mess. The valve, which is synchronized with the concrete pump, responds directly to the respective commands from the remote control system. "Stop pump" results in immediate closure of the valve and prevents concrete after-run or idling of the delivery pipe, which normally



takes place when the pump is interrupted in the area of the front jib. Thus, the boom and end hose movements which would otherwise occur on restarting the pump are avoided. Instead, the working height above the surface of the concrete is maintained. This saves the machine operator from having to make tiresome corrections by counter control and makes concreting stress free.

Source: Schwing GmbH



#### **Bacou-Dalloz at World of Concrete**

The Bacou-Dalloz Hearing Safety Group showcased its wide range of Howard Leight and Bilsom hearing protection products at the 2006 World of Concrete Exhibition.

"The construction industry has one of the highest rates of noise-induced hearing loss in the country," said Renee Bessette, COHC, senior marketing/communications specialist for the Hearing Safety Group. "But recent improvements in noise measurement technology, along with innovations in hearing protection devices (HPDs), and a greater awareness of the dangers of hazardous noise are helping to protect workers."

Central to the Hearing Safety Group exhibit were two recently introduced products: new Bilsom® Leightning® Hi-Visibility Earmuffs which incorporate both noise blocking protection and total visibility, night and day; and the new Howard Leight® LS-400 Leight® Source earplug dispenser.

Bilsom Leightning Hi-Visibility Earmuffs offer both maximum attenuation and total visibility, especially in outdoors or in low-lighting

situations. Eye-catching fluorescent green earcups contrast noticeably against dark backgrounds, in low lighting or in inclement weather. It is also the only earmuff on the market that incorporates a reflective headband that illuminates when exposed to light, providing additional safety, day or night. Leightning Hi-Visibility is available in the standard headband style, as well as a convenient folding design with optional belt storage case.

New from Howard Leight is the LS-400 Leight Source earplug dispenser. Built of durable plastic and designed for wall mounting or tabletop use, the LS-400 provides an easy and convenient way for workers to access hearing protectors. In addition, purchasing bulk dispenser refills eliminates packaging waste and can save companies up to 10% of their annual earplug cost. The LS-400 Leight Source dispenser is compatible with a range of Howard Leight earplug designs.

Since its beginnings as a one-man opera-

tion more than 30
years ago, Howard
Leight Industries
has grown into
one of the
largest manufacturers of
in-ear hearing
protection in the
industrial market
and is widely
recognized as
an innovator in
protection and fit.
Since 2001 Howard

Leight has been a part of the Bacou-Dalloz™ Hearing Safety Group.

Bilsom was founded in Sweden in 1968 and leads the industry in developing innovative sound management technologies that are used in some of the most challenging environments in the world.

Source: Bacou-Dalloz Hearing Safety Group

#### Fort McMurray – Canada's "Oildorado" Dynapac Compaction Technology on the World's Largest Construction Site



Until very recently, the huge Athabasca Oil Sands deposit surrounding Fort McMurray was viewed only as a potential resource. Extracting oil from oil sand was deemed too expensive when compared with traditional oil production. But now, what was once a small fur trading post in North East Alberta has metamorphosed into a boomtown, becoming one of the largest construction sites in the world. Unsurprisingly, this has made it a prime location for all large construction machinery rental companies.

The Athabasca Oil Sands are the largest known oil sands in the world. Experts estimate that they contain approximately 1,7-2,5 billion barrels of oil (with one barrel equating to 159 I of crude oil). The only drawback is that it is much more problematic to extract oil here than it is to extract it from the oil fields in the Middle East. At the sands, it is more common to have to open up new deposits by means of expensive seismological investigations or test drills and to perform open cast mining. Once vegetation has been cleared, huge amounts of earth have to be moved and a complex processing procedure is carried out, at the end of which approximately one barrel of crude oil is produced from one cubic meter of sand and loam. Around one million barrels are currently produced in the

Fort McMurray region every day. Provided that extraction and processing technologies continue to improve, the Canadian Energy Research Institute (CERI) proposes that three million barrels a day by 2015 is a realistic

target. This would make Canada the world's second largest oil exporter after Saudi Arabia.

When entering Fort McMurray, visitors are greeted by a modern museum that tells the story of oil extraction at Fort McMurray, from the first large-scale attempts in the 1920s to the complicated process that is carried out today.

Photographs and a few vintage showpieces give the visitor a good idea of the sheer scale of the mining equipment used here.

"Of course, we can't offer such huge machines to our customers", says Paul Stannard with an apologetic smile, pointing to the yard behind his office building, "but we can provide them with a wide range of construction machinery and equipment". Mr. Stannard has been the Fort McMurray branch manager for United Rentals of Canada Inc. (a rental company with over 700 branches in North America and Canada) for 21/2 years. Like all well-known construction machinery rental companies, United Rentals has a branch in Fort McMurray, currently employing 37 people. During the short summer period, the yard contains a great deal more oil-fired heating equipment than anything else, whilst the stocks of pumps, compressors, generators and aerial lift devices have dwindled somewhat.

#### "DYNAPAC VIBRATING PLATES ARE OUR NUMBER ONE"

This is also true of the vibrating plates on offer, as only four or five reversible LG series Dynapac plates are currently on a flying visit to the yard. "From a total of 40 or 50 Dynapac machines, around 25 are reversible

diesel plates, all with an electric starter. Over the years we've tested vibrating plates from all the major manufacturers; Dynapac are far and away the best and provide just what we need here. They are extremely reliable, they



provide sound advice and their after-sales service is good. The LG 500 (operational weight 500 kg) is the most frequently used machine because of its high compaction power and excellent quality", explains Paul Stannard.

Almost 90% of his customers prefer long-term rentals with the possibility of later purchase. Mr. Stannard names some other important details which, besides quality and power, are crucial for his customers: Forward/ return motion is controlled via a joystick rather than a bow-type handle and the steel base plates are much more stable than the cast-iron ones used by other suppliers. Dynapac base plates are made from Hardox 400, an extremely wear-resistant steel with a Brinell hardness of 400. He says: "Sand is extremely aggressive. Over the years I've seen many cast-iron base plates that have been completely ground off. With Dynapac, we don't have that problem."

#### 100 T POWER SHOVELS LOOK LIKE LITTLE MODELS

At Albian Sands Energy Inc., massive off-highway trucks and Bucyrus power shovels with a loading capacity of 100 t look like little scale models. Powerful CAT 797B Caterpillar trucks with a capacity of over

380 t transport the material a relatively short distance to a huge conveyor belt, which is the gateway to the actual treatment process. Large crushing plants crush up to 14 000 t of oil sand chunks every hour. The material then moves on to a surge bin, and subsequently to an "oil washing machine". Here the oil sand is crushed into even smaller pieces. then filtered and liquefied using hot water in order to separate the oil from the sand. Another plant extracts the bitumen from the resulting slurry and pumps it into the refinery via a pipeline. The bitumen is then separated into its constituent parts, such as kerosene, benzene, diesel, heavy oil and naphtha. In these modern plants up to 80% of the water used is recycled. The washed sand is used to recultivate the mines.

Interest in oil sand did not really take off until the 1990s, when the world market price of oil was rising constantly, thus justifying the comparatively expensive process of mining oil sand.

#### FROM CARPET KNIVES TO POWER SHOVELS

On Highway 63 north of Fort McMurray you will find the Cat Rental Store, managed by Bill Brooks. He has been on the rental scene since 1974, first with EBCO, then more recently with Cat. "We provide our customers with everything they need, from carpet knives to power shovels and dumpers. Our range of vibrating plates only extends to Dynapac. I can offer my customers between 80 and 90 LG 500 reversible plates and 25 LH 700 machines. What do I and my customers think of them? They're great! The machines are designed in such a way that they can deliver exactly what conditions on the site demand. There are some manufacturers who equip their plates with all kinds of special features that are prone to break down. We have no need for all that here. For us, quality and power are the decisive factors. For example, Dynapac steel base plates last much longer in these extreme conditions than cast-iron base plates. This is also true of the bearings on the exciter shafts, which are put under a lot of strain. Replacing them costs time and money, but because the bearings on our plates are large, they very rarely have to be replaced. In the time that it would take for bearings on other machines to be replaced around three times, ours would only have to be replaced once. As long as we carry out basic maintenance out on the site, this equipment gives us no trouble at all."

#### STILL WORKING AT -35°C

The region is only snow-free from around May to October. But vibrating plates are still used, even when the temperature sinks to -35°C. Mr. Brooks has around 120 customers, many of them big name construction companies from Canada and the United States. They rent from him for periods from one day up to two years. He says: "Our customers do their job and we do ours. We carry out on-site checks on all our equipment according to a specific schedule. When my colleagues from

the workshop tell me about their experiences with the machines and the maintenance engineers come back from the construction site with their own and customers' feedback and say, 'In the future, only order these machines, don't order those ones any more', it's not a difficult decision for me to make. The result is that we have used Dynapac machines only for quite some time now". There are specific regulations regarding the materials to be used and the compaction power required, not only when carrying

out road and civil engineering works, but also when laying building foundations. According to him: "Dynapac vibrating plates meet these regulations perfectly, making them the number one choice for our customers."

Bill Brooks goes on to say that in winter -20°C is still guite pleasant, but the difference between -20°C and -40°C is huge and puts great demands on both man and machine. Many of his customers have issued regulations stating that work may not continue at temperatures below -35°C. His many years of experience have taught him that diesel engines are the best option for driving construction machinery and equipment: "Diesel engines meet the strict safety regulations in force on construction sites. Diesel is not as flammable as petrol and thus meets customers' needs and expectations much better. There is one basic rule that applies to all the machines used in and around Fort McMurray: safety first. The working environment is home to all sorts of hidden dangers, which is why all machinery has to be as safe as possible."

#### HERTZ PUTS DYNAPAC AT THE TOP OF THEIR LIST, TOO

Larry Klatt, Hertz service manager for Western Canada, looks satisfied as he sits in his office in Edmonton and surveys the huge, practically empty yard: "Hertz is the largest rental provider in Western Canada. At the moment we have over 20 fully equipped rental centers with affiliated workshops in the region. Around three months ago we ordered our first Dynapac vibrating plates. Now we have around 90 reversible plates available to our customers. In the early days we were often asked why we only offered Dynapac and the answer was quite simple: Our customers are very happy with them. They know the brand from their heavy machinery



and now they've been similarly won over by the light equipment."

Mr. Klatt points to the screen on his desk and explains that each rental center records all data relevant to the machines that have been hired out. This data includes work hours, usage, warranty, repair costs and times, how helpful the manufacturer is, etc. "Only in this way are our records meaningful and we have a complete history of every machine. If we have a component that has failed many times and the manufacturer uses the well-worn phrase, 'You're the first one that this has happened to, we've never had this problem before', that to us is no basis for a close, long-term working relationship."

"In this region, Dynapac has grown enormously across all product segments in the last three or four years", confirms Walt Dudnick, Dynapac sales adviser for the region. "Vibrating plates are playing their part in this growth, too. Over 150 machines are in use in Fort McMurray alone. My customers, the rental stores, use machines for three years on average, before replacing them."

Oil sand once used by Native Americans to seal their canoes, has now turned Alberta into one of the most prosperous provinces in Canada.



#### **Does Bochert Excavating Hold the Record?**

BLS customers know that polyurethane TufPads® track pads deliver great value and performance. One customer who knows that to be true is Rick Bochert of Bochert Excavating of Kent, Ohio.

In 1995 Rick purchased a John Deere 490E excavator, and one of the first accessories he purchased through his John Deere dealer was a set of polyurethane BLS TufPads® track pads. But let Rick tell his own story: "My company owns five excavators and two of them are equipped with polyurethane TufPads® track pads. It was our John Deere dealer who recommended that we give the TufPads® a try. Well, he certainly knew what he was talking about because the pads worked out great. The TufPads® track pads helped us to leave the streets in the same condition as we found them. Another big advantage is that, when we go into the mud, the traction with the TufPads® is just as good as with the steel tracks that came with the machines."

"At this time, it is ten years later, and I am happy to report that our John Deere machine has over 6000 hours on the TufPads® track pads, and only now are they ready for replacement. We were thinking about replacing the machine and the TufPads® last year, but we decided to see if we could get an extra year out of them."

"Well, we got that and a little more. When we do replace this machine, the first accessory I

am going to buy for the new machine is more TufPads® track pads. These pads are truly an excellent product."

We think that Rick Bochert holds the record for the most hours on one set of TufPads®, but, to be truthful, we cannot make that statement with absolute certainty. There could well be other TufPads® users out there with more than 6000 hours. Maybe 7000 or



8000 hours! If you can beat Rick's record, we would really like to know about it. Please call BLS at 800-307-0299 with your TufPads® record. If we can substantiate it, we promise to put an article about you and your TufPads® experiences in InfraStructures magazine.

Source: BLS TufPads





#### A New "Rock Solid" Community Partnership

Atlas Copco Construction & Mining Canada announced a long-term partnership investment in the mining and earth sciences attraction Dynamic Earth. The construction and mining equipment company will be investing \$ 50 000 in each of the next three years into Phase II construction of Dynamic Earth, for a total capital investment of \$ 150 000. In addition, Atlas Copco Construction & Mining Canada announced a further long-term partnership investment into Dynamic Earth of \$ 20 000 per year over 13 years starting in 2009, for a total longterm sponsorship investment of \$ 260 000. The announcement was made at a special community reception at Dynamic Earth last December.

"We are delighted about our new long-term partnership with Atlas Copco Construction & Mining Canada," said Science North CEO Jim Marchbank. "Atlas Copco's Canadian Sales and Service office relocated to the Sudbury community only five years ago, and has since grown into a dynamic company with 225 employees. Now they are the lead donor of the Dynamic Earth Phase II Capital Campaign. We hope their leadership in recognizing Dynamic Earth as a valuable long-term

community resource will prompt others in the mining industry to consider similar partnerships."

Dynamic Earth Phase II will include the new Atlas Copco Theater, a multipurpose room, exhibit changes, landscaping and an expanded lobby. The development of Phase II is intended to broaden the visitor experience by increasing the capacity to present diversified content and changing exhibits. Dynamic Earth Phase II is scheduled to open in Spring 2007.

The Atlas Copco Theater will highlight Dynamic Earth's expansion program and will provide a multi-use facility for the Sudbury community. This 160-seat theater will be equipped with the latest in digital cinema technology. High Definition productions with a geological theme will be shown and coupled with ancillary exhibits to complete the visitor experience. The theaterwill also host live presentations, signature productions, seminars and public lectures.

"Our partnership with Dynamic Earth is a perfect fit with our company's core values – Interaction, Commitment and Innovation," said Atlas Copco Construction & Mining Canada president Paul Healy. "This

multi-purpose theater, particularly with its location at such a community focal point,



is an important project that we are keen to support...and with its interactive exhibits, multimedia shows and underground mining tour, Dynamic Earth is the perfect place for Atlas Copco to strengthen its involvement in the Sudbury community. It has had a positive impact on the public's understanding of the mining industry as a vital part of the Canadian economy, and of mining as a viable and exciting career choice."

Source: Atlas Copco Construction & Mining Canada, Science North

Atlas Copco



**Manitou Launches its MT 14 Range** 

Already familiar in thousands of construction sites throughout the world and regarded by many professionals as THE benchmark, the range of Manitou 13 m telescopic handlers is evolving. From the beginning of 2006, the Maniscopic MT 13 range will be replaced by the MT 14 range, offering better lifting performance and an ergonomic design which is adapted to meet the needs of the construction industry.

#### "MORE MUSCLE" FOR IMPROVED LIFTING PERFORMANCE

To meet the demands of users in the building industry, the three MT 14 models will benefit from improvements in their loading curves, and will be able to extend a pallet to 9,50 m in front of their wheels. The MT 14 will be offered in 3000 to 4000 kg capacities.

From now on, the double cross-gate lever already fitted to 10 m models will be fitted as standard on the new MT 14 models. Whether handling using forks or bucket loading, the operator controls all movements using only

one hand, resulting in improved productivity and safety.

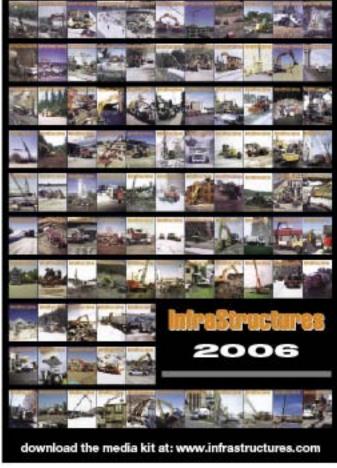
Naturally, the MT 14 retains all the advantages and performance levels that made the MT 13 outstanding in its field.

The location of the engine on the right hand side, the steeply inclined lockable engine cover and the extremely low anchorage point for the telescopic arm all result in an exceptional field of vision.

The cab has been designed to offer a large working volume and complete safety. The thermoformed interior trim contributes to improved

soundproofing of the driving position, thus reducing operator fatigue under conditions of intensive operation. In addition to the 3 standard steering modes (2 wheels, 4 wheels, crab steering) the low rear overhang of the MT 14s makes for ease of manoeuvre on even the most crowded sites. The MT 14s are equipped with wide or narrow stabilizers. These safety devices are controlled from the cab to provide improved performance on irregular ground surfaces. Loads can be placed in complete safety, even in the most cramped spaces. Source: Manitou BF INTERMAT





# Sterling Trucks Offers Ideal Combination for Dump Applications

To sell and distribute tons of dirt at a time to several regional customers, dump trucks need to have maximum power and load-carrying capacity. Sterling L-Line dump trucks with Mercedes-Benz MBE4000 engines and Allison automatic transmissions offers



operators the components they need to optimize vehicle performance with limited downtime.

For Sterling dump truck customers throughout North America, the new trend of combining the fuel economy of a Mercedes-Benz engine with the easy

operation of automatic transmissions has translated into increased productivity.

"Essentially, this grouping of components solves a number of challenges fleet owners constantly face," said Matt Stevenson, manager of product strategy for



Sterling Truck Corporation. "With diesel fuel prices at elevated levels and an ever-increasing driver shortage, fleet owners need quality trucks to keep costs down and their businesses running smoothly."

Sterling Truck Corporation introduced updated versions of the medium-duty MBE900 and the heavy-duty MBE4000 engines in 2003. The latest Mercedes-Benz engines have continued their reputations as strong, lightweight components designed to meet the tough demands of the North American market. The MBE4000 achieves peak torque at low RPM which enables it to pull hills powerfully, require fewer shifts, and provide good fuel economy.

Mercedes-Benz engines run smoothly with top-performing Sterling L-Line dump trucks regardless of the transmission. However, choosing an automatic transmission contributes to increased productivity – often resulting in up to an additional load carried per day.

"Automatic transmissions provide less wear and tear on truck components by selecting the ideal gear for the need at hand," explained Mr. Stevenson. "This gives dump truck operators the ability to maximize the performance of the vehicle and stay on or ahead of schedule."

Another reason for the recent shift in the popularity of automatics is the industry-wide driver shortage. Qualified drivers are harder to find than ever. Automatic transmissions allow fleet owners to reduce driver fatigue, simplify driver training, and improve driver safety.

Sterling L-Line trucks and tractors, with GVWRs up to 105 600 lbs, are hard-working vehicles for dump applications. With four available suspension offerings including AirLiner and TufTrac to cover standard-, heavy-, and severeduty applications, Sterling L-Line has a truck for every fleet owner.

Source: Sterling Truck Corporation

#### **Appointments**

Emphasizing its commitment to Service and Aftermarket support, Atlas Copco is happy to announce the appointment of **Paul Healy** as president of **Atlas Copco Construction and Mining Canada** (ACCMC). Based in Sudbury at the Company's head office, Mr. Healy will be responsible for all Canadian sales and product support, plus



an extensive network of service and parts centres across the country that serve the construction and mining industry.

Paul. Healy, a Mining Engineering graduate from Queen's University, joined the company in 2000 after gaining extensive experience at a variety of underground mining operations across Canada. Most recently he was based in Sudbury as a vice president at ACCMC, a position in which he has been credited with building a network of strong regional teams within the Company's Service and Aftermarket division. This position has now been filled by Andre Bertrand, previously service manager for Central Canada.

Dirk "Dick" Plate, former president of ACCMC, will now be based in Montreal and has been appointed vice president Global Key Accounts, responsible for worldwide business development for the Atlas Copco group.

Source: Atlas Copco Construction and Mining Canada

Manitowoc Crane Group
has appointed Chuck Mogged
to its America's management
team as senior vice president
of operations with immediate
effect. Reporting directly to
John Wheeler, executive vice
president of MCG Americas, he
will be responsible for providing
overall direction and leadership
for the Americas' operations



team through the execution of strategic and tactical efforts across all product lines.

Mogged will work closely with MCG's internal engineering, sales and marketing divisions, and also with Manitowoc Crane CARE, to ensure the company continues to meet customer expectations and requirements.

Mogged's career spans 25 years and includes numerous business unit and general management positions with the John Deere Corporation, both in the US and in Zweibrücken, Germany. He most recently served as vice president of engineering development with Texas-based firm, The Overhead Door Corporation.

Source: The Manitowoc Company, Inc.

## Automated Concrete Placement in a Precasting Plant

With AUTOCOR (Automatic Concrete Placing On Rail) Putzmeister AG has developed a trend-setting system for the automated delivery and placement of concrete in precasting plants. The AUTOCOR installation makes particularly sense in plants that process pumpable and preferably self-compacting concrete for medium and large-sized precast elements. If an expansion is planned for older plants, the AUTOCOR system can be easily retrofitted.

Putzmeister uses tried and tested components and controls for the AUTOCOR system. For example, the rotor pump system that is well known from the PUMI®, flexible placing

ing radius of the placing boom, so that it does not collide with any floor beams or other obstacles in the area.

A typical example of rational, automated concrete placement in precasting plants is the production of tower segments for wind power systems. Due to the varying diameter the tower segments consist either of half-shells or of differently dimensioned one-piece ring elements. These parts are manufactured from pumpable standard concrete and from self-compacting concrete (SCC). To avoid the penetration of air during the processing of the

when filling the differently sized formwork units you must ensure that the concrete level is built up from the bottom, i.e. that the end hose is immersed deeply into the unset filled concrete. This is ensured at all times by the automated concrete placement performed by the AUTOCOR system,

SCC material.

because in connection with the EBC control unit and additional sensors the placing boom is raised automatically.

A monorail overhead bucket transport system provides the AUTOCOR with concrete from the mixing plant. The material is treated once again and homogenized with the previous batch in the AUTOCOR mixer drum. In addition the drum serves as a temporary storage facility and ensures that the AUTOCOR can operate continuously. The concrete is delivered by a rotor pump which Putzmeister offers in two versions for use in precasting plants. An optional flow rate of 60



The squeeze valve on the end hose prevents the concrete from after-dripping when the boom is swivelled. The EBC control on the AUTOCOR also damps any unwanted boom vibrations and prevents the unintentional touching of floor beams and pillars in the production workshop.

or 80 m³/h (max. theoretical) is available. Due to the design hardly any residual concrete arises with this pump system. The workshop remains clean because the concrete is transported within a closed system (overhead bucket transport system – mixer drum – pump – boom delivery line – formwork). When the machine is moved a pneumatically actuated squeeze valve attached to the end hose ensures that there is no concrete after-dripping during relocation.

Operating experience with AUTOCOR is nothing but positive. According to customer information production can be increased by up to 60% compared with the previous method using automated concrete placement for precast elements. Due to the intensive treatment in the AUTOCOR mixer drum a consistently high quality of unset concrete is also obtained. Any later labour-intensive reworking of the precastings, like smoothing and grinding, is reduced to a minimum. A change in the concrete type is also possible without difficulty.

Source: Putzmeister AG





Schematic diagram of the AUTOCOR in a precasting plant. The flexible placing boom makes it possible to fill varying types of formwork.

booms with a horizontal reach of 16 m to 28 m and a mixer drum with a capacity of 7 m³ as temporary storage. The complete unit is mounted on a rail-guided working platform and needs no support devices. There is also a control unit which is integrated into the production process and the EBC system which has proven its worth for many years on PM truck-mounted concrete pumps. Among other things it damps the movement of the concrete placing boom while shifting and rotating even by high output. Beside this, the EBC system can – if required – limit the work-

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#### **Agenda**

National Pavement Expo February 15 - 18, 2006 Charlotte, NC USA

The Work Truck Show 2006 March 1 - 3, 2006 Atlanta, GA USA

World of Asphalt Show & Conference March 13 - 16, 2006 Orlando, FL USA



BTP expo 2006 (International Building & Public Works Show)
March 22 - 25, 2006
Casablanca, Morroco

XII International Winter Road Cong March 27 - 30, 2006 Torino - Sestriere, Italy

Atlantic Heavy Equipment Show April 6 - April 7, 2006 Moncton, NB Canada

**2006 North American Truck Show** April 20 - April 22, 2006 Boston, MA USA

Intermat 2006 April 24 - 29, 2006 Paris, France



11th International Building Fair April 25 - 29, 2006 Berno, Czech Republic

APWA North American Snow Conference April 30 - May 3, 2006 Peoria, IL USA

CONEXPO ASIA May 16 - 19, 2006 Beijing, China

10th International Conference on Asphalt Pavement August 12-17, 2006 Quebec City, QC Canada

7th International Conference on Short and Medium Span Bridges
August 23 - 25 2006

August 23 - 25, 2006 Montreal, QC Canada

SIVIC 2006 International Industrial Vehicle and Body Trade Show

August 29 - September 1, 2006 Saint-Jean-sur-Richelieu, QC Canada

EXPO Grands Travaux 2006 September 22 - 23, 2006 Montreal, QC Canada



INTEROUTE 2006 October 24-26, 2006 Rennes, France

North American Quarry & Recycling Show October 26 - 28, 2006 Atlanta, GA USA

Bauma China 2006 November 14 - 17, 2006 Shanghai, China

National Heavy Equipment Show 2007 March 22 - 23, 2007 Toronto, ON Canada

Bauma 2007 April 23 - 29, 2007 Munich, Germany



## Live Demonstration Event at World of Asphalt 2006

World of Asphalt 2006 will feature a live equipment demonstration event that illustrates technological advancements in roadbuilding techniques, to help industry professionals meet today's ever increasing project specifications demands.

The event is themed "Best Practices with New Technology" and will feature a variety of equipment outdoors in working conditions. Attendees can see firsthand the latest technologies to build better pavements with optimum smoothness and density. Equipment manufacturers, contractors and suppliers have joined together in this cooperative effort as an educational service to the industry.

The World of Asphalt 2006 Show and Conference will be held March 13-16, 2006 at the Orange County Convention Center in Orlando, Florida. The show's demonstration event is scheduled for March 15 at the convention center.

During the World of Asphalt 2006 demonstration, equipment will operate across six

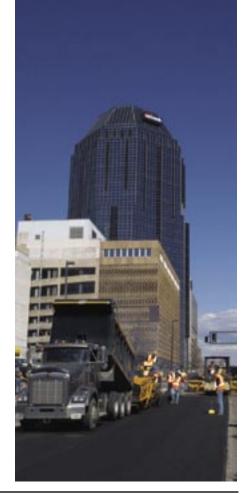
lanes and demonstrate warm mix asphalt operations including milling, brooming, tacking, paving, rolling and testing. Equipment will be accessible post-event for attendees to obtain a closer look.

The demonstration event is being spearheaded by the National Asphalt Pavement Association's (NAPA) Associate Member Council.

World of Asphalt is the only industryfocused event targeting the business and professional-development needs of asphalt, highway and maintenance professionals from companies large to small. In addition to the demonstration event, World of Asphalt features exhibits of the latest industry equipment, products and services as well as extensive educational programming and plenty of opportunities for networking.

Source: World of Asphalt www.worldofasphalt.com





### **New Bomag 815-2 Commercial Paver Offers Mainline Paver Features**

Bomag introduces the new 815-2 commercial-class, self-propelled asphalt paver, which delivers features similar to those found on mainline-class pavers.

Powered by an 85 HP, Cummins turbodiesel engine, the 815-2 supplies ample power to the hydrostatic drive and pumps, allowing the paver to handle the heaviest workloads. An exclusive load-sensing hydraulic system is designed to deliver power only when needed. This helps to reduce fuel consumption, yet allows the use of all features while maintaining paving speeds up to 180 ft/min and travel speeds up to 360 ft/min.

The 815-2 is built with the new Unimat 2 screed assembly, offering standard paving widths ranging between 8 and 15 ft. Screed extensions are hydraulically controlled, allowing the operator to change paving widths "on-the-go" within the entire standard paving range. Additionally, material augers mounted directly to the screed extensions provide consistent material delivery at all paving widths. Augers are reversible and can be automatically or manually controlled.

Featuring a formed leading edge, the 815-2's screed design maximizes material

flow, which makes it possible to pave at depths ranging from 0 to 6 in. For further paving control and consistency, the screed can be crowned or inverted 2 in and is vibratory and propane heated to facilitate material flow. Hydraulic depth controls and urethane track pads also come standard. The 815-2 has an 8 t hopper and

features a dual-slat conveyor system.

For simplified operator control and increased visibility, the 815-2 features a low deck configuration with dual operator's stations. This allows the paver to be operated from either side of the platform, or both simultaneously. The machine also includes ergonomic operator controls.

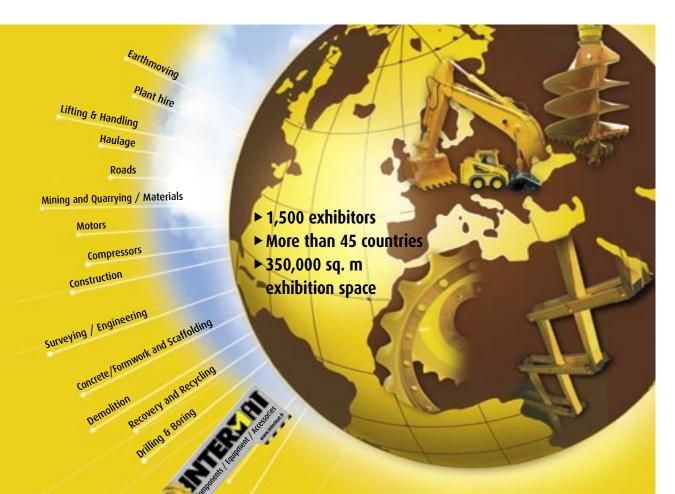
The 815-2 is available with Topcon's

System Four Screed Automation. Using a "non-contacting" sonic sensor system, Screed Automation allows for paving without cumbersome skis or string lines and provides joint matching without actually contacting any surfaces.



Other optional equipment includes a swivel-mounted hydraulic tow-type truck hitch with bumper rollers, ditch plates, fail-safe brakes and a simple Moba automatic joint matcher system. The Moba system controls mat depth automatically by way of a sonic sensor, eliminating the need for manual control

Source: Bomag Canada



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