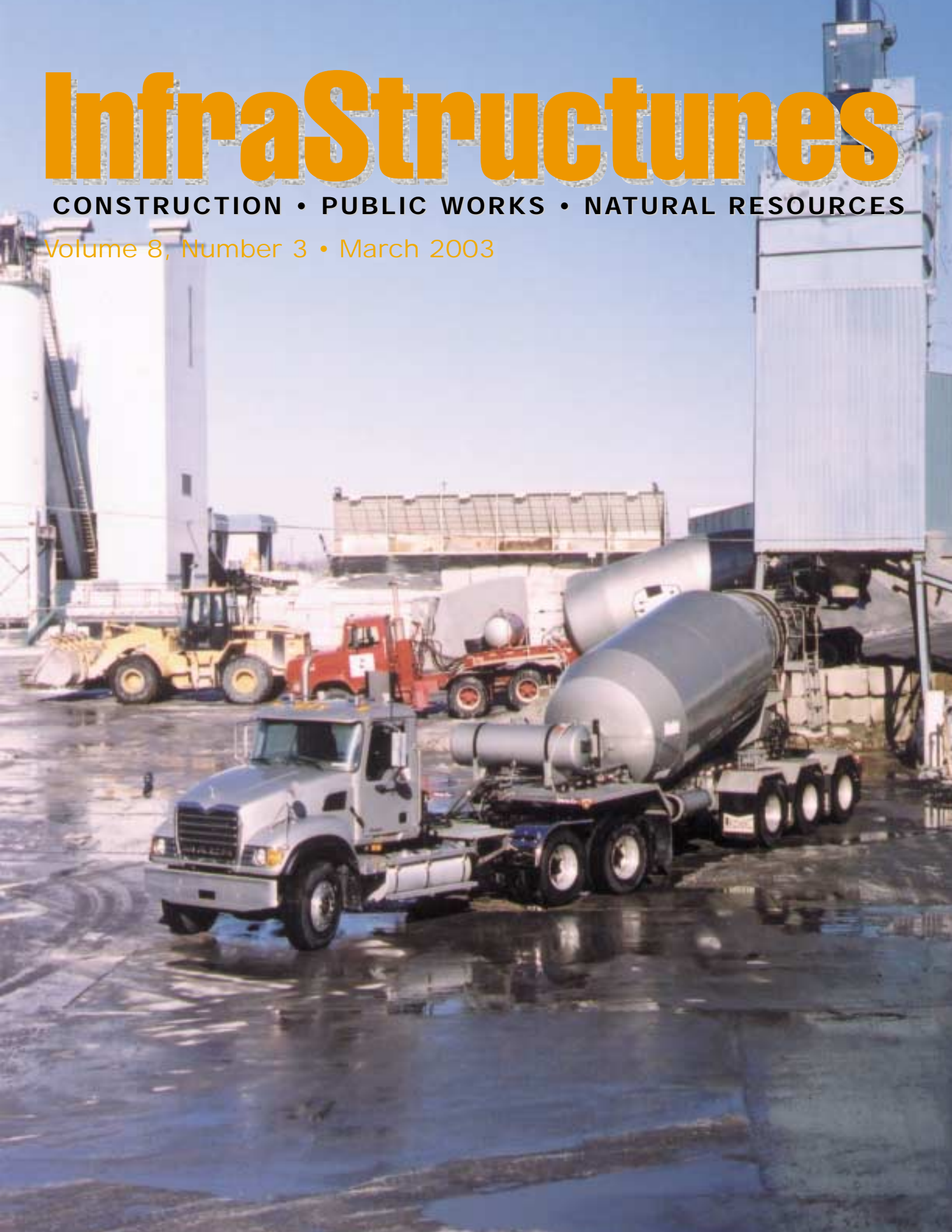


# InfraStructures

CONSTRUCTION • PUBLIC WORKS • NATURAL RESOURCES

Volume 8, Number 3 • March 2003





# LONDON



- Quality -
- Integrity -
- Service -
- Innovation -

*The Professional's Choice*

*1-800-713-0150*



Volume 8 Number 3  
March 2003

**ÉDITOR / PUBLISHER**  
Jean-François Villard

**ADVERTISING**  
**MONTREAL**  
André Charlebois  
Lyne Richer

**QUEBEC City**  
Gilbert Marquis  
**(418) 651-1176**

**TELEPHONE**  
**(514) 233-1295**  
**(514) 598-5752**

**FAX**  
**(514) 528-9932**

**POSTAL ADDRESS**  
PO Box 366 Station Delorimier  
Montreal (Quebec) H2H 2N7

**STREET ADDRESS**  
4330 St-Hubert  
Montreal (Quebec) H2J 2W7

**E-MAIL**  
editor@infrastructures.com

**INTERNET**  
www.infrastructures.com

This electronic version of InfraStructures is made available for the sole purpose of giving our English speaking readers a taste of the original printed version of the magazine.

We will try to publish as much of the editorial content of the printed version as it is possible given the technical limitations.

## Welcome to InfraStructures

*Until recently, InfraStructures has been read mainly by French speaking users of heavy machinery.*

*Over the last seven years, InfraStructures has become a leader in its field. First by becoming the only magazine covering all aspects of the industry published in French in Canada. Then by being the first to publish all its editorial content on the web, and also by being the only construction magazine, published in French, having a significant readership outside the Province of Quebec.*

*For many years, we have received requests for an English version of InfraStructures. Technical limitations, and the lack of advertising revenue have prevented us from publishing such a magazine in print. Now, with the extent of the use of Internet by professionals, we feel that the time has come for a portable digital file (.pdf) version of InfraStructures in English.*

*While the content of the English version differs slightly from the original, most of the important news will be published in English. In the near future, more and more of the content of the original will be translated into English.*

*With over 500 visitors per day on average, spending over 13 minutes per visit, the website of InfraStructures is one of the most important sites of this kind. More than two thirds of the visitors come from outside Canada. With the English version of the magazine available on the web, visitors from outside will find it easier to enjoy the magazine.*

*Hoping to hear your comments,*



 <b>(514) 387-6466</b> <b>1-800-461-1979</b> Accessoire Outillage Limitée www.aolamtl.com	<b>SALES &amp; RENTALS</b> Air Compressors from 100 to 1800 CFM Integrated Drills 	 
--	--	--

Cover page : Pro-Mix Transport Inc., a newcomer in the concrete industry, will offer its fleet of eight brand new Mack Granite trucks to other concrete producers.

Pro-Mix Transport Inc. is based on the south shore of Montreal, Quebec.

## In the News...

### Something New for Concrete Producers

Pro-Mix Transport Inc. "the solution for fleet management", a company created recently and directed by Dany Laflamme, chose Mack Trucks for the acquisition of eight concrete mixer trucks intended for hiring. This new fleet, made up of four semi-trailers and four twelve-wheelers, will be the ideal tool for concrete producers allowing

them to answer the demand in peak periods.

Source: Pro-Mix Transport Inc.

Dany Laflamme, (514) 977-3277

### Five Steel Industry Leaders Recognized at Steel Plus Network Convention in Florida

Steel Plus Network honored five of its mem-

bers with 2002 achievement awards at its eighth Annual Convention held January 23 to 25, 2003 in Tampa, Florida.

"The achievements of these members reflect the growth and the strength of the Network as one of the most solid and dynamic groups in the North American steel industry," said Pierre Arcand, president of Steel Plus Network. "This organization is a major asset to steel fabricators."

This year's recognition for Fabricator Member of the Year was awarded to Nico Métal of Trois-Rivières, QC. Trump Iron Works, of Crown Point, IN, was honored as Steel Plus Technology User of the Year. The Rookie of the Year award, given to one of the group's new members, was presented to Russellville Steel of Russellville, Arkansas. Project of the Year, awarded to one of four unique projects, was presented to Steel Fabricators, Inc. of Fort Lauderdale, FL, for the Palm Beach County Convention Center, FL.

The most prestigious of the group's awards, the Bob Coffey Award, was given to David Oulton, Marid Industries, Halifax, NS, one of Steel Plus Network's charter members. The award is given in honor of Bob Coffey, a well-known Canam Steel Corporation vice president who died in 1998. Oulton, the company president, was recognized for embodying the spirit of Steel Plus Network by subcontracting with fellow members, showing customer loyalty to Canam, and sharing his expertise in the steel industry by chairing many trade committees and projects.

Steel Plus Network offers its structural steel fabrication members, innovative services to increase their competitiveness and sales volume. Steel Plus network has 141 fabricator members and 60 supplier members in Canada and the United States.

Steel Plus Network is a division of The Canam Manac Group, Inc., an industrial company specializing in the fabrication of steel components, semitrailers, and forestry equipment. The Group operates 20 plants, in Canada, the United States and Mexico, and employs more than 4,500 people. Sales for 2001 reached US\$715 million.

Source: Steel Plus Network

### CNH Launches Used Equipment Locator for Case IH and New Holland Brands Worldwide

CNH Global N.V. announced recently the global implementation of its Used Equipment Locator system, as an integral part of its multi-brand, multi-distribution agricultural strategy. Initially available in North America, the full implementation of the program for the Case IH, New Holland and Steyr dealers is expected to be completed by the end of 2003 with complete functionality in

## A New Bobcat on the Prowl



# Bobcat.

# MATTHEWS

*Equipment Ltd*

New Bobcat «Backhoe»

5 models available  
from **\$29,000**

Financing available  
from **0%**

Act now, reserve your 2003 model...

(514) **354-8891**  
(888)

9300 Edison St Montreal QC H1J 1T1



Wheel Loaders, Track Loaders, Hydraulic Excavators, Telescopic Lift Trucks  
Attachments for all makes and models



nine languages.

"The Used Equipment Locator system is the most comprehensive and sophisticated currently available in the industry," said Will Bushell, Global Re-Marketing Manager. "Professional management and inventory control of used equipment has never been so vital to dealers as it is today. Our quality used equipment is being sought after by more and more customers. This system will help our dealers and us match the supply with that demand, while helping to improve all aspects of inventory management and capital tied to used equipment."

Following a successful pilot program, involving approximately 400 New Holland dealers, CNH has partnered with Tom Rowe & Associates for the implementation of the Used Equipment Locator. This substantially enhanced, brand-specific business system allows dealers to display all their used machinery whether available for sale now, or arriving at a future date, irrespective of model, type or manufacturer.

The Used Equipment Locator allows dealers to display full specifications and multiple photographs of any machine placed into the system, giving potential customers unrivalled remote-inspection capabilities. The detailed search engine offers a selection of more than 40 parameters such as brand, equipment type, specification, age, horsepower, geography and price. In addition the system can be used for inventory and sales team management. It provides multiple reporting tools, historical data archiving, customer profiling and will be linked to other business systems to maximize and simplify its use.

The Used Equipment Locator site can be accessed via the [www.newholland.com](http://www.newholland.com) or [www.caseih.com](http://www.caseih.com) homepages, following the link for used equipment or by using the Dealer Locator to find the used equipment or dealer nearest to you.

Source: CNH Global N.V.

### Government of Quebec Selects Motorola Digital Radio System

The Government of Quebec has signed a US\$35 million contract with Motorola for a new, state-of-the-art VHF ASTRO(R)25 Multicast communications system. The first of its kind in Canada, the system is part of Motorola's extensive portfolio of integrated communications and information solutions to address mission-critical public safety and security requirements worldwide.

The area-wide system is slated for installation at the end of 2003, with final system acceptance projected for year-end 2005. It will provide services to an estimated 10,000 mobile and portable

two-way radios and use Motorola Centracom Elite™ dispatch consoles housed in numerous dispatch locations.

Quebec's new system will provide coverage over 125,000 square miles and serve a population of more than seven million people. All Quebec government departments and public safety agencies, including Surete du Quebec (Provincial Police), will have access to the system.

"Interoperability is the overriding benefit of the new system," said Rick Good, Motorola

Communications and Electronics, Inc. vice president. "Once the system is implemented and online, all government and public safety agencies in Quebec will have the ability to communicate with each other and coordinate their responses to routine and emergency calls more efficiently than ever before."

The new system will also be capable of interfacing with Hydro-Quebec's Motorola SmartZone system that was deployed in the mid-1990's, thus, if ever required extending the system's com-

# YANMAR

### Hydraulic Quick Coupler

- ¥ Attachment Changes Made Easily From The Cab
- ¥ Fits Most Manufacturers Attachments



### True Zero Tail Swing with ViO Series





### VICTAS ViO Crawler Technology Advanced Stability

The offset track system offers more stability without increasing track width

## We Beat The Competition With

- ¥ True Zero Tail Swing
- ¥ Hydraulic Quick Coupler
- ¥ Patented Off-Set Track Design
- ¥ Super Comfort Cab

### Super Mini B08-3



Variable Undercarriage



ViO15 ViO20 ViO27 ViO35 ViO40 ViO50 ViO75



## YANMAR

### CONSTRUCTION EQUIPMENT DEPT.

951 Corporate Grove Drive  
Buffalo Grove IL 60089-4508, U.S.A.  
TEL: 847/541-1900 FAX: 847/541-2161  
WEBSITE: [www.yanmar.com](http://www.yanmar.com)

## YANMAR-YOUR BEST PARTNER FOR THE FUTURE

munications reach.

"The Government of Quebec and its public safety agencies will dramatically improve their communications capability with Quebec's new ASTRO system," said Good. "We look forward to working with them to design and implement a communications solution that will deliver immeasurable value to its users, as well as to the citizens it serves, well into the future."

Source: Motorola, Inc.

### SNC-Lavalin Acquires Texas-Based GDS Engineers

SNC-Lavalin is pleased to announce that it has acquired GDS Engineers, a Texas-based engineering firm of 500 employees which generates approximately US\$50 million in annual revenues.

GDS Engineers provides services to the refining, chemical and petrochemical industries, including detailed engineering, procurement and construction management.

"Together with our existing operations in

Houston, this acquisition gives us a vital and significant presence at the heart of the U.S. oil and gas industry," said Krish Krishnamoorthy, Executive Vice-President responsible for SNC-Lavalin's Chemicals and Petroleum sector. "The acquisition is in line with our strategy to recognize the importance of Houston as a key client base, and as a focal point for our global oil and gas operations."

GDS Engineers was founded in Houston, Texas in the early 1950s. Its employees now form an important addition to the existing expertise at SNC-Lavalin's Chemicals and Petroleum sector. GDS Engineers, which currently operates out of offices in Houston, Texas City and Baytown, Texas, has various existing services contracts with major oil and gas companies.

"We believe our combined forces will significantly expand and enhance our range of services for our clients, while maintaining our reputation for excellent service, cost control and innovation," said former GDS Engineers Chairman of the Board, James Waltz.

SNC-Lavalin is one of the leading groups of engineering and construction companies in the world, and a key player in facilities and operations management. The SNC-Lavalin companies employ approximately 15,000 people in offices across Canada and in the U.S., and in 30 other countries around the world and are currently working in some 100 countries.

Source: SNC-Lavalin

### Autocar Announces Broad Offering of Vocational Engines

Autocar announced a landmark expansion of engine offerings in 2004 Xpeditor WX, WXR and WXLL low-cab-over engine (LCOE) truck models. According to Autocar vice president of sales and marketing Mike Popovich, the introduction of these new options in the Xpeditor line is the first stage of an engine program that will result in the broadest range of LCOE engine offerings in the industry.

"In fact, we are the only manufacturer of LCOE trucks to offer a full range of 7-, 8-, 9-, 10- and 11-liter engines to its customers," Popovich adds. "And, just like the Xpeditor, all these engines are known for their ability to provide reliable service in the toughest conditions."

According to Popovich, this radical expansion of Autocar engine options for vocational markets may lead many prospects to take a more serious look at the advantages of using LCOE trucks in their operations.

Specially engineered "V-rated" engines from Cummins will include the ISM-EGR 285V in ratings of 285 hp with 1050 lb. ft. of torque and the



Mario Roussel Phone : (613) 737-3963  
Toll Free : 1-877-737-3963  
Cell : (613) 794-4476  
Fax : (613) 737-3908  
3389 Hawthorne St. Ottawa ON K1G 4G2

## EASTROCK INC.

### Rental Return Who Will Be First ?

1998 Furukawa HCR9-ES  
5900 hours, perfect condition  
with winch  
FINANCING AVAILABLE  
RENTAL WITH BUY BACK POSSIBLE



forces hydrauliques  
**FURUKAWA**



**11 Models Available**  
Strike force from 200 lb ft. to 11 000 lb ft.  
FOR EXCAVATORS FROM 1500 LBS TO 160 000 LBS

ALL MODELS AVAILABLE FOR DELIVERY... ASK US FOR A DEMONSTRATION!

MONTREAL: (514) 648-6667	OTTAWA: (613) 737-3963	TOLL FREE: 1-877-737-3963
-----------------------------	---------------------------	------------------------------





ISM-EGR 320V in ratings of 320 hp with 1150 lb. ft of torque. Both engines will be available in the Xpeditor WXL model in May, the WX in June and WXR in July. Cummins ISM V-rated engines are specifically engineered for severe-duty vocational vehicles. The Cummins EGR engines are fully compliant with October 2003 emissions standards, making Autocar the first LCOE truck manufacturer to offer them.

Autocar will also offer the Caterpillar C-10 diesel fuel bridge engine and the C-10 dual-fuel version. The C-10, an engine with a very successful track record in tough applications, is rated at 305 hp with 1050 lb. ft of torque. It will be available in WX models beginning in June and in the WXR in July.

All 2004 Xpeditor models with these engine offerings will be built beginning in mid-March at Autocar's new manufacturing facility in Hagerstown, Indiana.

For more information on Autocar products, or to find the dealer near you, log on to [www.autocartruck.com](http://www.autocartruck.com).

Source: Autocar

#### **Canam Manac's Structural Division Awarded \$11.5 Million Contract in Alberta**

Structal, the heavy structural steel division of The Canam Manac Group, announced that it had been awarded a \$11,500,000 contract for the fabrication and installation of beams for the construction of two bridges that will span 1,200 feet over the North Saskatchewan River in Edmonton, Alberta. This is the largest bridge contract obtained by this division. Structal's plant in Quebec City will fabricate the project.

The contract awarded by Peter Kiewit & Sons Co. Ltd for the Alberta Ministry of Transportation includes the fabrication and installation of 5,400 tons of structural steel. The 104 beams will be 13 feet high and will vary between 70 and 140 feet in length with a weight of between 45 to 65 tons each. Steel fabrication will begin in June 2003 and the installation will be completed in April 2004. These enormous steel beams will be delivered by railway and will require 140 railcars to transport the pieces to Alberta.

Over the last several years, the Structal plant in Quebec City has produced a number of heavy structural steel projects of this type including the new access ramps at Lester B. Pearson Airport in Toronto and several sections of the Boston Artery Tunnel.

Source: The Canam Manac Group

#### **ASV Introduces New RC-100 Rubber Tracked All Surface Loader**

"The all surface loader and the entire compact

loader market continues to evolve with the RC-100, a machine that has no peer," said Brad Lemke, ASV's director of new product development.

The RC-100, which has a lift height of 125 inches, also features the most advanced hydraulic system available in its class and a high efficiency load-sensing system. Two-speed drive motors propel the machine at travel speeds of up to 10 mph. The hydraulic system provides up to 38 gallons per minute (gpm) to the standard high flow

auxiliary circuit on demand or 20 gpm to the low flow circuit. The new Caterpillar® 3054C turbo-charged diesel engine delivers 100 horsepower and gives the RC-100 304 foot pounds of engine torque, more than any other rubber-tracked loader.

For operator convenience, the RC-100 comes equipped with a hydraulically-activated quick-attach for easy connection to attachments. A tilt-up ROPS operator cab allows easy service access to the hydraulic system. The new cab also



**MANUFACTURER  
SNOW REMOVAL  
EQUIPMENT  
& ATTACHMENTS FOR  
HEAVY MACHINERY**

**INTERNET:**  
[www.edfltd.com](http://www.edfltd.com)

**E-MAIL :**  
[info@edfltd.com](mailto:info@edfltd.com)

**BUCKET  
FOR LOADERS  
& EXCAVATORS**

**QUICK-ATTACH  
FOR LOADERS  
& EXCAVATORS**

**MATERIAL HANDLING  
FORKS  
FOR LOADER**

**EDF** 1-888-649-3331  
(514) 866-6859  
(514) 649-9461  
Fax: (514) 649-1874

1735 Lavoisier St. Sainte-Julie Qc J3E 1Y6

CALL US !  
Toll Free **1-888-649-EDF 1**

includes an integrated air conditioning-heater option.

"This machine beats the competition everywhere, whether they have wheels or tracks," said Lemke. "From pavement to dirt to mud, the RC-100 increases productivity."

The R-Series All Surface Loaders are sold through independent equipment dealers in the U.S., Canada, Australia and New Zealand.

To learn more about ASV and its unique rubber-tracked products such as the RC-100, or to find the nearest dealer, visit the Company's web site at [www.asvi.com](http://www.asvi.com).

ASV designs, manufactures and sells all-season, track-drive vehicles and related accessories and attachments. With its patented Maximum Traction and Support System(TM)

undercarriage, ASV leads all rubber-tracked, all-purpose crawlers in technology and innovation. ASV's products traverse nearly any terrain with minimal damage to the ground, making them effective in industries such as construction, landscaping and agriculture.

Source: ASV, Inc.

### **Ready for Amsteg. The assembly of the first Gripper Tunnel Boring Machine for the Gotthard Base Tunnel North is completed.**

The joint venture AGN, consisting of Murer AG (Erstfeld, Switzerland) and Strabag AG (Spittal/Drau, Austria), ordered two Hard Rock Tunnel Boring Machines for the Gotthard Base Tunnel North (tunnel section "Amsteg-Sedrun")

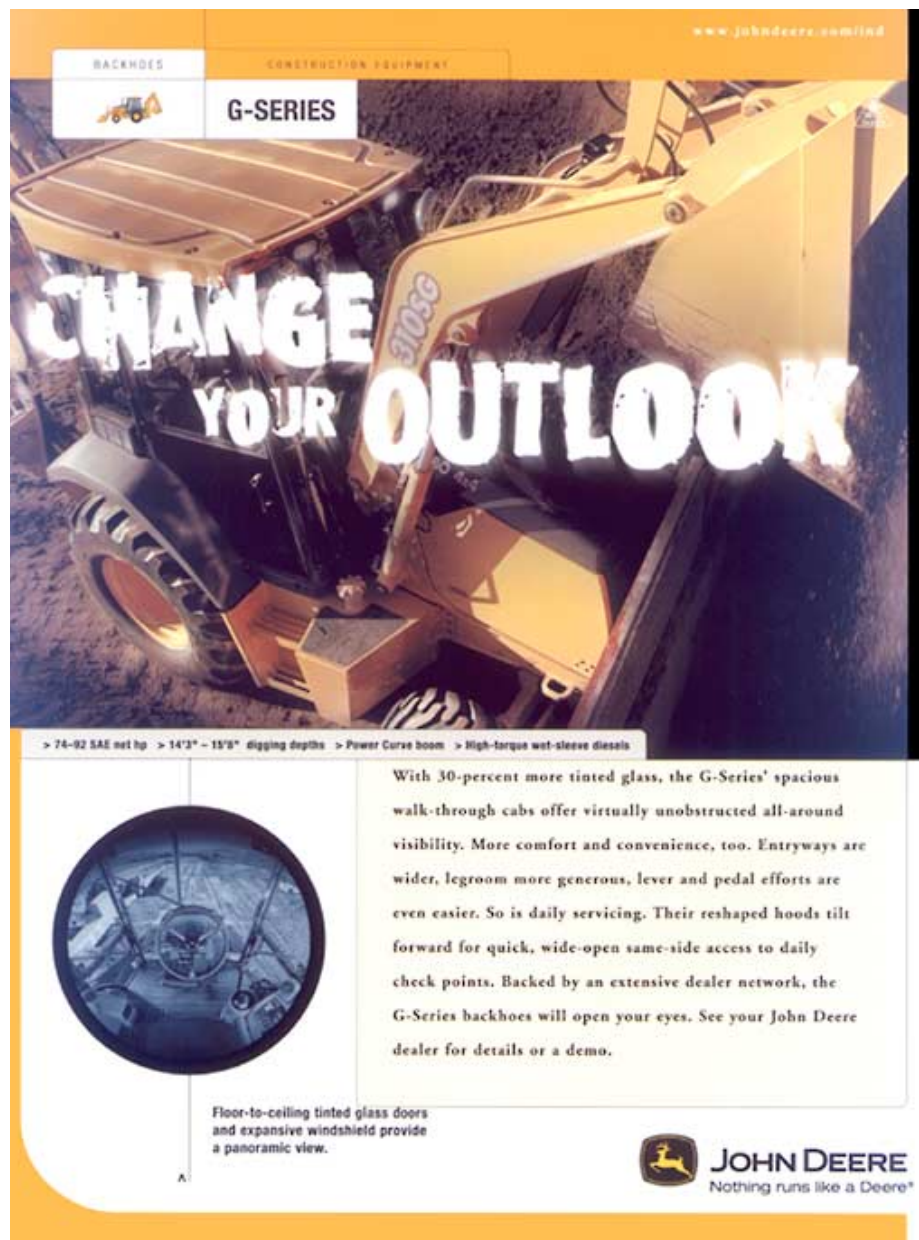
from Herrenknecht (Schwanau, Germany) in February 2002. The Single Gripper Tunnel Boring Machines (ø 9.56m, weight w/o backup system 1,200t each) will excavate and secure the Eastern tube (11,350m) and Western tube (11,350m) at the Gotthard Base Tunnel from Amsteg until the next heading Sedrun.

The workshop assembly of the Gripper TBM (Herrenknecht S-229) for the Eastern tube was completed as scheduled. Representatives of the JV AGN are accepting the machine in the presence of the contractor AlpTransit Gotthard AG (ATG) in Schwanau today. Afterwards, the tunnelling giant will be disassembled immediately. It will be pre-assembled from the middle of March 2003 at the tunnel portal on the jobsite AGN and then completed in the assembly cavern in the mountain. At the end of May 2003, the Tunnel Boring Machine will start the excavation of the Eastern tube from Amsteg to Sedrun. The second Gripper TBM (Herrenknecht S-230) for the Western tube will start three months later.

Herrenknecht AG has its own subsidiary (Herrenknecht Schweiz AG) in Amsteg, located in close proximity of the jobsite of the JV AGN. The company with its own workshop has currently a staff of 35 employees. Due to the NEAT projects in Switzerland, the current excavations at Loetschberg as well as the Gotthard, the staff number is planned to increase. Based on the cooperation with the RUAG in Altdorf (Switzerland), which is operating as a subsupplier of cutters (TBM excavating tools), utilization and employment efficiency can be achieved and increased in Switzerland.

Four Herrenknecht Gripper TBM will be in operation at the Gotthard Base Tunnel, the longest railroad tunnel worldwide with a total length of 2 x 57km. They will excavate a total of 75 kilometers of tunnel through the mountain.

Source: Herrenknecht AG



BACKHOES CONSTRUCTION EQUIPMENT [www.johndeere.com/ind](http://www.johndeere.com/ind)

**G-SERIES**

**CHANGE YOUR OUTLOOK**

74-92 SAE net hp > 14'3" - 15'8" digging depths > Power Curve boom > High-torque wet-sleeve diesels

With 30-percent more tinted glass, the G-Series' spacious walk-through cabs offer virtually unobstructed all-around visibility. More comfort and convenience, too. Entryways are wider, legroom more generous, lever and pedal efforts are even easier. So is daily servicing. Their reshaped hoods tilt forward for quick, wide-open same-side access to daily check points. Backed by an extensive dealer network, the G-Series backhoes will open your eyes. See your John Deere dealer for details or a demo.

Floor-to-ceiling tinted glass doors and expansive windshield provide a panoramic view.

**JOHN DEERE**  
Nothing runs like a Deere®



# Intermat 2003

*a preview of the major new products to be displayed in Paris  
from May 13 to 17, 2003*

**INTERMAT 2003**  
L'EXPOSITION INTERNATIONALE DE LA MAINTIEN ET DE LA REPARATION DES EQUIPEMENTS DE LA CONSTRUCTION  
L'EXPOSITION INTERNATIONALE DE LA MAINTIEN ET DE LA REPARATION DES EQUIPEMENTS DE LA CONSTRUCTION



Since its formation eighteen months ago, **Sandvik Rock Processing** has been actively engaged in developing and extending its range of crushing and screening products. Sandvik Rock Processing demonstrates its focus and leadership in crushing and screening through its display, by providing complete coverage including the three styles of crushers – Jaw, Cone and Impact, Inclined Screening, Screening Media, together with several exciting developments on automation.

Advice and information will be readily available in several languages covering the equipment on show, together with products that could not be displayed, including the new Merlin-VSI crusher.



The year 2002 has been a year of success for the Titon series. Not only has **Sandvik BPI** achieved gigantic drilling capacities with these machines; the sales successes have been equally spectacular. After the product launch last year,

many companies have been convinced of the advantages of the new drilling rigs series. The machines have been sold in many countries in Europe and even in the US, and are proving their worth in daily use.

Since the launch of the Titon 500 in June 2001, at the fair in Hillhead, it has been full steam ahead for the latest development from Sandvik BPI.



In Intermat 2003 **Sandvik Tamrock** is presenting Axera T11 DATA, a computer controlled three boom electrohydraulic jumbo. It is designed especially for tunnelling and cavern excavation in 20-160 m<sup>2</sup> sections.

Some examples of the projects where Axera tunnelling jumbos have been showing their performance in extremely demanding conditions are the railway projects between Oslo and Asker in Norway and a Gotthard Alptransit in Switzerland. The ultimate flexibility of the Axera jumbos was proven in the Toulustouc project in Québec where Sandvik Tamrock built a machine to meet the special requirements no other supplier were able to.



**Rammer**, part of Sandvik Mining and Construction, will use its appearance at Intermat exhibition to celebrate 25 years of expertise and innovation in the hydraulic hammer business and to unveil a revolutionary new remote monitoring system that is designed to help minimize

unscheduled downtime and maximize hammer productivity.

The Remote Monitoring Analyzer (RAMONA) utilises advanced electronics contained within the hammer housing to deliver real-time condition and performance data to the operator. By identifying abnormalities in operating conditions, RAMONA allows the operator to pre-empt potential catastrophic failures before they occur.

**Sandvik Rock Drilling Tools** will release two major products at the show. A totally upgraded CAPP bit range called "CAPP Black Label" which is improved with more aggressive designs, new insert shapes and Dual Propriety cemented carbide as standard for parts of the product range. The new more aggressive bits drill faster and longer with improved productivity compared to their predecessors. Sandvik Alpha 330 which is a drilling tool system (rods and bits) specially developed for drifter drilling of 45 mm holes in the powerful hydraulic hammers of today. To be able to make a significant leap in performance, Sandvik has brought the development of the new product line in a totally new direction, away from the existing standards. Performance tests show a service life increase of 30 to 80% for the new Sandvik Alpha system..



The **Liebherr Group** will have more than 25 products on display from every area of its extensive construction-machinery programme at the 2003 Intermat. The open-air exhibition stand will cover an area more than 4000 m<sup>2</sup>. Many innovations will be shown, together with a broad selection of the full product range.

A special highlight will be the world premiere of the new "4" series of Liebherr crawler tractors, but Liebherr will also have many new items on display from its tower cranes, crawler and mobile crane, hydraulic excavator and mixing technology prod-

uct areas.

The 154EC-HM 6 FU.ronic is a new top-slewing tower crane. Liebherr will also have the 27 TT fast erecting crane with double telescopic action and the 280 EC-B 12 Litronic and 420 EC-H 16 Litronic top-slewing cranes on display.

At Intermat, where the PR 734 Litronic is being launched, Liebherr's crawler tractors enter a new era. This model is the first in the fourth-generation model line, with a service weight of 22 tonnes and an engine rated at 147 kW (200 hp). A decisive step forward compared to the previous model is the significant drop in fuel consumption. Another important feature is the redesigned cabin, which is more spacious than before and has joystick levers for travel and power hydraulics that have been ergonomically optimized for easier operation.



**Volvo Construction Equipment** will occupy nearly 3,600 m<sup>2</sup> of indoors and 3,000 m<sup>2</sup> of outdoors exhibit space at Intermat 2003.

All product groups in Volvo Construction Equipment's comprehensive range of equipment will be represented – wheel loaders, articulated haulers, motor graders, excavators and compact construction equipment.

Volvo Construction Equipment will showcase the latest members of its E-series Wheel Loaders – the Volvo L60E, Volvo L70E, Volvo L90E and the Volvo L110E, as well as new B-series wheeled excavators – the Volvo EW160B and the Volvo EW180B – and a new crawler excavator – the Volvo EC160B.



**Pinguly-Haulotte**, is the 3<sup>rd</sup> largest manufacturer in the world and the European leader in aerial work platforms.

Placing the customer and innovation at the centre of Pinguly-Haulotte's concerns enabled the third largest manufacturer of aerial work plat-

forms in the world to expand its platforms range, listing today no less than 40 models and to diversify its commercial range thanks to its telehandlers and self-propelled cranes range called Easy Crane.

The recent foundation of the joint-venture Faresin-Haulotte enables the company to integrate the market of telescopic handlers with a new range of 6 models.

These telehandlers and the Easy Crane range will of course be shown at the next Intermat. Also on display: the New HA28PX and HA32PX articulated booms designed to respond to the needs of working at heights of 28 and 32 meters; the New Compact 10N electric scissor lift designed to respond to the needs of working at a height of 10 meters; the New Toolbox 6 vertical mast designed to respond to the needs of working at a height of 6 meters and ideally suited for maintenance works in the most congested areas.



**SSAB Swedish Steel**, the most important producer of specialist steel in Scandinavia will put the emphasis on its Hardox and Weldox ranges of products. These high strength and highly weldable alloys are used in the manufacturing of many types of equipment from dumpers to cranes.



**Ascorel** will display at Intermat many updates to its range of electronic products for crane safety and weighing systems.

For the second time **Frutiger Baumaschinen** will be exhibiting at Intermat. The Swiss company focuses on niche products such as its scrape-dozers and its Moby Dick wheel washing units.

This year, the company will introduce the SR 3000 Tiger scrape-dozers which features the revolutionary Hydro Steering System (HSS). The excavation bucket of this machine can take a full 15 m<sup>3</sup> of material. It is powered by a Mercedes OM

501 LA engine and has a ZF WG 260 Ergopower transmission.



**Mecalac**, recognized for its multifunction machines will introduce a new concept of wheeled and crawler excavators which incorporate the Mecalac boom into a more conventional carrier. The first model, named 714 fits in the 13 tonnes range will make its world debut at Intermat.



**Ahlmann** will launch a new concept of wheel loader at Intermat. By adding a telescopic boom to its existing swivelling boom model, the new AS90 tele can cover a much wider working range as well as picking up or unloading material at much higher heights.



With its new range of articulated tandem rollers, **BOMAG** justifies once again its position as the world leader in the compaction industry. The BW 161 AD-4 and BW 202 AD-4 of 10 and 11 tonnes, set new standards for performance, design, safety and service friendliness.

The Series 4 is of course available with "Asphalt Manager". This automatically controlled compaction system always provides the maximum compaction power per pass; and the driver can see all the important information he needs: for example, the current effective amplitude, the temperature of the asphalt surface and the "Evib" value for the increase in compaction. The user can



From Tuesday through Saturday, May 13-17, 2003  
at the Paris-Nord - Villepinte Exhibition Center, Paris, France

# INTERMAT 2003

INTERNATIONAL EXHIBITION OF EQUIPMENT AND TECHNIQUES FOR THE CIVIL ENGINEERING AND CONSTRUCTION INDUSTRIES

## The world's rendez-vous for construction industry professionals in 2003

320,000 square meters of exhibition space • 1,500 exhibitors • 210,000 attendees

**NEW**

**Animation :**  
*small and medium worksite  
automation : MECABAT*

**Themed areas :**  
*Rental, Concrete...*

**Villages :**  
*Roads and  
Environment*

Get your free visitor  
entrance badge on-line at  
**[www.intermat.fr](http://www.intermat.fr)**

# BUILD YOUR WORLD

**Demonstration  
Zone**

**The Innovation Awards**

**Night Session :**  
*Thursday May 15th from 6pm to 10pm*



INTERMAT North American Representation  
Inter Management, Inc. - 385 East Boulevard, Suite 200 - Charlotte, NC 28201 - USA - Tel : (704) 363-8841 - Fax : (704) 363-8426 - Email : [www.intermatna.com](mailto:www.intermatna.com)

determine the exact number of passes to meet the density and quality requirement during laying.



**Metso Minerals** will unveil its new Nordberg ST351 mobile screening plant equipped with the revolutionary SmartScreen™ technology. The IC300 automate supervises the starting up phase and makes all the adjustments automatically in order to achieve the optimum screening. The SmartScreen™ system also supervises the key-functions of the machine during operation as well as the shutting down phase insuring a longer component life and a better reliability.



**Perkins Engines Company Limited** will be exhibiting a full range of products and services tailored specifically to meet the needs of the construction industry at Intermat.

The power range begins with the 400 Series. On display will be the 403C-11 Electropak and the 404C-22T.

Moving up the spectrum is the 800 Series and Completing the range of power are engines from Perkins 1100 Series, a family of nine engines models dedicated to off-highway applications, offering a power choice from 39-130 kW (53 to 175 hp). On display at Intermat are the 1104C-E44TA and the 1106C-E60TA.



She may be a big girl with an oversized rear but **Bell Equipment's** 50-ton Articulated Dump

Truck (ADT) is geared to become a popular addition to the mining and construction industries worldwide.

Sporting the same eye-catching curves that have transformed the rest of the D-series range, the B50D unit turned heads at its launch at Electra Mining, the southern hemisphere's premier mining exhibition held in Johannesburg in October, where Bell Equipment was recognised as the world's only manufacturer of a 6x6 50-ton ADT. The B50D will be officially launched into Europe at Intermat.

The B50D is driven by the modern V8 Mercedes Benz OM502LA engine, a 16 litre motor with two turbochargers. Gross torque is 2 200Nm at 1 200 rpm while maximum power is 350kW at 1800 rpm. A six-speed planetary autoshift transmission in combination with a single speed transfer box distributes the torque to the front and rear axles. Two-speed differentials are used to enhance gradeability, as well as high speed capability. The two-speed differentials are automatically controlled with no driver intervention or vehicle stoppage.

The 50 tonne payload will be carried in a 28,2 m<sup>3</sup> bin that has been designed with the mining industry in mind. The bin will be produced with 450 Brinell and 500 Brinell hardness liners as standard. The B50D features a heavy duty rear chassis to carry the larger bin and load.



Intermat gives **Michelin** the opportunity to confirm its role as a key player in the earthmover and civil engineering world.

Michelin offers not only a large range of tires for each machine and its specific uses but also a package of on-site services to guarantee an optimum level of performance and productivity.

Amongst the latest products developed for the earthmover machines, the Michelin X-Quarry and Michelin X-Haul for rigid haulers, and the Michelin XTS for scrapers must be mentioned. The company will also feature its Michelin Stabil'X XZSL, the first and only range of radial tires for skid steers.

Michelin complements its offer in the building and civil engineering sectors with two new sizes in the Michelin XZSL range, 405/70 R20 and 335/80 R20 specifically produced for compact loaders and telescopic handlers.



In the trucking sector, Michelin will display the Michelin XZY 3, a tire for all wheel positions whether on semi-trailers or on steer axle for tractors or rigid trucks. Available since November 2002, this tire looks likely to become the reference for public works contractors as well as logging, refuse, recycling, and agricultural companies.

**Atlas Copco** will welcome visitors on two areas that will offer a comprehensive panorama of solutions best suited to specific needs.

An indoor stand will be devoted to Rock Drilling, Construction and Rock Exploration. An outdoor stand will gather portable compressors and generators.

One of the latest addition to the Atlas Copco Range of crawler drill rigs is the ROC L7 CR (short mast version). It is the first Atlas Copco rig which can tackle virtually any type of surface drilling job in quarries and open pit mines of any sizes.

Atlas Copco Secoroc will be showcasing three brand new products over and above its already extensive range of rock drilling tools.

The HM 3000 from Atlas Copco Construction Tools closes the gap between the best-selling HM 2600 and HM 4000 models. Like all hammers in the range, it is fitted with SmartSelect and AutoControl as standard, while DustProtector and ContiLube II are optional extras.



**JCB** will strengthen its Heavyline and Compact ranges with the addition of two brand new machines at Intermat.

Giving added weight to its Articulated Dump Truck offering will be the JCB 722, a 20 tonnes, twin rear axles machine which will be aimed at the key UK, European and North American markets.

Other machines that will not be coming to North America soon will be launched at the show, the JCB 8080 excavator designed to compete in the 7-8 tonnes class and JCB Micro and JCB



Micro Plus mini-excavators.

In addition, JCB will launch the compact and manoeuvrable JCB 533-105 Loadall telescopic handler to mainland European markets following its success in the UK in the house building sector.



**Manitou**, the world leader for rough terrain handling, is launching a new model in the Manitransit range, the TMT 320 S. This telescopic truck-mounted forklift is the latest addition to the existing 12 model range.

The French company will also expand its range of heavy duty telescopic handlers with the new 10 tonnes MHT 10100 L Turbo. With this machine Manitou offers the widest range on the market in the 6.5 to 16 tonnes class with 5 models.



Up until now, bucket mixers existing on the market have been in the form of a bucket equipped with an endless screw. A disadvantage of this type of machine lies in the fact that the material tends to be pushed towards one end of the bucket.

The distinguishing fact about the BR 500 bucket mixer made by the French company **S.A.R.L. BR** is that the material is mixed by a paddles mounted on two rotating shafts, insuring a perfectly homogeneous mixture of the mortar. The clam-shell shape of the bucket also makes loading the material very easy. The operator only has to dig into the material and close the bucket.

Contrary to endless screws, the paddle system does not dictate through which end of the bucket the mortar can be poured.

Maintenance is also reduced because of the system of paddles. When replacement is needed, paddles can be changed one at a time, without having to remove the shaft.

Furthermore, the transmission system does not require a lot of hydraulic energy. The engine of the

machine can run at low revolutions, reducing the fuel consumption and the impact on the environment.



On a joined stand with **Tracto-Technik**, the German manufacturer **Prime Drilling** will be presenting its product range of midi and maxi size Horizontal Directional Drilling rigs.

Within three years the company has developed from a newcomer to the largest European manufacturer of HDD rigs in the range of > 20 t. To date it has sold 28 drilling rigs between 25 and 350 t pulling force capacity to 13 different countries world-wide. The largest drilling rig, which has been produced so far, is a 350 t drilling rig developing a massive 120,000 Nm of rotational torque.

Prime Drilling has satisfied their customers demands by producing a reliable and quality built product. Also inspiring trust with first-class technical support and service on job sites all around the world. Allied Bentonite mixing and recycling systems, pump aggregates, drill rods, reaming and drilling tools are also manufactured by Prime Drilling. They are made using highly skilled labour working with high grade materials and produce reliable components, delivered on time to customers exact requirements. A complete guaranteed HDD package.



Due to tight household means, economical techniques for the new installation, sanitation and renewal of sewage pipes are very popular. Renewal measures are often only taken into account when non-repairable damages or static problems arise. Network operators should always check the investment of a new pipe, as this will guarantee "peace" for a longer period of time.

In the meantime renewal measures with the closed construction method in accordance with static and dynamic bursting method have been

proved worthwhile. Especially the static bursting method with the Grundoburst has a high efficiency due to the incomparable short set-up times and simplicity to use. It is not unusual to carry out the renewal of a bore length of 100 m in 2 - 3 hours. A special version for use in a pit has been developed for the French market.

When driving through the old pipe path the old pipe made of stoneware, concrete, steel, PE, grey cast and even cast iron, is cut open with the relevant roller blade technique, or in the case of brittle material, destroyed and pushed into the adjacent soil. The bursting and displacement process is followed by the installation of the pipe, which can be the same size or one nominal size larger. Depending on the installation depth, it is really worth using from lengths of 25 m. The house connections must be uncovered for the connecting process. The method is compatible from ND 65 to ND 600.

**Tracto-Technik** offers several alternatives, especially in the house connection range:

1. The steerable Grundosteer-soil displacement hammer for bore lengths up to 60 m, which works without drilling fluid and can install sewage lines up to OD 63 from a cellar into the connection pit.
2. The steerable Grundopit, smallest steerable bore rig, which can work with or without drilling fluid, installing pipes up to ND 150 out of a cellar. Using the hammer bore head makes work in varying types of soil and brickwork possible.
3. Grundopull cable winch machine, which can be used for exchanging lead pipes, as well as plastic pipes ND 20 to ND 60.

Tracto-Technik will show these items and much more at their stand at this year's Intermat.



# INTERMAT 2003

Paris, France  
May 13th to 17th

# London Machinery Showcases Many New Mixer Features at World of Concrete

London Machinery Inc. Canada's leading manufacturer of Truck Mounted Concrete mixers displayed a host of new features at the World of Concrete in Las Vegas in February.

"These exciting new features are focusing on reducing the cost of operation of our equipment through improving safety and performance as well as improving lifespan and reducing maintenance" explained London Machinery's Canadian Sales Manager Robert Monchamp.

## The new features highlighted were:

1. Radio remote controls eliminating the need for cables and junction boxes at the rear of the mixer. Mr. Monchamp explains "The rear controls have been an area requiring regular maintenance, we believe with the elimination of all wiring, plugs and junction boxes at the rear of the mixer that

maintenance costs will be reduced while allowing the operator to position himself for maximum safety and visibility. The controls have a range of 1200' and utilize a frequency hopping system to ensure that any other equipment will not affect them.

2. Constant Speed Control maintaining a fixed in transit speed of 2 RPM regardless of engine speed. "Many mixers are traveling down the road with the drums turning much faster than necessary. With this unit at a push of a button the mixer will automatically be controlled ensuring safer travel, fresher concrete and much reduced drum wear," stated Mr. Monchamp.

3. Rear Video Camera providing a full view from



the rear of the mixer complete with sound.

4. Londox 220 Steel developed in partnership with Algoma Steel Corporation this high manganese alloy is said to have a higher Brinell hardness for longer wearability.



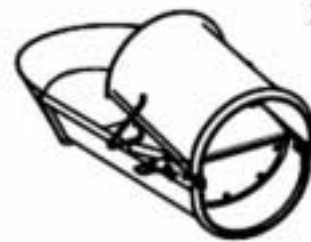
## Chute Assist



\$295.00

Neutralizes the weight of the foldover chute reducing the effort to position it and the potential for pinched fingers

## Chute Stopper



\$125.00

Reduce the claims for broken windshields. This device will automatically block the main chute when the foldover is stored. If you wish to pour directly off the main chute, the stopper can be swung out of the way.

Easily Retrofit To Your Existing Fleet

TOLL FREE 1-800-713-0150

*The Professional's Choice*



5. Chute Assist a safety device neutralizing the weight of the foldover chute to reduce the potential for injured fingers and back strains.

6. Chute Stopper a device to reduce the risk of stones falling from the discharge hopper from hitting the road and damaging windshields.

7. Acid resistant Tarp protecting the drum from grease off the truck driveline and protecting the chassis from acid used to clean the mixer.

"London Machinery is dedicated to working with our customers to advance the concrete industry. The products we have shown here in Las Vegas are all aimed at delivering more quality concrete in a safe and cost effective way. London Machinery only manufactures concrete mixers, it is our focus and why we are considered the Professional's Choice" concluded Mr. Monchamp.

Each of the features mentioned are currently available on London Mixers.

London Machinery is the leading manufacturer of concrete mixers in Canada and ships their products throughout North and South America.

Source: London Machinery

## New Expeditor Mixer Truck

An Autocar Xpeditor concrete mixer truck was displayed at the 2003 World of Concrete Show in Las Vegas recently, signaling the Autocar's intent to broaden its vocational product offering.

According to Autocar vice president of sales and marketing, Michael Popovich, the truck delivers superior off-road traction, stability and productivity compared to conventional mixer trucks equipped with all-wheel-drive.

The truck is an Xpeditor WX low-cab-over engine (LCOE) mixer truck that combines the Dana-Spicer Tire Pressure Control System – a lower cost, lighter weight alternative to all-wheel drive systems – and the exclusive Autocar T-Ride Suspension, which is proven to maintain excellent traction over rough, uneven terrain.

Based on systems proven in over 35,000 military trucks, Tire Pressure Control systems allow drivers to adjust tire pressures to the conditions they encounter while the vehicle is moving. Using a dash-mounted display, the

operator can reduce or increase tire pressure using the truck air system that also powers brakes and other on-board systems.

Reducing tire pressure lengthens a tire's footprint, putting more of the tire in contact with the ground. This longer footprint keeps tires from sinking so far into soft ground and delivers more tractive energy to the surface.

In addition to better traction, the weight advantage of an Xpeditor WX with Tire Pressure Control can be up to 2,000 lbs. per vehicle compared to competitive trucks with AWD. This weight savings allows operators to take full advantage of the mixer's rated payload and increase the revenue generated by their vehicles. Better traction can improve fuel economy and Tire Pressure Control Systems require much less maintenance than all-wheel drive systems.

Source: Autocar



## WANT TO GET IN CLOSE?

### Who doesn't?

Now operators can work closer than ever to a wall or other obstacle and still concentrate on their work instead of losing time inching up to a street. The industry's largest line of short-radius excavators includes seven with zero tail swing and three that never extend more than 5.1" beyond the tracks.

Choose the 3,240 lb 13SR or the 56,890-lb 235SRLC or any of eight others in between. Put the optional High & Wide undercarriage under the 235SRLC and at 60,640 lbs. you have the industry's largest short-radius excavator. All Kobelco Short-

Radius machines have the maneuverability, visibility and balance to work efficiently in tight spaces. Even with the compact design, you don't have to give up any lifting capacity or stability with these machines. Put a Kobelco Short-Radius Excavator through some tight turns at your Kobelco dealer, and see how much work you can pack into a small space.

**KOBELCO**  
*Your competitive edge.*

[www.kobelcoamerica.com](http://www.kobelcoamerica.com)



**MARK GRAVEL BOX (1993) Inc.**

1069 Des Pionniers Ave. Balmoral NB E8E 1B5  
Phone: (506) 826-9106 • Fax: (506) 826-3832 • [www.markgravelbox.com](http://www.markgravelbox.com)  
Martin Bissonnette Cell.: 506-759-5448 • Carl Arseneault Cell.: 506-684-0515

©2001 Kobelco Construction Machinery America Ltd.

# CERIU Fact Sheets :

## «Cured-In-Place Pipe (CIPP) Rehabilitation»



### Purpose and Use

The main objective when using a liner inserted by pulling is to improve the structural capacity of the existing underground pipe. The smooth, continuous inner surface of the lining ensures the watertightness of the pipe and improves its hydraulic capacity. The materials used are also corrosion-resistant.

### Procedure

The liner is impregnated with resin at the job site or at the factory before being transported to the site in a refrigerated truck and inserted in the pipe.

The liner is winched into the pipe through an access pit, such as a manhole. The ends must then be sealed before the resin can be polymerized. Hot air is pumped into the liner to inflate the pneumatic tube and force the liner against the inner wall of the pipe. Next, steam or hot water is introduced to polymerize the resin.

A computer located above ground controls the curing time of the resin, as well as the temperature and pressure during this period.

In cases where a pneumatic tube is used, this is deflated and withdrawn once the resin has been polymerized. Next, the ends of the liner are trimmed at the access pits.

### Materials

The liner is made from one or several layers of felt, polyester or fibreglass.

Various types of thermosetting resins may be used according to the specifications of the selected process and the requirements of the project.

### Types of Pipes and Structures

Sewer mains and water mains of all types, regardless of the material of which they are made, may be restored using this method. However, the pneumatic tube technique is restricted to circular pipes.

Some techniques are only used to install a continuous liner between two access pits, whereas others also accommodate spot repairs.

The pipe to be rehabilitated must be at least 75 mm in diameter.

### Preliminary and Complementary Work

The pipe needs to be thoroughly cleaned and all the debris, deposits or obstacles that could impede the installation of the liner removed. A CCTV inspection of the pipe must also be carried out.

Service may have to be interrupted depending on the duration of the work or the type of process used. Temporary services may have to be installed to accommodate users.

### Reconnecting Laterals

House laterals are reinstated manually for man-entry gravity pipes. Robots are used on smaller pipes.

House laterals for pressure pipes are either individually excavated and reconnected or reinstated from the inside of the pipe with the help of robots.

### Conditions and Limitations

The efficiency of equipment and piping may be reduced if work is carried out when the ambient

temperature falls below freezing.

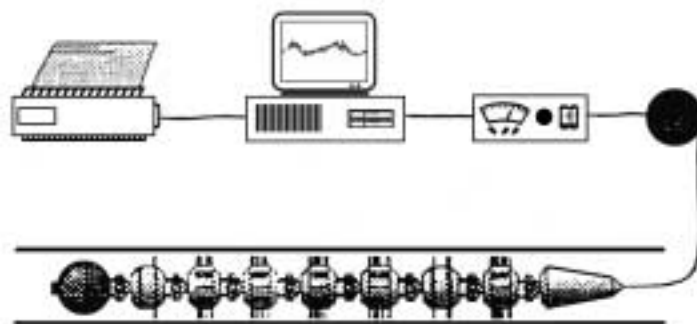
During the insertion of the liner in pressure pipes, it is important to eliminate the air pockets trapped between the existing pipe and the liner.

The transportation and installation time of the liner is limited by the initial setting time of the resin, which takes several hours.

### Deadlines and Timeframes

When materials (e.g. liner, resin) are not in stock or special project requirements call for non-standard products, lead time may have to be extended by several weeks, depending on the process used.

A pipe can generally be lined in a few hours, excluding preparation time, which varies accord-



ing to the condition of the existing pipe (debris, protruding laterals, etc.).

### Testing and Monitoring

All routine tests applicable to the type of pipe being rehabilitated must be carried out.

Tests are conducted to verify the quality of the resin and, in the case of water mains, to ensure it meets the NQ 3660-950 or NSF-61 standard.

During the polymerization of the resin, the applied temperature and pressure, as well as the length of the process, must all be controlled.

After installation is complete, the thickness of the liner must be checked. This test may be carried out on a sample of the finished product and has to meet the technical requirements of the project.

### Status of the Technology

These processes were all originally designed for underground municipal infrastructure applica-



tions. They were developed in the United Kingdom, the United States and, more recently, Canada. The process became popular in Quebec in the 1990s.

#### Advisory Note

The information presented in this fact sheet is provided for reference purposes only and in does not relieve users of their own responsibility to verify the accuracy of the information with the contractors and suppliers involved.

All information is to be used in a support capacity, as part of a broader management approach which includes the analysis, planning and management of urban infrastructure systems. This implies the need for complementary applications designed to diagnosis the causes of distress, locate other nearby structures and carry out additional operations.

*To obtain a copy of the CERIU Compendium of Infrastructure Technologies, please contact CERIU's Céline Forest at (514) 848-9885, extension 272 at the Centre d'expertise et de recherche en infrastructures urbaines (CERIU).  
www.ceriu.qc.ca*

## Over 1000 Sessions Per Day in February on www.infrastructures.com

Take advantage of the popularity of the InfraStructures website to showcase your goods and services.

Webtrends™ statistics show that over the last two years, the average number of visitors on www.infrastructures.com as grown from 500 to 800 per day. Last February it reached 1004 visitors per day, each of them spending on average 10:26 minutes browsing through our pages.

Furthermore, there are more visits during the weekdays and during business hours. This leads us to believe that visitors use www.infrastructures.com as a work tool, not just for play.

To know more about the numerous possibilities for advertising on www.infrastructures.com, call us at (514) 233-1295



## CERIU Fact Sheets in InfraStructures

The Centre for Expertise and Research on Infrastructures in Urban Areas (CERIU) is proud to be teaming up with InfraStructures to publish its fact sheets on new investigation and rehabilitation technologies.

Every issue of InfraStructures from now on will feature one of the fact sheets from the CERIU Compendium of Infrastructure Technologies, an invaluable reference tool that has already become a must for many infrastructure professionals.

#### Background and Origins of the Compendium

Municipalities and other organizations are generally conservative when it comes to underground infrastructure rehabilitation. For various reasons, they are usually reluctant to become what they see as "guinea pigs" for testing new technologies.

The lack of structured information and specific standards in this regard, coupled with the limited number of technology suppliers, are at the root of this hesitation on the part of a great number of potential users with regard to new technologies.

Moreover, given that the direct costs involved in using new technologies can be, at the outset, greater than those of a conventional solution, those working in the innovative technology sector

can often find themselves in a vicious circle. Because the rate of utilization for these new methods is low, they cannot offer competitive prices – and administrations, forced to cope with heavy budgetary restraints, are limited in their ability to spend the money on trying these new technologies.

#### Compendium Description and Objectives

Taking all this into consideration and with the objective of pursuing its mission to educate and disseminate information – and after many months of research, validation and collaborative efforts – CERIU released its Compendium. The document is divided up into two main sections, one devoted to municipal pavements and the other to underground infrastructure. Both are intended to guide users through an analysis of alternative project execution methods and to allay their fears and uncertainties as to the use of new investigation and rehabilitation approaches.

CERIU is now publishing these fact sheets in InfraStructures for the very same reasons. This information will enable you to increase your awareness and familiarity with new technologies, their operation, the conditions for their use and the corresponding terminology so that you are

more apt to adopt them as part of your infrastructure maintenance program.

Obviously, the entire Compendium is a much more complete source of information, offering numerous fact sheets on a wide variety of technologies that have, for the most part, already been applied in Quebec, along with project overviews describing the experiences of individual municipalities that have ventured into the world of new investigation or rehabilitation technologies. Both sections feature a table summarizing the main features of each technique, a list of suppliers and a bilingual glossary explaining the corresponding terms and expressions.

*To obtain a copy of the CERIU Compendium of Infrastructure Technologies, please contact CERIU's Céline Forest at (514) 848-9885, extension 272 at the Centre d'expertise et de recherche en infrastructures urbaines (CERIU).  
www.ceriu.qc.ca*



ASPHALT DISTRIBUTORS



ASPHALT PLANT



ROAD WIDENERS



CONCRETE PUMPS



CONCRETE SLIP-FORM PAVERS & FINISHERS



CONCRETEMIXERS



**Link-Belt**  
CONSTRUCTION EQUIPMENT



AGGREGATES EQUIPMENT



MOBILE CRUSHING & SCREENING EQUIPMENT



CONCRETE BATCH PLANTS



LES ÉQUIPEMENTS LEFCO INC.  
SALES • RENTALS • PARTS & SERVICE  
1795 Guillet, Laval, QC H7L 5B1  
(514) 389-8256 • (450) 682-2783  
Fax: (450) 682-0463 • [equip@lefcq.qc.ca](mailto:equip@lefcq.qc.ca)