CONSTRUCTION • PUBLIC WORKS • NATURAL RESOURCES



































LES ÉQUIPEMENTS LEFCO INC.

SALES • RENTALS • PARTS & SERVICE 1795 Guillet St., Laval, QC H7L 5B1

(514) 389-8256 • (450) 682-2783 Fax: (450) 682-0463 • equip@lefco.qc.ca

InfraStructures

Volume 9 Number 3 March 2004

PUBLISHER / ÉDITOR

Jean-François Villard

COLLABORATORS
Jacques Duval
Marcel Tremblay
Jean-François Dubois

ADVERTISING SALES

MONTRÉAL

Jean-François Villard

André Charlebois

QUÉBEC Gilbert Marquis (418) 651-1176

TELEPHONE

(514) 233-1295 (613) 862-1295

FAX

(514) 528-9932

MAILING ADDRESS

PO Box 366 - Stn DeLorimier Montreal (Quebec) H2H 2N7

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 POSSIBLE GIVEN THE TECHNICAL LIMITATIONS.

Welcome

Throughout its eight years of serving the French speaking users of heavy machinery and specialized equipment in Canada, InfraStructures has established itself as the most acknowledged reference in its field. All other magazines have a different scope or focus. None offer a better mix of local content, important industry news, good circulation and reasonable rates for both readers and advertisers.

As you may know, our next major step for 2005 is in the making: an English print version of InfraStructures – distributed by mail across Ontario and the Maritimes. If you are interested in receiving the English print version of InfraStructures next year, please send us your coordinates by mail or e-mail.

For the year 2004, issues of the English online version will feature more content than last year. We encourage you to send in your news releases and articles which we will gladly publish free of charge.

Finally, we offer a great advertising package: Buy space in our French print version and get published in the English online version free of charge. Please call us to discuss your advertising plans in detail.

- senther and Villand

Publisher/Editor



On the front cover:

A picture (P.G. Loske / Bauma) taken during the week preceding the bauma + mining exhibition in Munich. It shows a Liebherr T282B 360 tons truck being assembled with the help of heavy lifting cranes.

In the News...

ONTARIO GOVERNMENT TACKLES POTHOLE REPAIRS

With Ontario's weather fluctuating between deep freeze and thaw this past winter, the Ontario government is tackling pothole repairs on provincial highways across northeastern Ontario, said Transportation Minister Harinder Takhar.

"Ontario has among the safest roads in North America, but this winter has been particularly harsh and the fluctuating temperatures have wreaked havoc on our pavements," Takhar said. "Since potholes can develop in a short period of time, Ontario's highways are patrolled and inspected on a regular basis."

Potholes form when water under the surface of the pavement freezes and expands, causing the layers of pavement to separate.

The Ministry of Transportation is responsible for maintaining approximately 16,500 km of provincial highways; placed end-to-end, that's long enough to span Canada twice. Each year, the province invests about \$4 million and uses about 17,000 tonnes of patching materials - enough to fill 850 dump trucks - to repair potholes across Ontario.

"We are always in search of better, more durable building materials and better construction methods," Takhar said. "Our government is partnering with universities and colleges across Ontario to engineer new, innovative, longer lasting pavements."

Repair activity is highest during the spring months when the majority of potholes appear. Motorists are advised to slow down when driving through work zones where maintenance crews are filling potholes or performing other road repairs.

Most pothole repair work takes only a few minutes, and once the workers and equipment are safely out of the way, the road is immediately ready to carry traffic.

Source: Ministry of Transportation

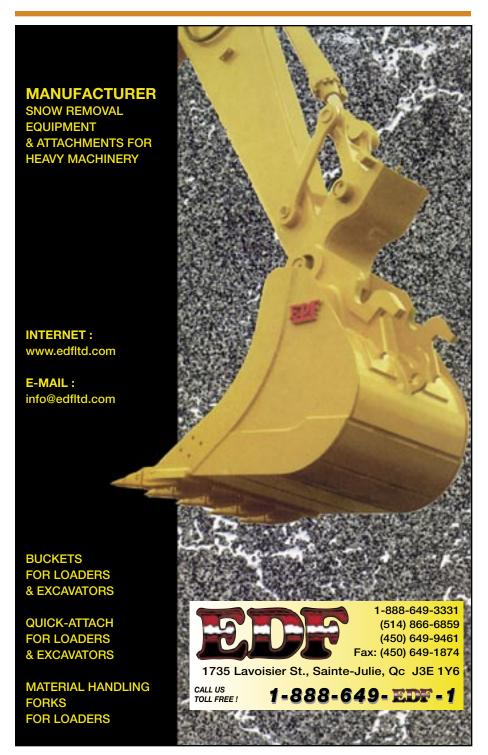
SNC-LAVALIN AWARDED SERVICES CONTRACT FOR WORK ON THE TRANS ALASKA PIPELINE SYSTEM

SNC-Lavalin has been awarded a US\$28 million contract by the Alyeska Pipeline Service Company to provide detailed engineering, procurement and construction management (EPCM) services for the Trans Alaska Pipeline System's Strategic Reconfiguration Project.

The Alyeska Pipeline Service Company, operator of the Trans Alaska Pipeline System (TAPS), has received approval from the pipeline's owner to invest over US \$250 million in a project to upgrade the pipeline's pump stations. SNC-Lavalin will provide EPCM services from its Edmonton office, using its pump station expertise, and will also employ local engineering expertise to design, plan and manage the project.

"We are very pleased to be working on the TAPS Strategic Reconfiguration project," said Krish Krishnamoorthy, Executive Vice-President, SNC-Lavalin Group Inc. "This is another example of our outstanding technical knowhow and project management expertise. Our ability to effect capital cost savings while reducing operating costs and optimizing life cycle costs through Value Improvement Practices was a major factor in the award of the contract to SNC-Lavalin."

TAPS transports crude oil from the oil



fields on Alaska's North Slope across 800 miles of tundra, rugged mountains and rivers to Valdez on the shores of Alaska's Prince William Sound. The project involves installing electrically driven crude oil pumps at four critical pump stations, as well as increased automation and upgraded control systems.

Source: SNC-Lavalin

ADF GROUP INC. COMPLETES THE SALE OF ITS PLANT ADF HEAVY INDUSTRIES INC. IN LACHINE

ADF Group Inc. announced recently the closing of the sale of its fabrication plant, located in Lachine, Quebec. The company TIL Cintreurs de Tubes Int'I Ltée ("TIL"), the parent company of Cintube Ltd., is acquiring the manufacturing complex of ADF Heavy Industries Inc. ("ADFIL"). TIL, a privately owned company, specializes in precision bending of tubes, pipes, angles, beams and channels. This transaction takes the form of a sale of the shares of ADFIL to TIL. The Company is not receiving any proceeds and improves its balance sheet since it is no longer required to consolidate the results from this subsidiary with the results of ADF Group as of the beginning of December 2003, the date of signature of the letter of intent with the actual buyer. This transaction is effective as at January 31, 2004.

The fabrication plant of the ex-Dominion-Bridge Co. in Lachine was acquired in December 1998 by ADF Group Inc., in partnership with Quebec's Solidarity Fund FTQ ("Fund"). In December 2003, ADF Group, in concert with the Fund, announced the signature of a letter of intent for the sale of this plant with the actual buyer. Consequently, the operations of ADF are centralized in its Terrebonne facilities, from where the Company is able to undertake the fabrication of complex and large-scale projects.

The sale of this plant is one of the major phases of the Company's restructuring plan and allows Management to concentrate on its key activities. This restructuring plan has been currently underway since autumn of 2002. "We are pleased with this transaction resulting in the restart of operations at this centennial plant, and moreover for 40 qualified people who will preserve their jobs in a very specialized industry", adds Jean Paschini, chairman of the board and chief executive officer.

The non-residential construction industry sector in North America, and more particularly the steel superstructure sector, remains low, despite the signs of an eventual upswing. The Company continues to target and bid on projects offering good profit margins.

Source: ADF Group Inc.

LAFARGE ACQUIRES ASSETS OF THE CONCRETE COMPANY IN SOUTHEASTERN UNITED STATES

Lafarge Building Materials Inc. a whollyowned subsidiary of Lafarge S.A. which holds the former cement and ready-mix assets of Blue Circle in the United States, has completed the acquisition of the assets of the Ready-Mix Concrete and Cement divisions of The Concrete Company of Columbus, Georgia. The Concrete Company is a major cement importer and producer of ready-mix concrete, precast concrete and concrete pipe, and construction aggregates in the southeastern United States.

The purchased assets include a cement



import terminal with an annual capacity of 0.9 million metric tonnes, two distribution terminals, 46 ready-mix plants with annual sales of approximately 1.2 million cubic meters of concrete, and related equipment.

"This acquisition provides considerable synergies with our existing operations in the region, and is consistent with Lafarge's longterm business strategy in the southeastern U.S.," said Bernard Kasriel, CEO of Lafarge. "These assets complement Lafarge's cement and ready-mix concrete facilities and networks in the region, and will allow us to serve a broader base of customers. This acquisition also positions us well for future growth in the Georgia, Alabama and Gulf Coast markets."

The acquired assets will be integrated with the operations of Lafarge Building Materials Inc., and will be managed by Lafarge North America under the existing management agreement.

Source: Lafarge North America

SNC-LAVALIN AWARDED CONTRACT FOR NEW GOLD MINE IN VENEZUELA

SNC-Lavalin Engineers & Constructors Inc. (SLE & C) has been awarded a contract to provide engineering, procurement and construction management services for Crystallex International Corporation's Las Cristinas gold mine project in Venezuela, following a competitive bidding process.

The Las Cristinas property is located approximately 670 km south-east of Caracas in Bolivar State, where most of the country's gold is produced. The value of the contract to SLE & C is approximately CAN\$ 25 million. It will use conventional mining and gold processing technology, and is expected to process 20,000 tonnes of ore per day.

"This contract demonstrates our leadership in the South American market, and in the gold sector, particularly on major projects, and we're pleased to be working with Crystallex on the project," said Pierre Duhaime, Executive Vice-President, SNC-Lavalin Group Inc.

Source: SNC-Lavalin

(3) 1975 to 1987 SMI 7200 / 7500 snowblowers, Detroit Diesel engine



(2)1981 and 1990 VOHL DV-1104 snowblowers, John Deere engine

Many other used equipments for sale

Put the Larue advantage **at Work for you**



LARUE 3640 detachable snowblower, hydrostatic, 315 hp, 8500 lbs, 36 in. ribbon type screw, 40 in. turbine, telescopic chute

We also repair and rebuild all brands of asphalt pavers and other paving equipment

Replacement parts for most brands of pavers

Call us as soon as possible!

MANITOWOC CRANE GROUP AND **KOBELCO SIGN ALL-TERRAIN CRANE SUPPLY AGREEMENT**

Manitowoc Crane Group, a business entity of The Manitowoc Company, Inc., and Kobelco Construction Machinery Co. of Tokyo, Japan, today announced an agreement under which Manitowoc Crane's Deutsche Grove GmbH unit will supply all-terrain cranes to Kobelco. The Kobelco-branded cranes will be sold exclusively in Japan. The parties intend to introduce four models of all-terrain cranes, with capacities ranging from 100 to 450 metric tons, in 2005.

These new all-terrain cranes will complement Kobelco's current product line. Kobelco has long been committed to manufacturing and selling lattice-boom crawler cranes and rough-terrain cranes on a worldwide basis, and these all-terrain cranes will provide Kobelco with synergies from increased sales.

Kobelco and Manitowoc previously announced an agreement under which Kobelco will supply lattice-boom crawler cranes to be sold by Manitowoc in the Americas under the Manitowoc brand. Kobelco will continue to sell and distribute its own branded latticeboom crawler cranes in the Americas.

Glen Tellock, Manitowoc Crane Group president, said: "We are pleased to supply Grove all-terrain cranes to Kobelco in Japan, since Kobelco has well- established relation-

1-877-658-3013



Laval Branch • 2220 Michelin St., Laval, Qc H7L 5C3 • Fax: (450) 687-9921 Ste-Foy Branch • 680 Lenoir St., Ste-Foy, Qc G1X 3W3 • Fax: (418) 658-6799

Emergency Parts-Service 24/7 • www.jalarue.com SALES • SERVICE • RENTALS • FINANCING AVAILABLE

ships with the major Japanese customers of lifting equipment. This complements our earlier crawler crane supply agreement, and we look forward to a continuing business relationship for the benefit of both parties."

Takashi Ishida, Kobelco Construction Machinery president, said: "We are happy to be able to offer these all-terrain cranes to our customers in Japan. Grove has an excellent global reputation outside of Japan. We believe that these Grove products will help us satisfy even more of the lifting needs of our Japanese customers, and provide better benefits also."

Ishida added: "We are very pleased with the speed of developing business opportunities with the Manitowoc Crane Group. We feel that speed in decision- making is essential to better adjust ourselves to the rapidly changing business environment, and as a part of this adjustment, we recently announced the separation of our crane business from our earth-moving equipment business."

Source: The Manitowoc Company, Inc.

MITSUBISHI FORKLIFT TRUCKS PRODUCES NEXT-GENERATION FORKLIFTS

Mitsubishi Forklift Trucks ushers in a new generation of forklifts. These 3,000-7,000 lb capacity pneumatic tire forklifts meet stringent US EPA standards for reducing carbon monoxide, hydrocarbons and nitrogen oxide emissions – all while delivering advanced levels of reliability and performance.

From ease of entry and exit to a tilt column with a memory feature, these forklifts are made to help boost productivity. Even changing LP tanks has never been easier. A handy optional swing-down bracket reduces operator effort, while a gas cylinder helps to balance the LP tank weight and controls movement in both directions. With three additional models in this family of forklifts, Mitsubishi forklift trucks are ready to handle the job.

From the Mitsubishi Forklift Trucks plant in Houston, Texas, these N-Generation models have innovative truck and fuel management systems that automate a wide range of functions. This ensures consistent performance that optimizes efficiency.

New Envir0₂™ Engines bolster fuel economy and deliver precise, tamper-proof fuel management. These engines exceed 2004 US EPA emissions standards. Along with the transmission and drive axle components, all engines are covered by a

two-year/4,000-hour limited warranty. Source: Mitsubishi Caterpillar Forklift America inc.

U.S. ARMY AWARDS US\$10.3 MILLION ATV CONTRACT TO POLARIS INDUSTRIES

Polaris Industries was awarded a 5-year, US\$10.3 million contract by the United States Department of Defense's Special Operations Command for the production and delivery of up to 700 Polaris all-terrain vehicles. U.S.

military forces in Afghanistan and Iraq currently use Polaris ATVs.

"We're honored to do our part to help defend the United States of America by providing the world's toughest ATVs to the world's toughest military," said Tom Tiller, Polaris CEO and president. "Polaris builds ATVs capable of withstanding rigorous use on some of the world's toughest terrain. The confidence our nation's military has in our product gives this company a tremendous



amount of pride."

The agreement, a result of more than two years of collaborative design work with Special Operations Command (SOCOM), includes the Polaris Sportsman MV (Military Version) model designed specifically for military use. The MV boasts the chassis and engine of a standard Sportsman 700, the most powerful automatic-transmission all-terrain vehicle in the world, but incorporates a number of unique features, such as

infrared lights, run-flat tires, steel exoskeleton and enhanced suspension, making it ideal for military use in all types of terrain.

The MV also features Metal front and back racks and winches and increased fuel capacity.

The agreement also includes Polaris Sportsman 6x6 models also modified to meet military specifications. Polaris began producing finished MVs for SOCOM in March of 2003, and has supplied hundreds of additional models to other branches of the military based on existing Ranger 6x6, Sportsman 6x6 and Sportsman 500 models.

Source: Polaris Industries Inc.

INVESTMENT IN WATER INFRASTRUCTURE BENEFITS ERIN

Residents of the Town of Erin (Ontario) will benefit from cleaner, safer drinking water through an investment under the Canada-Ontario Infrastructure Program.

The Town of Erin will upgrade five waterworks systems, which will improve the drinking water quality for 1,592 households. The project includes connecting the Bel-Erin and Mountainview distribution systems to the Village of Erin system. The upgrades at the Hillsburgh Heights, Glendevon and Erin well supplies include improvements to reservoirs, wellheads, electrical systems, and the process chlorination systems and piping. Hillsburgh Heights upgrades also include the installation of lead removal equipment, and modification of the monitoring and alarm systems. As well, the Erin Well E5 will be upgraded and special trichlorethylene treatment will be installed, or it will be decommissioned and another well will be drilled and connected to the Erin distribution system. Construction is expected to be completed in 2004.

The upgrades are required to bring the municipal water system into compliance with the Ontario Drinking Water Systems Regulation and improve the quality of life for residents in Erin. "Green" municipal infrastructure is a top priority for the Canada-Ontario Infrastructure Program.

The Government of Canada and the Government of Ontario will each contribute up to \$821,795 to this project. The Town of Erin will invest the balance of the project's total eligible cost of \$2,465,385.

"Water treatment facilities are vital infrastructure elements in a community," said Murray Calder, MP for Dufferin-Peel-Wellington-Grey. "The Government of Canada is committed to enhancing our citizens' quality of life through the Canada-Ontario Infrastructure Program." Federal funding for this initiative was provided for in the March 2004 federal budget and is therefore built into the existing fiscal framework, added Mr. Calder.

"Today's announcement to upgrade Erin's water system demonstrates the McGuinty government's commitment to healthy and strong communities," said John Gerretsen, Ontario Minister of Municipal Affairs and

Les Équipements GLS Inc.

BUYS & SELLS USED EQUIPMENTS & PARTS

Robert Legault, sales manager

Office: (514) 765-9393 • Cell.: (514) 594-0599 • Home: (450) 475-6260



2001 SCHAEFF 853, 538 hours, quick attach, 3rd valve, 1.75 yd bucket



2000 SCHAEFF 863, 390 hours, quick attach, 3rd valve, 2.0 yd



2003 TEREX 873 - DEMO - quick attach, 3rd valve, 2.75 vd bucket



1983 FIAT ALLIS FR15, quick attach, 3rd valve, 3.0 yd bucket, very good condition



1974 CATERPILLAR 910, ROPS, quick attach, 2.0 yd bucket, very good condition



2002 SCHAEFF 823, 483 hours, quick attach, 3rd valve, 1.0 yd bucket, bolted-on cutting edge



SICARD 6x6 street flusher, Cummins/Ford diesel engines, tank, snow equipment available



1999 SUPERPAC A300V, 3000 lbs, 30 inches, Kohler engineAsking \$ 6200



2004 TEREX TV900 - NEW 3600 lbs, 35.4 inches, Kubota diesel engine

WE HAVE THE EQUIPMENT THAT YOU NEED...
...AT THE PRICE THAT YOU CAN AFFORD!
FINANCING AVAILABLE • EXCHANGES ACCEPTED

ALSO IN STOCK:

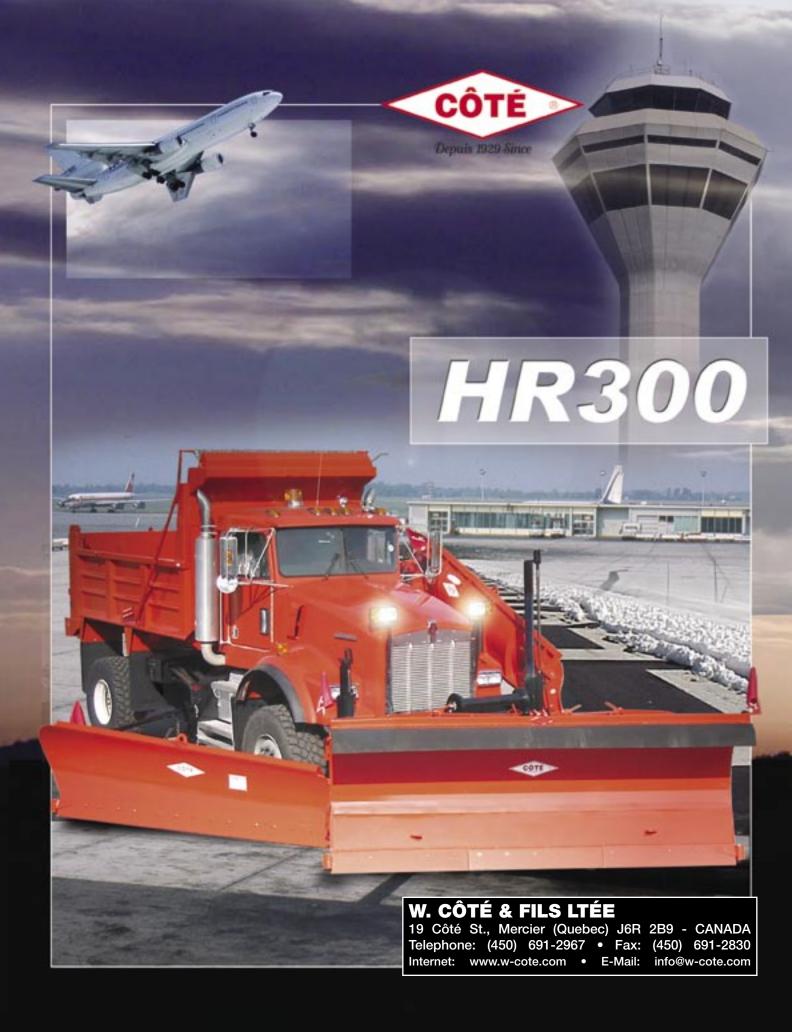
1987 CATERPILLAR 416 loader backhoe, 4x4, very good condition

LOÁDMASTER 4000 mini-articulated loader, hydrostatic, Ford diesel engine, very good condition DETROIT and CUMMINS used engines

1986 KOMATSU D65P-8 bulldozer, traction 85% excellent condition, ready to work Parts for WABCO 777 and CHAMPION 565 graders

MANY OTHER MACHINES AVAILABLE

Please note that all our machines have been inspected and are ready to go to work for you...



Housing. "We are committed to implementing every recommendation of the Walkerton Report so that Ontarians can have the clean, safe drinking water that they expect and deserve." Building strong communities is one of the Ontario government's key priorities for delivering real, positive change, added Mr. Gerretsen.

"This project is important for our municipality," said Rod Finnie, Mayor of the Town of Erin. "Erin residents can feel secure in knowing that we are working to ensure the water system meets all standards. This is one of a series of matching federal and provincial investments to help municipalities protect the health and safety of their residents through essential infrastructure projects, totalling

more than \$1.1 billion to date in Ontario. A large number of these projects will ensure municipalities can supply residents with clean, safe drinking water.

Source: Ministry of Public Infrastructure Renewal

GLOBALSTAR INTRODUCES SATELLITE FAX SERVICE

Globalstar, the world's most widely-used handheld satellite phone, today announced the commercial introduction of fax service over its network, allowing users to send and receive fax documents wherever they use their Globalstar satellite phone. The company's new StarFax service offers the highest fax transmission speed of any mobile

satellite phone service and at the lowest per-page cost.

The new StarFax service provides
Globalstar users with complete fax capability
via a small interface device that works with
virtually any standard Group 3 fax machine.
The interface device communicates via the
Globalstar satellite network with a central
server that receives fax images and forwards
them on to their final destination. As a result,
users can send and receive faxes via their fax
machine as if it were connected to a regular
phone line, with all satellite and interface links
handled automatically in the background.

In receive mode, the system uses a storeand-forward system, with fax images held on a central server until they are successfully delivered. If no Globalstar connection is active to receive the image when first sent, the central server attempts to resend the fax at regular intervals. In send mode, StarFax service will initially allow delivery to any phone number in Canada or the U.S., with full worldwide sending capability expected to be offered in the future.

Globalstar's StarFax service is available to Canadian Globalstar subscribers for a flat service fee of \$49.95 per month plus a one-time \$50 activation fee (prices and availability vary by country). Users pay only for the cost of the phone call, with no additional per-page charge.

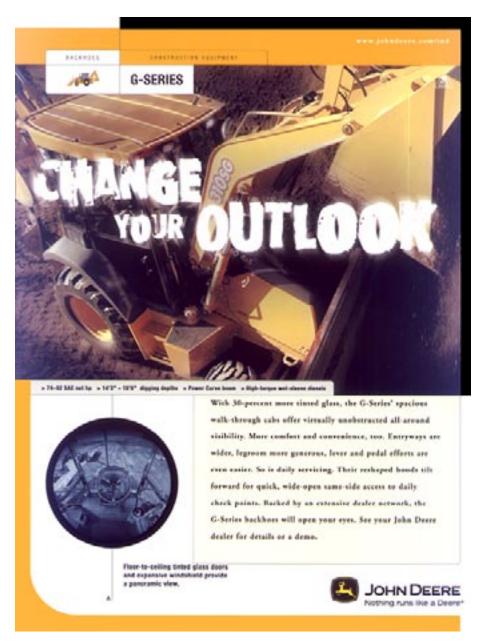
Globalstar offers satellite telecommunications services, for both voice and data, from virtually anywhere in over 120 countries around the world. Globalstar's main operating company is Globalstar LLC., a non-public limited liability company majority owned by affiliates of Thermo Capital Partners LLC.

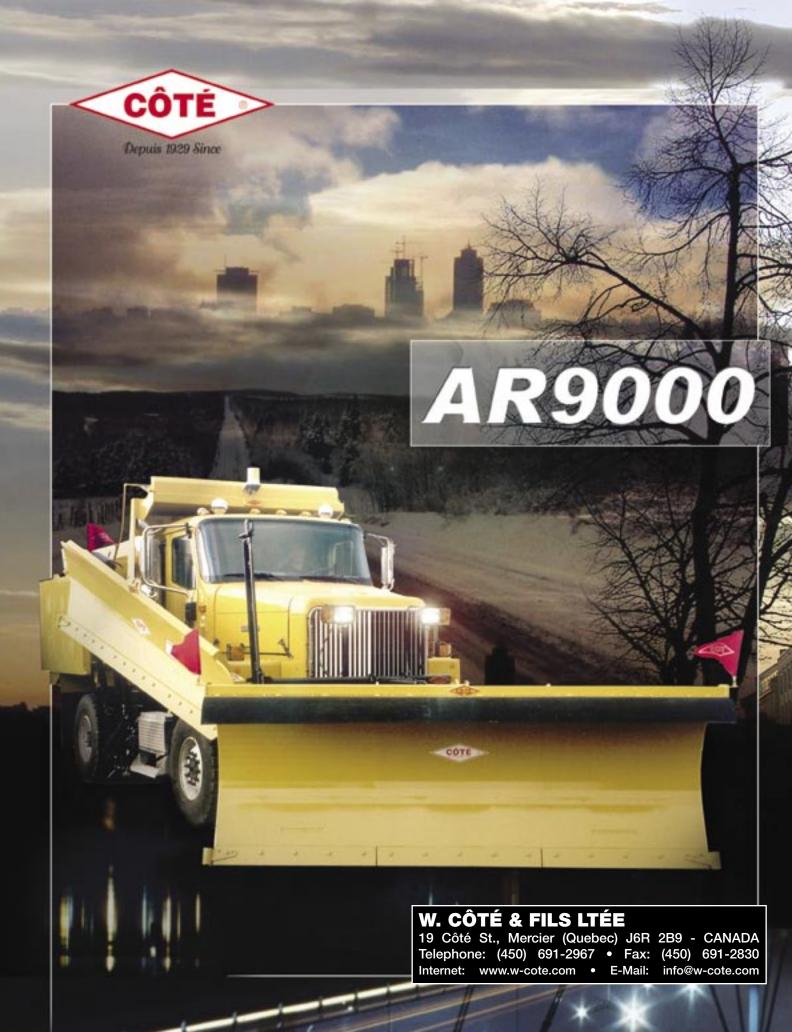
Source: Globalstar Canada

GEORGIA-PACIFIC AND BORALEX CLOSE ON SALE OF ATHENS, MAINE BIOMASS GENERATION FACILITY

Georgia Pacific Corp. and Boralex Inc. have closed on the sale of Boralex Athens Energy Inc., Maine biomass generation facility to Georgia-Pacific. The power plant's assets will be relocated to Georgia-Pacific's mill in Old Town, Maine, completing an important step in the plan established by the State of Maine and Georgia-Pacific to reduce energy costs at the Old Town mill.

The transaction is another step in the course that was established by an act of the Maine Legislature last year, when it passed a Resolve authorizing the State of Maine to purchase the West Old Town Landfill and se-





lect an operator to run the facility producing the funds necessary for the biomass project.

This closing follows the announcement in February that Casella Waste Systems and the State of Maine entered into an Operating Services Agreement authorizing Casella to operate the West Old Town Landfill. GP received \$26 million from the sale of the landfill to the State and is using those funds to purchase and re-install the biomass boiler, which will lower its energy costs – one of

the biggest obstacles to the mill's economic viability.

Ralph Feck, Vice-President - Old Town mill said, "This is a final step in a process that reflects public/private partnership at its finest. Without the cooperation of the State, Boralex, Casella and union support, the Old Town mill, and its 450 jobs would have been at risk. The creativity and persistence of all parties to this complex transaction was the key to this success."

Claude Audet, President and Chief Operating Officer - Boralex said "The sale of the assets of the Athen's facility, which has been shut down for the last two years, is in line with the implementation of Boralex's strategic plan aimed at maximizing the performance of its U.S. wood-residue power stations and will benefit the Old Town mill operations."

Boralex focus on four types of power generation: hydroelectric power, thermal or cogeneration power from natural gas or wood residue and wind power. These are all fields where Boralex has developed proven expertise and they are all centered on renewable energy. It employs more than 240 workers and owns seventeen power stations located in Québec, the United States and France, with an installed capacity of close to 240.0 MW, as well as an urban wood processing and recycling centre in Montréal.

Georgia-Pacific is one of the world's leading manufacturers and marketers of tissue, packaging, paper, building products, pulp and related chemicals. With 2003 annual sales of more than \$20 billion, the company employs approximately 60,000 people at 400 locations in North America and Europe. Georgia-Pacific's building products business has long been among the nation's leading suppliers of building products to lumber and building materials dealers and large do-it-yourself warehouse retailers.

Source: Boralex Inc., Georgia-Pacific Corporation

MEDIAGRIF AWARDED NEW CONTRACT WITH ONTARIO GOVERNMENT AS OFFICIAL E-TENDERING SERVICE PROVIDER

Mediagrif Interactive Technologies Inc., a world-leading operator of e-business networks, announced that the Government of Ontario awarded a new contract to Mediagrif's subsidiary MERX, by which it will act as the service provider for its electronic-tendering system and distributor of tender and related documents. The Province was part of a recent competitive process led by the Federal government that resulted in this agreement.

The three-year contract, which comes into effect June 1, 2004, also includes two renewal options of one year each. MERX's services will consist of providing to the suppliers of the Government of Ontario access to procurement information by way of electronic databases and a document ordering facility. Furthermore, the contract provides for the development of an Ontario Government



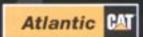
TOOLS WORK



Today's economy requires a new level of job site versatility. Powerful Cat' Work Tools are designed to provide the reliability and versatility to succeed in the most demanding site conditions. Benefits the

- Performance-matched work tools available for everything from your smallest compact equipment
- Each tool built to exacting Caterpillar standards for superior durability and reliability.
- Backed by the industry's finest Dealer network featuring knowledgeable staff, parts availability and superior support in the field.

For more information, stop by your Cat Dealer today. While you're there, ask about the Cat Work Tool opportunity, quality products that will make the Cat difference.



ic Tractors & Equipment Ltd. Maritime Provinces 902-468-0581





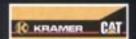
BALES - RENTALS - PINANCING - PARTS AND SERVICE www.hewitt.com

Hewitt Québec 514-630-3100



www.BattlofieldEquipment.ca

Battlefield Equipment Ontario • Manitoba lewfoundland • Labrador 905-457-4916



Kramer Saskatchewan 306-545-3311





Finning (Canada) Edmonton, Alberta 1-888 FINNING





Ontario • Newfoun Labrador • Manitoba • Nunavut 800-268-1965 branded gateway specific to the needs of the Government of Ontario and its suppliers. MERX has been the official e-tendering system of the Government of Ontario since 1997.

"We are very pleased with our new agreement with the Government of Ontario. Our relationship with the Government of Canada and Ontario along with other Government buyers in Canada reinforces our position as the leading provider of e-tendering solutions in Canada. We will now accelerate our efforts to develop business opportunities in new markets," stated Denis Gadbois, Chairman of the Board and CEO of Mediagrif Interactive Technologies.

"With this new agreement with MERX, the Government of Ontario is enabling MERX to continue to offer a one-window approach to their suppliers, which eliminates barriers like geography and size, creating a level playing field and an affordable service for all businesses," added Jocelyn Poirier, President of MERX. "We strongly believe that there is great value in the consolidation of information on Canadian public tenders. Ontario suppliers will be able to continue to benefit from the

most complete source of tenders available in Canada, including new functionalities and a reduced pricing structure," concluded Mr. Poirier.

Source: Mediagrif Interactive Technologies

THHE 28TH ANNUAL SAE MINI BAJA® EAST EVENT HELD NEAR MONTREAL, QUEBEC

62 college engineering teams, including 17 from Canada, one from Mexico and one from Puerto Rico, entered the Society of Automotive Engineers (SAE) Mini Baja® East Collegiate Design Event which was held in the Bromont Ski area, Bromont, Quebec.

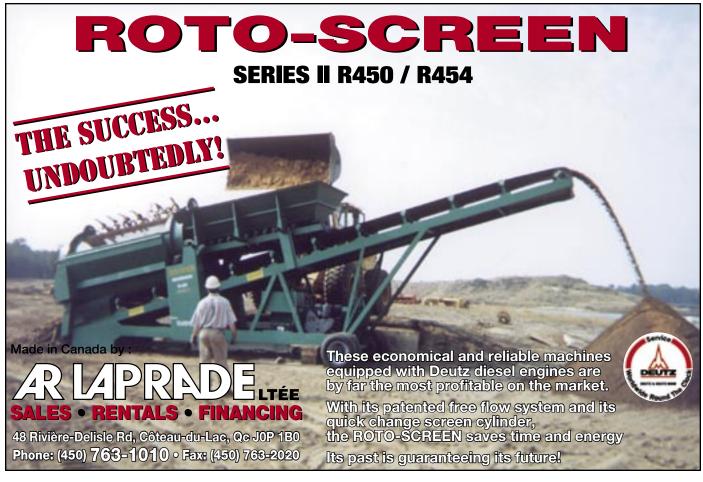
From thursday, May 6 through Saturday, May 8, the teams challenged the defending champions and host school Ecole de Technologie Superieure (ETS) from Montreal, Quebec which won last year and also won the 2000 event. Among them, local team Université du Québec à Trois-Rivières placed seventh in the 2003 event, held in Morgantown, WV. The University of Central Florida was the runner-up in last year's Mini Baja East competition.

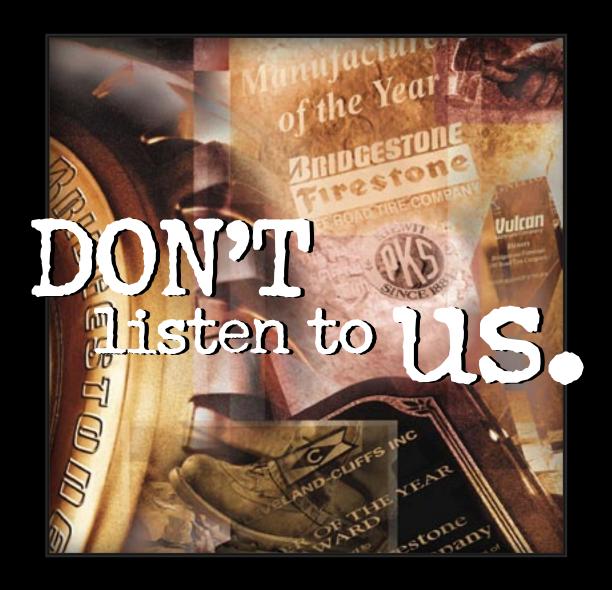
SAE Mini Baja® competitions simulate real-world engineering design projects and

their related challenges. The objective of the competition is to provide SAE student members with a challenging project that involves the planning, design, and manufacturing tasks encountered when introducing a new product to the consumer industrial market. Teams compete against one another to have their design accepted for manufacture by a fictitious firm. Students must function as a team to not only design, build, test, promote, and race a vehicle within the limits of the rules, but also to generate financial support for their project and manage their educational priorities.

All vehicles are powered by a ten-horse-power Intek Model 20 engine donated by Briggs & Stratton Corporation. This year marks the twenty-fifth year of Briggs & Stratton's generous support of SAE Mini Baja(R) events. This sponsorship by Briggs & Stratton has enabled SAE to provide each team with a dependable engine free of charge. Use of the same engine by all the teams has created a more challenging engineering design test.

Source: SAE International





LISTEN TO THOSE WE SERVE.

Our customers rely on Bridgestone/Firestone for more than tires. They trust us as a partner dedicated to new technology, product innovations and award-winning service. And through the success of these partnerships, we've become proud leaders in the Mining Industry. Call today for more information or visit us at www.bfor.com





held in Munich, Germany. Over 410,000 visitors came from all over the world to see the exhibits of 2,800 companies spread over 500,000 m², confirming the status of bauma as the biggest show in the world for users of construction and mining machinery.

SETTIONS

Wireless scales for conveyors





The Professional's Choice for Specialized Equipment



New model 8815 Even more robust.
Choice of steel or rubber crawlers. A new Legend™ screed table.
12 inch feeding screws.
Lee-Boy again shows the way towards a greater productivity.



At J.A. Larue Inc., you'll find a wide range of **Land** and **Russ** name-brand specialty road building and maintenance equipment to meet your varied construction needs. Rental from **Land** means no surprises – you put the right equipment on the job when you need it and you know the cost before the equipment arrives at the site.

A special twist to the rental game

The specialized nature of the LeeBoy Rents equipment lineup of industry leading paving, grading and road maintenance equipment adds a new twist to conventional rentals.

Plus, with J.A. Larue Inc. branches in Laval and Quebec, you're never far from a LeeBoy Rents location!



1-800-631-9297

Quebec Branch

680 Lenoir St. Ste-Foy, Qc G1X 3W3 Fax: (418) 658-6799

Laval Branch

2220 Michelin St. Laval, Qc H7L 5C3 Fax: (450) 687-9921



LeeBoy 685B grader
Articulated frame, hydrostatic drive, 110 HP Cummins
Turbo engine, front blade and scarifier.



Asphalt distributors

Skid (S) or trailer-mounted (T) asphalt distributors are designed to provide commercial pavers with an efficient and easy to operate unite for tack coating.



Maximizer III asphalt distributors

Designed to deliver accurate, uniform and economical applications of liquid asphalt.



RA300 SprayPatcher pothole patchers
Produce longer-lasting spray injection pothole patches
and road repairs, faster, safer and more economically.

Emergency Parts-Service 24/7 • www.jalarue.com

BOMAG Uses ContiTech Hydromounts

The world's leading supplier of compacting equipment, BOMAG in Boppard/Rhine, equips its new articulated tandem roller with Schwingmetall® hydromounts from ContiTech Vibration Control. At present, prototypes of the Schwingmetall® V3200 hydromount from ContiTech are being tested in two BOMAG roller models. Production will get started in mid-2004.

"In doing this, BOMAG is following the market trend for enhanced comfort and safety for construction machinery, which in the future will be stipulated by more stringent EU regulations," according to Frank Dahmen, sales director for the industry segment at ContiTech Vibration Control. "We will be equipping the fourth generation of tandem rollers with cabin mounts from ContiTech," adds Christian Schmidt, head of design for large tandem-drum rollers at BOMAG. "The conical mounts used previously provided sufficient vertical isolation, but such mounts are still too vertically stiff despite modifications," explains Schmidt. And that is why

BOMAG decided to cooperate with ContiTech Vibration Control and use Schwingmetall® hydromounts for the cabins.

The vibrations generated by the vibratory roller work longitudinally along the direction of travel in all four quadrants, either by principle or intentionally to optimize compaction performance The actual vibration generators are joined elastically to the machine frame with a high degree of isolation, but in the case of horizontal excitation the vibration stress the driver is subjected to is sometimes too high. To ensure a comfortable ride in cabins on vibratory rollers, the mounts used must isolate horizontally just as well as vertically. "We do just that with the cabin mounts from ContiTech," explains Schmidt. The hydromount also improves the damping effect when driving over irregular terrain. "A characteristic that cannot be achieved to this extent with elastomer mounts."

This mounting concept has been used successfully for many years on Linde and Jungheinrich forklifts and JCB industrial



vehicles. The hydromount was adapted especially to meet the needs of BOMAG.

Besides the enhanced damping characteristics, the Schwingmetall® hydromount from ContiTech is also less likely to break away. "For the BOMAG application, we dimensioned our standard V 3200 hydromount for greater forces so that it can withstand the so-called ROPS test," comments designer Reinke. "For this machine weight class, no additional parts are needed to support the ROPS forces, and the mounts are easier to install than conical mounts," adds Schmidt.

Source: ContiTech

SIZE 1300X24 1400X24 1400X24 21L24 20.5R25 23.5X25 23.5X25 24.5X32 24.5X32 26.5R25 29.5R25 1800X33	MODEL	TREAD LEFT 75% 75% 50% 75% 40% 50% C/O 50% 95% 40% 75%	PRICE 250.00 \$ 275.00 \$ 300.00 \$ 400.00 \$ 400.00 \$ 700.00 \$ 1000.00 \$ 1300.00 \$ 1500.00 \$	
Limited quantities • Prices right at time of publication For more information, please call Normand Gagné Telephone 450-477-6444 • Toll Free 1-877-477-6444 www.pneusdd.com • info@pneusdd.com				
The Used Tire Specialist: Trucks Off-Road Agricultural 24 HRS ROAD SERVICE WE SELL TIRES NEW • USED • RETREADS HOT VULCANIZATION 2950 Gascon Rd, Terrebonne, QC J6X 4H4				







Terex 2004 HR42 Excavator

operating weight 12 500 kg (27 563 lb) maximum digging depth 4,3 m (14'2") zero tail swing, quick attach, etc.

Also: 2004 Terex HR20 operating weight 5656 kg (12 458 lb) maximum digqing depth 4.8 m (15'11")



Terex Roto-Mill PR160 CMI

Cummins 160 hp engine two-axle steering clear forward view of cutting area 24" cut with conveyor

These machines are available for immédiate delivery Other models available

«To try it, is to adopt it...»

Articulated wheel loaders

Mini-excavator Wheeled excavator Loader-backhoe Work platform Telescopic material handler

visit our website at

www.lavalhino.com

for an up to date list

Spring Specials

Terex SCL 515 NEW, 3520 kg (7390 lbs), cab, 0,65 m³ bucket 2000 Schaeff SKS 633, «swing boom» very few hours Terex SKL 824, NEW, 4130 kg (9050 lbs), 1,0 v³ bucket Terex SKL 834, NEW, 5100 kg (11 240 lbs), 1,2 v³ bucket Terex SKL 853, NEW, 6800 kg (14 990 lbs), 1,55 v³ bucket Terex SKL 863, NEW, 8550 kg (18 853 lbs), 2,4 v³ bucket Terex SKL 863, NEW, 8550 kg (18 853 lbs), 2,4 v³ bucket Terex SKL 873 SP, NEW, 13 500 kg (29 735 lbs), 3,5 v³ bucket 1999 Schaeff HR14, 2855 kg (6488 lbs), very few hours 1999 Schaeff HML22, 6100 kg (13 436 lbs), very few hours Terex TX760, NEW, depth 4,5 m (14'8"), power 86 hp Upright 4x4 1999, articulated mast, reach 60 feet, 1500 hours Terex SS1048 4x4 1998, capacity 10 000 lbs, reach 48 feet



1999 Terex TA30 articulated truck, 30 tons, very few hours



1999 Terex CD225 25 tons crane, 1200 hours, perfect condition

Distributed by:



Financing!
GE Capital/Terex Financial
From 1,36%/36 months
on new equipment

Denis Ferland, President Carmine Romano Luc Chevrette Telephone: 1-800-409-4455 or (450) 667-4466

1385 des Laurentides blvd, local 106, Laval, QC H7M 2Y2















High Strength Steels for Contractor Equipment and The Vehicle Industry

As the largest producer of strip and sheet steel in Scandinavia, SSAB Swedish Steel maintains a leading position in the manufacture of extra high strength and ultra high strength steels in Europe.

"We want to extend our know-how and move away from commercial grade steel production and are therefore developing and producing new steels in the ultra high strength steel range," says Mr Anders Elfgren, Marketing Director of SSAB Tunnplåt. He continues: "Our success over the last few years definitely proves that we are on the right track. We are continuing to develop our products in the Domex and Docol range and, often in co-operation with our customers, seeking new applications for these materials."

Domex is the brand name of hot-rolled steel from SSAB Swedish Steel, available in high strength and extra high strength steel grades for cold forming. SSAB will conclude the development of ultra high strength steels with yield strengths of 800 N/mm² and 900 N/mm² this year.

Products designed with extra high and ultra high strength steels can be made significantly lighter without sacrificing their strength. As a rule of thumb, doubling the strength of the steel, means that the thickness can be reduced by one third.

An important application for Domex is in construction equipment and automotive production. A number of exhibitors at the bauma Trade Fair already use Domex in their products. These include cranes, trailers, concrete mixers, cylinders, tipper bodies and truck trailers. Constructions can be made lighter or more stable and robust due to the increased strength and better performance characteristics of the steel. In the transport industry, this means increased payload. Domex has excellent cold forming properties, whilst still having good properties for welding,



shearing or cutting with laser or plasma technology.

DOCOL UHS - A HIGH-TECH STEEL WITH MANY APPLICATION AREAS

Docol UHS is a cold-rolled and ultra high



1475 boulevard Pie XI Sud, Val Bélair, QC G3K 1H1

www.cartierpontiac.com



TRUCK CENTER

Gilles Corriveau Cell: (418) 570-6464

Tel.: (418) 847-6000 Fax: (418) 847-6003

















 OVER 60 NEW TRUCKS AVAILABLE
 READY FOR DELIVERY
 HEAVY DUTY PICKUPS SPECIALIZED UNITS - EMERGENCY - FIRE - MOBILE WORKSHOP - CREW CAB - AND OTHERS strength steel with a guaranteed minimum ultimate tensile stress, depending on grade, of between 800 and 1400 N/mm², and a yield strength ranging from 500 to 1200 N/mm². Docol UHS offers many competitive advantages, even when used for simple parts. Thanks to the high yield strength of this new steel, the sheet thickness in many components can be reduced. Furthermore, it is easy to convert an existing design to Docol UHS with little or no modification. With Docol UHS, the costs of raw material and production can be reduced. There will also be reduced impact on the environment due to less use of resources and less fuel consumption for the final vehicle.

This steel is a good choice for reducing weight or for achieving high resistance against impact, for example in containers. Docol UHS can also be used for products that need to act as a spring and can thus replace spring steel and eliminate expensive heat treatment in the production process. It is also an ideal material for products that are exposed to extensive wear. Typical applications include clutch discs, knives, automotive safety components, clips, fasteners, containers, ladders, tubes, chains... - Docol UHS optimises many applications.

SUPPORT IS A PART OF SSAB'S COMPANY **PHILOSOPHY**

SSAB assists all its customers in developing new applications for Domex or Docol. In some countries there is a local technical customer engineer that can assist vehicle designers and other users locally on larger projects. The wide knowledge and support of the application departments and technical service centre in Borlänge is a further resource as there are competent specialists with long practical experience of ultra high strength steels working there. The experts in the technical support centre all have extensive know-how in material science and tooling and can offer leading-edge expertise in such areas as dimensioning, forming, joining and surface finishing.

The experts at SSAB Swedish Steel use the latest tools and methods in order to help their customers to identify the appropriate steel grades and the right design. This includes FEM, the Finite Element Method, a method that makes it possible to simulate

every step in the development of a compo-

This includes for example, the choice of steel grade, the design of the semi-manufacture, the tooling method and finally the design of the part.

Using ASAME software it is possible to quickly and safely check that a designer has used the right combination of steel grade and design. ASAME measures the distribution of tension in pressed parts and the data input is computed by powerful software which provides information about the influence of the tool, production method and design of the raw material.

Source: SSAB Tunnplåt AB





ALLFETT, is a team of experienced professionals who know very well your equipment and the extreme conditions to which it is subjected.

• Fast and Efficient Service

Proven Quality

Our team of professionals will give you a service that will measure up to your expectations.

ALLFETT Solutions PO Box 131 Vaudreuil-Dorion, QC J7V 5W1

Telephone: (450) 455-0022 Fax: (450) 455-0204

E-Mail: info@allfett.ca

ACCESSORIES MACHINERY LIMITED



since 1940

Tel: (519) 622-7974 • (519) 729-6466

Toll Free: 1-800-461-1979

CAMBRIDGE, ONTARIO

Fax: (519) 622-4380 Internet: www.aolaml.com • e-mail: aol-ont@aolaml.com MANUFACTURER • DISTRIBUTOR

VACUUM SWEEPERS ASSEMBLED IN CANADA



CityFant 50 & 60



CityCat 5000

CityCat 2020 XL

CitySpider

• BUCHER Street Sweepers

• Replacement Parts for All Makes of Sweepers

• Street Sweeping Brushes

• Steam Boilers for Frost Control

• BENFORD Vibratory Rollers

• SULLIVAN Air Compressors



HX Chassis Enhancements for Car Haulers From Sterling

Sterling Truck Corporation introduced updates to its car hauler offerings, including HX Chassis enhancements and several components include the MBE4000 engine. Available this summer, these enhancements underscore Sterling's commitment to continued product development for the car hauler industry.

"Sterling is continuing to update its product offerings for the car hauler market," said John Merrifield, Senior Vice President, Sterling Truck Corporation. "The development of the HX Chassis has enhanced our line of heavy-duty trucks, and we are pleased to offer these same benefits to customers in the car hauler market."

The MBE4000 engine is among many of the new car hauler updates. Designed for on-highway and vocational applications, this engine is one of the strongest and lightest engine in its class, and comes standard with an exhaust brake with no additional weight penalty.

The lightweight 12.8-liter engine offers high horsepower ratings, and uses advanced materials and components to achieve an excellent power-to-weight ratio. This allows for a greater payload capacity and increased efficiency.

Sterling's updated car hauler features include:

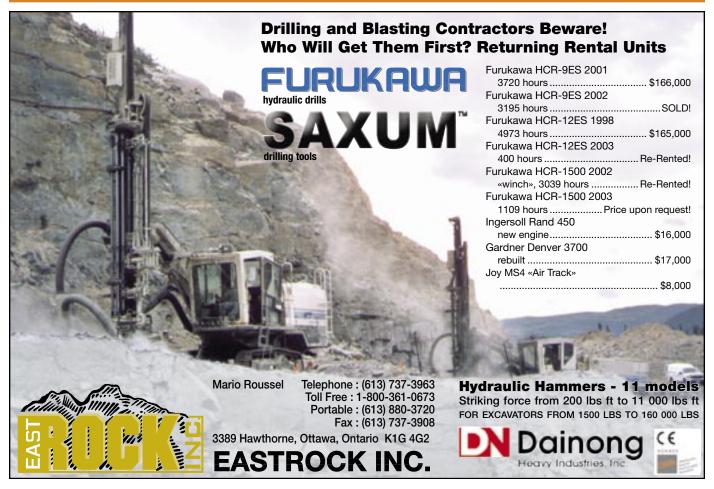
 a 95" overall ground to cab unladen height, the shortest height available in the industry without an undesirable cab modification



- 101" BBC, the shortest hood length available in the industry
- 5-inch dropped front axle with a new design lowered front suspension
- ten and thirteen-speed transmission options
- standard 1,400 square inch radiator
- standard 80-gallon rectangular aluminum fuel tanks

Sterling has designed its car hauler specifically to maximize load capacity, and with a tradition of driver comfort and numerous custom options available, it can be specified to a customer's requirements and preferred equipment.

Sterling Truck Corporation, www.sterlingtrucks.com











- Quality -- Integrity -- Service -
- Innovation

The Professional's Choice

1-800-703-0150

GMC Savana and Chevrolet Express Vans Now Feature StabiliTrak Vehicle Stability Enhancement System

The 2004 GMC Savana and Chevrolet Express, the industry's first vans with a stability enhancement and traction control system, went on sale a few months ago.

"Equipping our 15-passenger vans with the StabiliTrak stability enhancement system makes what we believe is already a very safe vehicle even better by providing our customers with another important tool to help them avoid some of the conditions that can lead to a crash," said Robert C. Lange, GM executive director, structure and safety integration.

"We expect that the addition of this important safety system will further distinguish the Savana and Express from all other 15-passenger vans," said Ray Chess, vehicle line executive for the vans.

Stability enhancement systems help drivers maintain control of vehicles during certain difficult driving conditions such as ice, snow, gravel, wet pavement and uneven road surfaces; as well as in emergency lane changes or avoidance maneuvers.

GM's system works by recognizing wheel skid. Sensors detect the difference between the steering wheel angle and the direction the driver is actually turning by "reading" the steering wheel position, the amount of sideways force in play, vehicle speed and the vehicle's response to steering wheel input.

The system then uses the brakes to enhance control of the vehicle's

direction and to help keep it on course. It automatically reduces the engine torque and applies precise amounts of pressure to front right



or left brakes to help keep the vehicle on track. These brake and engine interventions help realign the vehicle's actual path with that being steered by the driver.

GM began installing stability enhancement systems in passenger cars in 1997, and now has more than 2 million equipped vehicles on

Lange Patenaude Equipement Ltée

18980 Transcanada Road Baie-d'Urfé (Montréal), QC H9X 3R1

Telephone: (514) 457-4333 1-800-239-9525 Fax: (514) 457-2875

RTV900 from KUBOTA

- 3 Range Hydrostatic Transmission
- 21.6 HP, 3 Cylinder, OHV Diesel Engine
- 1,102 LBS Loading Capacity

Order Yours Now!

(514) 457-4333



the road. In addition to being the first automaker to equip 15-passenger vans with the system, GM was the first to install stability enhancement systems in full-size sport utility vehicles.

Lange said that while stability enhancement systems help drivers avoid some of the conditions that cause crashes, no system is foolproof.

"We will keep educating our customers on the unique loading and operating characteristics of full-size, extended passenger vans," Lange said. "We support the advice of the NHTSA that drivers and passengers in vans – and all other vehicles – always use safety belts. And we remind all vehicle occupants to obey state seat belt use and child passenger safety laws."

The Savana and Express 15-passenger vans have a 155-inch wheelbase, the longest in the 15-passenger van segment. The longer wheelbase and other chassis design features help improve handling characteristics that allow the driver more control under various road conditions.

Other standard crash-avoidance features include four-wheel antilock brakes for directional stability in emergency braking situations and daytime running lamps for improved visibility. Safety belts, driver and front passenger air bags, front and rear crush zones and side-door beams are standard features designed to help protect occupants in the event of a crash.

The vans are produced at GM's Wentzville, (Mo.) Assembly Plant. For more information on GM's vehicle safety leadership, please visit www.gmability.com .

Source: General Motors Corporation

The Canadian Military to Ride in G-wagons

Mercedes-Benz Canada has been chosen to supply approximately 800 vehicles to the Canadian military to replace the Iltis in operationally tasked Field Force units and training



establishments. The G270 CDI Light Utility Vehicle Wheeled (LUVW) G-Wagon was developed for military applications 25 years ago and has been continuously updated with new technology. A truly rugged off-road vehicle, it can carry up to four soldiers, their military kits, weapons and other military and radio equipment. Powered by the latest common rail diesel technology, the 5 cylinder inline turbocharged intercooled G270 CDI engine meets the Department of National Defence (DND)'s fuel efficiency and exhaust emission requirements.

The first 60 vehicles have been deployed in Kabul, Afghanistan in March 2004

Source: Mercedes-Benz Canada



High Flow. Low Head Pumps Provide Safe Passage for Pacific Salmon



As part of a plan to safely guide juvenile salmon on their journey down Washington State's Columbia River to the Pacific Ocean, a fish bypass system at the Rocky Reach Dam is being equipped with 29 ultra-low head, high-capacity submersible pumps and auxiliary equipment from ITT Industries' Flygt unit.

Think of it as the ultimate water slide. It will cost close to \$160 million. But it's for fish, not for humans. It's Chelan County Public Utility Department's way of getting migrating, juvenile salmon safely around Rocky reach Dam on their way to the ocean, while maintaining the dam's original charter - its ability to generate power.

The project will be the most expensive fish bypass on any Columbia River dam upriver of the Tri-Cities. At stake is millions of dollars in electricity, fish survival, and the dam's operating license.

THE MIGHTY COLUMBIA AND ITS SALMON

Beginning in the ice fields of the Canadian Rockies, the Columbia River flows for over 1,200 miles to the Pacific Ocean. It is the fourth largest watershed in the United States, draining 259,000 square miles and receiving waters from seven states and two Canadian

provinces. The Columbia River has the second largest volume flow of any river in the United States.

The Columbia generates electric power, provides irrigation, and harbors deep-water ships that come and go across the Pacific. Millions of people depend on the river for employment in water-related industries, and for transportation.

Columbia River Basin has historically produced some of the world's largest runs of salmon. Estuarine habitats provide important nursery and rearing areas for young salmon, and adults use them as temporary holding areas during their return migration from the ocean to upstream spawning areas.

While a great many factors have contributed to the decline of salmon stocks in the Columbia River Basin, dams clearly have had a significant impact, including those through which fish passage is provided but at reduced levels from natural conditions. Overall populations of the basin's salmon fish stocks are estimated at less than 10 percent of their historic size, despite major hatchery programs.

FLYGT PUMPS GIVE SALMON A SAFE JOURNEY TO THE SEA

Providing a safe passage for juvenile salmon on their run to the sea - while at the same time allowing enough water to pass through the dam's turbines to generate electricity was a problem at the Rock Reach Dam. At 473 miles up the Columbia River from the Pacific Ocean, Rocky Reach was constructed in 1961 and provides the region with 1347 total megawatts of electricity.

Man-made "fish ladders" have long helped salmon navigate past dams during their upstream migration. The downstream migration of fish in US rivers, known as "smolting", has been severely affected over the years due to a lack of cost-effective hydro turbine bypass technology. This has resulted in a fish mortality rate of between five and eight percent, and with some of the bigger rivers in the US having as many as 50 dams along the path of the migrating fish, there has been a

significant decrease in fish numbers.

The environmental pressures have increased over the last decades, and has lead to recently passed legislation. This legislation mandates that owners and operators of hydroelectric dams either set mandatory spill periods during peak migration season, which results in a major loss in power production, or install devices to aid downstream fish migration. These devices, known as fish attraction systems, are used to lure and then divert juvenile salmon, steelhead and other endangered species away from the hydroelectric turbines to a transport pipe running through the dam and then out to safety.

According to Brett Bickford, the Senior Civil Engineer of Chelan County Public Utility District, which operates the Rocky Reach dam on the Columbia River in the north western region of the US, "as much as 60 to 70 percent of the average daily flow could be lost in spill periods during spring and summer, which makes it much more commercially viable to invest in a fish bypass system."

Now, thanks to Flygt pumps, another innovative man-made system is helping the salmon on their downstream trip. Swimming downstream, salmon "go with the flow". That means they are pulled into the fast-moving hydroelectric turbines at power plant dams. At the Rocky Reach Dam, the Chelan County Public Utility Department is constructing a very large "fish attractor" intended to allow the fish to bypass the turbines safely in a four-foot diameter tube.

"Scientific studies show that salmon prefer certain depths of water and velocities," says Stefan Abelin, director of Engineering at Flygt's U.S. operation in Trumbull, Connecticut. "The fish attractor is aimed at creating conditions to attract the fish toward the bypass system and away from the turbines."

In ongoing research in this field it was found that the best results are achieved by using pumps, however, no pump existed that would handle the high flow rate at an extremely low head, with the required efficiency rate. In 1998 ITT Flygt began development work on a new horizontally installed propel-

ler pump, which would be able to meet the required duty points. And after thousands of hours of CFD modelling and scale model testing, a new pump design was created. The pump utilises a planetary gear reducer to match the motor speed with the propeller rpm.

The fish attractor at Rocky Ridge is powered by these new low-head, high-flow Flygt pumps. The pump station is being constructed to accommodate 30 horizontal flow pumps for a combined capacity of 6,000 cubic feet per second. Chelan County placed an order for twenty-nine of the new pumps and auxiliary equipment. The 90 kW propeller pumps have a flow rate of 7.0 cubic meters per second at a head of 0.55 metres, providing a combined flow rate of 175 cubic meters per second. The auxiliary equipment includes 10 racks of flap gates to prevent reverse flow, electric controls, remote supervision, control buildings, transformers, pump testing, installation, plus an extended pump and control maintenance agreement.

"The reasons we selected ITT Flygt pumps for our fish collector were that they had a proven design, technical expertise and financial strength," says Bickford. "ITT Flygt was the pump producer we judged would be the most likely to succeed for this project."

MORE FISH AND MORE ELECTRICITY

The Rocky Reach Bypass System is the first full-scale fish attraction project ever undertaken. The Chelan County Public Utility Department hopes the new bypass will let it phase out all of its spills except for a 16 percent spill for 40

days each spring for Sockeye salmon which tend to travel too deep to use the bypass.

The Public Utility Department says the slide bypass will save money because the utility will not have to spill as much water to make sure the fish can migrate past the dam. That water instead can be used to generate electricity. The public utility lost \$14.2 million in power production at Rocky Reach in 2000 due to spills for all species of salmon and steelhead.

Without the system, Rocky Reach would have to spill 60 to 70 percent of its average daily flow in the spring and summer, costing an estimated \$934 million in power produc-



tion over the 15-year financial life of the new system.

"We think the \$160 million total cost is quite a good compared with that kind of power loss," Bickford said. "We need this to renew our license, and it's just being a good steward of the resources to maintain multiple species of salmon."

"We're proud to be part of this very interesting project," says Flygt's Abelin. "When this technique is proven to be successful at Rocky Reach, we expect other dam operators and owners to take notice."

For More Information: www.flygt.com

LeeBoy Introduces 785 Motor Grader

LeeBoy's new 25,300-pound 785 Motor Grader with its long 17' 4" wheelbase and articulation gives agencies and contractors a versatile motor grader with enhanced visibility and optimum pulling power. It features a Tier II 130-hp turbo-charged Cummins diesel engine that powers a 6-speed powershift transmission. The rear wheels are gear driven by a Dana tandem differential. The 785 also features internal multi-disc service brakes and spring-applied pressure released fail-safe brake.

The 785 has a 12-foot moldboard with 60" right or left sideshift. The moldboard features 32-degree blade forward pitch and bank cut angle capabilities of 90 degrees or more. The 785 has a 54" gear-driven turntable with 360 degree rotation and a 23" lateral shift, allowing the operator to shift the blade in or out of hard to reach areas.

The 785's climate-controlled cab is designed to enhance visibility of work area, making the 785 a year-round workhorse. It



has a full tilting steering column with industry standard controls. The fully cushioned mid-high back mechanical suspension seat enhances operator comfort.

The 785 motor grader frame features 40 degrees total articulation from behind the cab to increase maneuverability. The front axle offers 76 total degrees steering with 34 total degrees wheel lean for a highly maneuverable

18-foot inside turning radius.

Scarifiers are offered for front or rear. Front standard scarifier is 46" wide with slots for up to 11 ripping teeth. Rear scarifier is 73" wide with slots for up to 13 ripping teeth.

Engine compartment is easily accessible for all engine and transmission maintenance.

Source: LeeBoy, www.LeeBoy.com

CERIU Fact Sheets:"Sealing and Grouting"



Fact Sheet IP-02 Trenchless Techniques Spot Repairs Sealing and Grouting

DESCRIPTION OF THE TECHNOLOGY PURPOSE AND USE

The sealing and grouting technique is designed to repair cracks and other sources of infiltration in gravity type sewer pipes. It can also be used to fill in small voids present in the surrounding soil near the site of the deficiency to be corrected.

PROCEDURE

A specially designed test and seal packer is attached to an inspection camera and inserted into the pipe up to the section to be rehabilitated. The camera makes it possible to position the packer and view the operation.

When inflating the packer, the opera-

tor must first ensure that the deficiency is completely isolated. A chemical grout is then injected under pressure. The grouting operation is complete once a pre-set pressure is reached, maintained and the element has passed a watertightness test. Following injection, the grout forms a gel in the surrounding soil, blocking air spaces.

Once the grout is cured, the packer is deflated and repositioned at the next deficiency, and the operation is repeated.

In man-entry pipes, manual grouting can also be performed. A pattern of holes is made to cover the area to be sealed. It is important to ensure that the product has covered all the surface to be sealed.

MATERIALS

There are a countless number of injectable

products (e.g. acrylamide, acrylate, ероху, polyurethane. polygrout, etc.), each adapted to specific conditions and repair work. However, the most frequently

used product is acrylamide.

Additives exist which can treat roots, prevent crystallization of the product and boost its compressive strength.

APPLICATION TYPES OF PIPES AND STRUCTURES

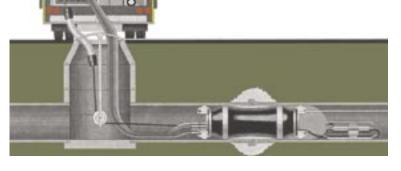
Repairs using a test and seal packer are limited to circular sewer pipes. Manual repairs can be done in any shape of pipe.

Packers are available for pipes with a diameters ranging between 100 mm and 3,600 mm and vary depending on the company doing the repair work.

This technique can also be used to rehabilitate house laterals between 90 mm and 225 mm in diameter over lengths varying from 0.3 m to 6 m. The work is done using packers specially designed for this purpose.

Preliminary and Complementary Work A CCTV inspection must be carried out beforehand to determine the location and degree of degradation.

To ensure the watertightness of the grout-



ing packer, the pipe must be clean and free of any deposits.

CONDITIONS AND LIMITATIONS

Sealing can be done at any time of the



To Dig Safely

Montreal (514) 286-9228 Toll Free 1-800-663-9228 www.info-ex.com

FREE UNDERGROUND INFRASTRUCTURE LOCATING SERVICE

year. Special precautions should, however, be taken in colder weather, such as using hot water in the product mix.

In areas subject to freezing, the manufacturer may recommend the use of certain additives.

The technique can be used in any soil type. Given the corrosive nature of the grouting material, this technique cannot be used to rehabilitate corrugated steel pipes.

DEADLINES AND TIMEFRAMES

The delivery of sealing products, which are generally readily available, should not affect the overall project timeline. The duration of the work varies depending on the size of the pipe, number of voids to be filled and type of soil.

TESTING AND MONITORING

The setting time and consistency of the product are normally checked before work is started.

Once sealing is done, the repairs are tested for watertightness.

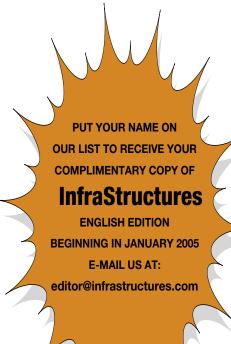
STATUS OF THE TECHNOLOGY

The technology was developed in the United States in the early 1950s to stabilize excavations and has been used to seal underground pipes since the 1960s.

CERIU assumes no responsability whatsoever concerning the application of the techniques and procedures described in the present fact sheet.

To obtain the complete collection «CERIU Fact Sheets» you are invited to contact Mrs. Céline Forest , by phone at (514) 848-9885 poste 272 at the Centre d'expertise et de recherche en infrastructures urbaines (CERIU).





WANT TO GET IN CLOS

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-Ib 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 ShortRadius 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.











1089 Des Pionniers Ave. Balmoral NB E8E 1B5 Phone: (506) 826-9108 • Fax: (506) 826-3832 • www.markgravelbox.com Martin Bissonnette Cell.: 506-759-5448 . Carl Arseneault Cell.: 506-684-0515

Record Setting Attendance at the Atlantic Heavy Equipment Show

If you are in the road building, forestry or construction industries in the Maritimes and you missed this show... then you are one of the few! Thursday, April 1 was a very strongly attended day at the Atlantic Heavy Equipment Show but Friday, April 2, literally blew the doors off! Visitors filled the lobby and

major manufacturers were represented with their machines front and center all shined and ready to be sold...and sell they did. As equipment rolled out of the building on Friday night there were many comments from exhibitors about machinery that was sold on the show floor and sales that were expected to follow

Eddynet

owned by the Atlantic Land Improvement Contractors Association (ALICA). The pro-





were lined up outside to catch a glimpse of the gleaming heavy iron on display. Friday's attendance numbers broke all previous records at the Atlantic Heavy Equipment Show, representing the highest attendance on a single day in the history of the show.

The lines might have been long, but they moved quickly and visitors certainly weren't disappointed by what they saw inside and outside the Coliseum. Once again, all the

almost immediately.

Many thanks are due to the exhibitors who support this event year after year and the effort they put into making the show the success it has become. Thanks are due also to the many visitors who helped to support the Log-A-Load for Kids Campaign by contributing to the donation boxes found at various exhibitors booths throughout the show.

The Atlantic Heavy Equipment Show is

ceeds from this event go towards supporting a number of industry-related scholarships.

Visit us often for updates on the 2006 event. In the meantime keep in mind that Demo 2004 is coming to the Forêt Montmorency, September 16-18 www.demo2004. ca and the National Heavy Equipment Show returns in Toronto April 7-8, 2005 www. masterpromotions.ca/nhes

Source: Master Promotions

Advance Registration for Conexpo-Con/Agg and IFPE

Advance registration for Conexpo-Con/Agg 2005 and the co-located IFPE 2005 will open August 2, 2004, offering attendees the opportunity to arrive at the shows with their badges in hand and more money in their wallets thanks to the advance registration discount.

Housing for Conexpo-Con/Agg 2005 and IFPE 2005 as well as Conexpo-Con/Agg 2005 seminar advance registration will also open August 2, 2004.

Conexpo-Con/Agg 2005 seminar advance registration offers savings on single tickets, four-ticket packs and 12-ticket "value packs". The IFPE 2005 Technical Conference and the "Solutions Exchange" event are free for all registered Conexpo-Con/Agg and IFPE attendees.

The shows will be held March 15-19, 2005 at the Las Vegas Convention Center in

Las Vegas, Nevada, USA and are expected to draw an international audience of over 100,000 professionals from the construction,



construction materials and power transmission industries. Attendees who register for either of the shows will gain access to both events.

Attendees can register in one of four easy ways – online, via phone or fax, or through the mail. Online registration is available in English. Downloadable registration forms in PDF format are posted in Chinese, French, German, Italian, Japanese, Korean, Portuguese, Russian and Spanish as well as English. Printed registration brochures with full details on Conexpo-Con/Agg 2005 and IFPE 2005 will also be available in all 10 of these languages.

Register, buy seminar tickets, reserve a hotel room or request a registration brochure online, or register by phone by calling 1-847-940-2156.

Source: Conexpo-Con/Agg 2005, www.conexpoconagg.com IFPE 2005, www.ifpe.com

WHEN DOES 1+1=3?

Net your company a big profit for the next **3 YEARS** and beyond with a visit to CONEXPO-CON/AGG 2005, the world's #1 SOURCE for the construction and construction materials industries and your #1 SOURCE for industry education. More than 100.000 professionals like you count on CONEXPO-CON/AGG for the full spectrum of innovations in machinery and emerging technologies. With 2.300 manufacturers and service providers spanning more space than at any other

trade show in the world in 2005, CONEXPO-CON/AGG offers infinite opportunities to compare products and meet face-to-face with suppliers. Powerful education and training programs for contractors, materials producers and public officials will feature industry experts and high-impact information that can add to your company's success. CONEXPO-CON/AGG is your ONE SOURCE for education, product, people and networking.

YOUR COMPETITION'S DOING THE MATH. WHAT ABOUT YOU?



MARCH 15-19, 2005 • LAS VEGAS, USA

The world's largest international exposition in 2005 for the construction and construction materials industries.

Co-located with IFPE 2005—The International Exposition for Power Transmission

Visit our website and click on "International Visitors" for further information.

www.conexpoconagg.com

Tel: +1 414-298-4141 • Fax: +1 414-272-2672

Sponsored by Association of Equipment Manufacturers • National Ready Mixed Concrete Association • National Stone, Sand & Gravel Association • Associated General Contractors of America



Johnston Madvac Inaugurates its New Premises in Longueuil: A \$10-Million Investment

Johnston Madvac, a subsidiary of the Johnston Group, world leader in the manufacture of cleaning equipment for outdoor public spaces, inaugurates its new building in the Boucherville Industrial Park, Longueuil.

"Without a doubt, these new facilities, built at a cost of \$10 million, will enable us to bring our range of products under one roof, offer superior quality and be more competitive on the international market," said Gabriel Charky, president of Johnston Madvac.

Madvac was founded in Quebec in 1986 and subsequently sold in 2000 to the Johnston Group, to become Johnston Madvac.

This multinational designs mechanical sweepers and vacuum sweepers for cleaning, disinfecting and sanitizing streets, sidewalks, public spaces and other high-traffic outdoor spaces. The Johnston Madvac sweepers are built by experts to take on the challenge of

busy areas. These high-quality, economical machines are a perfect fit for the constraints of an urban environment.

The new 135,000 sq. ft. plant is strategically located on Highway 20. "Madvac had very

than 25,000 sweepers worldwide and has close to 200 distributors. The City of Montreal is unquestionably the Company's largest customer in Quebec. "In addition to the quality of its products, Johnston Madvac is most



humble beginnings. It all started in a 150 sq. ft. garage, with two employees and an empty order book. Today, we have a presence in 80 countries and 95% of our production is sold outside Quebec," said Mr. Charky.

To date, the Johnston Group has sold more



proud of the fact that every municipality that purchased their first machine has become a loyal customer," concluded Mr. Charky.

Source: Johnston Madvac www.johnstonmadvac.com







É.L.P.

Highest quality equipment

- snow removal
- spreader/dump/trailer



Western Québec / other régions

ÉQUIPEMENTS LOURDS PAPINEAU INC.

1186, Route 321 North, PO Box 5040 Saint-André-Avellin, QC Mr. Michel Lemieux

> Telephone: (819) 983-5000 Fax: (819) 983-5555 E-mail: vente@elp.ca

DISTRIBUTORS FOR ELP PRODUCTS

Abittibi

LES ATELIERS DUFOUR & ASS.

Val d'Or Mr. Alain Dufour

Telephone : (819) 874-2723

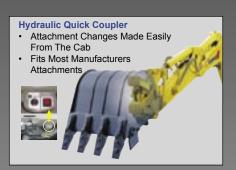
Quebec City / North Shore

ÉQUIPEMENTS TRANS-CAM

Baie Comeau Mr. Aubert Lavoie Telephone (toll free): 1-866-788-3379 Eastern Ontario

R. CARDINAL & SONS

Truck Equipment Snow/Dump/Hydraulics Telephone : (613) 833-3151 True Zero Tail Swing with ViO Series





VICTAS

ViO Crawler Technology Advanced Stability

The offset track system offers more stability without increasing track width

<u>Model</u>	Operating Weight	Dig Depth
VIO15	1,680 kg	2,220 mm
VIO20	2,200 kg	2,620 mm
VIO27	2,850 kg	2,850 mm
VIO35	3,500 kg	3,350 mm
VIO40	4,360 kg	3,750 mm
VIO50	5,120 kg	4,000 mm
VIO75	7,950 kg	4,700 mm



We Beat The Competition With:

- True Zero Tail Swing
 - Hydraulic Quick Coupler
 - Patented Off-Set Track Design

Super Comfort Cab







ViO15



ViO20



ViO27





ViO40



ViO50



YANMAR – YOUR BEST PARTNER FOR THE FUTURE



YANMAR

TERRITORIES AVAILABLE

For more information to become a dealer contact :

Maurice Paiement (regional manager)

Phone: 450-227-3205 Cell: 514-835-4578 Fax: 450-227-8238

E-Mail: mauricepaiement@cgocable.ca

YANMAR dealer list

Les Sevices Boom-Loc Inc. Mercier, QC 450-492-6699

Remourques Lewis Inc. La Presentation (St-Hyacinthe), QC 1-877-796-5656

Location Amos Amos, QC 819-732-8301 Raymond Lasalle Inc. St-Thomas Cte Joliette, QC 450-756-2121

Location Laurentides Ste-Agathe de Monts, QC 819-326-2655

Les Entreprises Michel Girouard Inc. Laurier Station, QC 418-728-4534 Les Entreprises Michel Girouard Inc. Victoriaville, QC 819-758-9566

Mecano Mobile R.L. Inc. Amqui, QC 418-629-8111

Les Equipements J. Achard Ltee. Saguenay (Jonquiere), QC 418-548-7182 Ottawa Equipment & Hydraulic Ottawa, ON 613-748-9000

Amstein Lawn & Garden Co. North Bay, ON 705-472-8500

Hawkesbury Equipoment & Rental Inc. Hawkesbury, ON 1-866-632-7368 West-Kent Auto Inc. Menramcook NB 506-758-2955



IF YOU'RE DRIVEN TO OWN THE HIGHEST IN SATISFACTION, THIS IS YOUR TRUCK.

What's it like to own a Sterling®? Ask a Sterling owner. Sterling Trucks received the highest customer satisfaction ranking for conventional medium-duty trucks in the J.D. Power and Associates 2003 U.S. Medium-Duty Truck Customer Satisfaction Study.™ Sterling conventional medium-duty trucks received a higher overall product satisfaction ranking than any other manufacturer. The study evaluated factors including engine, cab interior, and exterior design and styling. See your local Sterling work truck expert to test drive a dependable medium-duty Acterra® and L-Line. Or visit **www.sterlingtrucks.com**. And see real satisfaction at work.

J.D. Power and Associates 2003 U.S. Medium-Duty Truck Customer Satisfaction Study.™ Medium-Duty Truck defined as Gross Vehicle Weight Class 5, 6, or 7 truck. www.jdpower.com





You'll like the way we work.™