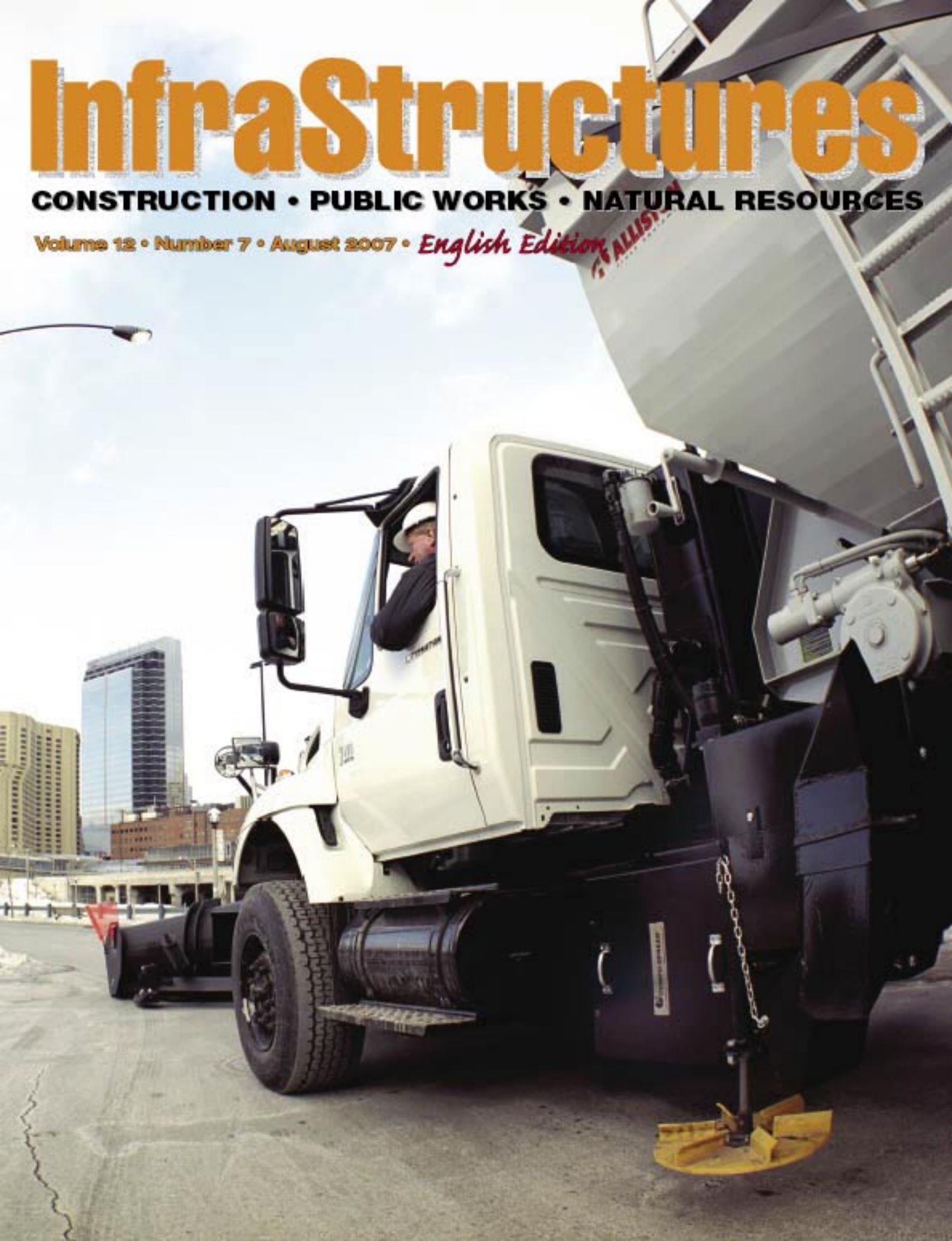


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Volume 12 • Number 7 • August 2007 • *English Edition*



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Volume 12 Number 7
August 2007

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A Word From the Publisher

Once again the August issue of InfraStructures is focused on Winter Road Maintenance.

While it may surprise some to feature such chilling content as temperatures approach record high levels, many manufacturers and suppliers asked us some time ago to help "jump start" peoples' thinking about equipment requirements early before the Fall crunch!

If we did not prod readers a little, many in the public works and contracting sectors may wait and be caught in the rush for shop space, equipment and componentry. A situation many of us know well and one in which tensions run very high, and customer service may not be best served.

By filling our pages with informative articles and photographs on topics related to the white stuff, we have continually managed to serve the best interests of our audience.

For those of you who manage to escape the thrill of the winter equipment chase, there are still the usual assortment of insightful and topical pieces for your entertainment and education.

Let us know how we may be able to better serve your information or advertising needs.

Regards from the Beach!



Editor/Publisher



On the cover:

A truck equipped with a snowplow and a spreader near the CN Tower, in Toronto, Ontario.

(picture: Thies Bogner/Bosch Rexroth Canada)

CONPOREC IMPLEMENTS AN ULTRAMODERN COMPOSTING COMPLEX

Conporec inc. recently announced a \$9 million investment to implement the first large ultramodern composting plant for organic material in Bécancour, Quebec. Strategically located in the heartland of Quebec and serviced by highways, railroads and the port of Bécancour, the new Conporec plant will offer a performing alternative for the treatment of organic material to reach the 2008

governmental recovery rates. For Conporec and its shareholders, the La Prade treatment plant represents a basic component of its business plan and a major milestone in its dominance on the Canadian market.

The first phase will be the implementation of a source separated organic (SSO) plant with higher performance than any existing facility. Using a patented technology developed through the cooperation between Conporec and its Biomax subsidiary, this plant will

become Conporec's technology showcase in SSO treatment. The second construction phase will comprise the completion of the waste management system through a sorting-composting facility, the backbone of Conporec's technology, acknowledged worldwide for its efficiency in processing unsorted domestic waste. This combination of technology and know-how will allow Conporec to offer municipalities access to its performing and competitive treatment services for their waste, no matter the collection method used.

"As municipalities are looking for solutions to treat organic material, Conporec is confirming its role as technological, environmental and economic leader in responsible waste management through this new initiative. Our new plant will reflect this image and, similar to the Delaware County, New York, project, the plant will set new standards in quality and performance for our industry. The La Prade Environmental Park will be the start of a concept with almost unlimited possibilities", stated Jean Beaudoin, Conporec chairman and CEO, when announcing the project.

Covering a total area of 110 000 m² and comprising buildings totalling 15 000 m², the new center will regroup, over time, other environmental activities and technologies, thus effectively recycling the former Atomic Energy of Canada Ltd. heavy water plant.

Conporec is planning to implement in this environmental park waste recovery units to produce biological fertilizers, biofuels or energy from the biomass that will be treated through its processes. The La Prade Environmental Park will help Conporec carry out projects on the transformation of biomass into green energy, thus increasing the company's environmental performance. For example, the transformation of waste into biofuel will help the company to reach recovery rates of up to 90% from residual domestic waste. A multipurpose center, the La Prade Environmental Park will position the Company as the Canadian leader in the strong value-added sector of waste recovery and will help it concentrate its activities and state-of-the-art technologies.

Source: Conporec Inc.

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GE AWARDS PARTNERSHIP WITH ECO-MAGINATION LEADERSHIP AWARD

GE Water & Process Technologies, a unit of General Electric Company, recently awarded Petro-Canada and the City of Edmonton with Canada's first 2007 *Global*

ecomagination Leadership Award for its ground-breaking partnership, which implemented an environmentally-sustainable water management solution for the region. The private-public partnership, a first-of-its-kind in Canada, saved over 2 650 000 m³ of fresh water while significantly reducing the amount of wastewater discharged into Alberta's North Saskatchewan River.

"Petro-Canada and the City of Edmonton partnership is a great example of how private and public entities can mutually balance environmental goals with economic and industry objectives," said Jeff Garwood, president and CEO, GE Water & Process Technologies. "This pioneering partnership is making a positive difference for business and for Edmonton's environment. We applaud Petro-Canada and the City of Edmonton for their leadership and environmentally sensible approach to growth."

One of the largest refineries in Canada, the Edmonton facility refines approximately 135 000 bbl of crude oil per day. In 2002, the facility began to make modifications to meet recently enacted initiatives by the Alberta government to balance the growing demand for water and increases in growth. Rather than increase its freshwater withdrawals from the North Saskatchewan River, Petro-Canada partnered with the City of Edmonton to implement a solution that was environmentally sustainable, economically viable and capable of meeting current and future regulations.

"There is more demand than ever for clean water in the Edmonton region and this is the first time in Alberta that high quality recycled water is being provided to industry as an alternative to river water," said Edmonton mayor Stephen Mandel. "Edmonton has long recognized the benefits that partners bring to the table in meeting environmental challenges. This project is a critical part of EcoVision Edmonton®, the City's commitment to ensure the environment is protected for generations to come."

Petro-Canada financed the construction of a tertiary membrane filtration facility at Edmonton's Gold Bar Wastewater Treatment Plant, located on the North Saskatchewan River and also constructed a 5,5 km pipeline to carry treated wastewater from the treatment plant to the refinery site. The City of Edmonton handled the design, construction and operation of the tertiary membrane filtration facility.

"This project is an example of the three principles that guide Petro-Canada's ap-

proach to water use: conservation, protection and recycling," said Giorgio Grappolini, Petro-Canada's senior advisor Infrastructure Development for the oil sands. "Our partnership with the City of Edmonton reflects the commitment to responsible resource management that both the City of Edmonton and Petro-Canada strive for."

The partnership's solution increased Petro-Canada's water supplies, as well as reduced the industrial site's overall environ-

mental footprint. The project was Canada's first major industrial development to use the combination of hollow fiber ultrafiltration and spiral wound Reverse Osmosis membranes for municipal wastewater recycling. The new system utilizes GE's ZeeWeed UF membranes to treat the wastewater effluent from Gold Bar Wastewater Treatment Plant to bring high-quality industrial water to Petro-Canada's facility. Petro-Canada's hydrogen and steam supplier is also installing

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two GE PRO series RO systems to further meet Petro-Canada's production needs. The new systems are scheduled to begin service in early 2008.

Source: GE Water & Process Technologies

GULF ETHANOL LAUNCHES TEXAS CELLULOSE PROJECT

Gulf Ethanol Corporation announced recently the launch of its advanced initiative to develop alternative fuel stock for ethanol

production. Ethanol produced from food crops, such as corn or sugar, often create upward pressure on food prices. Gulf will pursue the use of sorghum as a feed stock using advanced cellulosic ethanol production technologies. Cellulose is an abundant fuel stock in America and can be found in many non-food crops. The Company feels that the growing characteristics of sorghum make it an ideal crop for ethanol production in Texas.

"Gulf Ethanol plans to develop ethanol

production along the Gulf Coast using non-food fuel stocks," noted JT Cloud, president. "We will build our production on fuel stocks that are not subject to the pricing fluctuations common with corn and other food crops," he added. "This will give us a stable, abundant source of product for our production facilities," he concluded.

Headquartered in Houston, Texas, Gulf Ethanol Corporation began as an importer of ethanol based fuel for blending operations from South America and the Caribbean Islands. It is now expanding through its search for ideal locations for the production of ethanol and biodiesel along the Gulf Coast.

Source: Gulf Ethanol Corporation

THE GARDEN EXPO/FLORAL EXPO IS BACK FOR ANOTHER RECORD BREAKING SHOW

The Garden Expo/Floral Expo one-stop shopping concept drew record crowds in 2006. The retail buying trade show for the green and floral industries brings three vital sectors together for the lawn, garden, floral and outdoor living industries. October 16-17, 2007 will see the Toronto Congress Centre bustle with exhibitors, new product introductions, the latest in live plants, hardware and more.

The 2007 edition of Garden Expo/Florist Expo will combine the green and floral industry with outdoor living in partnership with Hardware Show Canada to create the one-stop shopping environment for all attendees. "The launch in 2007 of a New Product Showcase will make it easier to learn about new trends and see what's hot for the upcoming season," said Paul J. Day, show manager.

"Our experiment of providing a one-stop shopping trade show exceeded our expectations last year. Not only did we hear this from our exhibitors but also from the attendees who buy the products and services at Garden/Florist Expo," he added.

"Because of last year's Garden Expo/Florist Expo success, we created a promotional video which is posted online to give everyone a real understanding of the major significance of Garden Expo/Florist Expo," continued Mr. Day.

To view the video, visit www.gardenexpo.ca.

Source: Landscape Ontario



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Bridgestone Produces Limited Edition F1 Snow Tire for St. Moritz White Turf Demonstration Run

Last Winter, Bridgestone Motorsport produced a special Limited Edition F1 Potenza snow tire at the request of the BMW Sauber F1 Team which have been conducting a demonstration run of their F1.06 car at the prestigious White Turf horse racing event in St. Moritz, Switzerland.

The BMW Sauber F1 Team was running the car at the request of team sponsor Credit Suisse, who are main sponsors and partners of the event which is this year celebrating 100 years of international horse racing in St. Moritz.

Due to the extreme conditions in which the BMW Sauber F1.06 ran, the special F1 snow tires, produced by Bridgestone Motorsport's Technical Centre in Tokyo, featured 420 studs on each of the front tires and 588 studs on each of the rear

tires. It took two Bridgestone technicians over 16 hours to manually insert all 2016 studs into the double layer of tread compound on one set of tires alone. Similarly, the horses racing on the frozen lake at St. Moritz will also have four studs and a rubber plate attached

A similar set of tires was also produced for the Scuderia Ferrari F1 team for their pre-season event on the slopes of Madonna di Campiglio in Italy.

By utilizing the tread design of Bridgestone's Potenza F1 extreme weather tires,



to each of their front and rear hoofs.

Made from tungsten and embedded in aluminium casings, Bridgestone's tire studs have been designed to specifically provide reliable grip on ice and hard-packed snow.

the irregular placement of the studs in the tire tread blocks is intended to maximize performance of each stud in the harsh conditions. In reverse to the policy of transferring technology from F1 tire development to

A New Hydraulic System for Four-Season Trucks

ACE, Accent Electronic Controls Inc., presents its new hydraulic system that satisfies all hydraulic requirements for a truck working 12 months a year.

Optivalve is an integrated valve block consisting of three main components: the inlet/ high flow section(s), the sander central block, and the low flow plow valve section(s).

This block design may incorporate as many high and/or low flow sections as required by the specific application.

It is a load sensing design, which makes it perfect for use with a load sensing piston pump. It is also compatible with the ACE load sensing priority valve circuit (Canadian Patent #2,390,186) that permits the use of a fixed displacement pump.

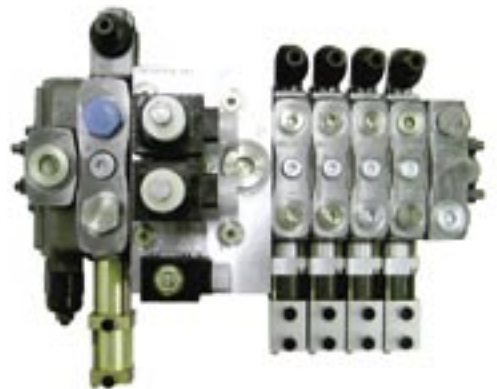
The plumbing is reduced to a minimum. The installation of the Optivalve is simplified with a unique mounting pattern independent of the number of valves used.

The choice of valve actuators makes it simple to add more valves.

The use of a load sensing piston pump reduces fuel consumption to a minimum.

The time needed for converting from summer to winter use is reduced considerably.

Because the Optivalve uses a piston pump, standard valve sections and minimal plumbing, the complete system can be offered at a price comparable to a system using a fixed displacement tandem pump,



while giving all the advantages of the piston pump to the user.

It is obvious that the normal requirements for hydraulic systems concerning filtration, suction vacuum, oil quality, etc., still apply.

Source: ACE, Accent Electronic Controls Inc.

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InfraStructures magazine over the past 11 years...

road car tires, Bridgestone has transferred its knowledge of road car winter tire tread compounds to the F1 snow tires, using a soft, high-grip compound which will enable the tires to work at a much lower working temperature range to that normally experienced by a tire on a race circuit.

The Bridgestone Corporation manufactures both studded and studless road tires for use by the general consumer. The Bridgestone Noranza studded tire provides exceptional grip on the ice, without sacrificing comfort, handling and quietness and with its irregular placed aluminium studs was instrumental in the philosophy behind the Limited Edition Bridgestone Potenza F1 snow tire.

The studless Blizzak LM20 uses a compound with high silica content, similar to that chosen for the Bridgestone Potenza F1 snow tire.

White Turf

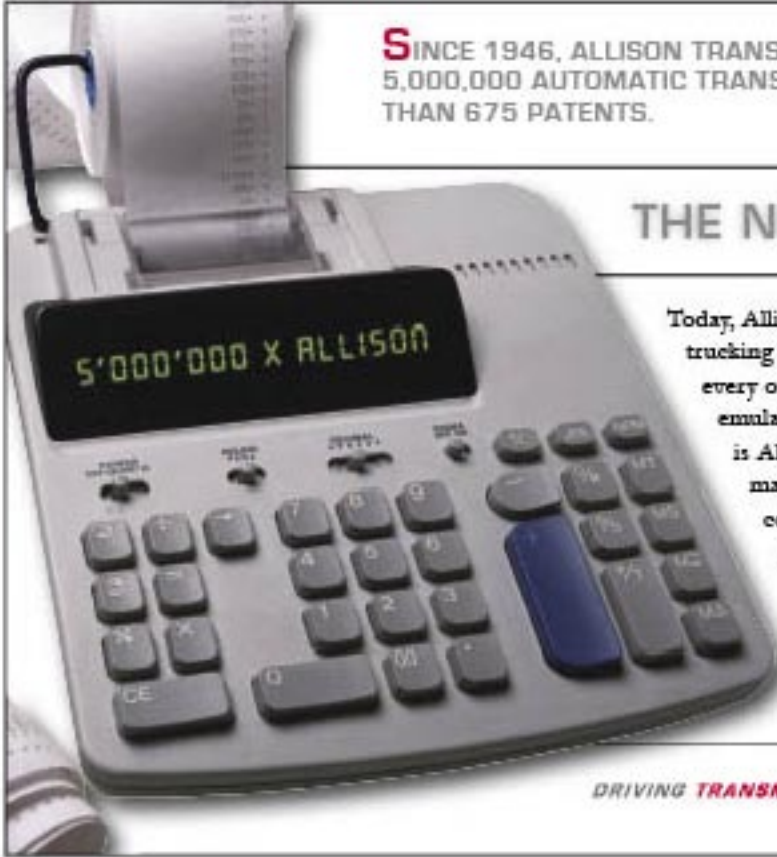
On the first three Sundays in February, St. Moritz plays host to White Turf, the international horse races staged on snow and ice. This fascinating event, set against the stun-



ning backdrop of the Engadine mountains, celebrated its 100th anniversary since the international horse races first took place on the frozen Lake of St. Moritz in 1907. Several types of horse racing are featured at White Turf including the familiar racing of galloping horses with jockeys onboard and the fast paced trotting races with horses pulling lightweight racing sulkies in which the jockeys sit. However, it is the Skikjöring event, which is

exclusive to White Turf, which is a particular favourite with spectators. The drivers, on skis, are pulled over the 2700 m racetrack by riderless thoroughbreds at speeds of up to 50 km/h. Courage, stamina, strength and skiing skills decide who will gain the highest number of points on the three racing Sundays and be crowned "King of the Engadine".

Source: Bridgestone Motorsport




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This Trooper Treads Lightly On The Ground, and the Environment

Limiting ground pressure is one of the keys to designing a vehicle able to move efficiently over soft surfaces like sand, mud, or snow, and tracks are one of the best technologies available for reducing ground pressure. That is one reason why Christian Martin, the sales and marketing director of Camoplast, Inc. of Granby, Quebec, says the future of the all-terrain vehicle industry is tracked. And, he should know, because Camoplast is North America's leading manufacturer of tracked all-terrain utility vehicles.

"Fully loaded, one of our Trooper vehicles weighs in at 5220 kg," Mr. Martin explains, "yet when equipped with a set of 112 cm wide tracks, it has a ground pressure of only 63,1 g/cm². Compare that to the 600 to 850 g/cm² ground pressure of an average man walking and you can see why the



conditions. It is particularly effective in deep snow, high altitude and extreme steep slope conditions."

The Trooper has a four-person cab, and is offered with a choice of five different track options, including both steel and rubber construction. Other options include blades, winches, and customized cabs to suit a range of special applications.

It is equipped with a long-travel independent suspension with rubber damping to smooth out the ride. The tracks ride on eight pneumatic tires that add additional shock damping to the system.



Trooper easily can traverse terrain that a man literally cannot walk through."

When you consider its 1369 kg payload, it is easy to see why the Trooper is widely used to move men and equipment through some of the most inhospitable climates to reach some of the most inaccessible places on earth. Camoplast vehicles, including the Trooper and its larger and smaller siblings, can be found supporting everything from mineral exploration and power line inspection to back country search and rescue operations all over the world.

Camoplast describes the Trooper as "a rugged, lightweight four-season tracked carrier for snow and rough terrain that can be counted to perform in the most challenging

'RUGGED' DOES NOT TRANSLATE INTO 'SPARTAN'

The Trooper cab is heated, comes with adjustable front seats, seatbelts all around, front and rear wipers, and even a sunroof and coat hangers. It can be upgraded with additional lighting, brush guards, premium seating, and an AM-FM stereo radio with CD player and multiple speakers and air conditioning.

"While it is civilized, the Trooper really takes over when ground conditions exclude the use of rubber-tired vehicles and when high-speed transport is required," Christian Martin says. "The power to weight ratio of this transporter insures peak performance in challenging conditions."

The 'power' part of the power to weight

ratio is supplied by a four-cylinder, 4,4 l Perkins 1104C-E44T diesel engine that produces 115 hp at 2400 rpm, and 325 ft-lb of torque at 1400 rpm. A Saur-Danfoss series 90 hydrostatic transmission delivers engine power to a Fairfield planetary final drive. Each track is independently microprocessor-controlled to provide vehicle steering.

"Considering the kinds of places these vehicles spend most of their time, reliability and ease of maintenance are both critical," Christian Martin says. "And so is the availability of service and spare parts literally anywhere in the world. Those are all reasons why we settled on the Perkins diesel to power the Trooper and its siblings."

"The 1104C family is a well-proven design that's in service all over the world," adds Marc LePage, development manager for Master Distributor Perkins Quebec & Maritimes (PQM). "It has standard features like single-side servicing, and a 500 hour service interval that make it ideal for tough, demanding applications like the Camoplast Trooper."

The engine is U.S. EPA Tier 2 and E.U. Stage II emissions compliant, another factor that is important to Camoplast.

"Many of the all-terrain vehicles in the fleet today are nearing the end of their useful lives," Mr. Martin says. "The Trooper and its siblings represent the next generation of this technology, and that includes both improved cross-country performance, and greatly reduced emissions."

"Our goal is to tread lightly on the ground, and have a minimum impact on the environment," he adds, "and the Perkins-powered Trooper is one of many ways we are tracking the future."

Source: Camoplast Track Vehicles
ICUEE booth #N1026



Hard-Co Chooses Côté Snowplows

When it became time to renew its fleet of snowplows, Hard-Co Sand & Gravel acquired Côté plows from its dealer Twin Equipment Ltd. of Ottawa.

Each of the new Peterbilt trucks is equipped with a Côté HM7000 harnesses coupled to a Côté SU8000 plows and a Côté JC5000 side wing.

Hard-Co is based out of Whitby, Ontario and has grown into one of the larger construction companies in Durham Region since its inception in 1986. The company has two main components: Hard-Co Construction and Hard-Co Sand & Gravel.

Hard-Co Excavating Ltd was incorporated in 1986. To better illustrate the diversification and growth of the company, Hard-Co Excavation Ltd evolved into Hard-Co Construction Ltd in February 1992, Barry Harding being president and Larry Harding vice president.



Over the years, Hard-Co has grown expanding from basement/footing excavation and septic bed installation, to major road reconstruction and subdivision servicing. The company is one of the largest construction companies of its kind in Durham Region, capable of considering any size project. In fact, the growth of Hard-Co has not hampered its

ability to complete small, one-machine jobs.

As well as completing contracts for municipalities, Hard-Co often works in the private sector, servicing new industrial/commercial sites and performing additions to existing structures.

Source: W. Côté & Fils Ltée

The City of Windsor Goes Robotic!

Popular belief is that a robot is a human-like appliance capable of independent thought and action. This is a very narrow representation of what Isaac Asimov defined when he coined the expression. He would readily agree with the later portion of this statement, but would not restrict the form of such a device to that of an android. Robots are not defined by their form, but by the way they fulfil their function, whatever that may be.

In keeping with the idea that a robot is a device which once taught a task can accurately and reliably replicate that task without human interaction brings us to the innovation being pioneered in Windsor, Ontario. The City of Windsor has embarked upon a project in association with Schmidt-Nido and Amaco Equipment, by becoming the first municipality in North America to automate their thawing and traction control operations. They have done this pioneering work using the Schmidt Autologic system.

The Autologic system makes use of the Stratos spreader GPS capability and closed loop feedback control system. With the introduction of a single handheld GPS device



connected to the CL controller in the cabin, the supervisor or driver can program routes,



widths and dosages. The software links these to GPS co-ordinates and creates the desired route. Once programmed, the driver only needs to load the hopper, complete a circle

check and switch the unit ON. After that, through audio and visual cues the driver can concentrate on navigating the route while the spreader reliably fulfils the application requirements.

According to Pete Matheson, City Maintenance manager, "We have several issues associated with winter maintenance including contract verification, reliability of application, liability, driver proficiency and MTO requirements. The more we can do to ensure our application dosages are consistent and the less distracted the equipment operators are, the more reliable our winter response will be, and coincidentally the more fiscally and environmentally responsible it will be."

(R.H.)

Is That a Single or a Double Double Engine Snow Blower at Your Airport Facility?

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Making use of a common catch phrase often heard in many local unmentioned donut and coffee emporiums across the continent is not without reason.

Each Winter, airport managers are faced with the need to control snow and ice on their runways and service areas. Management and staff develop and apply an array of practices and techniques for snow and ice control to minimize the winter hazards and make for safe travel. In North America, over 20 billion \$ are spent annually to control ice and snow, and yet blizzards still manage to shut down roadways but rarely do they shut down our airports. This is a testimony to the pride and determination of airport maintenance and operation staff.

New technologies such as global positioning systems (GPS) are now used in winter maintenance operations. This technology improves the efficiency and effectiveness of snow and ice control activities and improves safety as equipment position can always be monitored.

Regardless of our efforts, the traveling public desires more. Therefore, we are continually looking for better ways to address snow and ice problems. This task is becoming more difficult because many airports across North America are looking at replacing

dual engine snow blowers that are long past their prime. Reliability and availability of major drive components affects our capacity to

service these units. The cost of a re-life is often more than the actual market value so equipment managers are trying to determine the most desirable option for their operations. Many of these units were designed in the fifties and

sixties when engines had no anti-pollution devices and were much larger and thirstier compared to today. Snow-blowing capacity on many of these dual engine machines is often inferior to modern single-engine units. The operating and lifecycle costs of the single-engine versus dual-engine units have also become a determining factor when choosing equipment today.

Not all operations require 5000 t/hr machines regardless of the annual precipitation.

Single engine machines have capacities of 4000 t/hr or more but some operations sweeping practices are attempting to surpass their optimum operating speeds with the objective of keeping more runways open during adverse conditions. This is where the dual engine units have an advantage. Speed is the deciding factor but single engine units have

the capacity and travel speed that match existing older machines.



Larue D65 loader-mounted snow blower

ARE WE LOOKING AT UPGRADING TO HIGHER CAPACITY FOR THE RIGHT REASONS?

Some operations are looking at loader mounted high capacity blowers for service areas and as back up blowers for their



Larue 7060R44 single engine – 550 hp

runways. Loader-mounted units have spot-casting directional discharge chutes that are convenient when loading trucks and when you want to lower snow drifts on taxiways for general aviation's smaller planes.

J.A. Larue has worked in the snow removal field for many years and has developed a reputation as a leader in the re-life of

older machines which led us to the obvious progression of building our own machines. J.A. Larue's approach to snow blowing can be explained in the most practical terms. Its mission has always been to offer the most robust high performance product using the best available components in North America. It is of no use to customers if the equipment cannot be serviced easily.

The choice of mechanical blower drive systems in lieu of hydrostatic is a practical one because horsepower equals capacity.

In theoretical terms a mechanical snow blower drive system has better efficiency. Power from the engine has to run through a drive system be it mechanical or hydrostatic. The mechanical system can be designed in theory to be 98% efficient. Loss of power because of friction, heat and drive lines reduce power somewhat to approximately 91%. Because of higher losses, hydrostatic or hydraulic systems practical efficiency is more like 68%.

Furthermore, mechanical systems are simpler, easier to repair and less costly to maintain over the lifecycle of the machine.

Some very good reasons to consider a



Larue T85R44 dual engine – 322 hp front / 665 hp rear

single engine high capacity snow blower:

- One diesel engine, starter, radiator, alternator plus significant cost savings on fuel and maintenance
- Shorter chassis giving the machine superior maneuverability
- Reduce noise levels inside the cab because the engine is in the back and not under the cab.
- Environmentally friendly machine as it

pollutes less.

J.A. Larue manufactures both single and dual engine machines. The knowledgeable staff can help you make the right choice for your operation.

When you say you need a dual engine machine are you certain that you need the extra calories?

AORS Municipal Trade Show 2007 in Fergus

This year the hosting chapter was the Wellington County Road Supervisors Association, who last hosted the event in the last century (Listowel 1989). The Association of Ontario Road Supervisors' return welcomed visitors and participants to the Township of Centre Wellington Community Complex, which had been recently renovated.



grounds keeping, safety and snow removal products as well as many other ancillary suppliers.

Always a good place to meet and discuss new and emergent technologies with dealer and

factory specialists, AORS Municipal trade Show is an event to put on your calendar for 2008.

The Association of Ontario Road Supervisors Municipal Trade Show for

2008 will be hosted by the Bruce County Public Works Association on June 4 and 5, 2008 at the Walkerton Community Centre, Agricultural Building and ball diamonds in Walkerton.

(R.H.)



sors' return welcomed visitors and participants to the Township of Centre Wellington Community Complex, which had been recently renovated.

A good layout of indoor and outdoor display areas allowed visitors to get a good view of



Another Premiere in Stratford

*Robert Holden,
Contributing Editor*



Not a newly discovered work by The Bard himself, but something almost as spectacular!

Late in the 2005/06 season the Public Works Department of Stratford put together a new equipment specification that, unbeknownst at the time, would set a new standard in Canada. Having compiled anecdotal and operational information on a myriad of methodologies that had at that point been employed piecemeal by various municipal authorities and contractors, Stratford tied together all the loose ends and created a watershed specification.

What they realized were the following facts:

- 1: Dry, pre-wet and anti-icing equipment had definite advantages in various climatic events.
- 2: Computer controls eased driver tension and fatigue, and improved reliability and consistency.
- 3: Ergonomically designed cabs add to an operators' ability to safely navigate in hazardous winter conditions.
- 4: Load sensing, axial piston pump hydraulics, well established in the equipment

industry as reliable, also would create more integrated and fuel-efficient vehicle systems.

- 5: The carrier vehicle and implements had to be considered as a single machine, much like a loader or skid steer is.

Additionally they would need to work within the legislated vehicle and equipment specifications. Then they would need to find a supplier to bring together what have been traditionally disparate technologies.

The phrasing of the tender was to create a triumvirate approach to constructing the desired vehicle. Namely, cab/chassis – Sterling, dump body & hydraulics – DEL, and the spreader/plow combination – Amaco Equipment. This was reflective of the traditional model of passing the carrier along, adding bits until the final delivery. Such a situation can make expediting and accountability difficult to manage. This represented a real challenge, as the truck equipment industry tends to lack the sophistication in hydraulics,

cycles, reliability and limited downtime would be expected and required. After some deliberation this led to the involvement of Bosch-Rexroth Canada. Formerly known as Basic Hydraulics, they have a long history of industrial and mobile systems design and support. This expertise was to be critical in creating a system that would fulfill the necessary requirements.

The specification called for a single, variable displacement axial piston pump with a minimum 100 cm³/rev capacity. Stratford also required a single MCV (main control valve) including main and port reliefs for each of the circuits. The unit would also require a float circuit similar to what is found on most wheel loaders. The float would allow the plow to smoothly follow the roadway contours, unlike traditional snowplows. This was not new or problematic for experienced equipment specialists, and a circuit was designed, incorporating the following items: Series 31 100 cm³ pump, 10 µm pressure and return filters,



the heavy equipment industry takes for granted. This would be like writing a new book on how to do it, right from the start!

With the carrier vehicle under construction, the design of a hydraulic circuit and selection of components was required. The difficulty with selecting hydraulic componentry is the difference between initial price and long-term parts and service support. Far too often the wrong pumps or valves are chosen based solely on price, particularly when truck equipment is involved.

This was an application where high duty

and an MP18 valve bank. According to Don Tuffnail, maintenance supervisor for Stratford: "All the components could be single sourced from Bosch which makes parts and service more straightforward, particularly over the life of the unit."

With communications and hydraulic systems streamlined, the customer also wanted the overall appearance to be streamlined. This included inside as well as outside the cab. DEL of Burlington stepped up to the plate with a made to measure dump body, outfitted to Stratford's detailed requirements.

"We took our standard body and laid out lighting and tie-down needs as dictated by the customer. With the basics completed we then had them come, inspect it and make alterations before final paint and preparation," said Al Huurman general manager of DEL. At this time too, an idea of Don Tuffnails' for a unique mechanical hold down system was realized. The Ro-Ro spreader could be secured with a clamp mounted inside the body and locked in the same manner as the tailgate.



In the event of a tip-over, the spreader would still be securely affixed to the carrier.

Driver comfort and ease of use was also stressed by Stratford. The Schmidt CL controller was chosen for its simplicity and clarity of operation. Setting a new standard for innovation, the CL control box has an extensive menu structure.

All spreading and spraying functions are controlled from here and it is unrivalled in its ease of use and capacity for expansion. To compliment these controls, a single plow control joystick was specified. Similar to the operation of a wheel loader, the driver can control plow position using the 4-way joystick located near the armrest. This reduces driver fatigue and eliminates the unsightly plow control towers of conventional installations.

With the easy to load Ro-Ro mounting of the spreader, a similar labour saving method of plow mounting was incorporated into the vehicle. The Schmidt-Tarron multi-blade, spring loaded snowplow utilizes terrain following float hydraulics like a loader, as well as a universal quick coupling mounting plate. Based upon DIN 760060 and adapted for the Sterling chassis, this vehicle has the easiest plow hook-up in use in North America. The driver approaches the plow, connects the hydraulic lines and then secures the two safety bolts. Again, for those accustomed to skid steers and wheel loaders, a fairly typical operation. A revolution for truck equipment in Canada!

According to Dave Wilton of Stratford Public Works, "We were very excited to get this unit into operation. Not only will it be our first combination spreader, traditionally we have used wheel loaders rather than trucks for plowing. I'm sure there will be some teething troubles as our crews adjust, but I don't

expect any significant problems."

What about the five primary criteria we mentioned? Well, each and every expectation was met or exceeded.

support.

5: Amaco Equipments' co-ordination and management of the project. Congratulations go out to all those



- 1: Stratos Combi spreader/sprayer.
- 2: Schmidt CL Control Box.
- 3: DEL of Burlingtons' expert installation and detailing.
- 4: Bosch-Rexroth Canada components and

involved from conception to delivery of this benchmark project. Possibly only Shake-speare could have had such an enterprising premiere!

The Town of Oakville Goes with Schmidt Spreaders



Recently the Town of Oakville, Ontario, just west of Toronto, took delivery of two Schmidt-Nido Stratos Combi anti-icing spreaders.

The two units are part of a scheduled upgrade to the winter maintenance fleet and replace older, less reliable units. By upgrading to the Stratos Combi spreader the municipality was able to incorporate several beneficial features to the fleet. Primary among these is the liquid capacity, which comes in at just under 6000 l, stored in poly tanks integral to the spreader structure. Also new is the ability to spread dry and pre-wet dry material as well as spray pure liquid or add dry material (grit, sand, or salt) to the anti-icing spray.

According to Jeff MacDonald of Amaco Equipment, "This allows the municipality to not only apply pre-event treatments, but they can add traction-improving material to their anti-icing operation."

These machines represent the state-of-the-art in spreading control technology available in Ontario. To assist Oakville with managing the application of snow, ice and traction control the two units come complete with the CL cabin control, GPS tracking and the Schmidt memory Module (SMM) data collection system. They are also able to upgrade to fully automated spreading, if required, in the future.

Source: Amaco Equipment

Polyglass USA Offers a Long-Term Exposure Roofing Underlayment

Polyglass® USA, a worldwide leader in modified bitumen roofing and waterproofing products, is proud to introduce an underlayment that can be exposed to the elements for up to 36 months, Polystick™ TU P underlayment. This APP rubberized asphalt waterproofing membrane with a glass fiber-reinforced polyester mat can be exposed to the elements for long periods of time, making it convenient for contractors, who cannot install roofing tiles immediately after the underlayment application.

Part of Polyglass' Polystick family of underlayments, Polystick™ TU P is ideal for use where roofing tiles are installed via adhesive set applications, but it can also be installed in mortar set or mechanically-fastened systems. Although the Polystick™ TU P can be used for re-roofing applications, this granular skid resistant tile underlayment is best suited for use in new construction, when tiles may be stacked on rooftops for extended periods of time. Polystick™ TU P also provides excellent

thermal stability at temperatures of up to 260 degrees Fahrenheit, offering flexibility in warm climates.

"There is a timely need for roofing underlayments that can be exposed to the elements for long periods of time," stated Fernando Mesa, vice president of sales for Polyglass. "Polystick™ TU P fulfills that need and is affordably priced to accommodate a wide range of sloped buildings."

Polystick™ TU P is manufactured using the patented SA self-adhesive membranes with ADESO™ technology, whereby a "true" APP compound is applied on the top layer and an aggressive self-adhesive compound is applied to the bottom layer. Polystick™ TU P is comprised of homogenous rubberized waterproofing asphalt, glass fiber-reinforced polyester mat, with a granulated surfacing, designed specifically for use as a long-term exposure, tile underlayment.

Polystick™ TU P is a versatile product, which uses include, but are not limited to: tile

underlayment, chimney flashings, skylight flashings, pipe penetrations, application at ridges and eaves and valley underlayment.

In addition to the new Polystick™ TU P, Polystick™ TU Plus and Polystick™ TU for tile roofing applications, Polyglass also offers Polystick™ MU and Polystick™ Basik for metal roofing applications; Polystick™ P, which is surfaced with high strength polyethylene film laminate for ice dam protection and Polystick™ IR-X with granular surface for ice and water shield applications. These products are applied by removing the split release, peel-off backing and pressing to a suitable, dry substrate.

Source: Polyglass USA Inc.



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If it's broken, don't fix it?

These days as we all hear endless platitudes placed on the importance of infrastructure to public safety and economic strength, why is the important part of this message being forgotten, maintenance.

In recent years we see numerous provincial and other governments announcing seemingly endless millions of public dollars on road construction. In Newfoundland \$30 million was allocated to the Provincial Roads Improvement Program in 05/06 later increased the following year to an impressive \$60 million. Even the McGuinty government has made a bid to appear to be doing something by increasing the budget allowance for road building by an average of 5.3% over the past three years. We even have an industry expert praising this activity: "To their credit, governments have come to understand that this deficit is a huge problem..." says Jeff Morrison of the Canadian Construction Association in Ottawa.

The spin-offs to such high capitalization projects are a moderate decrease in the jobless rate, a momentary spike in local economic spending and a general boost to electoral spirits as visible progress appears to be being made. All good things, when they are in your riding, but then what? When the road or bridge is finished and dedicated by some prominent dignitary or M.P.P. what is the road superintendent or county engineer supposed to do. The obvious answer is maintain it, but with what resources.

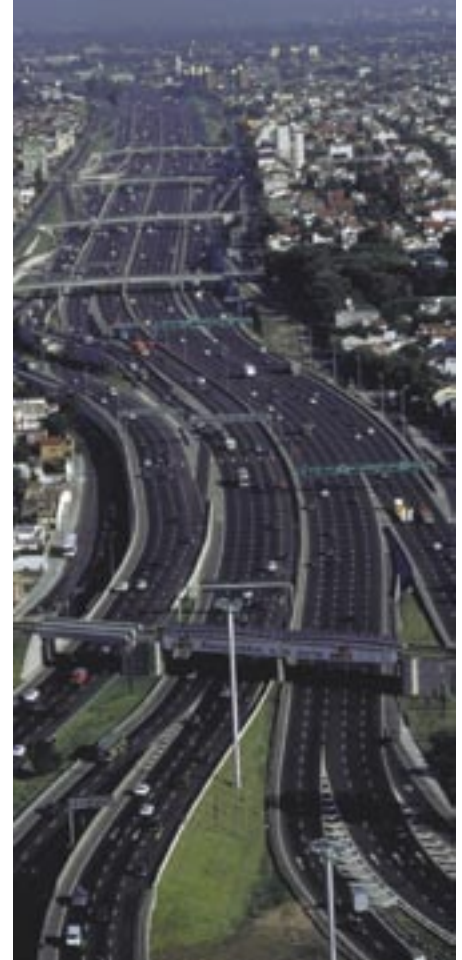
Most road building projects ultimately have all or part of their historical maintenance costs carried by the local municipality or regional authority. With a limited revenue base and usually even less political will, how can adequate steps be enacted to ensure that this latest project has a long and productive lifespan. The historical evidence is that it does not get the care and attention required to provide the engineered life cycle as a matter of routine. The provincial fuel levies were created for this sole purpose, yet, instead of being used in this way they are fritted away on subsidizing governmental sound-bite schemes, resulting in a greater thirst for these earmarked revenues.

Road superintendents at every level are faced with creating a winter plan, vegetation control, and equipment maintenance, usually with the mandate of maximum service at minimum cost. Too regularly we see budget

reductions at the public works level, and increases elsewhere, usually on projects with minimal quantifiable benefit to the community. In Canada, winter maintenance gets the lion's share of the budget, which seems intuitive, but you need to have a road to spread salt on first. Consider the winter just past, I am already hearing cries from the council chamber about how much money can be saved next year!

Why is there never a ministerial announcement of an infrastructure life cycle fund, or the linking of capital budget figures to long-term maintenance dollars. Look at crack sealing as an example of the affordable cost of maintenance over restoration. Typically, this is done at 1/6th the cost of traditional rehabilitation methods. So for the ratepayers \$30 millions, maintenance spending of \$5 millions could add 10 years or more to the lifecycle of the project. Think of that, a 30 year roadway lasting as much as 50 with limited degradation as opposed to the current model of lasting half the expected life and becoming a public hazard.

The economic benefits are staggering if projected ahead. Currently we are hearing of manpower and equipment shortages and a general overextension of contractors owing to a splurge of government spending. When the flood recedes, the picture as ever, will not be pleasant, lay-offs, equipment surpluses and an economic stagnation in the construction sector. A more progressive approach involving a serious commitment to maintenance would spread the capital project dollars more evenly, reduce the overall tax burden and create an economic model of continuous renewal.



It will require a paradigm shift within governments and the construction industry to fulfill the ideals of such a program. When mayoral pride is seconded to fiscal and civic responsibility, perhaps the public works planners can be afforded the opportunity to get on with the job they have of maintaining our communities rather than administering critical care.

As the old adage states; an ounce of prevention is worth a pound of cure. Nowhere is this more true than in the continual maintenance of our roads, bridges and other critical infrastructure. (R.H.)

InfraStructures

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Seeing is Believing with Innovative Visual Tension Indicator

Douglas Glenn Clark, on assignment for Stress Indicators, Inc. Special collaboration

any degradation or loss of accuracy. A loose fastener is obvious even at a distance or, in some cases, in moving machinery. The standard tension accuracy is specified to be $\pm 10\%$.

means that loosened fasteners in critical situations may be easily identified and corrected, thereby averting catastrophic incidents.

The HR SmartBolt indicates bolt tension through direct measurement of bolt elonga-



Critical bolted joints often require exacting tightening procedures to establish the optimum clamp load. While tightening by torque wrenching methods is quick and easy, extensive tests have shown that a given torque can produce tensions or clamp forces varying by as much as 5 to 1 depending on bolt plating, lubrication, thread condition, nut and washer material and seventy-one other variables according to a U.S. Air Force study.

A Direct Tension Indicator (DTI) can remove this uncertainty, since it responds only to bolt tension and not to torque.

DTI SmartBolts® were invented by Stress Indicators, Inc. of Bethesda, Maryland, to set up the proper bolt tension with no need for torque wrenches, strain gages, wires, electronic or ultrasonic equipment. In fact, there is no need to touch or contact the fastener at all in order to verify its clamp load condition. A glance is sufficient. DTI SmartBolts® provide an eye-catching visual indication of the tension in the fastener at installation or at any later time, and the degree of bolt tension may be estimated by the indicator color.

The indication is a bright red when loose, and gradually darkens to a deep black as the bolt is tightened. Operation is completely reversible – SmartBolts can be tightened and loosened thousands of times without

The main limitation of the DTI SmartBolt color-change scheme is that the indicator is not designed to show an over-tension condition. Once design tension is achieved, the indicator will remain black if it is tightened further thus giving no indication of over-tension. Another limitation is that the color change associated with a loss of, say, 10% of tension may be difficult to resolve in real world conditions.

The new HR (High Resolution) SmartBolt was developed to transcend these limitations.

The HR SmartBolt is armed with a sensitive optical microindicator element that allows quick-look inspection – Green is Go! The simple yet sophisticated indicator, located in the center of the bolt head, remains yellow as the fastener elongates while being initially tightened. When about 85% of the design tension has been achieved, the indicator rapidly turns to a bright green at 100%. When tightened beyond design specifications, the indicator darkens until it is nearly black. More importantly, should the bolt loosen more than 10-15%, the indicator returns to bright yellow, warning observers of a problem.

The color-coded system is ideal for critical inspections. Once the bolt is installed, the proper tension may be verified without contact or loosening of fasteners. It also

tion. Accuracy is improved over the DTI SmartBolt because each bolt is calibrated at design tension during assembly. The HR indicator is sensitive to an elongation of 60 millionths of an inch, which corresponds to a tension precision of around 2% when installed in high-strength bolts. If the indicator is “grass green” you can be certain that the bolt is doing its job!

Torque wrenches, on the other hand, respond only to the applied torque, which is only weakly related to tension. A large part of this torque, as much as 80-90%, is required to overcome friction, which can vary significantly in different situations. The result is that a perfectly accurate torque wrench may produce errors in bolt tension as much as 25-50%, according to many engineering studies.

In contrast to torque wrenching, SmartBolt's clamp load is independent of friction and remains reliable and reproducible through countless cycles of tightening and loosening. The process is completely reversible and there are no moving parts to wear out. Twenty-year-old DTI SmartBolts still operate as reliably as when they were new. A life expectancy exceeding 20 years is similarly forecast for the HR bolts, since they use the same inert materials and components.

The HR SmartBolt is a significant upgrade of the flagship DTI SmartBolt. Besides being more accurate, they are easier to read. However, the original DTI SmartBolts are still appropriate for less demanding applications, and remain the choice of companies such as General Electric, Texas Eastman Chemical, Rockwell Collins and the National Weather Service.

In fact, GE Busway, the Electrical Distribution division of General Electric, has used DTI SmartBolts in their Spectra Series Busway systems since 1997. The fasteners are used to join modular electrical conductors that supply power throughout industrial plants.

DTI SmartBolts make inspection of these high-voltage busway joints high in the plant's overhead easier and safer and provide visual joint integrity assurance.

The potential of the HR SmartBolt has garnered the interest of the U.S. Army, which is now evaluating the fastener technology for possible use on Apache helicopters, as well as other military applications.

SmartBolts have also been critically analyzed in a report by the Electric Power Research Institute (EPRI). This nonprofit

group conducts research on key issues facing the electric power industry on behalf of its members and society. The report con-



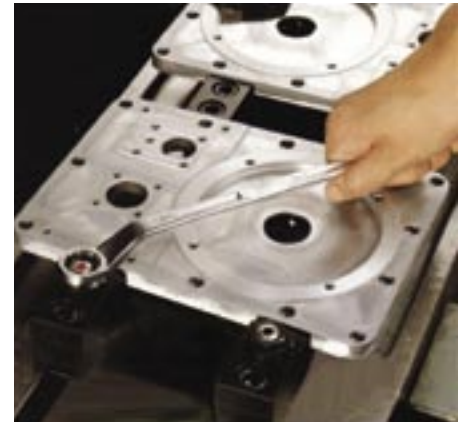
3/4" HR SmartBolt of MP35N alloy as proposed for U.S. Army Apache helicopter mast fasteners

cluded that SmartBolts products could be a cost-effective means to reduce radiation exposure for nuclear power plant personnel. SmartBolts have survived intensive test radiation exposure, and will soon be installed in nuclear plants for further evaluation.

Customers are enthusiastic that the HR SmartBolt will be ideal for rugged applica-

tions that require precise information about fastener tension for critical applications.

This includes such industries as aerospace,



DTI SmartBolts used to ensure uniform clamping pressure on NC mill workpiece

petroleum, materials processing, power generation, chemical processing, transportation, rail, and off-road and heavy equipment. The HR SmartBolt promises to provide customers in many industries with unprecedented knowledge about fastener tension in critical joints.



Productivity gain (over 200%)
Production constancy even in warm weather
Significantly reduced risk of injury
Fast payback



P.A.M. Positioner

Remove MORE concrete with LESS effort

Hydra demolition



35 lbs chipping hammer on wall



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- Power carrier can hold different types of hammer or equipment
- Structure designed to isolate all loads and vibrations from the operator
- Effortless operation, P.A.M. supports and pushes the tool on the work surface
- 4 functions controls on handles
- Operational sequence to prevent dead blows
- Control of the hammer to surface push
- Rotation over 100° with locking feature
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New Solids Transfer Pump Helps Restoring Full Holding Capacity to Critical Drainage Sump

**Bob Spicer,
Supavac Canada Inc.
Special Collaboration**

rock cuttings, residual slimes and mud that build up in the sumps, eventually decreasing the sumps holding capacity for mine waste water. If the sumps are not cleaned of these solids on a regular basis, the material becomes a very dry hard mud referred to as "mine slimes". The only way to clean out the

was through 45 m of 10 cm bull hose.

"I have lots of positive response to the new Supavac pump, Mark Moffatt reported. When we did the test on 4130 level, I was totally amazed at how thick the slimes were and that pump sucked it up and out. At the suction end, the slimes where so thick, I was waiting



CVRD Inco Limited's South Mine is a hard rock mine in the heart of the Sudbury mining basin. Presently, this mine extracts over 1 million t annually of rich ore deposits, comprised primarily of nickel and copper base metals. Access to South Mine's underground is gained through both a ramp system and a 1250 m deep shaft. Present reserves will allow for another 8 years of operation, with future expansion expected to push the mine's life to 30 years.

sumps at this point is by using a scoop tram.

In the case of South Mine, a particular sump located on 4130 level was too small to facilitate cleaning by scoop tram. Mark Moffatt, planner for Division 2, had not been able to use this sump to its fullest capacity for over a year because of slime build up. He was looking for way to clean the solids from this sump to regain its full holding capacity.

At the same time, the new Supavac was introduced to Mr. Moffatt. A Guzzla Model

for the line to fill up and plug, but when you looked at the discharge, it was spitting out like muddy water. I was very impressed with the Supavac. I think it has a bright future in the mining industry."

The sump clean out process was quickly completed removing over 40 m³ of mine slimes, restoring the full holding capacity back to Mark's sump.

The patented vacuum recovery and pressure discharge technology is the key to the



As in most hard rock underground mines there is always a substantial amount of water used for drilling, cutting, washing and regular maintenance plus the normal seepage of ground water. In all cases, this water is pumped or gravity fed back to holding areas with drainage sumps. In this harsh environment, there are always a large amount of fine

SV60 pneumatic displacement vacuum recovery pressure discharge solids transfer pump was just the right pump to handle this job. The setup time was less then one hour and removal of the hard mud like material began. Vacuuming of the mine slimes was done using two 6 m lengths of 7,6 cm suction hose with a Guzzla pickup nozzle and discharging

operation of Supavac pumps. With no rotating parts or electricity and with no moving parts in contact with the flow, extremely high reliability has been the experience. All that is required is a supply of compressed air.

Supavac pumps are designed to reliably handle any flowable sludge and slurry and are ideally suited where submersible, centrifugal

and diaphragm pumps have resulted in excessive maintenance and downtime or are not a viable option.

Supavac pumps automatically alternate, depending on the material and setup, to function as an effective high lift vacuum system for most flowable bulk solids, including underwater applications of up to 23 m vertical lifts.

Supavac automatic solids transfer pumps, with capacities from 10 to 60 m³/h and higher, reliably pass fines, hard solids and stringy trash slurries with 7.6 cm solids and larger. Pumps can achieve fluid suction lifts up to 7.6 m dry static and through 60 m horizontal lines, air flow vacuum pneumatic recovery up to 23 m vertical and effective product discharge of up to 900 m horizontal.

Installations include mines, quarries and construction sites; snake pits and upset sumps; digesters and tank cleanout; underwater pipeline cleaning; oil and gas exploration; horizontal drilling; conveyor spillage; lagoons and ponds; bypass pumping; tunneling; pneumatic excavation and conveyance; onsite transfers of over 750 m;



intrinsically safe operation for underground and x-p areas.

Applications include abrasive and corrosive slurries; hazardous waste; drilling mud waste and cuttings; rock, sand and ballast; mine tailings and muck; hydrocarbon and viscous sludge; raw effluent; and all types of wet and dry spills.

Units are compact and fully enclosed

for zero discharge environmental compliance. Canadian models are manufactured to comply with ASME "U" stamp and CRN pressure vessel regulations. Supavac pump systems are in active service from Australia to the USA and from Chile to the North Sea and are now available for rental and purchase through authorized dealers in Canada.

Richard Sharpe Receives the Volvo Trucks Canada, Canadian Fleet Maintenance Manager of the Year Award

The Canadian Fleet Maintenance Manager of the Year Award has become synonymous with integrity, wisdom, initiative, and resolve. It also represents sacrifice, contribution, community, and overall betterment within our industry and has become a highly respected means for the industry to recognize exemplary, benchmarking and trend-setting industry peers. An independent judging committee comprised of trade journalists and past award recipients participate in the demanding selection process which includes criteria such as; major accomplishments and innovations of the individual, and the nominee's contributions to the industry and community in general.

Richard Sharpe has been in the industry for over 30 years and is working with MacKinnon Transport, one of Canada's Top 50 best-managed companies. He is responsible for over 700 pieces of equipment and a department of 20+ employees.

"While preparing for today, I had the chance to learn a little more about our recipient", said Don Coldwell of Volvo Trucks Canada as he presented the award to

Richard, "and these are some of the words used by his peers and co-workers to describe his attributes and values: [Rich] motivates, encourages, respects, pays attention to detail, has a positive attitude, is a leader, has safety as a priority. And to paraphrase one of Richard's co-workers, 'Rich is not only one of the most knowledgeable, but also the most sincere team leader I have had the honor to work

Don Coldwell of Volvo Trucks Canada presenting CFMS Award 2007 to Richard Sharpe of MacKinnon Transport.



with. I have grown as a person because of the encouragement and support given to me."

Evan MacKinnon acknowledged that this was "the second time a MacKinnon Transport manager of maintenance was honored with this recognition. We're very proud", he stated, "to have the opportunity to

display this trophy in our lobby once again. I believe this award by Volvo Trucks Canada is the highest form of National recognition

a Canadian maintenance professional can receive".

Source: Volvo Trucks Canada

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United Coatings Offers Elastuff 310 for Superior Waterproofing Protection

United Coatings, a leading manufacturer of protective coatings for the construction industry, offers Elastuff 310, a highly elastomeric, 100% aromatic polyurea coating specially developed to provide a durable, waterproofing membrane over vertical and horizontal concrete and masonry substrates. Elastuff 310 offers excellent thermal stability and UV resistance, making it ideal for bridge deck encapsulation and other projects that require a resilient, abrasion-resistant membrane.

Elastuff 310 offers an unsurpassed balance of physical properties, including outstanding elongation, tensile strength, tear strength and impact resistance. It is currently being used to protect over 135 000 m² of concrete on the High-Speed Rail line under construction between Beijing and Tianjin, China. Exhibiting excellent hydrolytic stability, Elastuff 310 is able to withstand a wide range of temperature extremes in both dry and aqueous environments.



Due to its rapid gel time, Elastuff 310 can be applied in high humidity conditions or on substrates with relatively high moisture content without the fear of blistering or film cellularity common in many coatings systems. Elastuff 310 is applied using heated plural component equipment, enabling a fast, high-film build without solvent entrapment.

In addition to providing superior water-

proofing protection, Elastuff 310 exhibits a high degree of corrosion protection, as well as chemical, abrasion and impact resistance. It can be installed over primed metal, concrete, wood, fiberglass, geotextile fabric and foam substrates such as expanded polystyrene (EPS), isocyanurate and polyurethane.

Source: United Coatings

Canadian Records Fall at Ritchie Bros. Edmonton Auction

Two months after conducting the largest Canadian auction in Ritchie Bros. Auctioneers' history, the Edmonton sale site has beaten its own record with a \$61 million unreserved auction. Ritchie Bros. Auctioneers, the world's largest auctioneer of trucks and industrial equipment, conducted the record-breaking three-day auction at its permanent auction site in Edmonton on May 30 - June 1, 2007. It also broke a worldwide company record for the most consignors in one auction.

The unreserved public auction featured several complete dispersals for forestry, oilfield transportation and construction companies, as well as equipment, trucks and other industrial assets from more than 700 consignors. In total, more than 4500 lots were sold, with more than 4600 registered bidders participating from 20 countries.

A number of Edmonton region records were broken at the auction, including largest gross auction sales, number of items sold, number of consignors, online gross auction sales and number of online buyers.

Over 900 of the registered bidders participated in the auction over the internet, live and in real time, using the Ritchie Bros.

Auctioneers' online bidding service, rbauctionBid-Live. Internet bidders purchased 368 lots in the auction, representing nearly \$9 million worth of trucks and equipment.

There were close to 200 online buyers at the auction.

The auction featured a large selection of late-model equipment from Ken Richert Trucking Inc. Ken and Tracy Richert have operated their oilfield transportation company in Drayton Valley since 1997, but the labor

shortage in Alberta has made it increasingly difficult for them to find drivers. They decided to sell their trucks but will continue to run their business using owner-operators.

"I've never sold or bought equipment through Ritchie Bros. before, but I've always known about the Company and it has a good reputation. So when it was time for me to

sell my trucks, I knew who to call," said Ken Richert. "I was really happy with everything Ritchie Bros. did—they went all the way for us. We got really good prices on the trucks,



and when things change and I can start running my trucking business again, I will buy equipment at a Ritchie Bros. auction."

Over 37 000 items will be sold in 35 unreserved industrial auctions and 44 unreserved agricultural auctions coming up on the Ritchie Bros. auction calendar.

Source: Ritchie Bros. Auctioneers

M6 Plastic Bridge Scoops technology award

An innovative 4,3 million \$ Highways Agency scheme to install a super-strength plastic bridge over the M6 in Lancashire has scooped a prestigious technical award.

The Mount Pleasant Bridge, between Junction 32 and 33 of the motorway, won the National Institution of Highways and Transportation award for Innovation last June.

The bridge, which is constructed out of a special plastic known as fiber-reinforced polymer (FRP), became the first ever plastic bridge

on the motorway network in England when it was installed in April 2006.

It is 2/3 the weight of the old concrete bridge it replaced but almost twice as strong,

continuing commitment to new technology. The use of innovative techniques is essential to ensure that we have a road network fit for modern day road users and using FRP meant

The bridge was praised for several benefits which included:

- Lightweight which allowed rapid installation.
- Ability to carry vehicles up to 40 tonnes in weight.
- Superior strength/weight ratio to steel or concrete.
- Non-corrosive properties with water and salt, thus reducing future maintenance.
- Reduction in future maintenance means road users will see fewer road works and experience less disruption.
- Reduction in whole life costs.

the new bridge was two-thirds the weight, but twice as strong as using conventional materials. Drivers noticed the difference because the installation time was reduced.



concrete 100 years ago.

The M6 scheme was the first time the Highways Agency used FRP for road bridge construction on the motorway network,



meaning it could be installed faster, significantly reducing disruption to road users.

Highways Agency project manager Phil Davies said: "This award is a great honor for the Highways Agency and recognition of our



Longer term they will also benefit as the structure will need less maintenance than the older bridges."

FRP is the first major new construction material since the introduction of reinforced



although the technique had been used on footbridges before.

Source: Highways Agency, Department for Transport, England

SSAB Successfully Completes Acquisition of IPSCO

SSAB Svenskt Stål AB recently announced that the acquisition of IPSCO Inc. was successfully completed.

"I am very pleased to announce the successful closing of the IPSCO acquisition. This is yet another milestone in our SSAB 2010 strategy towards becoming the Global leader in value added steel. Through the acquisition of IPSCO, we will not only acquire a platform for future growth and expansion, we will also extend our market presence in North America," said Olof Faxander, CEO and president of SSAB.

IPSCO will be organized as a division in the SSAB Group headed by John Tulloch who said, "This combination of SSAB and IPSCO

accelerates the opportunities for customers, employees, suppliers and our communities alike to grow and prosper over the coming years. IPSCO's dynamic growth and success over its history will continue when merged with the global organization of SSAB. We look forward to being a vital part of the new SSAB's future success."

IPSCO's former president and CEO, David Sutherland, is retiring.

"I wish to thank David Sutherland for the very positive cooperation during the very intensive work on uniting our two companies," says Olof Faxander. "David Sutherland has also played a very important role in the development of IPSCO into one of the



most successful steel companies in North America."

Source: SSAB Svenskt Stål AB

Cost-Effective Lube Solutions

FLO Components with its Quicklub® System from Lincoln Industrial provides "Cost Effective Lube Solutions" helping major manufacturers reduce downtime. The Quicklub® systems provide a relative simple and cost-effective method of centralizing and/or automating the lubrication of critical machine bearings. FLO provides Custom Kits to cover virtually any quantity of points desired or pre-assembled kits to service up to 12 points from a single grease fitting.

The basic Quicklub® kit is an inexpensive centralized system dispensing lubricant manually from a lever gun. The heart of the system is a positive displacement metering valve dispensing metered amounts of lubricants to each point covered by the system. Even those hard to reach are assured of being properly lubricated and purged of contaminants.

Quicklub® systems can be fully automated using one of a wide range of 12VDC, 24VDC or 120VAC electric or pneumatic pumps. This increases the advantages of dispensing small measured amounts of lubricants at more frequent intervals while machinery continues to run. This feature allows maintenance personnel to focus on truly "preventative" activities.

Quicklub® Systems are the right solution for many industries and applications by eliminating costly manual point-by-point lubrication.

Source: FLO Components Ltd.



Appointments

Fecon, Inc. announces **Darden Whitaker** as Customer Services manager.

Darden Whitaker comes to Fecon with over 17 years experience in which he has held positions as president, director of Operations, director of Quality and Program / Product manager.

Fecon, Inc. announces **Anthony Nikodym** as Regional manager for the Western Canadian Markets.

Anthony Nikodym comes to Fecon with seven years experience serving as a Business Development manager, Market manager and Product Development engineer.

Fecon, Inc. manufactures Bull Hog® Mulchers, FTX Track Carriers, Tree Shears, Grapples and Stump Grinders for R.O.W Clearing, Park Trails & Maintenance, Wildlife Habitat, Fuel/Fire Breaks and Vegetation Management.

Source: Fecon, Inc.



ACE, Accent Electronic Controls members are proud to announce that **Nicolas Simard** has joined its team.

Nicolas Simard takes charge of marketing and sales service. His bilingualism, his university studies and practical experience in related fields assure his success.

ACE, Accent Electronic Controls manufactures electronic spreader control systems and related products.

Source: ACE Electronic. Tel: 418-847-6344



Triple M Metals Among Alcoa Materials Management Top Scrap Suppliers for 2007

Alcoa announced recently that its Alcoa Materials Management (AMM) business has selected its annual list of the top ten scrap processors using criteria including: quality; volume; and performance. Alcoa is a leader in recycling and expects to recycle approximately one million metric tons of scrap in 2007.

Implemented in 2004, the Alcoa Materials Management Top Scrap Suppliers program recognizes the best of the best in the industry.

Triple M Metals Inc, of Brampton, Ontario, is among the 2007 Alcoa Materials Management Top Scrap Suppliers.

Alcoa is the world's leading producer and manager of primary aluminum, fabricated aluminum and alumina facilities, and is active in all major aspects of the industry. Alcoa serves the aerospace, automotive, packaging, building and construction, commercial transportation and industrial markets, bringing design, engineering, production and other capabilities of Alcoa's businesses to customers. In addition to aluminum products and components including flat-rolled products, hard alloy extrusions, and forgings, Alcoa also markets Alcoa® wheels, fastening systems, precision and investment castings, structures and building systems.

Source: Alcoa

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New "Ride and Drive" Equipment Demonstration Program to Debut at ICUEE 2007

The 2007 ICUEE - International Construction and Utility Equipment Exposition (ICUEE) has expanded its working equipment demonstrations with a new "ride and drive" program which spotlights on-road commercial vehicles.

The new "ride and drive" program builds on ICUEE's reputation as The Demo Expo and allows attendees to better compare commercial vehicles for the construction and utility industries as well as truck engines and components. In addition to trucks and engines, these products will include transmissions, power systems, clutch and brake systems, safety and collision warning systems, fleet, fuel and GPS management systems, and hybrid and alternative fuel systems.

ICUEE 2007 will be held October 16-18, 2007 at the Kentucky Exposition Center in Louisville, Kentucky.

"Exhibitors in the ICUEE 'ride and drive' program will now have the same opportunity as other outdoor exhibitors to show their equipment in action. This offers added value to attendees who are at the show to evaluate and purchase trucks, engines and components," noted ICUEE show manager Nicole Hallada.

ICUEE also features equipment demonstrations in outdoor exhibit space that is suitable for shallow digging, in addition to areas for deep digging. Hard-asphalt outdoor exhibit space ac-

commodates above ground and overhead demonstrations.

ICUEE 2007 will cover close to 100 000 m² of indoor and outdoor exhibits of the latest construction and utility equipment, technologies, products and services. A wide array of industry education and training sessions will extend the value of these exhibits and equipment demonstrations.



Source: ICUEE,
www.icuee.com



Take Back the Deck with VMAC Underhood Compressors

When deck space is minimal, and payload is pushed to the maximum, the VMAC underhood Air Compressor is in its element. That is because the system's patented rotary-screw technology and compact size have allowed the air compressor to move from above-deck to under-hood. Mounting the air compressor underneath the hood of the truck allows contractors to save valuable deck space, while the compact design means payload is being reserved for the tools and equipment needed on-site. Models available provide air output of up to 70 CFM or 150 CFM and 175 PSI at 100% duty cycle. Taking up less workspace than



the jackhammers it powers makes the underhood system the lightest and most powerful system available in its class.

Source: VMAC
ICUEE booth #L346



Vermeer Vacuum Excavators



Vermeer and McLaughlin introduce a new line of 1893 I vacuum excavators. Each model offers an engine idle-down feature that automatically reduces the engine to idle when the water is not in use. A patented in-tank cleanout system, washes the tank clean after dumping and eliminates manual cleaning. Three models are available

Source: Vermeer Manufacturing Co.
ICUEE booth #K225, #K332



FCI-Burndy® Products at ICUEE

FCI-Burndy® Products, a leading manufacturer and provider of connector solutions to the industrial, energy, application tooling and automotive industries, will feature the Burndy Patriot® line of battery actuated hydraulic cutters and compression tools at the upcoming International Construction and Utility Equipment Exposition (ICUEE) 2007 Show.

The newly designed Burndy® Patriot® PAT46-18 V battery-actuated hydraulic crimping tool as well as the Patriot® PATMD6 hydraulic crimping tool will be on display

Also at the show, the Burndy®



GTC1AC34RA Protective Grounding Clamp will be exhibited, a system designed to bring maximum ease and safety to the installation of grounding sets on live or dead front Pad Mounted Equipment.

Source: FCI-Burnby Products
ICUEE booth #1134



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Agenda

Great American Trucking Show

August 23 - 25, 2007
Dallas, TX USA

Exploration 07

September 9 - 12, 2007
Toronto, ON Canada

LubricationWorld/Predictive Maintenance Technology Conference

September 11 - 13, 2007
Las Vegas, NV USA

3 Salons - Énergie - Équipement Territorial - Réseau-Expo

September 12 - 14, 2007
Besançon, France

Technical Day - APOM

September 14, 2007
Sherbrooke, QC Canada

2007 SWIFT Conference & Trade Show

September 16 - 20, 2007
Calgary, AB Canada

3rd Golf Tournament of Bitume Québec

September 18, 2007
Joliette, QC Canada

Garden Expo

October 16 - 17, 2007
Toronto, ON Canada

ICUEE 2007

October 16 - 18, 2007
Louisville, KY USA



Atlantic Logistic Forum 2007

November 15 - 16, 2007
Biarritz, France

Con-Build Vietnam 2007

November 20 - 23, 2007
Giang Vo, Hanoi, Vietnam

CONEXPO Asia show

December 4 - 7, 2007
Guangzhou, China



28th International Irrigation Show

December 9 - 11, 2007
San Diego, CA USA

CONGRESS 2008

January 8 - 10, 2008
Toronto, ON Canada

World of Concrete 2008

Exhibition January 22 - 25, 2008
Seminars January 21 - 25, 2008
Las Vegas, NV USA

NAPA's 53rd Annual Meeting

January 26 - 30, 2008
Phoenix, AZ USA

CONEXPO-CON/AGG 2008

March 11 - 15, 2008
Las Vegas, NV USA



EXPO Grands Travaux 2008

April 25 - 26, 2008
Montreal, QC Canada



AORS 2008 TRADE SHOW - June 4 and 5

June 4 - 5, 2008
Walkerton, ON Canada

MINExpo® 2008

September 22 - 24, 2008
Las Vegas, NV USA

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