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Volume 13 Number 7 August 2008

EDITOR / PUBLISHER Jean-François Villard editor@infrastructures.com

CONTRIBUTING EDITOR Rob Holden

ADVERTISING SALES MONTREAL (514) 233-1295 montreal@infrastructures.com TORONTO Jean-Philippe Charron Julie Turcotte (416) 795-1295 toronto@infrastructures.com

TELEPHONE (514) 233-1295 (613) 862-1295 FAX: (514) 528-9932

MAILING ADDRESS 4330 Saint-Hubert Street Montreal (Quebec) H2J 2W7

E-Mail editor@infrastructures.com

INTERNET www.infrastructures.com

InfraStructures is circulated free of charge to qualified users of heavy machinery and specialized equipment in construction, public works, and natural resources across Canada in both French and English.

The cost of a subscription for either edition for one year is \$20 for Canadian residents and US\$50 or ${\in}50$ for U.S. and overseas.

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A Brief Word...

While it may surprise some to feature such chilling content at this time of the year, manufacturers and suppliers of Winter maintenance equipment count on us to help "jump start" people's thinking about their requirements early before the Fall crunch!

Funny thing about life in Canada, here we are in an Arctic country and few of us have been further north than Temiskaming! Recently, I had the chance to watch BBC's Top Gear Polar Special where presenters James May and Jeremy Clarkson drove a Toyota pick-up from Resolute to the North Pole!

As I sat in my comfortable chair, I was amazed at the spectacle. Here I was watching "Mad Dogs and Englishmen" going out in the midnight sun (there was also a dog sled involved). Deep snow, thin ice, drifts, wind, cold temperatures, all those things we like the world to think of as... "Ours".

The fact that the participants were Brits, with a Japanese vehicle and Icelandic technical expertise was an irony not lost on me. Least ways when you realized that the sole Canadian was on a dog sled!

Anyway, with a renewed awareness of how much the outside world knows about our little corner of it I appreciated how important research, planning, innovation and execution are when developing a Winter maintenance plan. Fortunately, for our readers and advertisers, so does InfraStructures. Here again is our Special Winter Issue packed full of innovative products, technologies, specialist advice and more, all with our unique Canadian perspective!

So, as you prepare to hitch-up the sled team and take out the shovel, have a leaf through these pages, it might just save you some back strain.

Regards,



On the cover:

one of three SMI heavy duty snowblowers sold by Machineries Maheux (1998) Ltée to Terrassement Portuguais Inc.

These rugged machines originating from airports owned by the Canadian government are used by many private contractors involved in snow clearing for Quebec City.

KOHLER ENTERS DIESEL ENGINE MARKET

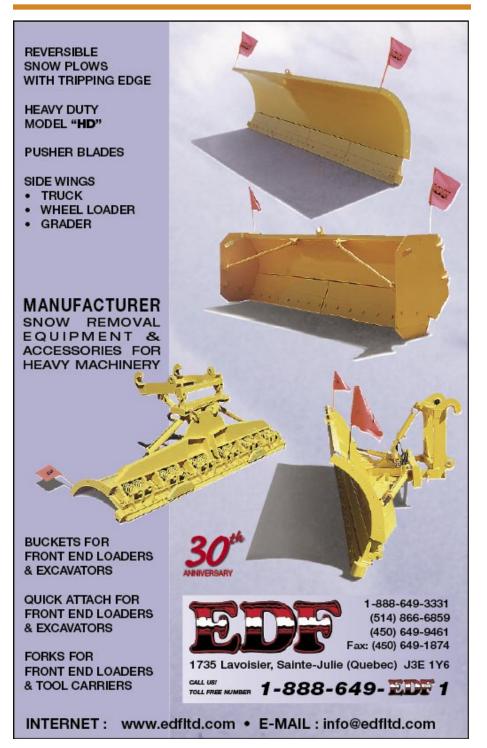
Kohler Co.'s Global Power Group, a global leader in engines and power generator systems, recently launched its first diesel engine line for the North American market.

Kohler will offer a line of single- and multicylinder diesel engines from 7-67 hp. The new Kohler diesel engines will be emission compliant, to the latest EPA and CARB emission requirements.

"Kohler is very serious about competing

in the non-highway engine market on a worldwide map and this diesel line complements our current gasoline engine offering," said Paul Bartelt, president of Kohler Co.'s engine division.

Kohler Co.'s engine division, in operation since the 1920s, manufactures air- and liquidcooled, four-cycle gasoline engines in the 4 to 40 hp range. Kohler engines are supplied to equipment manufacturers worldwide in the lawn and garden, commercial and industrial,



agricultural and construction markets.

Kohler engines are distributed in Quebec and Atlantic provinces.

Source: Kohler Engines

GENIVAR INCOME FUND ACQUIRES BULLOCK BAUR

The GENIVAR Income Fund is pleased to announce the acquisition of Bullock Baur Associates Ltd., a British Columbia-based firm specializing in civil and municipal engineering services.

Bullock Baur was founded in 1974 and currently has 23 employees at its office in Victoria. With a primary focus on serving municipalities, First Nations, private developers as well as federal and provincial clients in British Columbia, Bullock Baur serves major clients which include: City of Victoria, District of Saanich, City of Colwood, Capital Regional District, Defence Construction Canada, Snuneymuxw Nation, Olympic View Developments, BC Hydro, First Nations' Emergency Services, Penelakut Tribe and TimberWest.

Source: GENIVAR Income Fund

GENIVAR INCOME FUND ACQUIRES ZENIX

The GENIVAR Income Fund is pleased to announce the acquisition of Zenix Engineering Ltd., an Ottawa-based firm specializing in building services such as envelope design and roofing, fire and life safety, code review, security, interior design and architecture, as well as mechanical-electrical and structural design. With this acquisition, GENIVAR now has over 550 employees in its Ontario offices.

Founded in 1995 by Leo McCuaig, Chris Holtshousen, and Francois Lemay, Zenix has 54 employees at its office in Ottawa. Zenix serves major clients including: Shoppers Drug Mart, Bank of Canada, Federal Government, City of Ottawa, NAV CANADA, Morguard, and the RCMP.

Source: GENIVAR Income Fund

BUHLER TO DIVEST B56 WHEEL LOADER

Buhler Industries Inc. is divesting its line of articulated wheel loaders and accessories. Proposals for the purchase of the Buhler B56 line, including several completed units, parts, tooling and accessories will be accepted immediately.

"We reviewed the core areas of our business and made some tough decisions," explains Maxim Loktionov, vice president of Buhler Industries Inc. "At present we are focusing specifically on the global agriculture market and are allocating our resources with that in mind. As a result, we've decided to explore other options for the B56 product line."

Included in the proposal for sale are nine complete B56 units, several attachments, component parts, service parts and tooling. The successful buyer will also receive intellectual properties such as bills of materials and dealer and vendor listings.

Source: Buhler Industries Inc.

CARLISLE MOTION CONTROL ANNOUNCES STRATEGIC PARTNERSHIP

Carlisle's Motion Control Division (Motion Control) announced recently its plan to form a strategic partnership with Brake Resources Inc. (BRI) of St. Louis, Missouri. As part of this new partnership, Motion Control will consolidate its Altec brake shoe remanufacturing operation located in Pittsburg, Kansas into BRI's St. Louis area facility. "Entering into this partnership combines BRI's 50 years of brake shoe remanufacture experience with the Altec heavy-duty technology to expand our current brake shoe remanufacturing capacity, while providing superior service for the U.S. market from a location along major freight routes" states Joe LaVarra, division president for Motion Control.

As part of the partnership plan, all current Altec equipment and technology will be moved from Pittsburg to BRI. The Altec remanufactured brake shoes produced through this partnership will continue to meet all current quality standards, including Altec's coining process and RustGardTM Technology. BRI is an ISO 9001:2000 and QS9000 compliant company further ensuring the world-class quality Motion Control customers depend upon.

Customer service functions will remain essentially unchanged by this move, all inquiries for the former Pittsburg facility will continue to be handled through Charlottesville, Virginia. There is no change in operations or customer service for Altec's Brantford Ontario facility.

LaVarra further commented, "Although we are saddened by affecting our 34 employees in Pittsburg, we have a market obligation to

Looking for more information? Want to read past stories? Visit our archives on www.infrastructures.com provide our customers with improved product and services." The relocation of Altec's U.S. manufacturing facility will be complete within the next several months with no interruption or delay in products or services.

Source: Motion Control Industries

AXLETECH INTERNATIONAL AND BAE SYSTEMS ENTER LONG TERM AGREEMENT

AxleTech International, a specialist in high-speed planetary axles for the defense,

off-highway, and specialty truck markets, has entered into a long term supply agreement (LTSA) to furnish 5000 Series 5G[™] axles to BAE Systems for its RG33 4x4 and 6x6 vehicles. The RG33 has secured awards for over 2200 Mine Resistant Ambush Protected (MRAP) Vehicles in both Category I and Category II. The RG33 has also been awarded the Army's Medium Mine Protected Vehicle (MMPV) program, which forecasts approximately 1800 vehicles over eight years.



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InfraStructures *English Edition* August 2008 – page 5

The agreement, including option years, extends through 2012 and covers both original equipment and spare axle requirements. The LTSA is expected to generate over \$160 million in AxleTech revenue based on projected volume.

The exclusive LTSA guarantees the supply of axles for BAE's survivability-enhanced RG33 vehicles. These vehicles use AxleTech's new, upgraded 5000 Series 5G[™] high-speed planetary axles which have been designed and constructed with enhanced impact resistant and energy absorbing materials. The design offers increased payload capacity for heavier, up-armored requirements and is capable of withstanding the high dynamic shock loads increasingly required in theater. These 5G[™] axles maintain all of the other benefits of the 5000 Series[™] high-speed planetary axle family, including mobility, automotive performance, and superior ground clearance.

Production for the 5000 Series 5G[™] will be at the AxleTech facility in Oshkosh, Wisconsin. The plant capacity for high-speed planetary axles has been newly expanded to supply both 4000 Series[™] and 5000 Series[™] axles.

Source: AxleTech International

CARLSON SOFTWARE AND RAJANT COR-PORATION ANNOUNCE PARTNERSHIP

Rajant Corporation announced recently that it has entered into a partnership agreement with Carlson Software to provide world-class productivity solutions primarily for the mining and construction industries.

The partnership combines products from Carlson's comprehensive suite of civil, surveying, mining, construction, machine-control, GPS and positioning software applications over Rajant BreadCrumb[®] wireless mesh networks. Carlson Software solutions work with the AutoCAD[®] engine and as add-on software to AutoCAD[®] and AutoCAD Map[®]. Rajant wireless mesh networks are deployed worldwide, including a mine-wide installation at the Kennecott Utah Copper mine at Bingham Canyon, owned by Rio Tinto.

A Rajant network is composed of BreadCrumb[®] devices that form a wireless, meshed, self-healing network. Many devices that require wireless communications are constantly on the move throughout a mining or construction network. The Rajant network's BreadCrumb[®] nodes can rapidly adapt to any changes in the network topology, assuring that IP traffic uptime and bandwidth are maximized. A unique benefit of a Rajant network is that no 'root node', central access point or 'LAN controller' is required, thus eliminating extra network latency and single points of failure.

Source: Rajant Corporation

IST AWARDED CONTRACT TOTALLING OVER \$33 MILLION

Aecon Group Inc. recently announced that its wholly-owned subsidiary, Innovative Steam Technologies (IST), has been awarded a contract totalling over \$33 million to supply its Once-Through Steam Generator (OTSG) units to Sherritt Power in Boca de Jarunco, Cuba.

Under the contract, IST will supply five OTSGs to Sherritt Power for the Energas Boca de Jarunco Combined Cycle Project. The OTSGs are designed to recover waste exhaust heat from five 35 MW gas turbines. The gas turbines are currently installed and operating at the Energas power plant. With the addition of the energy from the OTSGs, the output of the plant will increase by 150 MW, bringing the plant's total output capacity to approximately 320 MW.

IST began the design and production of the units for this project in May 2008, and they are scheduled for delivery in stages between May and July 2009.

Innovative Steam Technologies is the world leader in the design and fabrication of oncethrough-steam-generators and is a wholly owned division of Aecon Group Inc.

Source: Aecon Group Inc.

CH2M HILL RECEIVES TWO EPC INFRA-STRUCTURE UTILITIES CONTRACTS FOR THE FORT HILLS OIL SANDS PROJECT

CH2M HILL announced recently that it has signed two separate contracts with Fort Hills Energy L.P. in a joint venture with Lockerbie & Hole Construction Management Inc. to provide engineering, procurement and construction services for the Infrastructure Utilities Work for the Fort Hills Oil Sands Project. CH2M HILL will serve as the managing partner of the \$500 million joint venture contracts.

The contracts allow for continuation of

The LiftPod is an Affordable and More Capable Alternative to Ladders

JLG Industries, Inc., an Oshkosh Corporation company, introduced recently its new LiftPod. It combines the portability of a ladder with the stability of a work platform.

"This remarkable new personal lift fills the gap that has existed, until now, between traditional work platforms and ladders," said Jeff Ford, product parent, JLG Industries. "Maintenance engineers, facility managers and contractors can transport the LiftPod like a ladder and have the stability of a work platform, using both hands to perform their jobs to increase efficiency and safety. Plus, it improves quality of work by eliminating the hassles associated with walking up and down a ladder."

With an enclosed platform and 4,3 m working height, the LiftPod provides greater stability than ladders and allows workers to move within the basket, hands-free, helping to increase safety. The platform contains a work tray to carry tools and materials, increasing productivity and quality of work.



The LiftPod is easily portable between sites in a truck and around the work site on wheels. Each module of LiftPod can be carried and moved by one person, and it can be assembled in less than 30 seconds. It is low maintenance and lightweight; each of the three LiftPod modules weighs about 23 kg for simple disassembly and transfer. LiftPod elevation is controlled

by a battery-operated drill or an optional battery pack for increased flexibility and affordability Source: JLG Industries, Inc. front end engineering design, early site work on the Fort Hills Mine site and the start of detail design activities.

Petro-Canada Oil Sands Inc., a whollyowned subsidiary of Petro-Canada, is the contract operator of the proposed Fort Hills Oil Sands Project which is owned by FHELP. Petro-Canada, UTS Energy Corporation and Teck Cominco are the limited partners of FHELP. The Project includes the Fort Hills Mine located 90 km north of Fort McMurray, Alberta, and the upgrader site located approximately 45 km northeast of Edmonton, Alberta. The project remains subject to regulatory approvals and project sanction by the partners.

Source: CH2M HILL

AECON AWARDED \$81 MILLION HIGHWAY CONTRACT IN ALBERTA

Aecon Group Inc. announced recently that it has been awarded a contract by Alberta Transportation to twin a 13 km section of Highway 21 near Edmonton. The \$81-million contract is the largest civil construction project Aecon has received since opening its civil construction office in 2006.

Under the contract, Aecon will twin the 13 km section of Highway 21 near Edmonton, from south of Highway 628 to north of Highway 16. The scope of the project includes grading, granular base, asphalt paving and highway lighting as well as traffic signals and storm water management.

Aecon's other civil infrastructure projects in Alberta since opening its office two years

Superiority Complex

Recently, Winnipeg based, Superior Asphalt Paving Co. purchased a Cimline PCR-25 crack router to equip their growing pavement maintenance fleet.

"We felt that we wanted to be able to improve the quality of the services we provide, and chose to add routing to our cracksealing operations. As we grow this area of our business we

are encountering more occasions when routing is required due to the state of the asphalt or the specification mandated by the customer"...comments Guy Combot, owner of Superior Asphalt Paving.

The Cimline PCR-25 router is the most well engineered product available to commercial crack sealers in Canada. This machine is not merely a device for gouging out asphalt like many other brands; Cimline has invested a lot of engineering time into the



development of these tools. It is powered by a dependable Kohler power plant, that includes overhead valves for smooth running, and tri-stage air filtration to protect it in a hot and dusty environment. The unique heavy duty frame includes a labor-saving tilt-up cutter shroud for ease of maintenance, and a two-piece drum with Timken tapered roller bearings to improve load capacities and increase service life.

Not only is the PCR-25 built tough, it is also built with safety and ease of operation at its center. The 'Bomb-Sight' pointer to permit ease of following the crack, and the high visibility depth indicator provide the operator with simple and concise information. Also, the frame permits the operator to balance the machine, eliminating strain and fatigue of back and shoulders. This is further improved by the adjustable handles and the quick stop brake system incorporated into them to permit better control and safety of operation. Ultimately the belly bar engine shut-off is conveniently placed to provide the operator with peace of mind when working in hazardous or high traffic areas. This feature ensures that the unit will stop in 7 seconds or less compared to competitive units using electric clutches or other devices.

A Superior machine, to perform a Superior job employed by a Superior asphalt contractor,Super!

Source: Cimline

ago include: construction of 5 bridges for Calgary's new ring road, an open cut tunnel for Edmonton's LRT, construction of 10 storage tank foundations for Shell Canada and other civil works, as well as two projects for BA Energy and Kinder Morgan Canada, undertaken in conjunction with Aecon's Industrial division.

Source: Aecon Group Inc.

CONTINENTAL ENGINES ACQUIRES HIGH-WAY EQUIPMENT & SUPPLY COMPANY

Continental Engines, specializing in the sales and service of emergency generators and industrial gas and diesel engines, recently announced their acquisition of Highway Equipment & Supply Company. The company was founded in 1942 and has offices in Orlando, Jacksonville, Miami, and Tampa. Continental Engines has been headquartered in Greenville, South Carolina, for more than 40 years.

With a strong foothold in Florida and with key product lines under exclusive regional contracts, Highway Equipment and Supply became attractive to Continental Engines in their efforts to gain market share and further expand their footprint across the southeast. Highway Equipment and Supply and their customer base and product coverage spans Florida, Georgia, and Alabama. Their focus is and continues to be on generators, pumps, and engines.

- Marter

1 cal

As part of the acquisition, Continental Engines now holds the physical assets of Highway Equipment and Supply, which includes a 2600 m² service facility. Continental Engines will service the Highway Equipment and Supply Company customer accounts, as well as manage relationships with the manufacturers, including product lines from Hatz Diesel, Subaru Robin Industrial Engines and Generators, Wisconsin Motors, Iveco, Yanmar, and Ford Power Products.

Continental Engines offers emergency generator sales, installation, and service 24 hours a day, seven days a week, for those businesses or individuals that may experience a power loss. There are many industries where electricity continuity is critical, including health care providers, assisted living facilities, schools, and emergency response centers. Continental Engines also supplies generators and generator rentals to construction sites and special events.

In addition to emergency generator service, Continental Engines also works with original equipment manufacturers, servicing, remanufacturing, and custom building industrial gas and diesel engines. The non-highway engines are used in a variety of environments including the manufacturing, service, and construction industries.

Source: Continental Engines

GM EXTENDS ENGINE SUPPLY AGREEMENT WITH NAVISTAR AFFILIATE MWM INTERNA-TIONAL MOTORES

The board of directors of General Motors-Brazil and MWM International Motores, an affiliate of Navistar Inc., have signed a strategic agreement to manufacture 420 000 units of a completely new diesel engine to serve GM's new vehicle line to be launched by 2011. The engines will be supplied for GM in Brazil and the vehicles will also serve export markets.

"This partnership demonstrates the confidence of GM Brazil in its long-standing supplier, MWM International, which has supplied GM with diesel engines since 1964. To put it in perspective, during these 44 years of partnership, nearly 780 000 engines for GM trucks, pick-ups and SUVs have been supplied," said Jaime Ardila, president of General Motors in Brazil and Mercosul. Mr. Ardila said the partnership "is aligned with our strategic objective to have all Chevrolet lines completely renewed by 2012."

Johnny Saldanha, purchasing and supply chain vice president of GM LAAM said the contract "is the highest value contract that GM has signed with a supplier in the 84 years the company has been in Brazil."

MWM International will be responsible for the new diesel engine machining and assembly, as it does for the Sprint 4.07 TCE engine it supplies for Chevrolet S10 pick-ups and Blazer SUVs in Brazil.

Source: Navistar International Corporation

HAULOTTE GROUP ACQUIRES BIL-JAX

Haulotte Group is pleased to announce the acquisition, through its U.S. subsidiary, of BIL-JAX, Inc, headquartered in Archbold, Ohio.

The global access market is highly competitive and growing at a fast pace. The resulting benefits of scale along with associated capital costs for product line expansion contribute to a time of industry consolidation and convergence. Today, this market is increasingly dominated by three players. Together, Haulotte and Bil-Jax will offer a competitive choice and better fulfill the needs of customers and partners.

Source: Haulotte Group SA

The Unimog Is Used to Wash The Tunnels of Paris

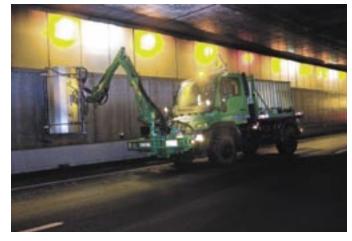
The road maintenance department of the municipal cleaning services in the French capital – Propreté de Paris – will soon be working with the Unimog. To this end the municipal authority in Paris purchased a total of nine Unimog U 400 with tunnel washing units supplied by Mulag and demountable spreaders, snowplows and snow clearance units by Schmidt Winterdienst- und Kommunaltechnik GmbH in St. Blasien (Black Forest). The total investment for this innovative vehicle and implement technology was around €2,3 millions. The Unimog are produced at



Daimler AG's Mercedes-Benz truck plant in Wörth a. Rh. (Rhineland-Palatinate). Most of these vehicles have now been delivered, and are in service with Propreté de Paris. The enormous range of tasks carried out by the cleaning services in Paris and their 8000 employees can be illustrated by three figures: each day they dispose of 3000 t of waste in the city area, and clean 1400 km of roads and 2800 km of pavement.

The Mercedes-Benz Unimog U 400 are equipped with dual-circuit hydraulics and PTOs for the implements, and are powered by a 177 hp four-cylinder BlueTec engine (Euro 4) with SCR diesel technology which drastically reduces nitrogen oxide and particulate emissions while optimising fuel consumption. The boom of the FME 600-T tunnel washing unit by Mulag has a range of 5,5 m to the right or left. It is designed to clean walls, ceilings and continuous lighting

strips in tunnels and subways. Its automatic, electronic scanning system with ultrasonic sensors precisely adapts the washing brush to the structure of the surface to be cleaned. The boom head can be fitted with either a brush or a spray bar. In order to avoid time-consuming refitting, Propreté de Paris plans to operate



three vehicles with brushes and six with spray bars, together with the appropriate tank bodies.

The up to eight-lane wide Boulevard Périphérique, which was built between 1954 and 1973 to encircle Paris, channels the enormous volume of traffic around the French capital and into its center. To clean the well over 30 tunnels with 720 000 m² of tunnel surfaces in each direction, the traffic must be diverted and the relevant section of the Boulevard Périphérique closed down completely. For this reason the 100 or so workmen responsible for this task only work at night. During the period from November 15 to April 15, the Unimog are mainly equipped with winter service implements. Though snowfall is a rare occurrence, even the slightest touch of winter inevitably leads to traffic chaos in Paris. "Tunnel-washing days" are exclusively between April 15 and November 15. A backlog needs to be coped with when all nine vehicle/implement units have been delivered, however.

Source: Daimler AG

Hydrostatic Drive Helps Conventional On-Off Highway Trucks Get Traction

Scott Betzen, Poclain Hydraulics Special Collaboration



Poclain Hydraulics is best known for its hydrostatic transmission systems used in construction, agricultural, and other off-highway vehicles. However, last year at bauma 2007, held in Munich, Poclain Hydraulics introduced a new drive system that gives all-wheel-drive capability to conventional on-highway trucks.

Dubbed the AddiDrive[™] Assist, the drive system uses a Poclain hydrostatic pump powered through a power takeoff from the vehicle's transmission. Hydraulic fluid from the pump is routed through control valves to a hydrostatic motor mounted within the envelope of the truck's left and right front axle assemblies.

SYSTEM OPERATION

In normal operation, the Assist is disabled, so the front wheels spin freely, and the system consumes no power. However, when the vehicle encounters difficult terrain, the driver need only stop the vehicle and engage the AddiDrive[™] Assist system. In this mode, a vehicle can more easily negotiate steep inclines, deep mud, snow, and similar conditions.

Some trucks already have fulltime all-wheel drive capability through a mechanical power train. However, because they are active full time, they rob fuel economy whenever they are used when not needed. Compared to permanent all-wheel drive trucks, AddiDrive[™] Assist is 8400 kg lighter, provides a lower center of gravity (which improves vehicle stability), and allows a tighter turning radius.

Other part-time systems require the driver to exit the truck, raise the truck's cab, and

physically engage the front-wheel drive system. This technique is not only cumbersome and unproductive, but requires extra overhead clearance so the cab can be raised.

The AddiDrive[™] Assist system is currently offered in TGA series trucks with a HydroDrive option manufactured by MAN Nutzfahrzeuge Group, Munich.

NEW BREED OF HYBRID DRIVE

Poclain also used bauma to introduce a new hybrid hydraulic drive that bucks the trend of other hydraulic hybrids. Typically, hydraulic hybrid drives use accumulators to regenerate energy used in braking of vehicles that undergo frequent starts and stops. However, Poclain's AddiDrive[™]

CreepDrive is intended to benefit vehicles that often operate in a low-speed, or creep, mode. Essentially, then, CreepDrive provides the benefits of a hydrostatic transmission's lowspeed control with the fuel economy and highspeed capabilities of a geared transmission.

When the CreepDrive is disengaged, the

vehicle's powertrain operates normally, and no energy is used by the CreepDrive. To engage the CreepDrive, a clutch in a transfer box disengages the vehicle's two-section drive shaft at its midpoint. A hydraulic motor then powers the rear section of the drive shaft to turn the wheels at low speed. The motor is powered by a hydraulic pump, which is driven from a PTO on the vehicle's transmission. Once the CreepDrive is disengaged, the clutch re-engages to positively transmit power from the front section of the drive

shaft to the rear. In this mode, the



CreepDrive is completely removed from the powertrain, so it poses no drain on fuel economy.

Switching from normal drive mode to creep drive simply requires throwing a switch.

Applications for the CreepDrive include road marking vehicles, road sweepers, asphalt layers, railway and bridge mainte-



nance trucks, and aircraft de-icing vehicles. Potential benefits include improved fuel economy, lower noise and emissions, longer life of vehicle brake and clutch linings, and higher safety and productivity because drivers can focus more attention on operations and less on speed control.

Denali National Park Goes Greener With New Hybrid Commercial Bus

Visitors to Alaska's Denali National Park and Preserve, one of the largest protected intact ecosystems in the world, will now have the opportunity to explore the park with the aid of an environmentally friendly vehicle; a fuel-efficient and emissions-reducing hybrid bus. IC Bus, North America's largest school bus and commercial bus manufacturer, delivered the Park's first hybrid bus on July 17.

Assigned for use as part of the park's shuttle service which extends 145 km into the wilderness, the hybrid bus will transport visitors along a 70 km route through August 30, during the Park's peak season, enhancing visitors' experience. A quieter engine will improve wildlife viewing as visitors see and hear nature in a way the other buses do not allow.

"Can you imagine the thrill of moving slowly and silently past a bear nursing its cub or wolf hunting along the road?" asked Elwood Lynn, assistant superintendent of operations for Denali.

In addition to a quieter ride, the new bus will provide better performance on the steep grades of the park road as Denali is also known for its mountain viewing. Most importantly, the CE Series Hybrid delivers environmental benefits such as: a reduction in particulate matter and NO_x emissions. an improvement in fuel economy, a reduction in CO₂. Hybrid drive power also provides an electronic boost for hills or when rapid acceleration is needed, recharges the battery and improves brake life.

Denali officials and employees are very excited about the new hybrid as they are committed to making Park operations more sustainable and educating visitors about eco-friendly changes they can make in their own lives.

"This bus will reduce our impact on the environment while improving guests' experience," explained Mr. Lynn.

When Doyon/ARAMARK, the concessioner responsible for the Park's transportation service, won the Denali contract in 2003, the Park challenged them to explore new bus technology, including hybrid. In turn, Doyon/ ARAMARK approached Cascadia International, the IC Bus dealership in Anchorage.

Cascadia is loaning the hybrid bus to Doyon/ARAMARK to test at the Park.

"This bus is for demo and evaluation



purposes. The National Park Service is looking at this technology and is very interested in the feasibility and economic viability of future fleet replacements. The price of diesel fuel in the Denali area tops \$5.00/gallon so fuel economy is a genuine consideration with this project along with reducing environmental impact," said Matt Gerber, statewide sales executive of Cascadia International, LLC.

Doyon/ARAMARK currently has 110 buses in its Denali National Park and Preserve fleet which drive an average of 1,9 million km per year. As more of the diesel-engine buses are replaced by hybrids, the reduced impact on the environment and fuel savings become that much greater.

"Improving fuel efficiency and reducing emissions will help the Park and the environment," said John McKinney, vice president and general manager of IC Bus. "IC Bus is committed to environmental leadership with its hybrid commercial bus." The hybrid system, developed by Enova Systems, couples a diesel engine with an 80 kW powertrain, incorporating a transmission, batteries and an electric motor. The system recovers kinetic energy during regenerative braking, charging the batteries while the bus is slowing down. This provides additional power for acceleration, making the hybrid buses ideal because of the frequent starting and stopping of the bus.

IC Bus, LLC of Warrenville, Illinois, is a wholly owned subsidiary of Navistar International Corporation. The largest manufacturer of school buses in the USA, IC Bus is a leader in passenger protection, chassis design, engines and ergonomics. The company is also a producer of school buses. All IC Bus buses are sold, serviced and supported through a renowned dealer network that offers an integrated customer program encompassing parts, training and service. Source: IC Bus

Volkswagen Takes Control of Scania

The Volkswagen Group has received the antitrust approvals necessary to acquire a majority voting stake in Swedish truck manufacturer Scania AB. In addition to the approval by the European Commission, a large number of antitrust proceedings were required in other countries worldwide.

In March this year, Volkswagen reached an agreement with Investor AB and the Wallenberg foundations



regarding the acquisition of their entire shareholdings in Scania. Volkswagen will therefore increase its share of voting rights in Scania from 37.98% to 68.60%. Its equity interest will rise to 37.73% from 20.89%. The purchase price amounts to approximately €2.8 billion. The Volkswagen Group will fully consolidate Scania in the second half of the year.

Source: Volkswagen AG

Belos Chooses H1 and PLUS+1 Technology

Only manufacturers of the strongest brands receive orders for a new product before the first one has even rolled off the production line. That was the experience of Swedish Belos with its new TransGiant implement carrier, one of the first machines in the world equipped with both H1 and PLUS+1™ technology from Sauer-Danfoss.

"We sold the machine even before it was

produced after presenting the prototype at a trade fair," explains Belos production manager Ronny Wagner. "Customers bought it without even trying it because of its very modern design."

The effect of this instant success was that the prototype design needed to

be ready for commercial series production within a matter of weeks - a challenge that closely involved Sauer-Danfoss. Today the warmth of the market's initial welcome has still yet to cool.

Shortly after the launch, Belos upped its original production forecast of 40 machines a year to 80. Each one bears a complete Sauer-Danfoss hydraulic system - including an H1 78 cm³ piston pump for the

transmission and, from the PLUS+1 range, an

MC 50 microcontroller and I/O module for full system control, a JS 1000 joystick with individual tool settings, and a DP600 graphic display for a full overview of machine operations.

The compact efficiency of H1 and PLUS+1 is a major advantage on the TransGiant,

a machine designed for tackling big municipal tasks such as grass cutting, snow clearing and sand spreading.

Located under the cabin is the electrically actuated six-section PVG Hybrid that supplies finely tuned hydraulic power to the work functions. With this compact combination of PVG 32 valves and a hydraulic integrated circuit block installed, all valves and cables are neatly hidden away, making the TransGiant the height of operator comfort.

Part of the Global Garden Product group, Belos has a long-established relationship with Sauer-Danfoss. This and the high quality of the hydraulic solutions were the main reasons for choosing Sauer-Danfoss as a supplier for the TransGiant. In light of the machine's rapid success, Belos recently sent one of its smaller TransPro implement carriers to Sauer-Danfoss in Germany for trials with H1 and PLUS+1 technology.

Source: Sauer-Danfoss





New All-Wheel Drive Option Available on CASE Graders

Case Construction Equipment recently announced the availability of All-Wheel Drive as a factory option for the 865 VHP and 885 motor graders, which provides exceptional traction and machine control.

The independent, hydrostatic system drives the front axle for six-wheel-drive or separately in "creep mode" for front wheel drive only. The AWD traction improves productivity during snow plowing, ditch-digging and work on inclines and in adverse conditions.

"The factory-installed all-wheel-drive option means operators gain the benefits of six-wheel drive or precise grading ability of hydrostatic front wheel drive only," said Dave Wolf, brand marketing manager, Case Construction Equipment. "The control, which is located on the right-hand console, can be turned on as needed."

When in six-wheel drive, the machine gains control of the front end in adverse conditions, maximizing traction. The aggressiveness of the front-wheel-drive can be set to pull the rear tandem or lag the drive of the rear tandem. The AWD is operational in all gears.

For precision grading, set the AWD in creep mode to engage only the hydraulic front wheel drive. "The option to run in creep mode provides very smooth hydrostatic starting and stopping for extra-precise grading operations," he said.

The all-wheel-drive's hydrostatic control system provides a benefit similar to limitedslip differential in that it senses when one of the front tires begins to slip and transfers the hydraulic power from that wheel to the one that is gripping.

"The efficiency of Case's AWD hydrostatic system provides the control, responsiveness and traction that skilled operators are requiring," added Mr. Wolf.

The Tier III-certified engines on Case motor graders are electronically controlled and fueled through a high-pressure common rail fuel-injection system. This provides responsive engine control, greater fuel efficiency and a cleaner burn.

The 865 VHP (variable horsepower) is the most popular machine in the Case motor grader lineup, delivering 205 net horsepower. Variable horsepower allows a range in horsepower to match the needs of the application at hand by delivering better traction control



while maximizing fuel economy.

The largest Case motor grader, the 885, takes advantage of the fully electronically controlled Cummins engine, providing 205 net horsepower while meeting Tier III certification.

The third model of Case motor graders, the 845 DHP (dual horsepower), delivers 140 and 160 net and combines weight and maneuverability to handle tight radius areas and cul-de-sacs.

All Case motor graders feature a comfortable operator environment, with an Isomount® cab that reduces noise and vibration. The front articulation joint provides the clearest sight lines to the moldboard and tires for precise blade positioning and operation.

Case motor graders continue to lead the industry with ease of maintenance. Onepiece hoods provide complete access to the engine and cooling package while providing ground-line maintenance checks. Both batteries swing out for easy servicing and access, while fluid sight gauges simplify daily inspections.

Source: Case Construction Equipment

Introducing the Trackless MT Series 6

The Trackless MT Series VI Diesel is the 6th generation of municipal tractors designed and manufactured by Trackless Vehicles Limited.

Forty years ago, Trackless began development of a totally new concept in North America – an articulated, four wheel drive tractor with interchangeable



front mounted attachments. The company's commitment has been to manufacture the most powerful, dependable and user-friendly tractor in its class, with a choice of attachments which allows 12 month utilization.

The Trackless Series MT6 features a 110 hp Tier 3 Cummins diesel engine, joystick control for attachment functions and an electronically-controlled hydrostatic system, which is linked to the engine RPM. The cab and rear chassis have been redesigned and include several technological, ergonomic and performance-related advancements over the previous Series MT5.

Source: Trackless Vehicles Limited

Kentucky Snow Derby!

Again the APWA Snow Expo was a tremendous success, despite warm weather and spring flowers.

As the level of technology in equipment and materials grow, so too does operational management and planning. With the benefit of a dedicated event, with expert presentations and educational conferences, this knowledge can be freely and passionately discussed. Surprisingly, Canada does not have such an expansive forum for the subject of snow and ice control, so it was hardly a surprise to see so many 'tourists'.

According to Mark Kenny of MRDC in Oromocto, New Brunswick, "I like to ensure our supervisors and crews get the chance to see what is happening beyond our localized operational area. This has not only been a well earned break after a tough winter, it also has been an exceptional opportunity to meet and converse with experienced professionals from all over the world."

This year's event was also significant for the strong representation of the eurospreader industry. According to Lucas Hooijenga of Schmidt North America, "We have been collectively amazed by the lack of technological development of domestic spreaders.

With the growth in budgetary and environmental considerations, U.S. customers are turning to Europe in ever growing numbers for the expertise and innovation they require."



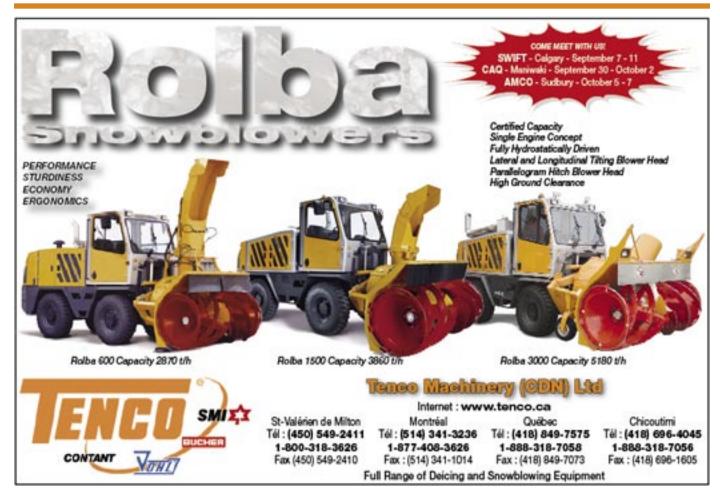
Representatives from the world's largest spreader manufacturers, Epoke, Giletta, Nido and Boschung were in attendance. "We have found this a very rewarding event. Although we know many customers from Canada and the U.S., we had not participated in this conference before. I believe it to be one of the most enjoyable and informative gatherings we have attended," acknowledged Guido

Giletta, managing director of Giletta SpA.

In this age of high-speed Internet and wireless connectivity, the urge to connect on a personal level is growing. The organization and planning of this APWA event enhances that experience and the positive nature a gathering of professionals affords. Not every



event can be fitted into a busy agenda, but a few are difficult to overlook - and this is one of them. Pavement maintenance and SNIC are two key areas of infrastructure support that really benefit from this type of fellowship. Check your local and regional associations for these and related opportunities that can benefit you, your crews, and your planning and execution.



The British Antarctic Survey Operates Allison-Equipped Vehicles

Eilidh Forster, Allison Transmission Europe B.V. Special Collaboration



Choosing the right equipment is critical in the drive for productivity – a truck has to work efficiently and keep on working. However, in this unique case the performance and reliability of equipment could also be critical to operator and passenger survival in the potentially dangerous extreme weather situations that threaten Antarctic operations.

Overcoming some of the most extreme operating conditions on Earth, Allison fully automatic transmissions have been helping provide logistics support to the British Antarctic Survey, in Antarctica, for 30 years. Often working in treacherous conditions with unimaginable temperatures and thick snow, performance and reliability of the support vehicles is essential for human survival on this frozen continent.

ANTARCTICA, THE ICE DESERT

Overlying the South Pole, Antarctica is the coldest, driest and windiest continent on Earth, reaching a minimum of around -90°C inland, in winter and a maximum of between +5°C and +15°C near the coast, in summer. 98% of Antarctica is covered in ice an average of 1,6km thick and the extreme conditions mean it has no permanent human residents. However, its uniqueness makes it an ideal location for scientific experimentation with scientists from over thirty countries working there.

WORLD-CLASS SCIENTIFIC RESEARCH

The British Antarctic Survey (BAS), based in Cambridge, has been undertaking the

majority of Britain's scientific research on and around the Antarctic continent for about 60 years and currently supports five research stations; at Rothera, Halley, Signy, Bird Island and King Edward Point. Ice-strengthened ships sustain the Antarctic operations, providing advanced facilities for oceanographic research and valuable logistic support and a range of tracked and wheeled vehicles, including snow mobiles, Sno-cats and mobile cranes, support day to day activities and survival.

There are various off the shelf and specialised vehicles at Rothera and Halley Antarctic stations. At Halley, the vehicles are all tracked, giving all year round access

around the Brunt ice shelf, whilst at Rothera there is a mix of wheeled and tracked vehicles to deal with the ever changing summer conditions as the snow recedes leaving bare rock around the base location. All the heavy plant vehicles are powered by diesel engines which require special pre-heating before they are started in low temperatures, and they also use alternative fuels such as JET A1 aviation fuel to stop the waxing of regular diesel

fuels. All the vehicles are fitted with automatic transmissions to ensure they are simple to operate and be less prone to damage.

Tucker Sno-cats are used extensively for transporting personnel and towing sledges of up to 8 t weight, containing loads such as supply deliveries from BAS's main logistics support ship, RRSErnest Shackleton. Powered by Detroit Diesel or Cummins engines of about 170 HP and driving through Allison automatic transmissions to four tracks, the Sno-cats are steered by turntables fitted to the axles.

BAS currently run a fleet of 12 Tucker Sno-Cats. BAS's technology and engineering division is responsible for managing all aspects of BAS vehicles in Antarctica,



with vehicle managers often spending the winter operating season at Rothera or Halley. Deputy project manager for logistics for the Halley VI build project, Martin Bell, formerly the vehicle manager responsible for vehicle purchasing and maintenance, has spent



a total of 9 years in Antarctica on various contracts. With his experience as vehicle manager for BAS, Mr. Bell understands better than anyone the challenges of operating a fleet in harsh environments and it does not come much harsher than Antarctica.

"Day to day planning and preparations for Antarctic operations and operating in harsh conditions are a constant challenge," says Martin Bell. "Low temperatures, deep snow, wind, traction, steep gradients, ice and long operating hours create difficult operating conditions and the pressure to maintain vehicle reliability is huge."

ZERO FAILURES

"On our relief runs, a vehicle can be working alone so reliability is paramount and in winter months when we operate some of the Sno-cats, a breakdown can be a life and death situation," says Mr. Bell. "We prepare for these occasions by having emergency equipment and vehicles on standby. In the 16 years I have worked here we have never had a transmission failure, the reliability of Allison transmissions is excellent," he continues.

With limited maintenance facilities in Antarctica and the nearest workshop thousands of miles away it is essential that maintenance requirements are kept to a minimum. "We run AT545, MT643 and MD3560 Allison transmissions," says Martin Bell. "No special design modifications are made to the transmissions for coping in the Antarctic environment and very little maintenance is required, only oil and filter changes every 500 operational hours. Though a small oil heater is installed in the vehicles, this is often not used," he adds.

If a vehicle does break down, depending on the problem it is either fixed on site, returned to the stations garage for repair or sent back to the UK. "It is very rare that we cannot fix things on site but if a serious problem occurred we would have to send the vehicle back to the UK to our workshops in Cambridge or back to the supplier," adds Martin Bell.

Losing vital vehicles would present serious problems and increase daily operating challenges even further so it is essential that vehicle productivity is kept high.

With prevention preferred over failure, Allison has over 50 years of experience of producing automatic transmissions, ensuring their gearboxes are durable, whatever the terrain. The Sno-Cat is equipped with an Allison six-speed transmission, with ratios carefully selected to maximize its performance in the challenging snowy terrain. By reducing wear and tear on the drivetrain, vehicle life is greatly extended and maintenance costs are dramatically reduced. The typical operating life of BAS vehicles is 15 to 20 years. With finite funding and budgets, any money saved in logistics support for BAS activities in Antarctica can be used in funding other functions, contributing to the overall success of research programs.

All Allison gearboxes incorporate a torque



converter that makes the best use of the engine power, multiplying torgue by a factor of two, making steep, icy gradients easier to climb. It also offers lock up on first gear, which provides direct drive from the engine. reducing heat build up and contributing to drivetrain longevity. Integrated diagnostics in the transmission monitor and provide advance warning of possible transmission related issues. This information reduces the risk of transmission failure, preventing the potentially dangerous situations that could occur on-site as a result. And even if a problem does occur, Allison has incorporated a "limp-home" mode. Crucially, this allows a vehicle to be moved to a position where a technician can safely work on fixing the problem.

The transmissions are worked very hard, often for long operating hours and, coupled with extreme gradients and poor weather, the benefits of Allison's ability to provide uninterrupted power through the shifts is very apparent. The Allison controller also protects the engine and drivetrain from unnecessary damage by prohibiting mis-selection of gears. The torque converter and planetary gearing also increase traction, improving performance and control of vehicles operating on soft snow or loose rubble, conditions which can develop in certain areas as snow thaws in the summer months.

EVERYONE IN THE DRIVER'S SEAT

In an environment like Antarctica it is essential that everyone is given the necessary survival skills to and this includes operating support vehicles.

"We have a very comprehensive training period in the UK in September and then on site in Antarctica but quite a lot of our drivers are made up from general staff who have never driven an automatic transmission before. The transmission is easy to use and they like the simplicity," says Mr. Bell.

In very difficult driving conditions such as poor visibility, storm-force winds and uneven ground, vehicle control can be very difficult for even the most experienced drivers. However, with the Allison transmission, drivers are able to stay focused on the route ahead and keep both hands on the steering wheel, allowing much safer, easier operation. Medical testing has proven that drivers of Allison-equipped vehicles enjoy lower stress levels than those driving manuals, which is particularly important when working in a heightened stress environment such as Antarctica.

The Allison transmission also incorporates Adaptive Controls: The gearbox learns drivers' behaviour and adjusts shifting to suit. The Adaptive Controls will retain this optimum shift point over the vehicle life. The sum benefit of this is to protect the driveline and keep the truck working but with excellent drivability, not only is the maintenance team happy, the drivers like using the transmission too.

Furthermore, personnel employment and training are important to BAS so reducing the driving skills required has the welcomed effect of both simplifying and reducing delivery time of necessary training.

Allison will continue to play an important part in the future of BAS operations in Antarctica, with Allison equipped Canadian Foremost mobile cranes being used in the ongoing development (not expansion) of the Rothera site. By replacing old structures and making best use of new technologies, such as improved insulation and energy production and management systems, BAS will further reduce the environmental footprint of the station.

The Winners of the How Bobcat Unleashed Me Contest

After an exciting 21 weeks of reviewing entries from Bobcat[®] compact equipment enthusiasts, Bobcat Company officials have selected a grand prize winner, five secondplace winners and 10 third-place winners in the How Bobcat Unleashed Me Contest.

The How Bobcat Unleashed Me Contest asked compact equipment users to share how Bobcat equipment helped them in performing work better, smarter and faster. Equipment users across the continental United States and Canada submitted brief essays and photographs about their experiences with Bobcat equipment.

The grand prize winner is Gregory Stone of Excavation Details, Rock Stream, New York. He will receive a \$75 000 Bobcat gift certificate, good for products or attachments of his choice at a designated Bobcat dealership in North America.

Gregory Stone was selected from among many superb entries because of his inspiring story. Formerly a skilled professional with a custom cabinet and millwork company, he wanted to make more of his life and had a passion to operate compact equipment for a full-time job. He recognized a niche application in vineyards and developed a process to dig precise draining systems while preventing damage to the vines and valuable soil. Mr. Stone purchased a Bobcat skid-steer loader and backhoe attachment – after some guidance from a Bobcat sales specialist – to install the complex drainage systems in the Finger Lakes region of New York. The compact loader and backhoe attachment proved to be perfect for his niche application.

In addition, five second-place prize winners will receive \$1000 gift certificates, good for Bobcat products or attachments of the winners' choice at designated Bobcat dealerships in North America. The five second-place winners include the following individuals:

- Michael Lowes of Lowes' Landscaping from Cuba, Missouri;
- Eric Austin of Austin's Landscape Construction Inc. from Yorba Linda, California;

SIMA Launches Canadian Version of Certified Snow Professional Program

The Snow & Ice Management Association (SIMA) is pleased to announce the launch of a Canadian version of the Certified Snow Professional (CSP) program. The CSP exam and study modules, which cover six different subjects pertaining to snow & ice management and business, have been revised to reflect differences between U.S. and Canadian laws and business practices.

The revisions include changes regarding business law, sub-contractors, and measurements, making the CSP much more pertinent to Canadian applicants. The testing procedures and requirements will remain the same as the regular version of the CSP, as will the six subject Business, Human Resources, Marketing, Sub-Contractors, Snow & Ice Science, and Snow & Ice Operations and Techniques.

"We are happy to offer this opportunity to our members in Canada," says Brian Birch, SIMA's assistant executive director. "The revised study modules and exam now contain all the information relevant to Canadian snow & ice operations, instead of just U.S. laws and practices." The Canadian study modules are available for purchase now, and the first Canadian version of the CSP exam was offered at the 2008 Snow & Ice Symposium in Buffalo, New York.

The CSP program strives to raise the standards of the snow and ice profession by educating leaders in the industry. Preparation for the exam includes meeting eligibility requirements, submitting references, and studying for the exam using the study modules created specifical the CSP program by SIMA.

The Snow & Ice Management Association Inc. is a trade association for those who manage snow and ice. SIMA ensures professionalism and safer communities by helping those who manage snow and ice master essential skills and practices.

Source: The Snow & Ice Management Association Inc.



- Terry Reed of Four Seasons Construction from Whitehall, Montana;
- Bob Pedatella of Kodiak Landscape Design from Haskell, New Jersey;
- Ray Benoit Jr. of Eagle 88 Enterprises from Hay River, Northwest Territories, Canada.
 Ten third-place prize winners will receive an authentic Bobcat jacket. They are:
- Robert Ott of C&C Excavating LLC from La Crescent, Minnesota;
- Joe Emigh from Utica, Pennsylvania;
- Otto Trebing of Tanglewood-Destiny; from Roopville, Georgia;
- Dennis Goecke II from Tipp City, Ohio
- Josh Ginther of Ginther Farms from Abingdon, Illinois;
- Jethro Montgomery of Turf Concepts LLC from Elida, Ohio;
- Marvyn Pickering of Marvyn Pickering Bobcat from Porcupine Plain, Saskatchewan, Canada;
- Devin Scheel of CRS from Draper, Utah;
- Marion Perret of Trans-Speed International from Jefferson, Louisiana;
- Richard Meffert from Raeford, North Carolina.

Fifty years ago, Bobcat Company unleashed a way to work better, smarter, faster. During 2008, the company is celebrating the 50th anniversary of Bobcat compact equipment, which began with the Melroe Self-Propelled Loader – a three-wheeled front-end loader – in 1958. That machine evolved into the Bobcat skid-steer loader and spawned the worldwide compact equipment industry. Today, Bobcat continues to lead the world in the design, manufacture and distribution of compact equipment.

Source: Bobcat Company

Focus on the Environment – Most Successful IFAT Ever

During the course of IFAT 2008, over 120 000 trade visitors from 163 countries came to the event, of which more than 40 000 were from outside Germany. Considering that there was an overall rise of 10% in visitor numbers this time, this means the increase in visitors from abroad is disproportionately higher, at almost 18%. Foreign visitors make up over one third of the total number of visitors.

Dr Johannes F. Kirchhoff, Chairman of the Advisory Board of IFAT and managing director of Faun Umwelttechnik: "IFAT has once again done justice to its role as the world's leading trade fair for the sector. Many trade professionals, above all from international markets, made use of this fair to find out about new innovations. The wonderful setting for this trade fair, and the hospitality afforded to us in this city have contributed to the good mood. For my team and I, IFAT was very successful and it can be described as one of the best trade fairs of all time."

The results of a survey of all exhibitors

conducted by TNS Infratest testify to their total satisfaction. In total 87% of the exhibitors have already stated they will be taking part in the next IFAT.

One of the highlights at IFAT was also the Accompanying Programme, which featured the forums on 'Water and Sewage' and 'Waste Treatment', and the 14th European Water, Wastewater and Solid Waste Symposium. Over 11 700 trade visitors came to the forums, including to the Country Specials and the Environmental Cluster

Bavaria – an increase of over 70% in comparison to the previous event. Also successful was the 14th European Water, Wastewater and Solid Waste Symposium which attracted 1500 participants.

A total of 2560 exhibitors from 44 countries presented innovative products and services in the fields of water, sewage, waste and recycling. That is a rise of 15% over the previous event.



Victor Garnreiter, management chairman, Eurawasser Aufbereitungs- und Entsorgungs GmbH, in the division Suez Environnement: "IFAT is most certainly the reference fair in the field of the environment. It offers a shop window for state-of-the-art technology."

Source: Messe München International



Mustang Adds 'Little Brother' to Compact Track Loader Line

Mustang recently announced the addition of a fourth compact track loader to its product portfolio – the most diversified compact equipment lineup in today's market.

The new compact track loader, Model MTL312, is the most compact of the Mustang track loader lineup, which also includes models MTL16, MTL20 and MTL25. The agile MTL312 shares the durable, comfortable and serviceable characteristics of its big brothers.

As with all Mustang track loaders, the MTL312 has a dedicated track design, meaning the unit is built as a track loader with a heavy-duty undercarriage system versus being built as a skid-steer loader with a bolton undercarriage. The result of this exclusive engineering is a stronger track loader.

With an operating weight of 5,952 lbs. and a width of just under 58 inches, the MTL312 gives operators the tight squeeze they need... outside the operator's compartment.

Inside is a different story because this



compact Mustang track loader offers operators a spacious, not to mention comfortable, work station. A finger tip-control joystick system promises a fatigue-free, high-productivity day on the job.

For operators in dusty environments or extreme climates, an optional, pressurized cab enclosure, complete with air-conditioning and heater, is available. The enclosed cab includes a swing-out door with a wiper/washer system and sliding side windows. An emergency engine shutdown system, electric engine monitoring system and tilt-back ROPS/FOPS combine to prevent unnecessary or excessive downtime for owners of the MTL312.

Source: Mustang Manufacturing Company

Snow Dragon[®] "Snow Melting In July" Demo

Snow Dragon[®] Snowmelters and its Quebec Distributor, Equipements Twin, hosted a two-day snowmelting demonstration at a snow dump site in the Montreal borough of Anjou. In attendance were over 85 government maintenance managers and private contractors from across North America, as well as Snow Dragon[®] distributors from around the globe. Utilizing a patented, CSA approved heat exchange system, two Snow Dragon[®] Snowmelters, the SND900 contrac-



tor model, and the SND1800 (a large site and airport model), melted snow and ice that had been compacted for the past six months.

Although originally conceived as a regional demonstration of the most efficient

snowmelting process in the world, word of this event spread through the snow industry and an open-invite was extended to all of North America, and then the world, as European distributors also showed interest and later attended. Canadian

municipal, provincial and private snowfighters came from Quebec, Ontario and all of the Atlantic provinces. American attendees made the trek from as far away as New York, Ohio, and Minnesota. Most were amazed to see the amount of snow and ice that still remained at the dump site after Quebec's record breaking snowfall this past winter.

Equipements Twin president, Louis Beaulieu stated that "Snowmelting is not a new concept – however, the technology applied by Snow Dragon[®] eliminates previous environmental contamination concerns of older machines produced by others, while increasing productivity and overall cost savings, making this a new and viable alternative to trucking snow. Equipements



Twin is honored to be the first to bring such technology to Quebec."

Snow Dragon® president, John Allin told the gathering "Melting technology has advanced considerably in the past few years so that the use of this method of eliminating snow can now show tremendous cost reductions while benefiting the environment by no longer having contaminated water discharged from the melting unit. This is a win-win situation for all concerned."

This regional demo that garnered international interest and grew into an international event successfully demonstrated and supported Snow Dragon®'s claim to the most efficient snow melting process in the world.

Source: Les Équipements Twin (1980) Ltée

There Is More to Holland Than Tulips

In Canada when we think of Holland we conjure up images of windmills, wooden shoes and tulips. For others there is the memory of the last war, when we fought long and hard to liberate this picturesque land. This last vision was highlighted to me recently when I read of local students visiting the Commonwealth War Grave site at Holten, Netherlands.

Apart from that sombre connection, this small village has a more current link to the 'Great White North'. Holten is home to the world's largest manufacturer of sand/salt spreaders. Given that Canada is known for cold and snow, this fact came as a surprise!

Founded in 1949, Nido Universal Machines, became a member of the German based Schmidt Group in 1983. Schmidt, which has since merged with AEBI of Switzerland, is one of Europe's largest suppliers of municipal equipment. Since its inception, Nido of Holten, has continually reinvested in innovation and technology to become the leading manufacturer of spreading equipment with over 2000 units being produced each year.

This innovation has seen the application of new materials technology, electronic controls and pre-wet and liquid spreading advancements. In 2004, Schmidt introduced Nido to the North American market with the new Stratos spreader range.

Innovation can bring success, which oft times has its' own price, in this case production capacity. The growth of export markets, environmental interest in precision salt application and the introduction of more product variance, soon taxed the original factory site beyond its realistic maximum. Like any leading production organization this was foreseen and in 2000, plans were initiated to design and build a new and more efficient production facility. In May 2008, it was ready to open its doors to the world.

With dignitaries, customers, suppliers and locals, this new 40 000 m² complex was officially unveiled. Located on a new industrial estate at the edge of Holten, this plant includes a 2400 m² service center and a parts distribution warehouse of over 3500 m². Not only will this Parts Distribution Center (PDC) support Nido's global spreader population, it will also support Schmidt's Local Sales Organization (LSO) for the complete product range of sweepers and plows. With all of this activity it is obvious why the 220 strong workforce can swell to nearly 350 during seasonal peaks.

In addition to the marvelous hospitality and entertainment, including real snow! the 500 visitors also did their part for charity. The staff at Nido, in association with 'Doe Een Wens' (Children's Wish Foundation) used this event to raise money for this worthy cause. Nido itself matched this effort, and over \$15 000 was donated.

A land of dykes and windmills, possibly.

A land of warm hearted and welcoming people, certainly.

A land of innovation and industry, absolutely!







Congratulations NIDO on what promises to be a new and prosperous chapter in your history.

(R.H.)



SnowEx Introduces Its V-Maxx 9500

SnowEx, a product division of TrynEx International, introduces the new V-Maxx 9500 – its largest V-box-style spreader to date. Featuring a 3 m³ capacity hopper, the entirely electric powered V-Maxx 9500 is ideal for municipalities and winter maintenance contractors catering to larger applications.

Designed for use with larger commercialduty pickups, flatbed trucks and dump-bed trucks, the V-Maxx 9500 features an all polyethylene-constructed material hopper that boasts the patented SnowEx Material Feed System – consisting of a multi-angle hopper design, heavy-duty auger drive, inverted-"V" baffle configuration and an attached vibrator.

The System's multi-angle hopper helps provide a continuous flow of material to the auger drive. When compared with conveyordriven spreader alternatives, augers deliver material to the spinner more accurately and efficiently. The vibrator shakes the inverted-"V" baffle, which helps reduce material clumping and ensures that the entire load does not rest on the auger. The result of this combination of components is a continuous material flow whether spreading 100% sand, 100% salt or any combination in between.

Furthermore, the poly hopper construction eliminates the corrosion concerns and constant maintenance commonly



associated with steel-built alternatives. Though the hopper features heavy-duty, thick-walled construction, it is still up to 40% lighter than similar capacity steel spreaders, which frees up vehicle payload and increases gas mileage.

The innovative cab-mounted spinner/auger control allows for independent spinner speed and auger speed adjustment. By being able to adjust how fast material leaves the hopper and how fast the spinner propels it, virtually any application demand can be met while minimizing material waste. Spread width is infinitely variable between 3 to 12 m. A digital LED display with status monitoring and system protection is standard, as well as an auto-reverse function in the event of auger jams.

As with all SnowEx V-box-style spreaders, the V-Maxx 9500 is built with a Quick-Connect spinner assembly that allows the spinner assembly to be removed by simply removing a pin.

Source: TrynEx International



Cummins Filtration Introduces Environmentally Friendly ES Compleat Glycerin Coolant

Cummins Filtration announces the release of Fleetguard[®] ES Compleat[™] Glycerin, an innovative heavy duty engine antifreeze/coolant using non-toxic glycerin in lieu of traditional ethylene glycol or propylene glycol.

Glycerin is derived from renewable sources and is the primary byproduct of the biodiesel manufacturing process. "We take environmental responsibility very seriously at Cummins Filtration. Being able to support sustainability with a glycerin coolant that also offers excellent protection is very important to our mission," said Mike Sarris, director of Global Coolants and Chemicals for Cummins Filtration. "We have long supported the importance of greener solutions through all our product development, and we are very pleased to introduce our new environmentally friendly glycerin coolant to the marketplace."

Cummins Filtration conducted extensive testing and field trials to approve glycerin as the base for this new coolant. All tests confirmed that ES Compleat Glycerin prediluted coolant provides the anti-freeze, anti-boil, heat transfer and corrosion protection required of today's fully formulated, heavy duty antifreeze/coolant. The new formula also meets or exceeds the performance specifications of all heavy duty engine OEMs, including Cummins CES 14603 (refer to AEB 99.01).

With extended service intervals of 250 000 km or 4000 h, ES Compleat Glycerin offers freeze protection to -35°C and offers ultimate liner pitting, corrosion, aluminum and solder protection for longer system life. The coolant is compatible with gaskets, elastomers and other non-metallics in the engine and is suitable for all diesel, gasoline and natural gas engines.

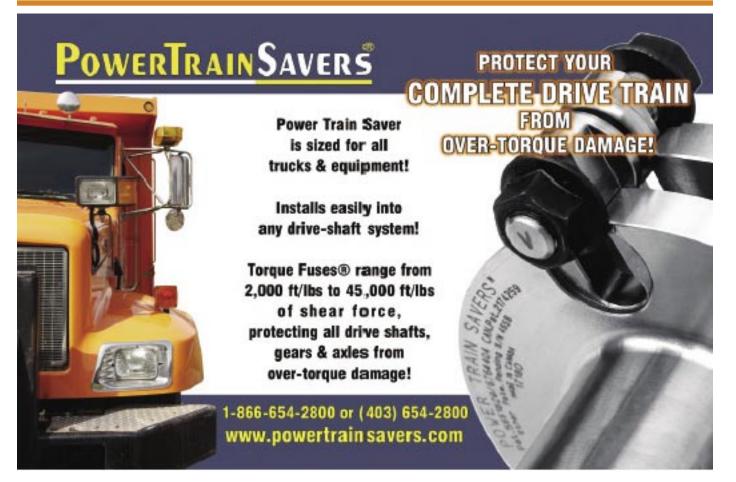
The prediluted formula eliminates the need for mixing concentrated product with water, ensuring the cleanest solution enters the cooling system and reducing costly maintenance time. And with specially designed Fleetguard coolant test strips and refractometers, field testing is quick and easy, keeping engines running better with fewer trips to



the service bay. Fleetguard ES Compleat Glycerin prediluted coolant extends service intervals, reduces maintenance time and ensures the ultimate protection for equipment and the environment.

Cummins recently received an Eye on Innovation Award from the National Biodiesel Board for the Company's efforts to provide customers with guidance on how to use B20 successfully and for our work in supporting the assurance of biodiesel quality. ES Compleat Glycerin marks another innovative commitment to ensuring the sustainability of biodiesel by creating a practical, environmentally friendly outlet for the key byproduct of the industry's manufacturing process.

Source: Cummins Filtration Inc.



A Beautiful Balancing Act as High-Tech Hydraulics Maximize Safety During Maintenance of a 5000 t Dredge



One of the world's most advanced heavy lifting systems has been deployed in Australia to maximise safety and precision during maintenance of a huge dredger at the largest coal mine in the southern hemisphere.

The PLC controlled Enerpac Synchronous Lifting system was used by Hydraulic and Pneumatic Pty Ltd, of Morwell, in conjunction with Plant Performance Group Pty Ltd, of Warragul, to enhance precision and safety while monitoring the 2000 t load's center of gravity during the lift on Dredger 16 at Loy Yang Power.

Dredger 16 is longer than the MCG (200 m), as high as a 16-storey building (55 m) and has a slew ring bearing 15,2m in diameter containing 177 balls of 200 mm diameter each weighing 32 kg. It weighs a total of more than 5000 t and can remove 60 000 t of overburden a day.

The successful lifting and balancing of its huge superstructure illustrates the versatility of the Synchronous Lift system for major industrial and civil engineering tasks, including manufactured structures, buildings, bridges, oil platforms, ships, turbines, generators, mills, mining equipment and heavy but delicate computerised/electrical equipment, says Enerpac.

The Synchronous Lifting technology

chosen for the task of hoisting Dredger 16's superstructure to inspect and refurbish the giant machine's slewing ball race uses

digital synchronisation control accurate to within a 1 mm between leading and lagging lifting points. Accuracies are available down to 0,1mm.

The delicate job of carrying out the lift with maximum safety and minimum downtime was carried out with the assistance of a team led by shift supervisor David Little of Silcar, which is an asset manager and provider of maintenance services for technically complex assets.

The task involved twostage lifting and lowering over 250 mm, with the

Enerpac Synchronous system governing six 630 t hydraulic cylinders used in pairs at three lift points.

Project manager Tom Lamin of Plant Performance Engineering acting for Loy Yang Power, said the lift proceeded smoothly, with the hoisting being undertaken on May 7 and lowering on May 13. The huge task was facilitated by the accuracy and fluency of the synchronous lift operation, and the real-time center of gravity display.

Hydraulic and Pneumatic sales manager Robert Lewis said the job required thorough planning to

maximise safety and minimise downtime for a client operating the largest open cut coal mine in the southern hemisphere. Loy Yang operates 24 hours a day mining more than 30 million t/yr of the brown coal that provides more than half of the State's electricity needs. "Everything is on a large scale – the slewing ring is huge and the superstructure above it is bigger than many ships', so the job had



Enerpac synchronous lifting technology was chosen for lifting this 5000 tons coal mine dredger to inspect and refurbish the giant machine's slewing ball race, while monitoring the 2200 ton load's centre of gravity.

to be done with incredible care and precision to meet the client's top world class standards



Dredger 16 weighs a total of more than 5000 t and can remove 60 000 t of overburden a day.

of safety."

The Synchronous Lifting system used by Hydraulics and Pneumatic was an eightpoint model that can be used with multiple cylinders ranging from 10 to 1000 t capacity each. Larger models feature up to 64 control points. The hydraulic technology involved is the same type chosen to maximise safety on some of the world's most precise lifts, ranging from Ariane rocket launch pads and oil drilling platforms in Europe's North Sea, to splitting coal shovels and building and weighing wharves and infrastructure in Australia.

"In addition to being precise and giving us the center-of-gravity accuracy we needed, the technology had to be able to function flawlessly in a harsh environment, with coal dust blowing around the power unit."

"We needed to be assured – and this turned out to be exactly the case – that the technology package developed in conjunction with Enerpac would operate in total safety and reliability."

CONTROLLED HYDRAULIC MOVEMENT

Enerpac engineer Ray Paasila said safety was built into the synchronous system - "During lifting in automatic mode, the software meticulously follows each lifting point and each cylinder. The software also constantly monitors which lifting points are in the highest and lowest positions and whether these are still within the set tolerances. If a correction has to be applied, the 2/2 movement valve opens briefly and the relevant (lowest) cylinder receives



The dredger has a slew ring bearing 15,2m in diameter containing 177 balls of 200 mm diameter each weighing 32 kg.

a short hydraulic impulse, instantly followed by a new reading. This correction process is

so fast that the relays that control the valves give the effect of perfect switches.

"The course of the lifting process can be followed on screen (per lifting point). The software also contains an extra control function, by which the system can temporarily be stopped and manually corrected. Emergency stops are also built into the system. If something goes wrong, the system will stop automatically and block all points of support.

"In addition to time saving and the exceptionally accurate and virtually stress-

of Synchronous Lifting include its ability to record and document the entire reposition-

free movement of an object, the advantages

This 5000 t coal mine dredger is more than 200 m long and 55 m high



Chipped slew ball from the the giant machine's slewing ball race.

ing process. All the values are stored in the control systems memory for later use. With

satisfactory progression of the procedure, this provides both the contractor and the client with a clear guarantee that excessively high stresses have not occurred."

Enerpac synchronous lifting technology has been used in Australia for integrated solutions involving ultra-precision civil, mechanical, industrial and maintenance engineering tasks, including the splitting of a dragline at Curragh coal for maintenance and during vital stages of the ongoing \$1,2 billion expansion of the Dalrymple Bay Coal Terminal near Mackay, where it was used to lift and weigh 80 t sections of wharf.

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Not falling for you!

Have you ever looked up and wondered how so many workers can function efficiently and safely on many of the tower blocks and high rise apartments that you pass every day? Well Garlock Equipment thought about this and developed the Fall-Ban cable guard safety system.

Recently, these revolutionary worker safety systems have been appearing across the Prairie Provinces, in large part due to the efforts of FRS, the Authorized Garlock Dealer for Western Canada. FRS, which is headquartered in Winnipeg, has made it their mission to help western contractors improve productivity and safety simultaneously. This dedication to customer service is often demonstrated by a willingness to get on the job and train workers on how to do things better. So, keen is Richard Jones of FRS, he can often be met on a rooftop, 11 stories up on this blustery Winnipeg day!

When asked why he felt this was so important, Richard Jones told InfraStructures... "We have a desire to set a high standard in customer service. This is not just paying verbal tribute to the concept, it means doing what the customer needs doing when, and if, possible. Too many suppliers take a sit back and see approach, not FRS." On this particular occasion he was working with Kevin from Normandeau Roofing, on a day that was so gusty and overcast, that the crew



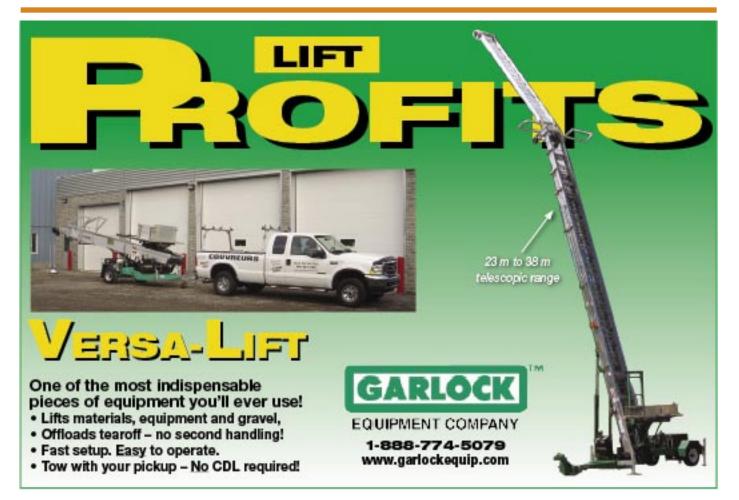
had been sent home.

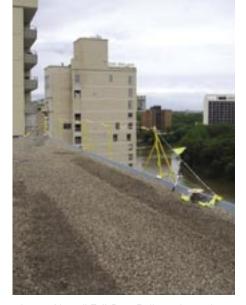
According to Kevin, "We certainly appreciate this level of service, and as it turns out the product is so simple I may have done ok without this visit. Regardless, now that I have seen it done, and had my questions answered I can get on with the project. I have been so impressed by this system that I have already recommended to my boss that we order a 400' system for this and other upcoming jobs." Fall-Ban is unique in the industry and is the only OSHA approved, wire rope based fall restraint system available on the market today. This has been recognized not only by contractors like Normandeau,

but Ontario Power Generation (Ontario Hydro) who is also a big user of the system.

Anywhere a non-permanent fall protection installation is required, Garlock Fall-Ban is able to assist. Using a system of standard components that can be assembled in any configuration, Fall-Ban is suitable not only to roofs, but to bridge decks, concrete forming and other

projects that require freedom of movement and fall protection at the same time. To further assist in the safe installation of both permanent and non-permanent systems, Garlock has introduced the Raptor Fall Arrest Cart. Now, you can tie off to an approved cart that is easy to handle, while you approach the





edge and install Fall-Ban, Railguard, or other items.

"We have long been impressed with the quality, durability and innovation that Garlock offers our customers. The commitment to safety products with the Garlock name has really positioned FRS to be a leader in this field in Western Canada..." adds Richard Jones.

Source: Garlock Equipment Company

It's Easy Being Green

Canada's largest annual green building event is gearing up for another year.

The Green Building Festival is happening September 9 - 10, 2008 at the Toronto Convention Centre on Dixon Road. The show features high-quality, in-depth programming for building professionals with case studies, product analyses and 100 exhibitors offering ready-to-market green building solutions.

The theme of this year's Green Building Festival is innovation – cutting edge ideas, concepts and technologies that are revolutionizing the building industry. Some topics on the agenda are: Vancouver's Olympic village, green homebuilding, geothermal innovation, biomimicry, green building materials, sustainable neighbourhoods, benchmarking, biofilters and international case studies.

As always, programming will focus on the practical aspects of eco-friendly construction.

Source: Green Building Festival www.greenbuildingfest.com

Going Up and Going Greener

When AT&T found the perfect site to build a new facility in Mt. Laurel, New Jersey, there was one thing standing in their way – wetlands. In order to provide the amount of parking their new facility would need, surface parking lots would have to encroach onto

the wetlands. However, the solution was quite simple: go up instead of out. Building a vertical parking structure, which requires 15% less land than surface lots, made the land viable for development.

This is becoming a common situation as easily developed and

useable sites are becoming scarcer due to environmental regulations, zoning, inflation, and aggressive development. Companies are re-evaluating building usage and how they develop a site to get the most efficient use of the land.

Many large institutional companies are increasing the density of people in their buildings. Planners used to allow 4 m² of gross space per person. Now they are allowing 2 m² per person, doubling building capacities: more people in less space results in even more cars for existing parking areas to accommodate.

"It's building versus land – finding a balance that suits both requirements," said Alan Simon of Simon Design Engineering in Wellesley, Massachusetts. "More developers are turning to structured parking facilities to make previously unacceptable sites feasible for use. Structured parking provides consolidated and convenient parking which allows for the creation of more green space as well as the ability to reduce water contamination, preclude the overloading of drainage systems, and recharge the aquifer."

Finding adequate parking solutions is not limited to new construction. A closed 400 m² Western Electric phone repair facility in Watertown, Massachusetts, sat empty for years because of inadequate parking. The addition of a 1,400 space parking structure made the site viable for repurposing. The site is now home to Tufts Health Plan.

"Parking is a huge concern when repurposing older manufacturing facilities. In many



cases, original parking areas weren't planned for high density occupation or the facility is situated in a land-scarce industrial park," continued Mr. Simon. "Structured parking can provide a cost-, land- and environmentally-effective solution for repurposing."

While structured parking provides a solution to limited land concerns, developers are finding ways of making them friendlier to the environment and more acceptable to people, all the while extending the use of the land they occupy. Some garages now have roof decks, recreation centers, solar power centers and wind farms.

"These amenities are becoming a requirement as society is considering land use and its impact on the environment. Developers are looking for ways to get the most out of the land they occupy. Many are looking at their parking situations and how to increase their effectiveness," said Alan Simon. "There is now a desire for the consolidation of vehicles into multi-modal centers in an effort to reduce man's carbon footprint. Multi-purposing parking facilities with the integration of technology, and looking at roofscapes as additional area for various applications is essentially added value 'found' space."

Source: Simon Design Engineering, LLC

Access industry prepares for largest APEX ever

The 6th APEX aerial platform exhibition is fully booked, with over 110 companies already confirmed and others waiting on a shortlist.

Exhibitors will include big names like Genie, JLG, Haulotte, Aichi, Manitou, UpRight Powered Access and others, joined by companies new to the European access industry, including Hanix from Japan and other producers including **Beijing Jingcheng Heavy** Industry from China.

Exhibitors will show everything from self-pro-

pelled booms and scissors to vertical mast machines, mast climbing work platforms, truck mounted platforms, as well as ancillary equipment and services, such as used equipment and machine tracking systems.

APEX will take place in Maastricht, The

Netherlands on September 17-19, 2008 and is supported by the International Powered Access Federation (IPAF) and by Access International magazine.



An added attraction at previous APEX events has been the APEX Conference, and the 2008 show will be no exception. This conference will take place on the first morning of the exhibition (September 17) in a conference room inside the exhibition hall. This event is

free to entry for visitors of the APEX show.

The APEX Keynote speaker is Ken McDougall, president of Skyjack, who opens the exhibition with an address on the global aerial platform market.

- Other topics of the conference will include:
- Changes in European Aerial Platform Standards:
- The use of telematics in aerial platforms;
- IPAF's new campaign to promote careers in the access industry;
- Hybrid power system in the access industry.

In addition to the APEX free conference, the annual Europlatform access rental conference will be held in Maastricht on the day before APEX (September 16), at the Grand Hotel de l'Empereur. This conference is jointly organised by Access International and the International Powered Access Federation (IPAF). The theme of the conference is 'The access rental company of the future'.

Beijing Jingcheng Heavy Industry Co. Ltd. is a Chinese access platforms manufacturer

bauma China Continues to Grow

Demand for exhibition space at the upcoming bauma China 2008 at the Shanghai New International Expo Center is higher than ever. On a total exhibition space of what has now increased to 200 000 m².

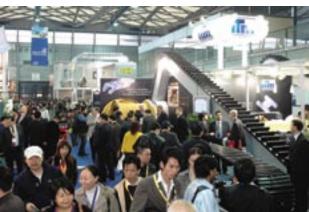
according to the current status of planning more than 1200 exhibitors can exhibit at this year's fair. Compared to the 2006 exhibition, that corresponds to a 33% increase in space and an approximately 10% increase in the number of exhibitors. Additionally well-known international key players are strengthening the various exhibition sectors.

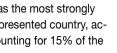
For the first time ever, companies such as Doka, Halfen, MAN, Scania, Piusi, Lissmac,

Texnocat, Long Gong and Jiangsu World will present their product portfolios at bauma China in November 2008. In addition, joint exhibits from Germany, Great Britain, Finland, Italy, Spain, Korea and the USA will give several first-time exhibitors a chance to make new contacts with the audience of trade visitors. Demand for exhibition space remains high, and according to exhibition director Collin Davis, some 250 additional interested companies are on a waiting list.

A good number of the trade visitors who attend this year's fair are expected to come from countries other than China. In 2006, Japan

was the most strongly represented country, accounting for 15% of the







visitors, followed by Korea at 10% and India and Russia at 7% each. bauma China is the most important trade fair for the construction

and building-materials industries in Asia. In 2006, a total of 1088 exhibitors presented the complete range of construction and building-materials machinery on an area of 150 000 m² at one of the most modern trade fair centers in Asia, the Shanghai New International Expo Center (SNIEC).

Source: Messe München GmbH

who will introduce their 32 m self-propelled boom lift and 10 m self-propelled scissor lift to the European market. "It is the first time we exhibit at an European exhibition", says Yu Furong, manager of International trade department of Beijing Jingcheng Heavy Industry Co. Ltd. "APEX is the most professional exhibition regarding access equipment, and we hope to meet more people from Europe who are specialized in access platforms to expand our network of dealers and distributors."

"It is important for us to be present at the most important exhibition in Europe! All the main telehandler manufactures will be there and we think is a great chance for us to show our wide range of products", says Stefano Frigo, Export Area manager of Faresin, Italy. "We strongly hope our participation will help to improve our market network and hopefully to find new partners but also to meet our dealers and customers." At APEX, Faresin is going to show the 6.25 Wallaby, the smallest telescopic handlers on the market and the 18.45 Storm, a rotating machine.

Beside that, they will present news about their after sales services and improvements within their company since they merged with Faresin Agri Division.

"The most important rental companies worldwide will visit the APEX which is the main reason JCB participates", says Gregor Grootjans, sales manager Zuid at J.C. Bamford NV Zuid, The Netherlands. JCB will show their new models telescopic handlers JCB 535-125 and 535-140 HiViz and the JCB Teletruk.

Visitors can pre-register for free entrance to the APEX exhibition via the show's website www.apexshow.com.

Source: BV Industrial Promotions International





World's Largest Rooftop Solar Power Station

Veolia Environnement and Clairvoyant Energy are building a solar power station with a capacity of 10 MW at GM's Zaragoza, Spain, plant, which assembles more than 480 000 vehicles a year. As part of the scheme initiated by GM, the rooftop power station will be owned and operated by a joint-venture company

comprised of Veolia Environnement, Clairvoyant Energy and the Government of Aragon.

Annual output from the photovoltaic solar power station is expected to be 15,1 million kWh,



sufficient to meet the demand of 4600 households.

Operational at the end of September, 2008, the rooftop power station will feed electric current into the local grid of Red Electrica and sell the energy to Endesa.

The massive solar array designed by Veolia Environnement and Clairvoyant will consist of 85 000 light-weight solar modules with an active photovoltaic surface area of 183 000 m² and provide for an annual reduction of 6700 t in CO₂ emissions. The solar power station on the roof of the Zaragoza plant is the third one on GM facilities worldwide.

For Veolia Environnement, world leader in environmental services, this operation is a perfect illustration of its ability to accompany its industrial customers in their most ambitious projects, while developing precious expertise in the solar energy field. It demonstrates how environmentally-friendly solutions can be economically viable for customers. For this large and complex project, Veolia Environnement applies its technical and overall management expertise in the engineering, construction, approval process phases, as well as system operations maintenance.

Source: Veolia Environnement

Eco-Friendly Oil Eater Takes On Multiple Cleaning Tasks

The new eco-friendly Oil Eater cleaner-degreaser is a high-powered, water-based cleaner that eliminates the need for multiple cleaning solutions.

The low-VOC cleaner is biodegradable, noncorrosive, nontoxic and nonflammable. It cuts through oil, grease, grime and dirt, encapsulating them into a solution that rinses off easily and leaves no residue.

It is effective on equipment, engines, tools, concrete, asphalt and more and will not harm the skin. It also is an ideal concentrate for parts-cleaning and pressure-washing machines.

Oil Eater is available in 19 l buckets and 113- and 208 l drums.

Source: Kafko International Ltd.

Appointments

IronPlanet® recently appointed Greg Forke to the position of governmental sales manager. Mr. Forke will be responsible for IronPlanet's continued expansion in the governmental / municipal equipment market.

Greg Forke has nearly 30 years of experience in the auction industry. He began his



career as part of Forke Brothers, where he held several positions, including vice president of North American auction operations from 1992 until the company was sold in 1999. Most recently, he helped start the heavy construction equipment division for Golndustry Michael Fox International, an auction company specializing in industrial machinery and manufacturing equipment.

Source: IronPlanet, www.ironplanet.com

Venetor Group of Companies, the largest independently owned Crane & Equipment Rental House in Ontario, is please to announce that **David Schmut** has joined Venetor as an account manager in their new Sudbury branch. He will be responsible for helping to grow the northern Ontario region.



Vince Oddi, sales manager of Venetor Group says "We are very pleased to have David Schmut join our team. Having come from the fastening industry, he has made a name for himself with his integrity and commitment to customer service, which are part of our corporate values. Customer service is what differentiates Venetor from its competition."

The Venetor Group of Companies has been familyowned and operated serving Hamilton's Industrial Core and the Golden Horseshoe Area since their inception. The Venetor Group consists of two main operating companies: Venetor Crane Ltd., founded in 1975, the Crane Rental Division and Venetor Equipment Rental Inc., founded in 1996, the Aerial Work Platform Rental & Contractor's Tool Division. The Venetor Group is the largest 100% Canadian privately owned equipment rental company in Ontario. The Venetor Group's services are made available via main operating facilities located in Stoney Creek, Cambridge, Oshawa, Sudbury, Toronto, and Windsor.

Source: Venetor Group of Companies



Fluted FRP Column Forms Used in L.A.'s Avenue Of The Stars Architectural Gem

As a centerpiece at the heart of Los Angeles' Century City/Beverly Hills region, the 42-story, 147-unit luxury condominium tower known as 'The Century' is being designed to be an elliptical epicenter of upscale living on the Avenue of the Stars.

Designed New York's Robert A.M. Stern Architects LLP, every imaginable detail has been nuanced to achieve the epitome of elegance including approximately 256 fluted concrete finished columns created with customized fiber-reinforced polymer (FRP) fluted round column forms produced by Molded Fiber Glass Construction Products.

The 82 000 m² Century Project began construction in June 2007 and is slated completion in December 2008. The tower is

supported by an interior moment frame system with a 5500 m³ concrete mat foundation with an exterior skin combining sculptured pre-cast concrete and stone cladding. Upon its opening, residents will experience 4 m fluted concrete finished columns accen-

> tuating the decorative élan of the floor-to-ceiling window balconies on the upper-level exterior of 26 of building's 42 floors (8 per floor). The final effect will create a visual evolution of West Coast upscale living with unparalleled panoramic views stretching from downtown, to across the Santa Monica Mountains and Pacific Ocean.

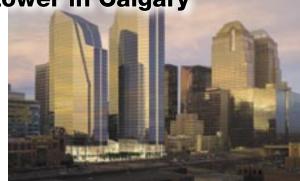
Architectural firm of record HKS, Inc. enlisted the project's concrete

contractor Webcor Concrete to secure a source for the design's unique fluted column forms. After considering steel and plastic concepts, Webcor contracted MFG-CP, who specializes in a complete range of custom and standard fiberglass-reinforced thermoset composite column forms, to custom-build 15 fluted column forms – in addition to a multitude of standard forms to be used throughout the tower.

The goal was to create a unique fluted

Supermétal to erect a 50-story commercial tower in Calgary

Supermétal Structures Inc. of Saint-Romuald announced recently it was awarded by Ellis-Don Construction the mandate to manufacture and install the structure of Eight Avenue Place in Calgary, better known as Penny Lane Towers. This prestigious \$1 billion



project consists of a futuristic 50-story office and commercial tower in the heart of Calgary's financial core. This order, estimated at more than \$50 million, will necessitate the assembly and delivery of 11 000 t of structural steel fabricated in the company's three plants. The installation is scheduled to begin in June 2009.

When completed, the Eight Avenue Place office tower will add over 90 000 m² of office space to the Calgary market. This Triple-A Class building will feature the latest innovations and is aiming for the environmental LEED Gold certification. A second 37-story tower is planned and will be built based on the success of the first one.

Source: Supermétal Structures Inc.



design to provide flexible stability for the 4 m scale during concrete pour, and deliver a lavishly smooth finish. To optimize production, delivery, assembly and pour/peal time on-site, MFG-CP settled on a 4-piece design. According to MFG-CP engineering manager Eric Brace, "We utilized the 4-piece design vs the 2-piece so it could be stripped in pieces during production to ensure a smoother finish and capture the meticulous luxury of the Stern/HKS design specifications."

Upon assembly of the forms, standard rebar and base specifications; approximately three 2,3m³ of self-consolidated concrete mix were required for each column pour in a standard monolithic pour sequence. According to Webcor's senior superintendent Ryan Isbell, "Construction to-date is meeting the aggressive 6-day-cycle (one-floor every six days) as the fluted forms are an easy pour, taking approximately 2-4 min per column." He also noted that, "The result is a unique exposed concrete flute-effect with a smooth architectural finish."

According to HSK Inc.'s architect Patrick Treadway, "The tower's fluted concrete columns were more cost-efficient than the originally conceived pre-cast or stone options and provided a practical alternative for time, design and efficiency."

MFG Construction Products Company, formed in 1962 and a charter member of the World of Concrete, manufactures a complete range of one-piece round column forms, dome and pan forms for one-way and two-way joist slab floors, and customer forms for cast-in-place concrete construction applications. Made of fiberglass-reinforced thermo-set composites, MFG concrete forms can significantly reduce finishing costs and are fully reusable.

Source: MFG Construction Products Company



Agenda

SIVIC 2008

September 9 - 11, 2008 Saint-Jean-sur-Richelieu, QC Canada

inter airport India September 11 - 13, 2008 New Delhi, India

4º DEMOMAT September 12 - 14, 2008 Mons, Belgium

CONEXPO Russia September 15 - 18, 2008 Moscow, Russia

APEX 2008 September 17 - 19, 2008 Maastricht, The Netherlands

DEMO International 2008 September 18 - 20, 2008 Halifax, NS Canada

SC&RA Crane & Rigging Workshop September 18 - 20, 2008 Toronto, ON Canada

MINExpo® 2008 September 22 - 24, 2008 Las Vegas, NV USA

INTEROUTE&VILLE 2008 September 23 - 25, 2008 Rennes, France

Mobility and Road Safety Conference - International Road Federation October 3 - 4, 2008 New Delhi, India

Sim Congress (Société de l'industrie minérale) October 14 - 17, 2008 Limoges, France

2008 IRF Seminar on Contract Maintenance and Innovative Finance October 19 - 29, 2008 Orlando, FL USA

Garden & Florist Expo 2008 October 21 - 22, 2008 Toronto, ON Canada

ICRI 2008 Fall Convention - International Concrete Repair Institute October 29 - 31, 2008 St. Louis, MO USA

CamExpo 2008 November 7 - 9, 2008 Quebec City, QC Canada

2nd International IRF Conference on Roads and the Environment November 10 - 11, 2008 Geneva, Switzerland

Congrès INFRA 2008 November 17 - 19, 2008 Quebec City, QC Canada

Bauma China 2008 November 25 - 28, 2008 Shanghai, China

inter airport China December 2 - 4, 2008 Beijing, China

Concrete Sawing & Drilling Association - CSDA 2009 Convention March 3 - 7, 2009 Cancun, Mexico

World of Asphalt Show & Conference / World of Aggregates March 9 - 12, 2009 Orlando, FL USA

EXPO Grands Travaux April 3 - 4, 2009 Montreal, QC Canada

Intermat 2009

Munich, Germany

April 20 - 25, 2009 Paris, France

WasteTech 2009 6th International Trade Fair on Waste Management, **Recycling and Environmental Technology** June 2 - 5, 2009 Moscow, Russia Bauma 2010 uma April 19 - 25, 2010 2010



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