

TOUGH ENOUGH

Cree Construction and John Deere team up to take on the elements

Wimps need not apply. The Eastmain project in James Bay continues the largest construction project ever in the Province of Quebec — and one of the largest in Canada. And it just might be one of the toughest projects on the planet.

The James Bay territory covers 350,000 square kilometers in the southern region of Northern Quebec, which happens to be the least densely populated area in Canada. Inhabited by both Cree and non-native people, the area averages just 0.04 people per square kilometer — compared with 322 per square kilometer in Japan.

This area is sparsely populated for a reason. The terrain is brutally unforgiving, with nearly impenetrable woods surrounded by thickets, shrubs, and swamps.

And don't forget to bring plenty of warm clothing. Temperatures can drop to extremes of -45°F.

Gold In Them Thar' Power Lines

For years, the James Bay area has been known for its vast mineral deposits, but today the economic potential for the efficient generation of electric power is more than worth its weight in gold. Revenues and royalties from the project are expected to generate billions of dollars for the Cree Nations over the next 50 years.

The Eastmain project represents the second phase of the James Bay Hydro-Electric Initiative. Completed in 1990, the La Grande project involved the damming of the rivers in James Bay. Twelve hydroelectric dams and eight generating stations were constructed, including the largest underground power station in the world. Today, the La Grande complex generates over half the energy produced in Quebec, while also providing energy to Ontario and New England.

Approved in March 2002, the Eastmain project involves construction of a main dam across the Eastmain river, along with a power station, spillways, 30 dikes, and a substation. With three turbine/generator units and an installed capacity of 480 MW, the generating station will provide power to New York, Vermont, New Hampshire, Maine, and Massachusetts.

As part of the treaty signed with the government of Quebec, the Cree Nations have the right of first refusal for a large portion of the work awarded on their territory. The first phase of the Eastmain project (EM-1), which involves building a 60-mile-long (97 km) access road and a camp capable of lodging the 2,400 workers needed to construct the dam, was awarded to the Cree Construction and Development Company. >>>

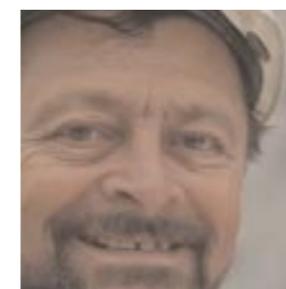
"...this environment is as good a proving ground for Deere equipment as exists in the world..."



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"The D-Series ADT has plenty of power. We've put it through every conceivable test in our work area—up steep climbs, mud, you name it—and it made it through without getting stuck." Don Murdock, operator, Cree Construction



"John Deere trucks are big, fast, and strong. That's the perfect combination on a job this demanding." Robert Bruyett, job-site superintendent, Cree Construction



Cree Construction is deploying a battalion of Deere equipment to complete the project, including five C-Series Excavators, 21 D-Series Articulated Dump Trucks (ADTs), one 544H Wheel Loader, one C-Series Dozer, and three 772CH Graders.

“With the extreme climate, this environment is as good a proving ground for Deere equipment as exists in the world,” says Robert Bouchard, dealer product support manager. “If it works here, it will work anywhere. It’s the perfect showcase and an excellent example of how John Deere is among the premier suppliers of heavy equipment for construction projects on a massive scale.”

More than 80 operators are running the machines in two 10-hour shifts, six days a week. Most of the operators are Cree. This represents one of the first projects of this size where

most of the operators are native people.

“Traditionally, projects of this scale have attracted foreign workers,” explains Normand Poulin, job-site superintendent, at Cree Construction. “Our agreement makes it mandatory to maximize the involvement of local workers, and this project is in remote areas inhabited mostly by natives. This explains why the majority of operators are Cree.”

Cree Construction depends heavily on its five C-Series excavators and 21 D-Series ADTs to complete phase one of the EM-1 project: building a 60-mile-long access road.

Tight Deadlines Demand Top Performance

Phase one of EM-1 must be completed by early spring. The access road and camp must be in place before the construction of the dams and power stations can begin. Keeping the project on schedule is crucial. Any delay means millions of dollars in lost revenue per day for Hydro-Quebec.

Performance played a major part in Cree Construction’s decision to choose Deere equipment for the project. “Selecting the right equipment is vital to ensuring we meet the deadline for the project,” reports Poulin. “In the past, we’ve owned everything from Cat to Volvo, but we’ve been extremely satisfied with the performance of the Deere machines.”

The company has been impressed by the power and durability of the ADTs. Extensive use of lightweight, high-strength materials gives them the highest power-to-weight ratios — and best hauling efficiency — in their class. Plus the oscillating frame joint, articulated steering, and high-flotation tires provide unbeatable performance in difficult terrain on jobs such as this.

“Having more power means we’re able to handle bigger payloads with faster cycle times,” says Poulin. “These machines simply move more material for less money. Plus, we need to keep the job moving, and they won’t let up no matter what kind of material or conditions we’re dealing with.”

All D-Series ADTs are powered by turbocharged, intercooled six-cylinder engines. “The machine has plenty of power,” says Don Murdock, who runs a 350D. “We’ve put it through every conceivable test in our work area — up steep climbs, mud, you name it — and it made it through without getting stuck.”



Murdock also likes the creature comforts like the oversized air-suspension seat and heavy-duty heater and AC unit. He also likes the visibility afforded by the center-mounted cab and comprehensive mirror package. “You can adjust the seat pretty much any way you need to,” he says. “Visibility is great — I can see clearly in front of me and all around.”

The performance of the company’s C-Series Excavators has also been turning a few heads. Its 800C LC Excavator produces outstanding cycle times, averaging just 45 seconds to load a 35-ton truck. Two 600C LC Excavators equipped with 4.6-yard buckets are also used in road construction and mass excavation.

“For this kind of job, you need a big machine like the 800C,” notes Johnnie Swallow, who has operated excavators for Cree Construction for over 20 years. “We use a 5.6-yard bucket, so it takes about four buckets to load one of the trucks. It’s pretty quick. I’ve operated every different kind of excavator, and the 800C has a lot of power. The controls are very smooth and easy to operate.”

Ease of operation is also important to Cree Construction. The experience level of the operators varied, but for the most part was minimal. Deere machines are the most operator friendly in the business, so new operators can get up to speed quickly and start moving material right away. John Deere

also provides the company’s operators with ongoing training programs.

“These machines are very sophisticated, yet they’re very user-friendly,” says Poulin. “The machines are capable of performing a multitude of tasks — and this is where training really comes into play. It really helps operators maximize the benefits of these machines. I’ve spoken to a lot of Cree employees, and they’re very pleased with them.”

Taking Service and Support On the Road

Keeping downtime to a minimum on machines running 20 hours a day, 6,000 hours a year in such an unforgiving environment is top priority.

Ontrac Quebec supports Cree Construction’s entire fleet of heavy equipment. It set up a parts-and-service depot on-site, and has committed four full-time service technicians and a parts person solely to this project. In addition, Ontrac Quebec keeps an ample supply of parts on hand and has dedicated a fully equipped lubrication truck and service vehicles to the project.

“Given the massive scale and short duration of this project, we need the right equipment and a high level of technical support,” says Poulin. “We’re very pleased with what John Deere and our dealer have done to help us move this contract forward.” ■

Most of Cree Construction’s operators are Cree. The Eastmain project represents the first project of this size where the majority of operators are native people.

Editor’s note: The 60-mile (97 km) access road was completed on December 17, 2002. The workforce has swelled to 125. And nine more Deere trucks — this time the larger 400Ds — have been ordered. The weather is one thing that hasn’t changed, unfortunately. It’s still bone-chillingly cold.

experience what it takes to manufacture industry-leading machinery these days. He began his career as a shop-floor wage employee in the John Deere organization in 1965.

He offers a no-nonsense evaluation of why the Davenport and Dubuque Works run so smoothly: "Together with the teamwork of the company, we have put together several programs that are based on the Continuous Improvement culture. It's one thing to put these programs together — it's another to get the rank and file to embrace them. The Davenport and Dubuque Works have been on the leading edge and have fully utilized these programs for many years now.

"What we're seeing today," continues the International UAW representative, "is the result of having these programs in place. That in the end means better quality in the work produced. One thing our membership at the Deere factories understands is quality. Everyone is deeply involved with it. They strive to obtain it every day. And we talk about it constantly so no one ever loses sight of it. In the Continuous Improvement process, our wages, our benefits, our success revolves around quality."

Because of this dedication to quality, Tom Bennett, a salesman at the John Deere dealership in Phoenix, got more than he bargained for when he took one of his customers on a fly-in to the Davenport Works. "In an effort to beat Cat and Case out of a four-wheel-drive-loader sale,

we invited Dave Ballard, the equipment manager at Klondyke Construction here in Phoenix, back to the factory to take a closer look at our machine," he says. "Klondyke then had a big fleet of 80 to 100 machines — but only two pieces of Deere equipment.

"While Dave was looking at the loader assembly line, he had a few minutes on his hands before he was scheduled to go to the next stop on the tour," continues Bennett. "He walked over to the area on the motor grader line nearby where the yoke and circle were being assembled just to take a look. The assembler was so enthusiastic about his job, he struck up a 15-minute conversation, showing Dave exactly what he was doing and why he was doing it.

"That's all it took," continues Bennett. "Because of the assembler's enthusiasm and pride in his work, Klondyke now has promised us that the next motor grader they purchase will be a John Deere. Dave had no intention of even buying a motor grader when he entered the factory. On top of that, the friendliness and enthusiasm of the people on the loader line helped us sell Klondyke the loader.

"Dave has been to Peoria and said he had never experienced the camaraderie on the assembly line or concern for the customer he did at Davenport. It gave him confidence in our machines — a feeling that all the little things would be done right — all the nuts

and bolts would be tightened — and that the small things that make for a quality machine would be taken care of on a John Deere."

At times, assemblers and welders are put on non-traditional job assignments that intentionally put them eye-to-eye with customers, such as new machine introductions and open house programs.

On the other hand, Dennis Schnoor, a 20-year assembler at Davenport, is on a unique non-traditional assignment. He's traded in his shop tools for a computer to become the facility's wage development counselor and assembly trainer.

"For the past four years, I've helped employees upgrade their skills, or helped them train so they are qualified to bid into an assembly job," he says. "We are rolling out a new program right now that I'm working on that gives our people a chance to get a

degree at a local college or university. I help put a portfolio together for them so they get college credit for their prior experience and training."

Through constant training, the skill level throughout John Deere factories is very high. "Before they are hired we screen every new employee twice — for attitude, teamwork, attention to safety, attention to quality, initiative, and problem-solving ability," continues Stegmaier. "Working on the shop floor is not what it used to be 20 years ago." ■

"One thing our membership at the Deere factories understands is Quality. Everyone is deeply involved with it. They strive to obtain it every day."

— Jim Hecker



Thanks to an industry-leading process, most Deere machines can be built to order and delivered faster than any other heavy equipment manufacturer's.

Copycats

Look-alike dozers don't run like a Deere

Bearing an uncanny resemblance to Deere's H-Series machines, Cat's new G-Series dozers have many equipment owners and operators seeing double.

But appearances can be deceiving. While the two machines may look similar from afar, a closer comparison reveals that there's less to the Cat than meets the eye. Cat's new dozers simply can't compare with the H-Series dozers when it comes to ease of operation and control, superior grading ability, and low operating costs. Many owners who recently tried a G-Series machine are sticking with the real McCoy.

Norman Winters, owner, Winters Excavating, in Marion, Illinois, explains why: "H-Series machines are the finest dozers on the market. They are really well engineered and are simply the most operator-friendly dozers I've ever seen."

What stands out most about these machines? "Operator comfort, visibility, serviceability, smooth ride — everything basically," he observes. "Grading is topnotch. And they're the most productive machines for their size."

Deere Originates, Not Imitates

Other manufacturers have only recently started offering hydrostatic drivetrains in their dozers — something John Deere has been doing for over 25 years.

No other drivetrain even comes close to the H-Series in terms of ease of operation and proven performance. Steering, deceleration, and F-N-R shift rate can be fine-tuned to operator preference. Control is smoother and more precise than the Cat's, for better maneuvering and grading ability.

Plus superior cooling and more rugged component design ensures longer life and lower operating costs than the Cat.

"Deere's hydrostatic drivetrain is much nicer than Cat's," explains Winters. "If you let go of the lever on the Cat, it slips back into neutral on you. The fixed control of the Deere is easier to operate and the dozer is more maneuverable in tight areas."

The speed range is infinitely variable up to five miles per hour, providing total control

around critical structures. This gives the operator the flexibility to find the right ground speed for the job.

The operator simply sets the maximum travel speed and the drivetrain does the rest. As loads change, the power management system automatically powers the transmission up or down, maintaining peak engine rpm and tractive effort without stalling. And whether they're on level ground or a two-to-one slope, H-Series >>>

The dozer that started it all, continues to lead the pack.



dozers steer the same and maintain their preset speed.

"I tried the Cat's hydrostat and didn't think much of it," says Marv Dykema, owner, Dykema Excavating in Grand Rapids, Michigan. "One of the best things about Deere is the ability to adjust the response the way you like. And because the machine is fully powered all the time, you have total control working on slopes."

Grading Ability a Cut Above the Rest

Any dozer can push dirt. But what separates the innovators from the imitators is the

visibility. On the Cat, the operator's vision is obstructed by door latches, ROPS posts, and air cleaners.

"I had trouble seeing the blade in the Cat," explains Walter Earthman, project superintendent, Archer Western Contractors, Irving, Texas. "But in the Deere, I can see all around the blade right from my seat."

No Experience Necessary

Earthman is also impressed by how easy the H-Series dozers are to operate. "You don't have to be a professional dozer operator to operate this machine," reports Earthman. "All the controls are on one lever and are simply laid out so they are easier to remember. You've got more control over speed and you're very comfortable. It's a better machine than the Cat — it's just easier to run."

A single, ergonomically correct joystick provides intuitive control over direction and ground speed. Using the left hand, the operator simply pushes the detented lever in the direction he wants to go. A thumb-actuated switch allows the operator to change speeds incrementally without removing his hand from the lever.

The drivetrain is fully modulated, which helps to eliminate jerky or abrupt movements for smoother starts and direction changes. Plus reverse travel speeds can be preset at 80, 115, or 130 percent of forward.

"You can control everything with one hand so you don't have to switch your hands back and forth," says King. "Instead of setting your speed control with a lever, you just push a button. When you're grading to the inch, you simply push a button to speed up your reverse so you can back off more quickly — really a nice feature."

A decelerator provides additional low-effort control over ground speed. Fully depressing the decelerator brings the machine to a complete stop on any terrain — even steep slopes — giving the operator more confidence around trenches, footings, and critical structures. "You can put your blade a half-inch from the building without fear of hitting it," says Winters. "The Cat tends to jerk and hesitate when you put your foot on the decelerator — it isn't smooth like the Deere."

Comfort Zone

If easy operation goes a long way toward keeping good operators around, keeping them comfortable goes even further. "Operator comfort is essential because we want to keep fatigue down," says Dykema. "Our operators have remarked that they actually feel part of the Deere dozer. The cab is that good."

The modular cab is isolation-mounted for quietness and fully pressurized to keep dust out. The deluxe-suspension armchair can be adjusted seven ways to fit any sized operator. Armrests and footrests are also fully adjustable.

Besides being comfortable and easier to operate, the H-Series dozers are simpler to service. Hinged sideshields provide wide-open, ground-level access to service points. And like all Deere dozers, the H-Series dozers are backed by an extensive dealer network and a full line-up of services and support programs to help you control costs and maximize profits.

Accept no imitations. To own an original 450H, 550H, 650H, or 700H Dozer, see us today. ■



Joystick gives unmatched low-effort control.



H-Series visibility is unsurpassed behind, below, and beyond the blade.

ability to do superior grade and fine finish work — another area where the H-Series dozers really outshine the Cat.

Blade ratio and center of gravity are optimized to provide exceptional stability and balance. "Superior grade work depends on good balance," says Dykema. "And these are exceptionally well-balanced machines."

"When it comes to grade work, I like the Deere better," adds Eldon King, Jr., D&H Excavating, Arcade, New York. "Everything is smoother — controls, steering, the hydraulics — and that makes a big difference in finish work."

Cab-forward design positions the operator right on top of the action for outstanding



State-of-the-art cab is roomy, quiet, and comfortable.

BACKHOES

CONSTRUCTION EQUIPMENT



G-SERIES



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



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

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

