

SPRING 2004  
VOLUME 1  
ISSUE 3

# WORKSITE JOURNAL

4. Measuring up The 110 stands tall among compact tractors.  
8. Tall order 10. Going to extremes 12. Flying machines 15. Get Connected >> Power rakes & trenchers





# WORKSITE JOURNAL

SPRING 2004 • VOLUME 1, ISSUE 3

## 4 Measuring up

The 110

- 8 Tall order
- 10 Going to extremes
- 12 Flying machines
- 15 Get Connected >> Power rakes & trenchers

two  
three



8



10



12



15

## Our value proposition



*Construction equipment owners expect value out of their investment. They continually demand machines that are more productive, have high uptime, and low daily operating costs.*

*At Deere, we're driven to design and produce world-class products that meet or exceed these expectations. Take our C-Series Compact Excavators. Introduced last spring, these machines incorporate several industry firsts that drive higher productivity and uptime at lower cost.*

*In terms of productivity, the excavators feature zero-tail-swing design, which allows the rear of the unit to rotate within the width of the tracks. Operators can work confidently in confined areas without worrying about damaging the machine or nearby structures when swinging the machine. By concentrating on the work in front of them, they're more efficient and productive.*

*Keeping the operator as comfortable as possible also helps increase productivity. Pilot controls are ergonomically correct and armrest mounted, while lever efforts have been reduced 10 percent, reducing operator fatigue.*

*An outstanding feature of these machines is reduced maintenance costs. The use of oil-impregnated bushings extends the grease interval to 500 hours. Engines feature a 500-hour oil change, while the hydraulic oil change interval is 2,000 hours. This adds up to considerable savings in maintenance costs — and lower daily operating costs — compared to competitive units.*

*Best of all, these compact excavators are backed by Deere's 12-month warranty, over 900 dealer locations, and a world-class parts network.*

*Greater productivity. High uptime. Low daily operating costs. That is our value proposition to you.*

*At John Deere, we continually strive to help you do more for less!*

A handwritten signature in black ink that reads "Sam Norwood". The signature is written in a cursive, flowing style.

Sam Norwood  
Manager, Commercial Worksite Products



# Measuring

The 110 stands tall among compact tractors.

**T**he 110 Tractor Loader Backhoe is proof positive of the old adage, “Good things come in small packages.” It offers Swiss-Army-knife versatility, but it’s easy to use and is low cost to run. It combines the compact excavator’s digging performance with a skid steer’s flexibility.

But like a tractor, it’s turf friendly. And with its compact size, it’s much easier to haul around than its larger backhoe cousins.

#### **Breaking out of the pack**

Peoples Energy in Chicago, Illinois, owns 20 110s and recently placed an order for 12 more. The company has purchased John Deere construction equipment in the past, including 410 and 710 Backhoes and 444H Loaders.

The 110 is used to install gas lines, usually by a one-man crew. Much of the work is on sidewalks that run right next to buildings, so the 110’s compact size is a perfect fit. “We looked hard for a machine this size with this much capability, and we finally found the one we needed,” says a Peoples Energy supervisor.

A key advantage of the 110 is that the mounting plates are identical to the ones used on John Deere skid steers. It’s easy to connect to a variety of Worksite Pro™ attachments for increased functionality. Each of Peoples Energy’s machines is equipped with a breaker to demolish concrete in front of houses.

**Continued on page 6 »**



up

“ The digging force is perfect for what we do. We use a 13-inch bucket and have yet to run into a place where the machine can’t dig. ”

*Ryan Wilkerson, Underground Supervisor  
Prince Telecom, Auburn, Washington*



« Continued from page 5

The company knows John Deere equipment is really well-built for breaking, adding that they've owned 110s for two years and have had no problems at all — just regular maintenance.

Parts availability has also been excellent. They have waited up to two weeks to get parts for competitive machines.

**Fitting in well**

Sumner Tractor in Sumner, Washington, may be the largest dealer of 110s in the Northwest, having sold 35 units in just a year and a half.

Salesman Max Hospenthal probably wishes he had a dime for every time a customer had something good to say about the 110. He attributes the success of the tractor, naturally, to Sumner's excellent support and service. Customers also like the front and rear auxiliary hydraulics, which allow them to run a variety of implements such as hydraulic hammers and augers.

Prince Telecom in Auburn, Washington, a contractor for a local cable company, uses the 110 for installing service lines for customers. The job requires digging a trench from 150 to 300 feet long, 36 inches deep.

Like many of Sumner's customers, Prince Telecom likes the machine's compact size. Weighing only 7,000 pounds, the 110 can operate in tight and low ground pressure areas such as building foundations or even golf courses.

"The 110 is a good machine because it's small enough to get into tight spaces," says Ryan Wilkerson, underground supervisor for Prince Telecom. "Plus, it's light enough so you can use it on people's driveways without cracking the concrete."

Wilkerson admires the strength of the machine. "The digging force is perfect for what we do," he says. "We use a 12-inch bucket and have yet to run into a place where the machine can't dig. Unless you're digging a lot, you don't need a large backhoe."

"On a full-size 310, of course, we'd be digging a little faster, but the 110 digs at an impressive rate. And it really gives you a good feel for the utilities underneath when you're digging around them."

Prince Telecom has tried everything including Kubota, New Holland, and Bobcat. "It's the best backhoe out there for the size we need," explains Wilkerson. "And it's very user friendly. I brought it to my property to build a rock wall, and it took me about a half day before I could use it with no problem."



Kirkpatrick appreciates the tractor's mobility; he can pull the machine behind a heavy-duty pickup truck on a trailer rated to 10,000 pounds. "You step up to anything bigger and you need a Class A CDL," he explains. "I don't like driving bigger trucks — you have higher risk responsibility and need more insurance. I want to stay small."

Kirkpatrick is also impressed by the 110's versatility. Using the Quick-Tatch™ system, he can quickly mount an implement to the front of the machine, such as a pallet fork for carrying pipe or a broom attachment for cleaning up.

### Thumbs up

Sunnyside Enterprises in Ridgely, Maryland, also takes advantage of the 110's impressive versatility. The lawn, driveway, and landscaping business uses a four-in-one bucket on the loader, and can quickly replace a backhoe bucket with three different auger bits. The auger is used to drill holes for plantings.

The entire backhoe assembly can be removed, too, so the operator can attach a heavy-duty, 84-inch box blade. "You can easily switch from bucket to box blade in just a couple of minutes," says Bryan Saathoff, president of Sunnyside Enterprises. Removing the backhoe reveals a standard category three-point hitch, so the 110 can connect to the box blade or virtually any tractor implement.

Saathoff refers to his 110 fondly as 'the mighty mouse.' "It's small enough to sneak around plantings and trees, but it has a lot of hydraulic power for its size and is easy to use," he says. "And it's light enough that it will not tear up yards. On a lot of jobs, a larger backhoe simply won't work."

Saathoff likes the "creep-to-reposition" thumb lever. Using the lever, the operator can move the 110 slowly backwards and forwards while using the backhoe. "You can use the controls to move the machine in either direction without having to switch back and forth between seats," he explains.

"All around, it's a very versatile machine — we're very impressed," he adds. "We rely on it heavily for our business and couldn't do without one. Everyone in construction should have one."

Including you. To learn more about how a little backhoe can go a long way, see us today.

Another Sumner customer, Dekco, uses its 110 to install septic tanks, mostly for residential systems and some commercial systems. Dekco also owns two 35C ZTS Compact Excavators. With the quick-coupler system, the 110 has full bucket compatibility with the compact excavators. The three machines work in tandem, with the compact excavator digging trenches and the 110 backfilling.

Owner-operator Danny Kirkpatrick believes the machines are the perfect size for the amount of dirt they move. "We're in the 10- to 100-yard category," he explains. "When you start moving 500 to 1,000 yards or more, you get into bigger equipment, but we're not that size operation."

Kirkpatrick likes the 110's tight turning radius and shorter length, which makes it far more maneuverable than larger construction machines. "It fits into narrow areas, and it's low enough to get in and out of garages when we're dumping gravel and getting ready to pour slabs," he explains.

It's more economical than larger machines, too. "Fuel efficiency is off the charts," says Kirkpatrick. "I carry around a couple of five-gallon buckets with me. I see competitors with big pumps on the back of their trucks for diesel fuel."

*Sunnyside Enterprises in Ridgely, Maryland, takes advantage of the 110's impressive versatility.*



# Tall order

When it comes to forest restoration, small but mighty skid steers are more than up to the task.



**W**hen you think of fire prevention and suppression equipment, a skid steer probably isn't the first thing that comes to mind. Crawlers play a central role in fire suppression and grab most of the glory, constructing fire lines around wildfires and removing fuel from their path.

But with their versatility, maneuverability, and surprising power, skid steers are finding a niche with contractors like White Mountain Forestry Company (WMFC) in Pinetop, Arizona. WMFC provides wide-area thinning of public and private forestlands in and around the national and tribal forests of Northern Arizona.

As part of President Bush's Healthy Forests Initiative, federal agencies are working with small businesses such as WMFC to reduce wildfire risk and improve forest health. An important part of this new strategy are the incentives contractors receive to invest in equipment and facilities to fully utilize trees and brush from forest thinning.

### **Arizona burning**

In 2000 and 2002, the United States experienced the worst wild-land fire seasons in 50 years. The Southwest has been particularly hard hit. In 2002, Arizona, New Mexico, and Colorado experienced their worst fires in modern history.







**For the majority of small tree-felling operations, WMFC uses John Deere skid steers — including six 280s and two 260s.**

To reduce the threat of destructive wildfires, President Bush signed the Healthy Forests Restoration Act on December 3, 2003. The Act advances the Healthy Forest Initiative, which aims to improve the health of our nation's forests and rangelands. The Act is expected to lessen the impacts of wild-land fires on communities and natural resources by expediting high-priority fuel-reduction and forest-restoration projects.

In Arizona, approximately 84 percent of forested lands are under federal jurisdiction, while 10 percent are in private hands. Privately owned forestlands are even more susceptible to fires because they tend to be denser. Many private lot owners are required by their insurers to thin out trees and brush that create fire hazards.

"We think what we're doing is a good model for other small contractors across the West," says Bob Butler, managing partner, WMFC. "We started out in smaller communities doing residential and commercial thinning around the community and then expanded into the nearby National Forest. We currently have about 1,000 acres under contract in the National Forest. It's nice to know that we're contributing to the safety of our communities."

#### **Skid steers get right into the thick of it**

Thinning operations can generate up to 110 tons of small-diameter wood per day. The small trees and other material produced by the thinning are used for fuel to produce energy and forest products such as furniture, log homes, and lumber.

On a one-acre lot, the company removes an average of 10 cords, or about 24,000 pounds, of material. "Some of the forests are very overgrown, so we have a lot of tree felling to do to get the small stuff out," Butler explains. "It's a tremendous wood-disposal problem. Recently we did a 60-acre plot where we removed 27 truckloads of logs and 27 truckloads of chip — each truckload weighs 24,000 pounds."

For the majority of small tree-felling operations, WMFC uses John Deere skid steers — including six 280s and two 260s. Crews range from 5 to 15 people who are outfitted with a 280 Skid Steer equipped with a tree shear, a 260 Skid Steer equipped with a grapple articulated bucket, a John Deere 450H Dozer, a heavy-duty chipper, chain saws, a  $\frac{3}{4}$ -ton truck, an equipment trailer, and a chip trailer.

"Most of our calls are for 12-inch-diameter trees or smaller, so the skid steer is perfect," reports Butler. "We usually deal in parcels of acreage under 1,000 acres. For smaller blocks with good terrain, you don't really need the really big stuff."

**Continued on page 14 »**

# Going to extremes

Mine puts skid steers to ultimate test.



**R**emember the old watch commercial about taking a licking and keeping on ticking? As with watches, skid steers are expected to be durable and reliable. Skid steer owners expect maximum uptime and low operating cost, combined with maximum productivity.

And while those watches were tested in some pretty tough environments — who can forget the dolphin? — it's doubtful they ever had to withstand the kind of punishment meted out to skid steers on a mining site.

### Moon buggies

The mill environment is as unforgiving as it gets. A moon-scape is a good way to describe it. When the water dissipates from slurry that has spilled, it leaves a material almost like beach sand.

"It's a big plant, about a quarter-mile long, with lots of equipment running," observes Dennis Ussher, senior coordinator at Empire. "There is a lot of mud, rocks, and beams that can get in the way, and abrasive ore content that can get into machines — it's pretty harsh."

Located on the Marquette Iron Range of Michigan's Upper Peninsula, Empire produces 5.2-million tons of magnetite iron ore pellets per year. The Empire facility is part of Cliffs Michigan Mining Company, managed by Cleveland-Cliffs, the largest supplier of high-quality iron ore pellets in North America. Cleveland-Cliffs operates six iron ore mines in Michigan, Minnesota, and Eastern Canada, and sells almost all of its pellets to integrated steel companies in the United States and Canada.

Like other Cleveland-Cliffs mines, Empire mines low-grade iron ore and processes it into high-grade iron ore pellets. Ore is first blasted from open pits, crushed into small pieces, and shoveled into 240-ton capacity trucks.

Crude ore pieces are ground into a fine powder in grinding mills up to 36 feet in diameter, so the ore can be separated from the waste rock. To process magnetite, the ore is separated and dewatered before being pelletized and heat-hardened in kilns at temperatures as high as 2,400-degrees Fahrenheit.

Empire owns five 250 Series-II John Deere Skid Steers, which are used mainly to clean up around the mill. "We move 40 to 50,000 tons of material a day, so there's going to be some spillage," explains Ussher. "And when we get spillage, it happens pretty quickly."

Each skid steer runs 10 to 11 hours per day. Three machines are assigned to the concentrator, where the ore is separated from the waste material. They run continually around the mill lines and clean up spillage piles that occur at the end of belts. In the pellet plant, the two other machines clean up pellets that fall through the grating.

### Heavy metal

The 250 has superb breakout force, and in this environment it needs it. "When we start digging into the piles, we pick up a pretty big load of this heavy material," says Ussher. No doubt. The concentrated spillage material weighs 120 pounds per cubic foot.

In such an environment, safety is a critical concern at Empire. It is stressed each and every day, plus employees receive annual refresher safety training. Empire strictly adheres to the Mine Safety and Health Administration's (MSHA) safety regulations and rules, so all equipment must pass muster.

Along with ROPS, John Deere skid steers are built with an array of safety features, including a brake that applies automatically when the seat belt is unlatched, the operator leaves the seat, or the engine shuts down. An in-cab-activated boom lock ensures safe passage under a raised bucket. Steps are wide and designed to prevent slipping.

Superb stability also contributes to the safety and productivity of the skid steer. For operators to feel confident and safe carrying such heavy loads, it's important the machines don't feel tippy.

### Series-II improvements

The 250 Series-IIs are the second round of John Deere skid steers Empire has owned. The new Series-II machines have made great strides in quality. Over 100 improvements have been rolled in to improve performance, productivity, comfort, and reliability.

Many new features improve comfort, such as more comfortable armrests and a new air-conditioning system.

Other changes contribute to the machine's rugged durability, including cushioned boom cylinders and fewer hydraulic connections.

"The machines must be reliable, especially for what we put them through," says Ussher. And in this kind of environment, reliability is absolutely essential.

## Each skid steer runs 10 to 11 hours per day.





# Flying machines

Skid steers soar at EAA AirVenture.

It's the end of July at Wittman Regional Airport in Oshkosh, Wisconsin. Somewhere on the 2,000-acre site, a John Deere skid steer is busy at work putting up seemingly endless rows of fences to control crowds — big crowds.

You see, for a week every summer, Wittman Regional Airport is the busiest airport in the world. Almost 12,000 airplanes — and over 700,000 people — converge on Oshkosh for AirVenture, the world's largest fly-in. AirVenture is so big, in fact, it's said if you walk past (that's *past*, not *down*) each row of airplanes, you'd cover 5.2 miles.

The skid steer operator gets a call on the radio — rain is moving in. Time to spread wood chips, lots and lots of them. EAA buys them by the truckload. The skid steer shifts into high gear, off on another assignment.

## Skid steers ascend to new heights

People come from all over the world to see acre after acre covered with home builts, antiques, classics, war birds, ultralights, rotorcraft, and a complete array of John Deere equipment. Okay, so people don't exactly come to AirVenture to see John Deere equipment, but it is almost as ubiquitous as the aircraft.

Since 1988, John Deere began providing Gators™ and compact utility tractors for AirVenture. Today, 120 Gators are used by EAA volunteers to haul food, drink, and whatever else is needed around the grounds, while 25 compact utility tractors pull trams loaded with visitors. John Deere also has a huge display tent at AirVenture, where it exhibits equipment, including skid steers and compact tractor loader backhoes. The air show is great exposure for John Deere — EAA membership aligns tightly with the customer profile of purchasers of Deere equipment.

*To maintain its grounds year round, EAA runs 50 to 60 pieces of John Deere equipment — from line trimmers to skid steers.*





To maintain its grounds year round, EAA runs 50 to 60 pieces of John Deere equipment — from line trimmers to skid steers. It first began using John Deere skid steers in 1994, when the 6675 was unveiled to John Deere dealers on EAA grounds. Currently, EAA runs the 270 Skid Steer, which works closely with the 4410 Compact Utility Tractors doing landscaping.

EAA provides John Deere with honest feedback on all its products. To improve quality and stay ahead of the competition, Deere listens to its customers. In fact Deere has made over 100 improvements to its skid steers in the last two years alone to help customers increase productivity and uptime, while lowering operating costs. If an idea comes along that would improve performance, productivity, comfort, or reliability, it's rolled in immediately.

#### **Flying circles around other machines**

Jim Sternat, foreman, John Deere Operations at EAA, is impressed by the skid steer's usable power — its superior combination of industry leading engine horsepower, bucket breakout force, and axle torque. "The power on the 270 is just extraordinary," he says. "Torque is exceptional. When you run into a pile of dirt, it goes without saying that the machine doesn't bog down, even in a higher range."

This power is essential for completing much of the work done by EAA's crew. The land at Wittman Regional Airport and in surrounding Winnebago County is predominantly hard-tack clay. Around early spring, this does not present much of a problem. But during the summer, around the time the crews get most of their orders to prepare for the show, the ground becomes dry and hard.

"I also really like that the machine has a high- and low-end range," he adds. "This is a huge site, so you often have to go a long way to get where you're going. It's nice to be able to just flip it into high and go."

Versatility is also key. The skid steer employs buckets and augers to do a variety of jobs, including preparing footings for new buildings, digging sidewalks, trenching, and landscaping. During AirVenture, the skid steer is constantly running, putting up fences for crowd control or spreading wood chips on walkways, driveways, and other muddy areas during wet weather.

Like many of the war birds that cover acres and acres of ground at AirVenture, John Deere skid steers are highly maneuverable. Fighter pilots use the term "turn and burn" when referring to a plane's ability to outmaneuver an opponent through tight controlled turns. Likewise, the 270 can perform nimbly in tight spaces where other machines fear to tread.

### **During AirVenture, the skid steer is constantly running, putting up fences for crowd control or spreading wood chips on walkways.**

"Larger construction equipment is often difficult to maneuver around," explains Sternat. "The skid steer is far more versatile and maneuverable for what we do, and still offers big-time productivity. Plus, you've got to be quite skilled to run a TLB, while the skid steer is easy to learn."

Sternat also likes the Quick-Tatch™ system and its rotating pawl design, which makes it the easiest in the industry to engage and disengage buckets, forks, and other attachments.

Pilots often talk about situational awareness — the ability to see clearly out of the aircraft and understand where they are in relationship to the ground below and to other aircraft. Situational awareness is equally important to equipment operators, who want to work as efficiently as possible without unnecessarily damaging property.

John Deere skid steers provide unobstructed and unsurpassed visibility all the way around, which takes the guesswork out of working in close quarters and steering around obstacles. "Visibility is great," observes Sternat. "You can really see the whole bucket and what is out in front of you."

And like a pilot flying at 10,000 feet, construction equipment owners need machines that are absolutely reliable. "We've had no problems at all," reflects Sternat. "Dealer support is great. If they don't have the parts we need, they can deliver them to me the next day, not that we've needed any."

« Continued from page 9

“Many traditional loggers look down their noses at skid steers,” he says. “They say they’re too light or too small, but we’ve found they’re great for clearing thickets of small-diameter trees. Several loggers we know have now admitted the skid steer seems to have its place in forest work.”

The skid steer’s size is also perfect on residential or commercial jobs where it’s necessary to work near buildings, power lines, or vehicles. “It gives you great control in tight quarters where you have to maneuver and handle material close to structures,” says Butler. “We can clip trees right next to someone’s porch and then lower them without damaging property.”



Butler likes the 280s, which have high power ratings and are capable of handling the company’s robust accessories. The company owns a high-flow machine to run these attachments, which include a timber ax, a rotary chipper for chipping residue on the forest floor, and a hot saw, which is a rotating carbide-tip disk for cutting trees at ground level. The company also uses brush rakes and log forks.

#### Out of the frying pan...

WMFC plans on registering the skid steers for firefighting duty this summer. “They’re great for felling trees and clearing areas, especially around power lines and structures, which makes them perfect for creating firebreaks and that sort of thing,” says Butler. “It’s a tremendous cleanup machine. We’ve gotten a number of comments from the Forestry Service on the quality of work we do.”

WMFC prides itself on its work practices, setting high standards for safety, training, and equipment. It’s no surprise they selected a skid steer with excellent safety features, including the triple-interlock system, wide steps, an in-cab-activated boom lock, and ROPS, as well as superb stability and visibility. “On the whole, they’ve been very, very safe,” Butler reports.

Butler also appreciates how easy it is for operators to learn how to run a skid steer. This is particularly important because many loggers in the region have moved away in the last 20 years, so the company is basically training crews from scratch.

“It’s relatively easy to train a first-time operator to run a skid steer,” he says. “People can get relatively proficient in about three weeks, and that’s a big advantage.”

The company is especially pleased with Deere’s industry leading parts, service, and support. “We’ve had very few mechanical problems,” says Butler. “They’re fine machines — absolutely first rate. Plus we’ve had excellent support from our dealer. They’re very easy to approach and very responsive. We’re a very happy group of Deere guys!”

To learn more about how you can use a small machine to carry a big stick (or deliver other big results), stop in today.

**The skid steer’s size is also perfect on residential or commercial jobs where it’s necessary to work near buildings, power lines, or vehicles.**

John Deere skid steers combine the capabilities of several machines into one. That's because there are nearly 100 Worksite Pro™ attachments designed for every task imaginable. Many are also compatible with compact excavators and tractor loader backhoes like the C-Series ZTS and the 110.

Look to this column every month to learn all about Worksite Pro attachments. In this issue, we discuss power rakes and trenchers.

Worksite Pro attachments have your landscaping needs covered. **Power rakes** are the ideal tool for landscapers. They're perfect for seedbed preparation, raking rocks, site development, and more.

An adjustable twin-barrier bar allows you to gather stones and debris in either direction for a perfectly screened seedbed. With exclusive backward and forward raking capability, the power rake reduces seedbed preparation time by half. With adjustable end plates, you can use the power rake like a box scraper for gathering and piling stones.

Power rakes are available in 6- or 8-foot widths. The roller assembly is angled by a 12-volt electric switch and can rotate 20 degrees right or left. Carbide hard teeth are welded onto the roller for long life, and are used for digging, lifting, and pulverizing dirt. The heavy-duty chain drive runs in a sealed oil bath to reduce maintenance.

## Get Connected » Power rakes & trenchers

Five different **trencher** models are available — two lengths with standard-flow hydraulics and three lengths with high-flow hydraulics. A heavy-duty direct-drive system eliminates the need for an unreliable chain reduction.

All trenchers feature a skid shoe to ensure proper auger depth control and an exclusive 60-degree angle indicator for proper digging angle. Manual side shift allows trenching close to structures.

A replaceable spoil auger moves most spoil to one side of the trench. Plus, a heavy-duty crumbler shoe comes standard for loose soil removal.

Worksite Pro trenchers are built to last. The nose wheel bearings are maintenance free and double sealed for long life. The heavy-duty wheel motor and axle design also promote durability. Plus, the spring-loaded boom reduces shock loads to the hydraulic motor and skid steer.





## Think Big. Buy Small.

If your work requires a small machine to get big results, John Deere has just what you need. Our compact equipment line-up includes a choice of five vertical-lift skid steers, four zero-tail-swing excavators, and one industrial-strength tractor loader backhoe.

All of these small-but-mighty machines offer unsurpassed agility, operating ease, and ability. What's more, all are capable of sharing several of the same Worksite Pro™ attachments. So you can do even more with less. For details or a demo, stop in today.

NOTHING RUNS LIKE A DEERE™

