

# THE JOY(STICK) OF SKID LOADERS

Joystick controls are just one of the many new available technologies in today's skid steer loaders.

BY CURT HARLER

IF THERE IS one machine that everyone likes to operate, it is the skid steer loader. It's just fun to zip around, carrying loads, doing the work of four people at a time. Some technology improvements are making skid steers even more fun — and practical — for landscapers.

## Oh, joy

Joystick controls are increasingly popular on all kinds of loaders. The new control system on the Vermeer line of mini skid steers, for example, includes two ergonomically designed joysticks that control transport and boom bucket motion. The ground drive is controlled by a single joystick, giving the operator a smooth range of motion while minimizing back pressure from the hydrostatic system. The units have no need for a steering wheel or dual levers to control movement.

John Deere, Bobcat and Caterpillar all are moving to electrohydraulic joystick controls.

"Electrohydraulics, as opposed to pilot or mechanical joysticks, allow us to expand the use of the joystick via programming with circuit boards or wiring harnesses," explains Gregg Zupancic, product marketing manager for John Deere skid steers and track loaders in Moline, IL.

The electrohydraulic joystick soon will be able to automate many of the repetitive functions on a loader. For example, the machine will have a memory that will return a fork to a certain height for moving pallets. It will also allow the bucket and boom to be pro-

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Gehl's newest vertical-lift model, the V270, hit the market in February.

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grammed to drop to a certain level for scooping mulch.

Joysticks also have ergonomic value: "Because controls are operated while holding on to the handgrip bar, operators maintain balance and can operate any of the machine functions at any time," says Jon Kuyers, utility product segment manager for Vermeer, Pella, IA. He notes that some competitive units cannot drive and operate multiple functions without removing their hands from the levers or bar.

"Joysticks minimize fatigue and decrease the effort needed to operate equipment," says Kelly Moore, Gehl's product manager for skid loaders in West Bend, WI. "Effort required on the hand, arm and wrist is minimal. Whether you are running one hour or 10 hours, the dollars spent at the outset give a long-term payback in easier operation."

Typically, the upgrade to a joystick is about \$2,000 because of the more sophisticated controls and complexity of the controllers.

### Other ergonomics

Perry, OK-based Ditch Witch has "pilot-operated ground drive controls." They provide highly responsive steer-



John Deere unveiled the new CT 313 compact track loader in February.

ing with little or no vibration feedback, which increases operator comfort.

"Our foot pedal-operated auxiliary feature allows for hands-free operation of the auxiliary controls," says Matt Collins, Ditch Witch Compact Utility product manager.

Gehl's machines offer quiet cabs with noise levels — "operator ear levels" — from 85 dB down to 82 dB, depending on model. The cabs have AM/FM radio with weather band to allow weather tracking. The systems even allow the operator to plug an iPod or satellite radio into the speakers.

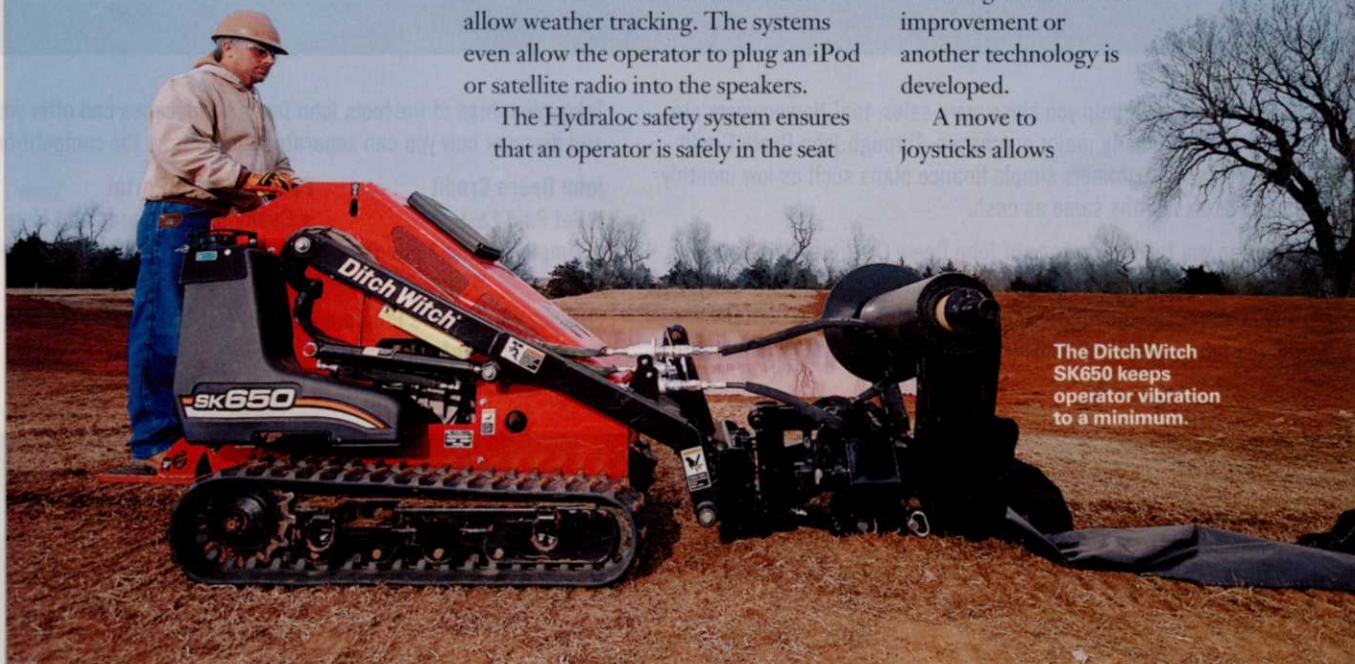
The Hydraloc safety system ensures that an operator is safely in the seat

before moving or operating the machine. In addition, those seats — which will be available on the new V270 machine coming out this spring — have deluxe suspension, with adjustments for operator size and weight, and extra cushioning.

### Sipping fuel

While fuel costs have decreased, many observers believe the lull is only temporary until either the economy shows signs of consistent improvement or another technology is developed.

A move to joysticks allows



The Ditch Witch SK650 keeps operator vibration to a minimum.



The handgrip controls on this Vermeer S400TX offers operator ergonomics.

John Deere to put most of its models' operations at the fingertip level. This frees up the floor area for a fuel-saving foot throttle, Zupancic explains. The lever throttle can be set in the 30% to 50% range. When the operator needs more speed, simply pushing the foot throttle gives the speed boost. But the moment the operator lifts his foot, the fuel consumption goes back to a minimal level.

"This also reduces the outside noise levels," Zupancic points out.

Gehl's Moore agrees that foot throttles make operation more efficient. "You use the foot control when you need more power or speed, backing off to go slower," he explains. "When it is not engaged, you're not using diesel."

Another move taken by some manufacturers is electronic fuel injection instead of the mechanical injection seen on many loaders. Deere is looking in this direction to give the right fuel burn for turning vs. straight-line driving, for example. Of course, good maintenance will help keep the unit running correctly.

"Contractors should make sure their mini skid steer is in peak operating condition, as this will help efficiency,"

says Kuyers. He adds that the most consistent method of saving on fuel costs is having a clearly laid out job plan that minimizes wasted travel and operation.

"Extra trips require extra fuel, and having a Lean methodology for working on the jobsite will help most contractors increase productivity while reducing costs," he says.

Another option is to know whether your diesel engine can use B20 to reduce cost. Some biodiesel blends may be less expensive than regular diesel, depending on your local market.

"Of course, fuel efficiency and fuel prices play a large part in ownership, but other factors like labor costs and downtime can be equally important," notes Collins. Using a mini skid steer can reduce labor hours and allow contractors to work more efficiently on the jobsite, therefore generating more revenue."

Collins adds that adopting a preventive maintenance program is another way for contractors to reduce downtime, making them more efficient — although users should always refer to the operator's manual for specific information and factory recommendations. Major maintenance checks would include:

► **Engine-related maintenance.** This includes filters, engine oil, coolant and fuel quality.

► **Track and undercarriage.** Keep it clean, and replace worn sprockets and bushings.

► **Operator controls.** Keep them maintained by using them correctly.

"By maximizing fuel efficiency on the jobsite, annual fuel consumption will be reduced — saving money no matter what fuel and diesel prices are," Collins says.

## Equipment costs

"Machinery costs will begin to stabilize and commodity prices — steel, copper, fuel — should become less volatile in the near-term," Kuyers says. While steel has decreased from its high point in 2008, he notes that some of the input materials have not decreased to their previous amounts, thus causing an increase in overall prices.

Moore agrees. "We had a huge surge in component costs last summer and fall. Steel had some big increases. Things have leveled out, but we still have a way to go."

Moore sees prices stabilizing. "Maybe, after a while, we'll see some more decreases in equipment costs," he adds.

"Over the years, we have seen an increase in component costs on equipment, but with the changes in our current environment, pricing has started to level out," agrees Collins.

Zupancic says Deere took its increases in November 2008 and that he does not foresee any further increase in the near future.

"You might see a 1% increase for the new features we are talking about," he adds. "But the return on that up-front cost will save the owner a lot of money from more efficient operation over the life of the machine. It's worth paying the bit extra up front to get the return over the longer term." *LM*

*HARLER is a freelance writer who lives in Strongsville, OH. Contact him at [curt@curtharler.com](mailto:curt@curtharler.com).*

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