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Skid Steer Scores with Ride Control

Our hands-on operators have nothing but positive to say about Case 400 Series **p 39**

Case Scores Big With Skid Steer Ride Control

Operators 'having fun' doubling production using a two-speed loader with ride control and air-ride seat

Ride Control is not new on the Case 400 Series 3 skid steer loaders, but the 445 Series 3 we brought to the Operating Engineers Local 150 apprenticeship training facility in northern Illinois was the first experience these experienced skid-steer operator trainers had with the feature. They didn't like it; they loved it.

"Ride control is just without a doubt the best [feature] that there is," says Todd Peterson, an instructor who spent the day doing load-and-carry and forklifting tasks, alternating between the 445 Series 3 (he would have happily logged overtime with the unit if we hadn't forced him to get out to talk with us) and its predecessor, the 445. "You could move across the job site twice as fast as you could normally without beating yourself up or losing your load.

"The high speed is quite a bit faster than most of those I've seen," he adds. "With the ride control you could move a pile of dirt from one side of the job to the other in half the time, under control. I don't think that's an exaggeration at all. You wouldn't have the load spill that you normally have. It's just a lot more stable, and keeps the load and the machine under control."

When switched on, Case Ride Control backs up the closed boom circuit with accumulators, allowing the boom cylinders to act as springs. The feature proved particularly effective in combination with the new air-ride seat that Case makes standard equipment on the 400 Series 3 machines.

"In the course of a day, that and the ride control

Toeing the same power and operating-capacity line as the original Case 445 skid steer (background) positioned the 445 Series 3 in the specifications gap between Cat and Bobcat competitors. But two IUOE Local 150 operators seem convinced that the new model's cab refinements—primarily air-ride seat and control rework—plus optional ride control could give the biggest in the class a run for their money.



Photos: George Pfoertner



Chris Tomblin (left) and Todd Peterson, instructors with the International Union of Operating Engineers Local 150, became boosters for skid-steer ride control by comparing the two-speed Case 445 Series 3 with it to the original 445 without.

mean a bunch,” says Chris Tomblin. “You’re saving on your back, because skid steers can be bouncy.”

No matter how much they’ve improved the operator experience on a new model, construction equipment marketers like to show buyers measurable improvements in productivity-related specifications such as engine horsepower or rated operating capacity to ensure the commercial success of their engineering. New-machine introductions these days typically show engine or hydraulic horsepower rising, or heavier operating weights to justify price hikes (which largely reflect the expense of emissions certifications). In the 400 Series 3, however, Case gambled a bit.

The 445 Series 3 skid steer that Bolingbrook, Ill.-based Case dealer McCann Equipment brought out to Local 150 is a great representative of all the Series 3 Case skid steers. On paper, it appears to be pretty much

the same as the first-generation 445. The Tier-3-certified Case 432T-M3 engine, despite generating a few more horsepower, actually displaces nearly 30 percent less cylinder volume than the Tier-2 445-M2 diesel in the original 445. Case ensured it would maintain, if not improve, the 445’s loader breakout force and other working capabilities by cranking up the hydraulic horsepower, designing the Series 3 hydraulic system with equal relief pressure and 13 percent more hydraulic flow.

The 445, and all other Series 3 skid steers with model designations that end with a “5,” are vertical-lift-path machines.

“The loader arm on the new 445 Series 3 is a lower arm [for clearer view to both sides of the machine] that will give you another six inches of reach,” says Neal Detra, Case product manager for skid steers. “So that’s going to help you for dumping in the center of that truck and being able to put material where you want it.

“The 85XT had this boom on it,” Detra adds. “When we designed the Series 3, we went back to the 85XT-style loader arms to get some more reach.”

“It has a definite advantage [in truck loading],” says Peterson. He admits he didn’t think the small increase in reach was going to be noticeable until he had spent some time in both loaders. “There were times on the older machine when I would have to butt the machine up to the truck to reach the center of the truck. When you’re working with [six] more inches, that’s a big difference.”

The next larger machine in the Series-3 lineup, the 450, has a mechanical-self-leveling boom. All other Series-3 models can be upgraded with hydraulic self leveling that works when raising the boom, but not when lowering. Detra says self leveling slows hydraulics enough that Case chose to use the feature only when raising the boom. That became an issue when using pallet forks.

“The reach gives you a little more playing room,” says Tomblin, “But I had a hard time visualizing where I was trying to put the pallet. You’ve got a cross member right there, so you can’t really see whether your forks are level or not. (The fork-lifting evaluation was done with loads that were not tall enough to see over the top of the fork carriage.)

445 vs 445 Series 3

	Engine	Net power	Rated operating capacity (lb.)	Hydraulic pressure (psi)	Standrd hyd. flow (gpm)	Op. weight (lb.)
Case 445 Series 3	Case	77	2,500	3,050	23.8	8,120
Case 445	Case	74	2,500	3,050	21	7,677

The 445 Series 3 specs out much like its predecessor, but the engine has nearly 30 percent less displacement. About 13 percent more hydraulic horsepower and a 445-pound weight advantage, though, give the Series 3 some mathematical superiority.

“It wasn’t until I had the load up about mid way that I could see how I had the forks positioned,” Tomblin adds. “It needs some kind of a leveling device or level indicator. That was the only downfall I saw.”

On the other hand, Tomblin appreciated the safety aspect that the hydraulic quick coupler option added to this report’s 445 Series 3.

“What I liked about it was the ability to take the bucket off from inside the cab,” he says. “It’s a lot easier to just flip the switch than having to get out and fight the elements, especially in freezing weather.”

Tomblin knows that any time an operator leaves a machine’s cab, particularly to climb over a skid steer attachment, there’s a risk of slipping and falling. He points out that the power quick coupler on the 445 Series 3 dramatically reduces exposure to that hazard, especially in work that regularly uses multiple attachments.

Discussing the 445 Series 3, the Local 150 operators often equated cab refinements with improved safety and production. For example, Case seems to have demonstrated real insight in selecting controls to move up to the narrow panels mounted inside the cab’s A pillars. Tomblin and Peterson, after just minutes in the two cabs, quickly appreciated the Series 3 changes.

“I want to use the term ‘operator friendly,’” says Tomblin. “Everything is right at hand—you don’t have to search for it. You don’t have to look down; take your eyes off your load. If you just keep your eyes right out in front, you can see everything right there.”

“With most of your switches up on the sides, it’s within your peripheral vision,” Peterson adds. “You’re not spinning around looking for things; hitting controls.”

Case introduced standard side lighting to skid steers with the Series 3 machines. Two lights, one added to each of the light modules on the front corners of the ROPS, aim their beams to bathe the space on both sides of the loader in light.

“My experience has been with a lot of snow plowing,” says Peterson. “You’re constantly around a lot of vehicles in parking lots; some that are not lit up. So I can definitely see the advantages when you’re going by with a snow blade, watching out your side you can see with a lot more clarity. It doesn’t become dark right as the front lights go past.

“Any time you’re turning a skid steer loader you’re actually skidding [sideways]; you’re spinning,” he adds. “With those side lights you can see what’s beside you so you don’t spin into [anything].”

The 445 Series 3 is unique in that it’s an emissions-



Standard lights on the 445 cast beams straight ahead (top), leaving objects to the sides in shadow (note the dome-lit 445 Series 3 to the right, and there is a reporter lurking to the left). When the machines change places, the Series-3 standard side lighting clearly shows hazards in the loader’s skid-steering space.



Case 445 Competition

	Engine	Net power	Rated operating capacity (lb.)	Hydraulic horsepower	Op. weight (lb.)
Caterpillar 262C	Cat	82	2,700	43	7,968
Bobcat S650M	Kubota	74.3	2,690	47	8,327
Komatsu SK1026-5	Komatsu	84	2,650	37	8,068
John Deere 326D	Deere	70	2,600	42	8,125
Gehl 6640E	Yanmar	84	2,600	40	8,140
Mustang 2086	Yanmar	84	2,600	38	7,900
JCB 1110 Series II	JCB	92*	2,535	40	8,420
Case 445 Series 3	Case	77	2,500	42	8,120
John Deere 325	Deere	70	2,500	40	8,390
New Holland L180	FPT	69	2,200	37	7,130

* Hydraulic horsepower = PSI x GPM / 1,714

* JCB publishes only gross horsepower.

Source: Spec-Check.com

The 445 Series 3 skid steer's rated operating capacity is on the border between two common skid-steer size classes, but an optional 860-pound counterweight bumps that rating to 2,750 pounds of capacity.

Loader arms on Case's 445 Series 3 skid steer (a vertical-lift-path machine) are much like those on the discontinued 85XT, riding lower on the side of the machine for a clearer view to both sides and offering six inches more reach than the previous 445.

driven product introduction that did not come with a healthy bump in horsepower to assuage the sting of the price increase. Toeing the same power and capacity line as the original 445 kept the Series 3 machine positioned securely in the capabilities gap between Caterpillar and Bobcat machines. Tomblin and Peterson seem convinced that Case cab refinements such as air-ride seat and control rework, plus options such as ride control (list price of \$502), hydraulic self-leveling (\$503), and hydraulic quick coupler (\$904) could push the 445 Series 3 well beyond not only its predecessor's, but also its competitors' productivity.

"It's like night and day, the difference between the new one and the older model," says Tomblin. "They've made fantastic changes. More comfort, easier on the body. It's a nice machine."

"It's about the first skid loader I've been in that I didn't want to get out of, to be honest with you," says Peterson. "I was having fun with it." 