

Buying File: Compact Track Loaders

By FRANK RACZON, Senior Editor



Bobcat's T740 is a new vertical-lift model with a 74-horsepower engine that does not require additional aftertreatment systems.

A Young Market Heats Up Again Keeping Track of CTLs

Their versatility beats skid steers, but undercarriage costs beg proper maintenance and operation

After a decade-long ascension interrupted only by the Great Recession, the compact track loader (CTL) is once again a hot machine category.

Manufacturers are seeing a healthy market with sales spurred by the CTL's versatility, particularly over the skid steer loader.

"The CTL market appears to be up right now," says Ashby Graham, global product manager for skid steers and CTLs, JCB. "The skid steer loader market is relatively flat, but CTL sales have risen by approximately 30 percent. We feel that CTL sales are up because customers are finding more ways to use these machines in the field, and that gives them better return on their investments," she says. "We're still seeing good demand for both tracked and wheeled machines; however, we are currently selling more CTLs than skid steers."

Though it may be hard to admit for OEMs who have

made a living selling both categories, even a newcomer to the market sees the trend.

"We are seeing the CTL market continue to chip away share from skid steers," says Brent Coffey, product manager, loaders, for Wacker Neuson. "Contractors are seeing additional advantages of the CTL as a versatile machine that can operate on paved surfaces, in the dirt, in sloppy conditions, and on turf. The take rate continues to gradually rise for the CTLs and comes at the expense of the skid steer loader."

Dave Steger, product manager at Takeuchi, agrees. "Generally, the market is up, due largely in part to housing starts. The CTL market continues to grow, and at a greater rate than skid steers. This is due to the single machine versatility and performance offered by the track loader."

Kubota, which entered the CTL market before tackling skid steers, seems to have adjusted its strategy to

market realities. “We’re just now getting into the skid steer market, but we expect our skid steers to complement our compact track loader line in terms of price point, weight and size,” says Jorge De Hoyos, senior product manager and a veteran of both categories from his New Holland days. “Our SSV65 and SSV75 are priced below our compact track loaders, of lesser weight, and of shorter widths.”

John Deere Construction & Forestry skid steer and CTL product marketing manager Gregg Zupancic reports that the industry for CTLs over the last 12 months is almost 40,000 units, barely eclipsing skid steers, but, more notably, putting both categories at a 1:1 ratio for the first time. “If you had asked me even as little as three years ago, I’d have never thought we’d have achieved a 1:1 ratio between the two because of the extra expense versus a skid steer,” Zupancic says.

Case Construction Equipment brand marketing manager Warren Anderson thinks the skid steer’s collective bleeding may have stopped. “Industry CTL sales for 2015 are currently up 20 percent from where they were at this point last year. The difference this year is that they are not cannibalizing from skid steer sales,” he says. “Skid steer sales remain flat for 2015, whereas they had been down each of the last two years as CTLs gained more interest.”

When it’s time to make a purchase decision, managers will find more than a dozen manufacturers to sort through, as well as varying sizes, specs and features, not to mention continued temptation from the skid steer.

“Once you’ve narrowed down the machine based on some basic specs such as width, height, weight, lift height and capacity, consider what other features would



As CTLs have increased in popularity, so have the number of attachments available, another reason this relatively young machine category has challenged skid steers.

help make the operators safer, more comfortable and more productive.” says Caterpillar’s Kevin Coleman, senior marketing engineer. “These can include a rearview mirror, rearview camera, a high-back, heated seat, one-piece sealed and pressurized cab, operator-specific machine settings, ride control, and return-to-dig.”

De Hoyos feels power is important—now and for the future. “Engine horsepower is a key consideration when purchasing a track loader,” he says. “Also, it’s important to select the machine that will not only manage the needs of current applications, but one that ensures enough power and capacity for future growth. Consider that on average, a CTL with a 5,000-pound lift capacity requires 70 or so horsepower.”

JCB’s Graham hones in on applications and size. “Fleet managers should consider the different types of applications for which their CTLs will be used and the weight of the loads the machines will be required to handle,” Graham says. “A machine can always pick up a lighter load than the one for which it’s rated. But, if you try to pick up a load that’s too heavy, the CTL can become unstable and unsafe. Upsizing to a larger machine allows operators to carry heavier loads—and more material at once—and run larger attachments. This leads to jobs being completed faster. Operators who can perform

Cost of Ownership

Op. weight (lb)	Average price	Hourly rate*
To 700	\$24,515	\$15.38
701-975	\$25,560	\$17.99
976-1,250	\$36,338	\$21.39
1,251-1,350	\$40,352	\$29.33
1,351-1,600	\$40,623	\$28.34
1,601-1,750	\$47,493	\$32.67
1,751-2,200	\$53,354	\$35.55
2,201 & over	\$66,987	\$40.76

*Hourly rate represents the monthly ownership costs divided by 176, plus operating cost. Unit prices used in this calculation: diesel fuel at \$3.46 per gallon; mechanic’s wage at \$52.33 per hour; and money costs at 2.125%.

Source: EquipmentWatch.com, 800.669.3282

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Keeping the undercarriage clean and free from premature wear is a key to keeping operating costs down.

jobs in less time can perform more jobs overall, ultimately leading to greater profits.

“That said, a larger machine with a higher rated operating capacity will be more expensive,” Graham continues. “Fleet managers should also consider any towing issues and job site limitations. Larger machines may require an investment in a dedicated trailer to haul it. And, if the machines will most often be used in smaller areas, like backyards, larger models may not be able to squeeze between buildings and fences.”

Anderson suggests a clear line between the CTL and skid steer choice.

“It’s all about the surface you’re working on,” Anderson says. “As with any machine, the bulk of its costs will be wrapped up in the undercarriage. CTL undercarriage owning and operating costs increase significantly when those tracked machines are operated on paved or concrete surfaces. The vibration and abrasion on those tracks is a killer and can be costly over time. If you are a fleet manager tasked with buying numerous machines, take a 30,000-foot look at how those machines are utilized. If 80 percent of their use is off-road and 20 percent of their use is on paved surfaces, consider splitting your purchase up between skid steers and CTLs. Focus the skid steers on pavement, the CTLs for off-road.”

How managers react to the daily grind of off-road work is the key to controlling costs.

“Whenever possible—at least once a day—clean

mud and debris such as rock and gravel out of the machine’s undercarriage to minimize unnecessary track wear,” says Gregg Warfel, district sales manager for Terex. “The undercarriage is the most costly part of any tracked machine. It can make up almost 20 percent of the machine’s purchase price and nearly 50 percent of its maintenance cost. Such valuable components should never be neglected. It’s extremely important to keep the undercarriage clean. This helps to ensure longevity of its components and keeps operating costs down.

“Check the track tension with a walk-around or inspection, and tracks should be tensioned according to the operator’s manual,” Warfel says. “Running a track too loose can lead to damage or possible derailment, and running a track too tight can lead to premature wear of other undercarriage components. Tracks that are too tight can cause excessive roller and idler wear and can tear the tracks.” Managers also need to be aware that individual operators can have a big effect on CTL wear, and subsequently, costs.

“The most common cause of premature machine, particularly the tracks, failure is from operating technique,” according to Warfel. “Many operators run their compact track loaders as if they are skid steers—skid steer operators do a lot of counter-rotating and spinning the tires to get the bucket filled to maximum capacity. Compact track loaders have enough traction that the tracks do not need to spin to fill the bucket. If the tracks are spinning, and the machine is staying still, the loader’s track life will be greatly reduced. This comes into effect even more when contractors are operating on a rough underfoot condition.”

Warfel offers these operating tips for managers to impart to their operators: Utilize three point turns to produce minimal ground disturbance; on inclines, do not make sudden changes in direction, move slowly, and always carry loads low to maximize machine stability; maintain a 90-degree angle with a transition, such as a curb or a ledge, and make sure that both tracks are fully supported by the ground; and keep material in front of the loader—work the pile from the sides and then the middle to reduce the amount of material getting into the tracks.

Also, don’t forget about fuel, even though today’s diesel costs are down and CTLs are small machines. “Encourage operators to turn off the machine or lower the engine throttle when they are waiting,” says Christopher Girodat, Bobcat marketing manager. “Over the course of a day, this time will add up and lead to significant fuel savings for managers.”

Gallery of Compact Track Loaders



CATERPILLAR

Heads-up Displays

The 299D2 CTL, 297D2 MTL, and 272D2 SSL—along with their XHP counterparts—feature the standard exclusive Caterpillar heads-up Advanced Display, along with a new engine-compartment sealing system for enhanced airflow debris control. Non-XHP models have increases in rated operating capacity (ROC), and XHP models now maintain their ROC numbers without external counterweights. All models have a vertical-lift loader linkage and use a Cat C3.8 engine meeting Tier 4-Final emissions standards. In addition to providing a theft deterrent system, the Advanced Display accommodates up to 50 operator security codes that allow each operator to adjust the machine to suit individual operating preferences.

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JCB

Added Protection for Forestry, Land Clearing

The 325T ForestMaster is a compact track loader designed specifically to deal with working conditions found in the forestry and timber industries. Featuring additional protection for both the operator and the machine, the 325T ForestMaster also incorporates a heavy-duty recovery winch. The unit is powered by JCB's Eco-max Tier 4-Final engine, with no requirement for a DPF or any aftertreatment. Other features include front work light protection and FOPS guard for A/C and rear lights, a track tube guard plus hydraulic hose and auxiliary coupler guard, and a Lexan front screen with hinging front mesh guard, and Level 2 FOPS.

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JOHN DEERE

Offers All Major Control Patterns

The John Deere 323E mid-frame CTL features upgraded boom performance, auxiliary lines that are integrated through the boom for improved visibility and added protection, and cab improvements. John Deere offers all major control patterns, including traditional hand and foot controls, hand-only controls, or low-effort, electro-hydraulic (EH) joystick controls in both the ISO and H patterns. The E Series features an exclusive option that allows the operator to switch between all three industry control patterns. Other new features include connect-under-pressure auxiliary hydraulic couplers and courtesy lighting that stays on up to 90 seconds after the engine is shut down.

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BOBCAT

Utilizes More Than 60 Attachments

The Tier 4-compliant, vertical-lift-path Bobcat T740 CTL is powered by a diesel engine under 75 horsepower and does not require a DPF, SCR or DEF. As part of the M Series, its hydraulic system has higher standard flow and pressure for increased attachment performance. A 30.5-gpm high-flow hydraulic option is available to further boost machine productivity. More than 60 Bobcat attachments are approved for use with the T740. A cab-forward design moves operators closer to the attachment and the work area and provides visibility in all directions, Bobcat says. Auxiliary quick couplers are mounted directly to the front plate of the lift arm to provide a solid mounting, and hoses are routed through the loader arms.

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VOLVO
Fills Gap in Product Line

The MCT110C compact track loader, with a rated operating capacity of 2,250 pounds, completes the company's range of CTLs, filling the gap between the MCT85C and MCT125C. The MCT110C shares the same assortment of features with the other compact track loaders and skid steer loaders. Staying on top of the MCT110C's vital data is simple, Volvo says, with two consoles at the front of the cab that present important information. The operator can select between three levels of control sensitivity to suit the application at hand, as well as operating preferences. An optional control pattern choice gives further flexibility, allowing the operator to select between Volvo ISO and H patterns.

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TAKEUCHI
Active Power Control Management System

Takeuchi's Active Power Control Management feature, available on the TL8, TL10, and TL12 CTLs, is an engine power management system that can be turned on and off depending on the operator's preference and site conditions. It can also be used with an ECO mode that helps to reduce fuel consumption and operating costs by as much as 20 percent, according to Takeuchi.



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GEHL
Automatic Track Tensioning

The RT175 GEN:2 and RT210 GEN:2 radial-lift track loaders offer Tier 4-certified Yanmar diesel engines, with 69.9 horsepower and 179 lb.-ft. of peak torque on the RT175 GEN:2 and 72 horsepower and 217 lb.-ft. of peak torque on the RT210



GEN:2. The RT Series offers the Ideal-Trax Automatic Track Tensioning System. This system eliminates manual track tensioning and increases the life of the tracks, sprockets and bearings due to the relief of track tension when the engine is shut off. This system saves the suggested 10-15 minute track tension checks that are recommended every 50 hours and the 30-45 minute tension readjustments required approximately every 300-400 hours depending on usage, Gehl says.

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NEW HOLLAND
Emissions Solutions Tailored to Model

New Holland Construction 200 Series CTLs and skid steers benefit from more powerful engines and Tier 4-Final emissions control technology specifically tailored for each model. The company's C238 compact track loader meets Tier 4-Final emissions standards with SCR technology. The C227 compact track loader features ISM diesel four-cylinder turbocharged and aftercooled engines with a fuel-efficient high-pressure common rail fuel system design and electronic controls. These engines meet the Tier 4-Final emissions mandate with a maintenance-free DOC solution that eliminates the need for a diesel particulate filter (DPF).



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ASV
The Return of Posi-Track

The first three models to be released under the ASV brand are the RT-30, RT-60, and RT-110, with operating weights of 3,600, 6,930, and 11,000 pounds, respectively. The RT-30, powered by a Perkins three-cylinder, 32.7-horsepower (gross) diesel, is the smallest ride-on, sub-compact track loader available and has a ground pressure of 3.0 psi. The mid-size RT-60, using a four-cylinder Perkins turbocharged diesel rated at 60 horsepower (gross), is equipped with 15-inch-wide rubber tracks and has a ground pressure of 3.9 psi. The largest of the models, the RT-110, uses a four-cylinder turbocharged Perkins diesel, rated at 111 horsepower (gross). According to ASV, the RT-110 is designed to handle the higher demands of large attachments, such as high-flow brush cutters.

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Gallery of Compact Track Loaders



CASE CONSTRUCTION EQUIPMENT Extended Runtimes

The TR340 rounds out the company's lineup of large-frame CTLs, now providing customers with both a radial-lift (TR340) and vertical-lift (TV380) design to choose from in the larger footprint. The radial-lift TR340 weighs 10,000 pounds with a rated operating capacity (ROC) of 3,400 pounds and a bucket breakout force of 8,700 pounds. The vertical-lift TV380 weighs 10,550 pounds, provides 7,510 pounds of bucket breakout force, and an ROC of 3,800 pounds. Both machines are rated at 90 gross horsepower, produce 282 lb.-ft. of torque, and have increased hydraulic flow rates (standard: 24.2 gpm; high-flow: 37.6 gpm). The 25.5-gallon fuel tank extends runtimes.

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WACKER NEUSON New to the CTL Market

The company's initial CTL offerings include the ST35 radial-lift model that delivers 3,500 pounds of rated operating capacity at 50 percent of tip load and a lift height up to 10 feet 5 inches. The ST45 is a vertical-lift unit ideal for digging and lifting, Wacker says. The ST45 delivers 4,500 pounds of rated operating capacity at 50 percent of tip load and a lift height of 11 feet 2 inches. Both machines are equipped with a 74.3-horsepower turbocharged Perkins Tier 4-Final engine with maintenance-free Particulate Matter Catalyst aftertreatments. The ST models are available with either H-pattern or ISO joystick hydraulic pilot controls. Units have 17.7-inch-wide tracks for high flotation.

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TEREX

More Than 100 Enhancements

Terex Generation 2 (GEN2) loaders feature more than 100 enhancements from the previous models and are available in radial- and vertical-lift-path patterns with rated operating capacities ranging from 665 to 3,600 pounds. All models are equipped with Tier 4-Final engines. Enhancements include an improved quick-attach pin profile, a cylinder seal package that includes three additional sealing surfaces to eliminate potential leakage, as well as wear bands added to reduce side-load strain. GEN2 models also include new high-torque, stainless steel clamps, upgraded hydraulic couplers, one million cycle hoses on all high-pressure applications, and new standard and heavy-duty "W" style crimps on loader and drive hoses.

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KUBOTA

Electronic Engine Stall Guard

The Kubota SVL75-2 and SVL90-2 compact track loaders are powered by 4-cylinder Kubota CRT Tier 4-compliant engines with 74.3 and 92 gross horsepower, respectively. The SVL75-2 has a bucket breakout force of 6,204 pounds and a lifting capacity of 4,881 pounds. The SVL90-2 delivers a bucket breakout force of 7,961 pounds and a lifting capacity of 5,869 pounds. Standard features include an electronic engine stall guard and two-speed travel. Both CTLs are equipped with a rigid-mount undercarriage, and a vertical lift designed for long reach (41.7 inches) and maximum lifting and dumping capabilities, the company says.

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