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March 2010 • Vol. 113, Issue 3

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RUNNING GREEN

24 Equipment Manager Clears the Air

In this green-friendly time, the observations of Bill Edwards may not exactly be politically correct. And, uttered often over the past few years particularly by fellow California earthmoving contractors just trying to work, the words could be described as cliché. Then again, clichés by their very nature are based on statements of fact: "It's all the same air we're breathing."

Edwards, an equipment manager with the privately held heavy-utility contractor Valley West Construction Co. headquartered in Campbell, Calif., was closing out 2009 faced with having to dispose of items he had registered under the statewide Portable Equipment Registration Program (PERP), a years-long journey that itself has left him at times confused, frustrated, humored and angry.





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HANDS-ON TRUCKING

31 Kenworth Aims T470 at Vocational Work

You could call this beefy looking conventional a heavier-duty T370, KW's strongest Class 7 truck, or a lighter-duty T800, its husky Class 8 model. But in fact, the T470 bridges the gap between the two. It's what people at Paccar describe as a "heavy 7," and what others term a "Baby 8." It's got a midrange-size power train that reduces the cost of a heavy-duty chassis built to do some serious work. A base T470 is rated at 33,000 pounds, just a pound shy of Class 8, but most 470s will be rated at over 33,000, with heavier frames, axles and suspensions, like our bright-blue truck tested by truck editor Tom Berg.

BUYING FILE

37 Larger Selection Drives Big Skid Steer Interest



The evolution of the large skid steer loader from utility- to production-caliber machine, is seemingly stepped up each time a manufacturer rolls out a new series. It's not necessarily that the equipment is physically getting bigger, because the established largest four individual models in the market remain as such. It's rather that manufacturers are quite frankly making their skid steers more efficient, more comfortable and more productive places in which to work. And the market seems willing to pay a price.

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Legacy of a Publisher

The former publisher of *Construction Equipment* died last month. Many would consider it difficult to put someone's death in the context of their business, but Bob DeFretas was the father of this magazine's rebirth.

Many on this staff, this editor included, worked with Bob during the 1980s. We remember his commitment to "Rebuilding America," a great initiative geared toward bringing attention to the crumbling national infrastructure: highways, bridges, sewer and water.

It won Bob, and the magazine, recognition by industry organizations and even the President, Ronald Reagan. Our articles also won Jesse H. Neal awards.

Today, *Construction Equipment* enjoys the top ranking among magazines serving the managers of America's fleets because of the work Bob did in the 1970s and '80s.

"Bob Defretas was the epitomy of what a business-to-business publisher should be," says our current publisher, Rick Blesi. "He was engaged in the market, always looking out for the interests of both subscribers and advertisers. Some of Bob's former employees used to tell me that he took *Construction Equipment* from fifth in a field with four titles to the undisputed brand leader in the marketplace."

We've continued the stretch of editorial awards begun during Bob's tenure, celebrating 28 consecutive years of winning. We continue to provide solutions to the asset managers responsible for the machines that continue to build and "rebuild" America. And we continue to partner with industry manufacturers and distributors.

Bob did us all proud. We will miss him, but we celebrate his legacy.



Rod Sutton, Editor in Chief

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Rod



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A summary of the month's primary machine introductions and model changes

By KATIE WEILER, Managing Editor



Link-Belt

Rear-wheel steering improves steering Link-Belt's 75-ton HTT-8675 Series II all-terrain crane by turning up to seven degrees at speeds of 15 mph. The crane has four steering modes for off-road maneuverability: all wheel, diagonal steer, manual steer, and front steer. In all-wheel-steer mode, minimum turning radius is less than 29 feet. The 8675's 127-foot formed, greaseless boom uses Link-Belt's latching mechanism.

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Caterpillar

The 973D crawler loader has a Cat C9 engine, which delivers a 10 percent increase in engine horsepower, and the operating weight is 4 percent more than the C Series machine. The hydrostatic loader gets a new closed-center, load-sensing implement hydraulic system with variable-displacement pump to push only the volume of oil actually required for the job at hand, reducing unnecessary flow volume to conserve fuel, reduce heat and smooth simultaneous use of lift, tilt and travel functions. Buyers can choose pedal steering or joystick steering.

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Dynapac

Competing in the 10-foot machine class, the F1000T tracked and F1000W wheeled asphalt pavers mark a new product line designed for the North American market. Powered by a Tier-3 Cummins QSB 220 engine generating 230 horsepower at 1,800 rpm, the F1000 Series pavers feature an integrated Sauer drive system and can deliver 600 tons of asphalt per hour to a Carlson EZ III or EZ IV screed. A high-capacity slat conveyor design eliminates the auger chain drive box and, as such, center line segregation.

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Hitachi

The 10,800-pound Zaxis 50U-3 is one of three mini excavators Hitachi has advanced to the Dash-3 Series with a diesel engine certified to EPA Tier 4 Interim emissions requirements. Hitachi says the 38.1-horsepower diesel's fuel economy exceeds that of the previous model. Auxiliary hydraulics are now operated from a switch positioned atop the right-hand pilot lever. A hydraulically adjustable angle blade for backfilling is a new option. Maximum dig depth is 11 feet 8 inches.

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Market Watch



◀ Gradall

At an operating weight of 52,216 pounds with a lifting capacity of 13,508 pounds, the XL 5300 III is the largest model in the Gradall family of on- and off-highway wheeled excavators. Featuring front axle oscillation locks, the XL 5300 III can be worked to the front, rear or either side without the need to lower outriggers or the optional front blade. The Gradall boom, which fully tilts and telescopes, offers a rated force of 24,941 pounds, reach of 33 feet 10 inches, and dig depth of 24 feet 7 inches. Bucket breakout force is rated at 25,405 pounds.

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▼ Royal Tractor

The newest Rig-N-Lift industrial crane truck, the cushion-tired BT150 offers lift capacity of 75 tons at a 36-inch load center, says Royal. Powered by a 216-horsepower GM V-8 LPG engine, it features as standard a three-speed electric power shift transmission, hydraulically extending frame, three-stage hydraulically extending boom, oil-cooled wet disc service brakes, and multi-piece removable counterweights.

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▶ Atlas Copco

Featuring the same stiff folding boom and aluminum feed as the larger models in the ROC surface drill product line, the ROC T15 is the smallest hydraulic rig offered by Atlas Copco at 6,172 pounds. With complete radio remote control for tram, boom and drill functions, it provides more than 60 square feet of horizontal coverage area. Three different rock drills are available for the rig, which can drill holes ranging up to 1.75 inches in diameter to 30 feet of depth.

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◀ Asphalt Drum Mixers

Stationary and self-erect mineral filler silos are compatible with the company's asphalt plants as well as similar competitors' models. Both types are available in 250- and 500-barrel capacities.

The silos feature a pneumatic conveying system, which adds the stored minerals to dried aggregate.

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▶ Extend Manufacturing

Hooking behind a standard half-ton pickup truck, van or any light-duty towing vehicle, the TMX mini-excavator can be moved without a trailer or CDL license at highway speeds up to 55 mph. On site, the "towable" mini-excavator uses zero-turn technology common to lawn mowers, as compared to conventional tracks. The unit weighs within the 1.5-ton class, but offers claimed digging depth of 8 feet, digging force of 6,600 pounds, and loading height of 7 feet 2 inches. Gas- and diesel-powered versions are available.

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▼ National Crane

With a capacity of 50 tons, the NBT50 truck-mounted crane is one of National Crane's strongest cranes. It features fully integrated machine control, load moment



indicator, and electric-over-hydraulic controls for improved precision when lifting loads, the company says. There are 102- and 128-foot boom options, as well as a 25- to 45-foot telescoping boom extension for additional reach and tip height.

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► JCB

Although powered by a stronger engine than its predecessor, JCB's new 8085 Zero Tailswing mini excavator reduces fuel consumption while providing increased torque. The 57.6-horsepower 8085 ZTS is built on a similar-sized frame as the 8080 ZTS it replaces, but takes advantage of auto-idle functionality and more torque at lower revs to bring fuel use down by up to two liters per hour. Digging depth is 4,214 millimeters, or 13 feet 10 inches. New wrist rests and redesigned pedals improve operator comfort, JCB says, and the optional thumb-operated controls offer more precise control over the machine and attachments.

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► Bobcat

Bobcat has added three new models to the 4- to 5-ton weight class of its M-Series compact excavators. They feature redesigned hydraulics with a load-sensing pump, as well as a closed center-valve system. The E42 comes in at an operating weight of 9,246 pounds and is powered by a 41.8-horsepower engine, while the E45 runs on the same engine, but weighs 10,077 pounds and has zero tail swing. At 10,677 pounds, the E50 boasts minimal tail swing and uses a 48.8-horsepower engine. Other features include auto-idle, joystick-mounted boom swing control, and Bobcat's X-frame undercarriage for improved ground clearance.

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► Manitowoc

With a capacity of 300 metric tons, Manitowoc's GMK6300L six-axle all-terrain lifts 14.3 metric tons with the boom extended to 74.8 meters, and 12 metric tons with the boom extended to its maximum of 12 meters. Driven via automatic transmission, the crane features drive-by-wire technology on the fourth and fifth axles. A new cab accommodates three crew members and places instruments in more ergonomic positions, and a choice of five outrigger positions gives the crane more flexibility.

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▲ Terex

Terex's TA400 articulated truck improves upon the TA40 model with a host of operator-friendly features. The air conditioning system has been updated, and Terex has made the steering wheel more ergonomic. Key operating switches have been placed in locations within easy reach of the driver, and the cab is now quieter. The truck, powered by a Detroit Diesel Series 60, 14-liter engine, can handle a payload of 41.9 tons with a heaped capacity of 30.3 cubic yards. With a four-bar trailing arm suspension, the TA400 can reach a speed of 37.3 mph.

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◀ Wacker Neuson

Nominated for a Bauma Innovation Award, the 7-metric-ton DPU 130 vibratory plate compactor from Wacker Neuson delivers 130 kilonewtons (29,225 pounds) of centrifugal force. Because the DPU

130 is remotely controlled, hand-arm stress from vibrations is virtually eliminated, and the machine automatically switches off if a person comes within two meters. With a base plate design that comprises two base plates and separate, fully hydraulic exciters, the vibratory plate compactor can turn sharp corners and maneuver in tight spaces.

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Komatsu

The 21-metric-ton D65WX-16 dozer from Komatsu is equipped with an automatic gearshift transmission and a full automatic lock-up torque converter, which can reduce fuel consumption by up to 10 percent, Komatsu says. The dozer includes an improved SIGMA Dozer blade with lateral edges that help push rolling material to the center. A newly designed cab sits on spring and damper mounts to suppress vibrations.

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Liebherr

Expanding Liebherr's line of telescopic crawler cranes, the 60-metric-ton LTR 1060 features a 40-meter telescopic boom extendable by another 9.5 to 16 meters with a double swing-away jib. The crane was designed for off-road work, maintaining high maneuverability and short set-up times, Liebherr says. It was also built with economical transport in mind with axle loads that weigh less than 12 metric tons, travel gear that can be telescoped in to 3 meters, and a crane height as low as 3.15 meters.

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INDUSTRY NEWS

CARB Postpones Enforcement of Off-Road Emissions Regs

With a construction industry beset by state-wide economic depression – and facing AGC proof that the downturn has already slashed off-road-equipment emissions more than amply to meet regulators' clean-air goals – the California Air Resources Board has postponed enforcement of its emissions regulations for off-road diesels.

Air Resources Board Executive Officer James N. Goldstene issued the following statement:

"Over the last several years, the construction industry has felt the sting of the faltering economy with reduced activity and idled off-road equipment. This has made it difficult for contrac-

tors to pay for required clean-air upgrades to their fleets. Along with this reduced construction activity has been a corresponding reduction in construction emissions.

"Because of this, ahead of a March 1, 2010, compliance deadline, ARB will issue an enforcement advisory to notify all stakeholders affected by the off-road equipment regulation that, effective immediately, and until further notice, no enforcement action will be taken for noncompliance. In addition, on March 11 an Executive Officer hearing will be held where stakeholders may testify on the question of whether the off-road regulations should be further modified to account

for the down economy and subsequent emissions reductions. That information will be included in an already-scheduled update to the full Board at its April meeting.

"ARB will continue to evaluate the impact of the recession on emissions from all sources and make adjustments to our regulations as needed. However, the health of all Californians requires that all industries continue to use the cleanest, most efficient equipment possible. Clean air is not a luxury – it is a right. We need to continue to work toward goals that save us all money in healthcare costs, lost work and school days, and contribute to our quality of life."

MANUFACTURER NEWS

Caterpillar Unveils Tier 4 Strategy

Caterpillar's new Clean Emissions Module (CEM) will be integrated into its ACERT engine range to enable the company to meet Tier 4 Interim and Tier 4 emissions targets. The aftertreatment unit will be added to all 14-plus engine platforms and integrated into all 300-plus models.

The first five Tier 4 Interim engines are the C13, C15, C18, C27 and C32.

The additional hardware will be engineered within each machine's envelope, with nothing mounted outside, Cat officials say. Chief technology officer Tana Utley says the modules were "designed with the machine in mind," so all packages will fit inside the envelope.

No machine designs have been finalized, but Caterpillar showed members of the trade press a field-follow 336E excavator incorporating one of several "builds" of the new engine configuration. About 12 inches were added to the top of the engine compartment, allowing Cat to put the CEM on top of the Tier 4 Interim diesel. The engine canopy was perforated to allow more air flow. A three-piece radiator replaced the stacked setup currently in the D model.

VP Rod Beeler declined to say when the first Tier 4 machine

would be introduced, but he says a version of the 336E will be shown at Bauma in April.

Caterpillar has not finalized its Tier 4 Final solution and did not rule out an SCR aspect. Utley says the CEM was designed for bolt-on NOx-reduction technology, regardless of the final decision.

With more than 300 machines in its lineup, Caterpillar will redesign each one to incorporate the CEM. Utley says the module will eventually be its own product line, with fewer than 100 models in the family. Units will be designed for multiple products.

The 300-plus products to be introduced during this Tier 4 rollout will be the largest in the company's history. The investment, Cat officials say, eclipses the \$1 billion spent on developing ACERT.

Caterpillar will recover those emissions-related costs through machine price increases averaging 12 percent over the three-year rollout. Yet, says Jim Parker, vice president, Americas distribution, that does not mean each machine will increase 12 percent. Through a set of complicated EPA "flex" rules that allow OEMs to adjust pricing by volume of machine type, Caterpillar intends to adjust price increases according to machine categories.



INDUSTRY NEWS

Long-time Publisher Dies

Bob DeFreitas, former publisher of *Construction Equipment*, passed away on Jan. 29. He was 85.

DeFreitas took over as publisher in 1968 and ran the magazine until his retirement in 1990. He is widely credited for bringing *Construction Equipment* into its current market-leading position. Mike Porcaro, DeFreitas' successor as publisher, told the Chicago Tribune, "Under Bob's leadership, the magazine's circulation skyrocketed and its advertising revenue soared. He made it what it is today."

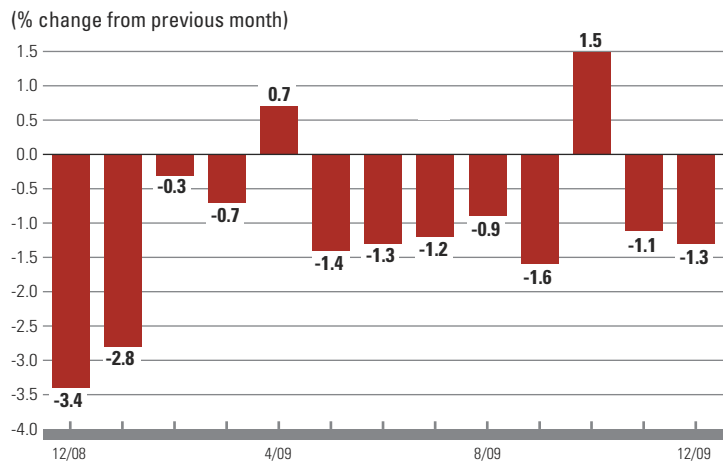


In the 1980s, DeFreitas spearheaded the magazine's "Rebuilding America" campaign for infrastructure renovation, highlighted by a personal meeting with President Ronald Reagan. The series won several major editorial awards.

DeFreitas served on the board of directors of the Construction Industry Manufacturers Association, the predecessor group of the Association of Equipment Manufacturers. He served as treasurer and was promotion committee chair for the 1987 and 1993 Conexpo equipment expositions.

STATUS & FORECAST TOTAL CONSTRUCTION SPENDING

Construction spending is still declining, but the 1-percent-plus drops in the last two months overstate the pace of decline. A further decline of 1 to 2 percent is expected into the spring in addition to the 22 percent cumulative fall so far. Expansion will resume in home construction after the year-end pause. Rising starts in recent months signal that the non-residential building plunge is over. However, the recession has finally reached heavy construction, which has begun to slip lower.



MANUFACTURER NEWS

Volvo Partners Up on Compact Loader and Road Machinery

JCB and Volvo Construction Equipment have agreed to share duties in producing skid steer loaders and compact track loaders for distribution under their respective brands.

As part of the partnership deal, Volvo will adopt JCB's mono-boom design for both types of loaders, according to Karen Guinn, communications manager with JCB.

"Volvo customers will benefit from a wider range of models that maintain the high level of product safety and functionality that they expect," says Volvo president Olof Persson.

In another deal, VT LeeBoy will supply certain models of road machinery, such as an upgraded RW100 road widener and PF150 paver, for Volvo's Blaw-Knox brand. The agreement would allow Volvo to focus more on high-volume paving, compaction and motor grader equipment.

Production is expected to begin within the next few months at the LeeBoy production facilities in Lincolnton, North Carolina.

LeeBoy president and CEO Kelly Majeskie says while those models of pavers and road wideners would not undergo a complete redesign, they would likely incorporate ideas from both companies.

MANUFACTURER NEWS

New Parent Name for Kent, Furukawa Rock Drill

Gougler Industries, parent company of Kent Demolition Tools and Furukawa Rock Drill, has changed its name to Furukawa Rock Drill/USA. According to Jeff Crane, the company's vice president, "This change will not have any other effect on employment or the way our divisions will operate. The change will be seamless to our customers." For more information, visit frdusa.com.

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MANUFACTURER NEWS

Integrated Mixer Trucks, More Dealers Follow Navistar's Purchase of Continental

Integrated mixer trucks and an expanded dealer body were announced by Navistar International Corp. following its December acquisition of Continental Manufacturing Co. International WorkStar and Pay-



Integrated mixer trucks will combine Continental bodies with International PayStar 5000 (shown) and WorkStar 7000 chassis. Navistar plans 30 additional outlets to sell and service for Continental products, up from the current five.

Star chassis equipped with Continental rear-discharge drums will come ready to work, while Navistar plans new outlets for the bodies themselves and has given the company a new name — Continental Mixers LLC. Products will continue to be sold under the Continental/CBMW names.

At the World of Concrete show in Las Vegas, Navistar executives also announced improvements to their International vocational trucks; said their new 14.9-liter MaxxForce 15 diesel would be released in October; and claimed increased shares of several medium- and heavy-truck segments in 2009.

The integrated mixers will save customers about three months versus ordering a truck chassis and mixer separately, even if they would probably cost about the same, says Jim Hebe, senior vice president for North American sales operations. They will join integrated dump trucks already offered

in the vehicle lineup.

WorkStar's Diamond Logic multiplexed wiring system will be tied into electronic controls on Continental bodies, allowing several automatic functions that will prevent damage and possibly injuries to operators, says Steve Guillaume, a Navistar executive who now acts as Continental's general manager. Systems will warn drivers of unstowed equipment, and automatically lower the mixer's loading funnel and turn off work lights when vehicle speed reaches 10 mph. PayStar trucks don't have the multiplexed wiring, but the automatic func-

tions could be added through other electronic means, Hebe says.

To expand sales of Continental's mixer bodies, Navistar plans to qualify 30 of its American and Canadian dealers familiar with the construction market so they can also stock parts and service Continental bodies as well as the trucks they're on, Guillaume says. They'll join five Continental distributors now in the Southeast. Navistar will retain Continental's managers and workers and will keep the company's headquarters in Houston, Texas.

Executives also listed changes and improvements to International vocational truck series. For the WorkStar, these include:

- Heavy-duty 7600 and 7700 models are combined into one model with two variations, 7600SBA (46-inch set-back axle) and 7600 SFA (30-inch set-forward axle). Both models will feature a new 113-inch bumper to the back-of-cab length that includes

higher-capacity cooling modules.

- A crew cab configuration is available in WorkStars with front axle ratings up to 18,000 pounds.
- All-wheel drive capability is now available with front-driving axles of up to 18,000 pounds capacity on models with mid-range diesels.
- Steerable 20,000-pound lift axles are available direct from the factory.
- Corrosion-resistant, lightweight aluminum fuel tanks are now standard.
- The HVAC system has been redesigned to improve in-cab comfort and system reliability.

For International PayStar models:

- Electronic stability control is now optional.
- 8,000-, 13,200- and 20,000-pound lift axles are now available direct from the factory.
- New 10.25-x3/8-inch frame rails are now standard on the PayStar 5900 SBA.
- MaxxForce 11 and 13 diesels will be used in PayStars in the months ahead, while the new MaxxForce 15 will be available in October of this year.

MaxxForce diesels with Advanced Exhaust-Gas Recirculation need no urea-injection exhaust-aftertreatment equipment, which saves considerable bulk and makes an International truck about 400 pounds lighter than competitors with engines with selective catalytic reduction, Hebe says.

He and other executives think truck buyers signaled their approval of Navistar's engine strategy by purchasing more Internationals in the last six months of 2009. In that period, Navistar's share of the severe-service market rose from 34 to 44 percent. Its medium-duty share went from 35 to 54 percent, while its share of highway tractors went from 24 to 28 percent.

— TOM BERG

ASSOCIATION NEWS

Equipment Makers Call for Infrastructure Investments

The Association of Equipment Manufacturers (AEM) in late January met with key senators to discuss the role of infrastructure investment in spurring job growth in both the construction industry and manufacturing sector.

Speaking at a press conference following the meeting, AEM president Dennis Slater urged senators to continue to focus on creating a multi-year transportation bill even as Congress begins a push to meet President Obama's demand for legislation that would produce jobs as soon as possible.

"We must have a multi-year funding commitment to provide market certainty, so planners can plan, and business can invest," Slater said. "This is how the private sector creates jobs."

MANUFACTURER NEWS

Cat Rehiring Decatur Workers

After letting go thousands of workers in 2009 as equipment shipments declined, Caterpillar has begun to rehire some employees. So far, the company has brought back at least 500 workers, many of whom returned to production lines at Cat's Decatur facility. Caterpillar cut more than 19,000 full-time jobs and about 18,000 part-time, contract and agency positions last year.

GIANTS

AMECO Wins Safety Award

AMECO was presented with the Industry Leader Award for achieving the best safety performance in its category at the National Safety Council's 2009 Safety Congress and Expo. In addition, AMECO was honored with the Perfect Record Award, the Million Hour Award, the National Safety Achievement Award and the Safety Leadership Award. AMECO qualified in the construction, mining, forestry machinery, and equipment leasing and rental category of the North American Industry Classification System (NAICS). AMECO is currently at 29.4 million work hours without a lost workday case.

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**CONSTRUCTION
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By MIKE ANDERSON, Senior Editor

California Equipment Manager **Clears the Air**

Under Portable Equipment Registration Program (PERP),
small equipment becomes a big job for Valley West
Construction's Bill Edwards

In this green-friendly time, the observations of Bill Edwards may not exactly be politically correct. And, uttered often over the past few years particularly by fellow California earthmoving contractors just trying to work, the words could be described as cliché.

Then again, clichés by their very nature are based on statements of fact: "It's all the same air we're breathing."

Edwards, an equipment manager with the privately held heavy-utility contractor Valley West Construction Co. headquartered in Campbell, Calif., was closing out 2009 faced with having to dispose of items he had registered under the statewide Portable Equipment Registration Program (PERP), a years-long journey that itself has left him at times confused, frustrated, humored and angry.

"The slugging trailers will probably go into the scrap heap, and the air compressors will probably be auctioned off and they'll probably end up out of state – which is the other stupid thing: A guy can buy this, take it up to Oregon just the other side of the border, and run it totally free of any restrictions at all," says Edwards. "It's all the same air we're breathing. It's unfair."



As of Dec. 31, “simply because the interim time period has expired, we will no longer be able to operate these 12 small items in the state,” Edwards was saying just prior to Christmas. “So, in 2010, we’re looking at spending approximately \$120,000 just to be able to operate at the same level. The pieces that I’m having to dispose of are still totally good, viable units. They probably on the average have between 1,600 and 2,200 hours on them, and typically we would operate these air compressors until they had in the neighborhood of 7,500 to 8,000 hours. So, we’re losing about three-quarters of the useful life, strictly due to a regulation. It isn’t, you know, ‘When it wears out, you have to replace it with something certified.’ This is, ‘After such and such a date, this just has to go!’”

Back in the summer of 2008, Edwards had an understanding, albeit frustratingly so, that the scenario just might turn out this way. “You’ve got to have a certified engine powering, whether it be an air compressor, generator, pump or whatever it is. Well, they either have to be certified or under 50 horsepower,” he was saying then. “About half of my fleet doesn’t have certified engines in them, and they’re still totally usable air compressors.

Probably the average hours on each is between 2,000 and 3,000 hours . . . and that thing’s still in the prime of its life.

“I’m all for clean air and everything, but I’m afraid I’m going to starve to death. We’re going to be spending everything on equipment.”

Playing in good faith within PERP has made Edwards, at times, feel like a perp. “We were extremely proactive. We signed up early, paid the money and all of that stuff. And then the state, because of the poor response, granted a lot of fleets amnesty, and said, ‘Well that deadline really didn’t count, so here’s a new deadline.’ So, they allowed all the people who didn’t sign up to actually get away with it,” he says. “In a bid scenario, our prices are higher because of this program, and we have to compete with people who aren’t in the program, which gives them an automatic advantage. And here we are trying to be proactive and environmentally conscious, and it makes it really hard. I would have preferred that the state treated everybody the same. You’re either in by the 31st or you’re out . . . instead of granting extension after extension.”

And the road to clean air just, apparently, keeps finding detours. In a November 2009

In a November 2009 public workshop, the California Environmental Protection Agency’s Air Resources Board outlined an extension for non-certified engines – from the then deadline of Jan. 1, 2010 – for owners of 25 or less of the 50-horsepower-and-up engines covered under PERP.

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RUNNING GREEN

public workshop, the California Environmental Protection Agency's Air Resources Board outlined an extension for non-certified engines – from the then deadline of Jan. 1, 2010 – for owners of 25 or less of the 50-horsepower-and-up engines covered under PERP. "I'll quote the state," Edwards says, and consistently so with a PowerPoint presentation from the workshop that is posted online at the state's www.arb.ca.gov/portable/portable.htm website. "The state told me that they are allowing operations of these uncertified engines, which are these 12 that I need to get rid of now. If your fleet is less than 25 units, if you apply they will grant an extension."

And that opportunity brought up one of the biggest ongoing bones of contention with PERP.

"There again, I posed the question, 'Well, what about the local level?'" says Edwards. "And their answer was that, 'Well, they hoped that the people at the local level understand.' That shows how the left hand is not in sync with the right hand at all."

PERP walk

To understand PERP's "little local problem," Edwards takes us back to when he was introduced to the voluntary program.

The various districts throughout the state were, with authority, issuing permits for the legal operation of diesel-powered equipment within their individual jurisdictions, causing administrative nightmares and cost expenditures for fleet managers. "How long would it be in that particular area, and is it there long enough to apply for a permit over there? Or do we need to take it out of this area and move it to another?" recalls Edwards of the daily questions he needed to ask. "So, the state said, 'Well, this portable equipment program will do away with all of that. You just have to have this one number. If you're in the program, that will supersede the requirements that all the local areas had.'"

"Well, that's what they said when we signed up. Turns out that is not entirely the case. Now, I think, had I to do this over again knowing what I know now, I probably wouldn't be in the program," says Edwards. "We haven't had a problem, but now in all of



the correspondence that I've had with the state, they are very careful to point out, clearly, that we still do have to comply with not only the state's regulations, but also we have to comply with the people at the local level. And that's exactly what this program was supposed to take away."

It's all about following the money, he says. "As far as it not being universally recognized, that was I think more a function of the local districts not recognizing it. The people who are in charge of this program don't have any authority over the local districts. Especially with the slowdown in the economy, the local people aren't funded to the extent they used to be, so they are seeking all of the additional funding through fines and such. That is really not the fault of the operators of the state program, although I would have preferred they all got on the same page before they passed the regulations."

And tempting fate is not a viable option, says Edwards, noting that along with their own mandate and desire to do what's plain right for the world, West Valley and other construction companies in central California operate under the watchful eyes of environmentally conscious residents. "For the state to tell us, 'Well, we hope that they don't make a problem,' there isn't any security in that," he says, "especially when the local level is starving for funds."

Back in the summer of 2008, Edwards

"A lot of equipment manufacturers are now putting 49-horsepower engines in the air compressors, so those are exempt," says Bill Edwards, equipment manager with the privately held heavy utility contractor Valley West Construction Co.

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RUNNING GREEN

was considering himself as being fortunate, that he could, as he thought, be out in front of the issue. "This thing is really complex. Fortunately for us, we're big enough and I have enough help around here that I am able to put a lot of time into this thing to truly figure out what is the best course of action," he was saying then. "I'm sure there are people out there who say, 'Oh well, God, we've got to sell this equipment,' and then come to find out that maybe they should have held on a little bit. They end up hurt even worse."

About 18 months later, and fast approaching an expiration date for some of his own portable gear "so I've been trying to run the snot out of them here," he remains optimistic, but in a much less altruistic manner, wise to his PERP experiences. Moving forward, "I think it will be easier. A lot of equipment manufacturers are now putting 49-horsepower engines in the air compressors, so those are exempt." West Valley

Construction's compressors are used to power tools for such preparatory or complementary applications as tearing out sidewalk to reach an underground utility valve, digging in hard soil, and breaking out curb and gutter. "If we had to operate these things eight hours a day, every day, every week, I'd say they'd probably be a little underpowered at 49 horsepower," says Edwards. "But we operate them on the average less than three to five hours a day, and it isn't three to five hours straight. It's an hour here, 30 minutes there, an hour at the next site, so they have some time to rest."

"So, unless they change the qualifying power rating, we'll be eventually out of the statewide program," he says with brief relief. "But we'll still have to deal with everything at the local level." 

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Resplendent in bright-blue paint, the beefy dump truck was driven on a pleasant late-summer day at KW's plant in Chillicothe, Ohio. Beau-Roc in Illinois set it up to haul sand, gravel, stone and dirt, and for snow plowing and salting.

Hands-On Trucking

By TOM BERG, Truck Editor



Kenworth Aims T470 at Vocational Work

'Tis the season to be plowing, and this premium Baby 8 has just the right stuff to handle the job

Some folks who live in the northern tier of states like to say that “we have two seasons — winter and construction.” They presumably eat yellow snow and have rocks in their heads because they think you’ve never heard that very old funnyism before. If they had real brains they’d visit the nearest Kenworth dealer to check out one of the builder’s latest products that’d be very effective at handling both seasons, the T470.

You could call this beefy looking conventional a heavier-duty T370, heretofore KW’s strongest Class 7 truck, or a lighter-duty T800, its husky Class 8 model. But in

fact, the T470 bridges the gap between the two. It’s what people at Paccar, the corporate parent of Kenworth and Peterbilt, describe as a “heavy 7,” and what others term a “Baby 8.” It’s got a midrange-size power train that reduces the cost of a heavy-duty chassis built to do some serious work.

A base T470 is rated at 33,000 pounds, just a pound shy of Class 8, but most 470s will be rated at over 33,000, with heavier frames, axles and suspensions, like our bright-blue test truck. Its gross vehicle weight rating was 66,000 pounds, as it had 46,000-pound tandem rear axles and a beefy 20,000-pound



SPECIFICATIONS

Truck: 2008 Kenworth T470, conventional Extended Day Cab, BBC 123.5 inches + 22.5-in. forward frame extension, GVW 66,000 pounds

Engine: EPA 2007 Cummins ISL w/FEPTO (front engine power take-off), 345 hp @ 1,600 rpm/1,150 lb-ft @ 1,300 rpm, w/Jacobs Engine Brake

Transmission: Allison 3000RDS 6-Speed w/4th Generation shift controls

Steer Axle: 20,000-lb. Dana Spicer D2000 20K w/TRW TAS65 dual hydraulic power, on 22,000-lb. Taperleafs w/ shock absorbers

Rear Axles: 46,000-lb. Dana Spicer D46-170H, on 46,000-lb. Chalmers 854-46-H-HS 46K walking-beam, w/6.14 ratio

Wheelbase: 220 inches

Brakes: Bendix ES S-Cam w/Bendix ABS

Heavy-duty midrange Cummins ISL hides behind piping. Frame rail extensions accommodate front-engine PTO and plow mount, and grille stays upright when hood is tilted. Optional Extended Cab adds 6 inches of length and 5 inches of height to a standard daycab, and drivers will appreciate the extra leg, belly and head room.

rear-set steer axle designed to take the weight of any payload plus that of a 10-foot steel snow plow.

Two engines are available: Paccar's 8.3-liter PX-8 (a private-branded Cummins ISC), and Cummins' heavy-duty 8.9-liter ISL, which is what this truck had. Both fit well under the roomy hood. The T470's standard fixed grille stays vertical as the hood tilts down around a plow's hoist hanger and

pump (one of the differences between it and the new T440, whose grille tilts with the hood).

This truck's frame rails were the standard 3/8-inch steel, 10-3/4 inches high with 3-1/2-inch webs, but with full-length inserts. Taller rails are optional, and they'd eliminate the inserts and the between-channel corrosion that can form. A pusher axle is another factory option, though then the steer axle would be of lesser capacity because a T470's GVW rating cannot exceed 68,000 pounds.

Like other KW conventionals, the T470 has a stout aluminum cab with doors hung on piano hinges. It features large windows, a "big-rig" in-

strument panel and air-ride driver's seat. Almost nothing in it looks "automotive" except the steering wheel, and its four smoothly contoured spokes provide a place to comfortably rest your hands while cruising. The steering column tilts and telescopes so you can get the wheel just right. The cab is narrower than some competitors offer, but few "plow trucks" carry a second person.

On this trip I did have a passenger, Jared White, Kenworth's Chicago-based Great Lakes regional sales manager. He met me at KW's assembly plant in Chillicothe, Ohio, to brief me on the test truck, which had been upfitted with the dump bed and other equipment at Beau-Roc over in Illinois. Even with several tons of crushed stone in the bed, the truck got a-bouncin' on a stretch of bowed concrete on our route over state and U.S. highways to Athens, about an hour east of "Chilli," but the ride otherwise was orderly, the steering rather precise and noise levels low.

We cruised through the campus of Ohio University (not to be confused with Ohio State U in Columbus), and I remarked that the view through the big windshield and side windows and over the sloped hood allowed me to spot everything easily. The truck turned rather sharply for having big "duplex" tires up front, and I could go from curb lane to curb lane in a right turn at a street corner — impressive.

One thing bothered me, though: Early in the run I had to look to see where the brake pedal was so I wouldn't miss it with my right foot. While waiting at a red light in Athens, I noticed that I had to press down really hard on the pedal to overcome the torque coursing through the Allison automatic, so I punched it into Neutral. My legs were at an almost 90-degree angle because the smallish cab forced the seat close to the controls, same as in a T170 that I had previously driven and complained about.

But wait — the T470's cab had the optional 6-inch extension, and I realized that I could slide the seat farther back. When I did I could stretch my legs more, so could bring my body weight to bear on the brake pedal, which now also seemed better positioned on the floor. Moving the seat back improved the seating position and my comfort by about 1,000 percent, and I'm not tall. If you're going to buy a non-sleeper KW, get the Extended Cab (alas, it's not available in lighter T-series trucks, but should be).



Plow and sander controls are between the seats, and Allison selector pad is on the console. Handsome instrument panel is a recent redesign. Cab is quiet and doors must be slammed to close when windows are up — a sign of stoutness and good sealing.

That strong low-end torque, as much as 1,150 pounds-feet of it, came from a 345-horsepower version of the Cummins ISL (a 365/1,250 rating is also available), which supplies plenty of power for whatever work a truck like this will do. The 6-speed Allison 3000RDS did much of the driving work and would've eased plowing snow or spreading gravel, had I been told to tackle such tasks. Those are among the reasons that most municipal fleet managers went to Allisons years ago.

If you're a budget-constrained manager — and who isn't these days — you might think a "pricey" truck like a Kenworth is out of your reach. However, you'd see value and long life in the corrosion-resistant aluminum cab and other premium manufacturing details, and could argue for them in discussions with elected officials who must dole out limited tax revenues. Besides, everyone's dealing now and you might be surprised at how competitive KW's pricing can be. Indeed, KW has reported some orders for the T470, and some will be painted "muni" red, yellow and orange. But they'll paint it any color you'd like.

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Larger Selection

Drives Big Skid Steer Interest

Skid steers no longer only serve utility needs, but rather increasingly meet demands for 'big-machine' performance, features and comfort

The evolution of the large skid steer loader from utility- to production-caliber machine, as trumpeted in the Buying File profile of April 2008, is seemingly stepped up each and every time a manufacturer rolls out a new series since. It's not necessarily that the equipment type is physically getting bigger, because the established largest four individual models in the market remain as such. It's rather that manufacturers are quite frankly making their skid steers more efficient, more comfortable and more productive places in which to work. And the market seems willing to pay a price.

According to figures from EquipmentWatch.com, skid steers with a rated operating load or rated operating capacity of 2,201 pounds and up increased more than 22 percent in list price overall in the less than two years since the last Buying File coverage. At the dawning of 2010, a skid steer rated from 2,201 to 2,700 pounds sold for an average \$43,327; a larger machine went for an average \$46,355. Increases are undoubtedly in part attributable to mandated engine upgrades, but fancier operator digs offered up by manufacturers are in the mix, too.

The biggest of the big boys remain. According to figures compiled and verified by Spec-Check.com, the behemoth 99-horse-

power Gehl 7810E and brother Mustang 2109 top the field with rated operating loads of 3,850 pounds, followed by the Bobcat S330 at 3,300 pounds, and the Caterpillar 272C at 3,250 pounds (increasing to 3,480 pounds with optional counterweight).

Paternal industry brand Bobcat, already offering the K-Series S250, S300 and S330 vertical-lift-path skid steers rated at 2,500, 3,000 and 3,300 pounds, respectively, added a new vertical-lift model to the large-machine mix in 2009, as part of the all-new M-Series of compact loaders and excavators. The 2,690-pound-rated S650, following the lead of the

Cost of Ownership

| Rated Operating Load | List Price | *Hourly Rate |
|----------------------|------------|--------------|
| 2,201 - 2,700 pounds | \$43,327 | \$33.21 |
| 2,701 pounds and up | \$46,355 | \$35.09 |

* Hourly rate is the monthly ownership costs divided by 176, plus operating costs. Unit prices used in this calculation are diesel fuel at \$2.73 per gallon, mechanic's wage at \$47.49 per hour, and money costs at 4.875 percent. Source: EquipmentWatch.com, phone 800/669-3282



As part of the new D-Series, John Deere's larger skid steers – including the 328D shown here working a Deere RL84 roller level attachment – not only have increased rated operating loads, but also new operating stations with increased space and visibility. It is a response, says Deere, to market demands for "big-machine" features.

Buying File: Skid Steer Loaders

similar-framed and -powered but lighter-lifting radius-lift-path S630 (rated at just under 2,200 pounds), incorporates a cab-forward design that comfortably sits the operator closer to the work area. A larger cab door with a lower threshold and 40-percent additional surface further enhances visibility, and makes it easier for operators to enter and exit. The new cab

design, pressurized with a new one-piece seal, also features larger rear, top and side windows. New engine mounts improve isolation, decreasing vibration and sound levels, the latter cut by more than 60 percent, according to Bobcat. "I don't know why you'd want to get out of the machine," says Rob Gilles, marketing manager.

Compared to models in Bobcat's

pre-existing K-Series family, the 74.3-horsepower S630/S650 skid steers are about six inches shorter, but hydraulic horsepower has been increased more than 15 percent, says the company. Standard auxiliary flow on the debut M-Series machines is 23 gallons per minute; optional high flow reaches 30.5 gallons per minute. A new removable hose guide correctly routes

Skid-Steer Specifications (2,200-pound rated load and up)

| Model | Rated Operating Load (lb.) Standard / Counterweight | Height to Bucket Pin | Bucket Breakout (lbf) | Engine Make/ Model | Net Engine Output (hp) | Pump Flow (gpm) Standard / Optional | Operating Weight (lb.) |
|---------------------------|--|-------------------------|--------------------------|------------------------|---------------------------|--|---------------------------|
| Bobcat S220 (Tier 3) | 2,200 / 2,300 | 122.4" | 6,550 | Kubota V3800-DI-T-E3CB | 71.7 | 20.7 / 37 | 7,483 |
| Case 435 Series 3 | 2,200 / na | 120.0" | 6,300 | Case 432T/M3 | 77 | 23.8 / 33.2 | 6,780 |
| Case 440 Series 3 | 2,200 / na | 121.6" | 6,207 | Case 445T/M3 | 83 | 21.9 / 37.8 | 7,040 |
| Gehl 5640E (Tier 3) | 2,200 / 2,500 | 123" | 5,900 | Yanmar 4TNV98T | 84 | 23 / 36 | 7,880 |
| Mustang 2076 | 2,200 / 2,500 | 123" | 5,820 | Yanmar 4TNV98T | 84 | 21.5 / 36.9 | 7,480 |
| New Holland L180 (Tier 3) | 2,200 / na | 126.8" | 6,034 | FPT F5C E9454 | 69 | 21 / 35.8 | 7,130 |
| Bulldog B8250 | 2,204 / na | 125" | na | Perkins (na) | 80 | 28 / na | 8,267 |
| Caterpillar 256C | 2,350 / 2,566 | 122.9" | 7,328 | Cat C3.4 DIT | 82 | 22 / 33 | 7,665 |
| Doosan 460 Plus | 2,391 / na | 122.3" | 4,678 | Yanmar 4TNV98-ZNDS | na | 21.7 / 32.3 | 6,899 |
| Volvo MC110B | 2,400 / na | 119.7" | 5,575 | Volvo D3.4D (Turbo) | 83.5 | 21.4 / 28.5 | 7,491 |
| Case 450 Series 3 | 2,450 / 2,650 | 124.5" | 7,213 | Case 445T/M3 | 83 | 21.9 / 41.8 | 8,630 |
| Bobcat S250 (Tier 3) | 2,500 / 2,600 | 128.8" | 6,840 | Kubota V3800-DI-T-E3CB | 71.7 | 20.7 / 37 | 7,825 |
| Case 445 Series 3 | 2,500 / 2,750 | 122.4" | 7,400 | Case 432T/M3 | 77 | 23.8 / 33.2 | 8,120 |
| Caterpillar 252B Series 2 | 2,500 / 2,550 | 126" | 5,508 | Cat C3.4 DIT | 71 | 22 / na | 7,861 |
| Doosan 470 Plus | 2,500 / na | 122.3" | 4,678 | Cummins B3.3-T | na | 21.7 / 32.3 | 7,478 |
| New Holland L185 (Tier 3) | 2,500 / na | 126.8" | 7,670 | FPT F5C E5454 | 77 | 21 / 35.8 | 7,135 |
| Thomas 250 | 2,500 / 2,600 | 123.8" | 4,450 | Kubota V3300-T | 83 | 21 / 40 | 8,000 |
| Thomas 255 | 2,500 / 2,600 | 123.8" | 7,000 | Kubota V3300-T | 83 | 21 / 40 | 8,000 |
| JCB 1110 Series II | 2,535 / na | 123" | 5,732 | JCB Dieselmex TC-68 | na | 21 / 35.7 | 8,420 |
| John Deere 326D | 2,600 / 2,750 | 125" | 7,750 | John Deere 5030HT | 70 | 21 / 33 | 8,125 |
| Gehl 6640E (Tier 3) | 2,600 / 2,900 | 124.3" | 5,900 | Yanmar 4TNV98T | 84 | 23 / 36 | 8,140 |
| Mustang 2086 | 2,600 / 2,900 | 123" | 5,820 | Yanmar 4TNV98T | 84 | 21.5 / 36.9 | 7,900 |
| Komatsu SK1026-5 | 2,650 / 2,850 | 128.3" | 5,400 | Komatsu S4D98E-2NFD | 84 | 21 / 34 | 8,068 |
| Bobcat S650 M-Series | 2,690 / na | 124" | na | Kubota V3307-DI-T | 74.3 | 23 / 30.5 | 8,327 |
| Caterpillar 262C | 2,700 / 2,945 | 127" | 7,315 | Cat C3.4 DIT | 82 | 22 / 33 | 7,968 |
| Gehl V270 | 2,700 / 3,000 | 130.3" | 5,795 | Yanmar 4TNV98T-ZNMS | 84 | 21.75 / 36.9 | 8,000 |
| Mustang 2700V | 2,700 / 3,000 | 130.3" | 5,795 | Yanmar 4TNV98T-ZNMS | 84 | 21.75 / 36.9 | 8,000 |
| John Deere 328D | 2,800 / 2,950 | 127" | 10,300 | John Deere 5030HT | 80 | 21 / 35 | 8,400 |
| New Holland L190 (Tier 3) | 2,800 / na | 127.6" | 7,670 | FPT F4G E9454 | 83 | 21.9 / 37.3 | 7,765 |
| Bobcat S300 (Tier 3) | 3,000 / 3,100 | 128.8" | 6,840 | Kubota V3800-DI-T-E3CB | 77.7 | 20.7 / 37 | 8,268 |
| Case 465 Series 3 | 3,000 / 3,200 | 125.5" | 7,400 | Case 445T/M3 | 83 | 21.9 / 41.8 | 8,875 |
| John Deere 332D | 3,200 / 3,350 | 127" | 13,875 | John Deere 5030HT | 89 | 25 / 38 | 9,170 |
| Caterpillar 272C | 3,250 / 3,480 | 129.1" | 7,315 | Cat C3.4 DIT | 90 | 22 / 33 | 8,362 |
| Bobcat S330 (Tier 3) | 3,300 / na | 130" | 5,800 | Kubota V3800-DI-T-E3CB | 83.8 | 20.7 / 37 | 9,185 |
| Gehl 7810E | 3,850 / na | 142" | 8,340 | Cummins B4.5T-99C | 99 | 29 / 41 | 10,520 |
| Mustang 2109 | 3,850 / na | 142" | 8,340 | Cummins B4.5T-99C | 99 | 29 / 41 | 10,520 |

Source: Spec-Check.com Expanded Specs (as of January / 10)



The vertical-lift 465 Series 3 is the largest skid steer offered by Case. Pilot controls for all skid steers are available from the factory in either "H" or ISO patterns.

hydraulic hoses, preventing hose wear and facilitating easier attachment changing. Other enhancements include 15- to 20-percent more tractive effort for pushing and digging power, 50-percent more lighting output for night work, and built-in holes for frame-mounted counterweights to increase lifting capacity. Selectable joystick controls are available.

Powered by Kubota V3307 direct-injection, turbocharged engines, the 74.3-horsepower skid steers and the corresponding T630 and T650 track loaders are only the beginning, says Bobcat. "The M-Series machines will be throughout the entire product line over the next two years," says Mike Fitzgerald, loader product specialist.

Last fall, John Deere used the International Construction and Utility Equipment Exposition (ICUEE) in Louisville, Ky., as the backdrop to introduce the D-Series compact loaders, including the 326D, 328D and 332D vertical-lift skid steers rated at 2,600, 2,800 and 3,200 pounds, respectively. The previous 325, 328 and 332 models were rated at 2,500, 2,750 and 3,175 pounds, respectively, making the production capabilities of the new machines noteworthy, but that's only a fraction of the story, says John Deere.

"Customers have been asking us for more comfortable cabs similar to those found on larger pieces of Deere equipment, so we've introduced an




Incorporating some of the most significant design changes in the long history of Bobcat, the M-Series rolled out last summer includes the vertical-lift M650. A cab-forward design brings the operator closer to the work area and provides better overall visibility for the operator.

all-new operating environment," says Gregg Zupancic, product marketing manager for skid steers and compact track loaders. The positively pressurized D-Series cabs feature 24-percent more room, including six more inches of headroom, and are easier to get in and out of due to a larger door opening. "Even with all the changes, visibility to the work is better than the industry-leading visibility on the previous-generation 300 Series machines," says Zupancic. A claimed 50-percent noise reduction in and around the cab comes from several sources beyond mere sound absorption, including a hydraulic fan drive, an auto idle feature, and the new electronically controlled John Deere 5030HT engines. A high-performance HVAC system includes eight adjustable air-flow vents for additional comfort.

"Operators asked us why they can't get more 'big machine' features in skid steers, in addition to the bigger, more comfortable cab," says Zupancic. "We think they're right, and that's why we've responded with items like the auto idle, an optional reversing hydraulic fan, and an innovative V-Plenum cooling system that provides significantly more cooling capacity and performance." V-Plenum cooling, first introduced on Deere four-wheel-

drive loaders, has coolers that are significantly larger and taller because they are side by side. They are protected from air-blown debris damage, since the fan is rearward of coolers; the fan is not blasting debris into coolers, but instead drawing or sucking air through coolers from the rear.

"Customers asked us if they could adjust the maximum speed and sensitivity of the boom and bucket when operating in a specific application. They also asked for a creeper mode to slow down wheel speed independently of the engine speed," says Zupancic. "So, we created the enhanced operator productivity option, called the EH Performance Package, where the operator can make adjustments to create a machine that perfectly fits his application or skill level." The electro-hydraulic package includes controls that can be switched from ISO to H pattern, the creeper mode in which the operator can set wheel or track speed in 10-percent increments of the unit's top speed, and boom and bucket metering with three different speed settings.

The large skid steer market is served by no fewer than 10 major manufacturers, most offering multiple model sizes, some including Case, Cat and Bobcat with both vertical- and radial-lift models in this size range. 

Gallery of Skid Steer Loaders

CATERPILLAR

Multiple Machines Available



Including the vertical-lift 252B Series 2 machine, each of four current Caterpillar skid steer models with a rated operating load over 2,200 pounds was introduced in 2007 and updated with the Tier-3 Cat C3.4 engine in 2008. More recently,

a laser-based AccuGrade system has been introduced for the radial-lift 256C (shown here) and vertical-lift 262C and 272C models, which collectively range 2,350 to 3,250 pounds in operating load. The sealed, pressurized C-Series cab offers a clean, quiet work environment for the operator, who has adjustable seat-mounted controls at his fingertips. Machine ride control and an air ride seat are available as options.

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KOMATSU

Full Power Won't Stall Out Unit

A long-wheelbase, vertical-lift skid steer rated at 2,650 pounds, the Komatsu SK1026-5 boasts 5,038 pounds of bucket breakout force. The 45-degree dump and 30-degree rollback of the hydraulically self-leveling bucket allow for faster dump cycles and better load retention. The machine also features two-speed travel up to 10 miles per hour, Komatsu's anti-stall hydraulic system, and low-effort Proportional Pressure Control joysticks. Auxiliary hydraulics with flat-faced connectors and a universal coupler allow use of competi-



tive attachments.

Optional Super Flow delivers 34 gallons per minute for high-flow tool use.

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BOBCAT

New Series, New Design

When Bobcat rolled out its newest product family in 2009, the paternal skid-steer maker unveiled among the most significant design changes it has ever undertaken. The M-Series, which includes the vertical-lift S650 (shown here) with a rated operating capacity of 2,690 pounds, features a cab-forward design that includes more seat adjustments, a larger door and increased windows as part of a pressurized cab. New engine mounts cut noise by more than 60 percent. Featuring increased standard hydraulic flow and pressure, the M-Series is in addition to Bobcat's full line of radial- and vertical-lift machines, topped by the 3,300-pound-rated S330.

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JOHN DEERE

'Big-Machine' D-sign Debuts

Meeting requests for "big-machine" features, John Deere rolled out its D-Series vertical-lift skid steers at ICUEE last fall with a completely redesigned operator station, boasting 24 percent additional space including 6 more inches of headroom. The three largest models, the 326D, 328D and 332D (shown here) rated at 2,600, 2,800 and 3,200 pounds, respectively, each boast increases in operating capacities over predecessor models. Operators can choose from standard foot control pedals, H-pattern hand control levers or electro-hydraulic (EH) joysticks. The optional EH Performance Package customizes machine performance for specific tasks.

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CASE

Roomier Work Stations for Models

With two models rated at 2,200 pounds, the vertical-lift 435 and radial-lift 440 (shown here), Case also offers three larger Series 3 machines topped off by the vertical-lift 465 rated at 3,000 pounds. The cabs available for all Case Series 3 skid steers introduced in 2008, including the vertical-lift 445 and radial-lift 450, feature a claimed 7-percent increase in headroom and 6-percent increase in lap-bar width, along with improved forward, side, rear and overhead visibility. Exterior side lighting provides nighttime visibility. Single-location daily service checks remain a hallmark of the line, and an "easy-tilt" ROPS design offers easy access to major components.

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JCB

Enhanced Model Gains Strength

Featuring the monoboom design with a left-side entrance exclusive to JCB, the 1110 Series II skid steer (shown here) offers a rated operating capacity of 2,535 pounds, up from the predecessor's 2,425 pounds. Among machine design improvements, the access door opens toward the rear, instrumentation is relocated for better line-of-sight visibility, and new joysticks provide enhanced control and multi-functionality. Increased standard and optional high-flow hydraulic pressure and flows boost cycle times, breakout force and hydraulic horsepower. The anti-stall Power Management system is on all Series II skid steers and track loaders from JCB.

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GEHL

Large Product Offering Expands

Introduced in 2009, the V270 (shown here) is an all-new Gehl skid loader with a rated operating capacity of 2,700 pounds, increasing to more than 3,000 pounds with optional counterweight. A heavy-duty vertical-lift design provides more than 130 inches of lift height to the V270, powered by a Yanmar 4TNV98T engine delivering 84 net horsepower. A version of the same engine, delivering identical output, was added in mid-2009 to the established 2,200-pound-rated 5640E and 2,600-pound-rated 6640E models. Topping the E-Series is the 99-horsepower 7810E, boasting rated capacity of 3,850 pounds with its vertical-lift Powerview boom.

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MUSTANG

Reaching for New Heights

As a sister product line to Gehl, Mustang likewise launched a new skid steer model last summer. With its standard rated operating capacity of 2,700 pounds, the 2700V (shown here) is positioned to meet needs between the 2086 and 2109 models, the latter of which matches the Gehl 7810E with an industry-leading 3,850 pounds of

rated operating capacity. Offering more than 35 inches of forward reach, the vertical-lift 2700V is suited for loading into large trucks. The 2,200-pound-rated 2076 and 2,600-pound-rated 2086 models, while also at 86 horsepower, have 123 inches of height to hinge pin — or more than 7 inches less than the 2700V.

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VOLVO

New Tier, New Features

Volvo recently launched its Tier 3-certified, radial-lift skid steers, including the largest MC110B (shown here) with a rated operating capacity of 2,400 pounds. In addition to a new engine, the updated skid steers boast lift/lower/curl/dump cycle times claimed as 25- to 35-percent faster. Volvo responded to customer feedback by integrating the hydraulic filter into the hydraulic tank, to open up the rear engine compartment; changing hydraulic hoses to steel tubes for durability; and locating hydraulic lines on top of the lift arm. A new, easy-to-read control panel is similar to that on Volvo compact excavators. Various control systems are available.

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NEW HOLLAND CONSTRUCTION

Ready to Get Down to Work

At the large end of the Super Boom family, New Holland offers models L180, L185 and L190 (shown here), each most recently introduced in 2008 with a new turbocharged engine produced by fellow Fiat Group member FPT. Rated operating load for the largest three Tier-3 Super Booms ranges 2,200 to 2,800 pounds. Getting going is enhanced by new standard grid heaters, more powerful starters, and batteries with 30-percent more cold cranking amps. For operator com-

fort and visibility, the cab's glass door opens a full 90 degrees. A large window, low engine hood and absence of frame towers provide a clear view to the rear.

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Buying File: Skid-Steer Attachments

Northshore

For precise picking and placing of boulders, logs and other landscaping obstacles, the Builtrite skid-steer grapple offers 360-degree continuous rotation in either direction. A selector valve for rotation and open/close functions allows the grapple to be used with an additional hydraulic circuit, says Northshore Manufacturing. As a hanging attachment, the grapple offers clear jobsite visibility for the operator. A universal bracket allows for multi machine mounting.

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Zanetis

Standard with hydraulic tilt, depth and side-shift control, high-flow planers may be ordered from Zanetis Power Attachments with manual or electric over hydraulic controls. The planer drive lines consist of a planetary gear hub coupled to a piston motor, putting the load on bearings and gear sets within the torque hub, not on the motor. For fine grade control, planers come with wheels and side skids, which respectively cut rolling resistance and maintain depth over pavement voids.

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Kenco

Accommodating slabs from 4 to 8 inches in thickness, the "Skidsteer Slab Crab" turns sideways and driveway concrete removal into a one-person job, says Kenco. Once the concrete is cut, the operator of a skid steer equipped with the 650-pound attachment can remove the slabs without disturbing the sub-base. The operator simply slides the tool's teeth under the slab, lifts slightly to break the bond, and tilts back to secure the slab in place for loading on a truck or stacking.

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General

A standard in the drilling industry, a two-inch hexagon auger drive system is used to eliminate excessive auger drive-shaft wear on the 671 Dig-R-Tach, says General Equipment. For use on carriers including skid steers, the Dig-R-Tach is available with a complete line of earth augers up to 36 inches in diameter, featuring Pengo-type, cast-steel



boring heads and forged teeth. For additional drilling depth, full-flighted auger extensions can be added.

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Layton & Rose

With the Rock-away landscaping attachment, the separating out of rocks is done by a single rotor, studded with mining teeth arranged in a spiral pattern. Manufactured by Layton & Rose and marketed by MDS Group, the tool was designed by a landscaper frustrated by the cost of replacing chains and slats.



With just two greased bearings and one chain, the Rockaway is designed to simultaneously till and fluff the soil. It is available in four widths, for buckets ranging 60 to 83.5 inches.

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Harley

Available in fixed, manual and hydraulic variations, the M Series power box rake allows a skid steer to prepare soil for seeding. With roller widths of 4 and 6 feet, the six M Series models from the Paladin-owned



Harley brand use a specially shaped carbide tooth design and pattern that releases the preferred amount of moisture from the soil. The Rhino-Hide barrier adjusts, so the operator can choose the amount of material left in the seedbed for faster drying in muddy conditions.

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CEAttachments

A 96-inch blade with a reversible/replaceable cutting edge suits the Edge grader attachment for re-shouldering, sub-grading and blacktop preparation jobs, says manufacturer CEAttachments. With in-cab hydraulic control of angle, tilt and depth, the attachment's low profile facilitates operator visibility. At the same time, large tires enhance maneuverability. Choosing the end plate option allows use of the Edge grader similar to a box blade. A laser system is also available.

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Lowe

Among the attachments produced by Lowe Manufacturing for use on skid steers, trencher models offer digging depths ranging 24 to 60 inches and digging widths from 4 to 12 inches. In addition, two models of grapples, the G-72 and BG-600, are suited for storm cleanup, scrap and recycling, and bridge and road reconstruction applications. Also available are auger drives, auger bits from 4 to 48 inches in diameter, and assorted auger accessories.

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York Modern

A landscape rake specifically designed for use with skid steers, the Model SSF from the York Rakes division of York Modern Corporation can be set to push or pull, as well as angled to discharge left or right. The full-floating skid steer frame is supplied with the mounting plate attached, as per the brand and model of carrier specified by the customer. Raking widths of 6, 7 and 8 feet are available. Caster wheels, a grader blade, end boots and hydraulic angle are optional.

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TrynEx International

To address assorted cleanup, material handling and snow removal applications, the SweepEx Mega 600 broom attachment by TrynEx International is built with a 60-inch long mainframe. Dirt, leaves, steel shavings, gravel and even standing water can, says



TrynEx, be cleaned up with the SweepEx Mega Series attachment, which is adaptable to a wide variety of service vehicles. Mounting kits for forklifts, bucket lips, three-point hitches and skid-steer pivots are available.

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E-Z Drill

Use of two adjustable drills at once particularly suits the Model 210 Twin Vertical concrete drilling system for pulling patches, slab-jacking and under sealing. For use as an attachment on compact loaders in-



cluding skid steers, this unit manufactured by E-Z Drill is completely pneumatic, eliminating the need for electric or hydraulic hook-up. The feed system includes an angular adjustment, allowing the drills to be positioned between 45 and 90 degrees.

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Atco

As part of Atco Equipment's Blue Diamond attachment family, the six-way dozer blade has 30 degrees of angle and 10 degrees tilt that can be controlled either from the skid steer's at-



tachment controls or with a universal control. For production year-round, removing two pins on the back of the blade will allow it to trip for use in pushing snow. The trip springs and skid shoes come standard with the six-way blade; a height extension can be added.

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Buying File: Skid-Steer Attachments

Vacuworx

Due to its self-contained design and dry weight of only 900 pounds, the new MC3 “mini” vacuum lifter from Vacuworx can be attached to assorted smaller carriers, including skid steers. A lifting capacity of about 6,600 pounds – or 3 metric tons – allows the handling of steel plate, concrete slab, landscape rock, or steel and poly pipe. Pipe can be stockpiled without spacers, and only suction pads need changing before handling pipe of another diameter. The MC3 comes with a wireless remote control.

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Atlas Copco

With a service weight of 440 pounds, the PB 210 hydraulic breaker delivers 1,150 blows per minute at 2,030 pounds per square inch of pressure. Its weight makes the PB 210 suited for skid steers in the 6,395- to 13,230-pound weight class, but yet the breaker offers a hitting force comparable to larger tools, says manufacturer Atlas Copco. Boasting a high power-to-weight ratio with an impact energy class rating of 550 foot-pounds, the PB 210 also features the VibroSilenced damping system.

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Allu

Turning a skid steer into a fine screening machine, D-Series screening buckets feature a rear-mounted drum system with a new bearing solution providing better protection against dust penetration, says Allu. A new stronger frame and outer bucket shell combines with a dual-motor, dual-chain drive system for longer life. At the same time, a slower spinning internal rotor speed reduces wear. Roadside screening of fragment end product up to 5/8 of an inch is possible.

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DII Attachments

For use on machines from 6,600 to 16,550 pounds in operating weight, the Tramac SC-28 hydraulic breaker has an automatic pressure regulator to ensure maximum performance on all carriers, including larger skid steers, regardless of flow variations. Upper and lower shock absorbers isolate the 606-pound SC-28 from the carriage, reducing noise and vibration to the carrier. Products of Doosan-owned DII Attachments, Tramac's SC Series breakers accept clip-on accessories such as buckets and tampers.

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Furukawa Rock Drill/USA

Furukawa Hydraulic Breakers Small Series KF 3 breaker is designed for work in tight environments, sidewalk/driveway removal or light demolition work. It can be mounted on skid steers, mini excavators or compact utility loaders. The unit also comes in a Qt version for use in residential areas where noise levels are a consideration.



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Sidney

Designed to mount on most skid steer loaders in addition to compact excavators, the Timberline TBL1000 tree shear from Sidney Manufacturing can cut a tree up to 10 inches



in diameter and, with its ability to rotate after the cut, then serve as a grapple to lift, wrangle and carry the fallen tree. This capability serves the shear well for use by trimming professionals who need to selectively remove unwanted trees from a stand, as well as productively prune and trim standing trees.

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Buying File: Skid-Steer Attachments

Terex Loegering

Renowned for track systems that turn skid steers into tough-terrain machines, Terex Loegering also supplies both hydraulic and non-hydraulic attachments for skid steers. A concrete hauler attachment, the Loegering Mud Bucket allows concrete to be transported into tight spaces not accessible for trucks. A hydraulic gate unloads the material without the need for additional labor, and concrete can be placed accurately with the 14-inch-long chute that reduces to a 9-inch-wide opening.

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Sneller

In addition to its powered cutting, shredding and stump grinding attachments for assorted larger land-clearing applications, Sneller Machine offers a 60-horsepower brush shredder that mounts to skid steers. A Cat C2.2 diesel engine mounted inside the shredder attachment delivers "true" power directly to the cutting head, says Sneller. Patented cutter bits feature a no-bolt system, ensuring easy and quick changing.

Visit ConstructionEquipment.com/info and enter 223



Bobcat

Two new grader attachment options for Bobcat loaders feature hydraulic side-shift for easier grading in tight areas and an end-wing kit for use of the attachment like a box blade. The 96- and 108-inch graders are approved for use on, among carriers, the two largest Bobcat skid steer models, the S300 and S330, as well as the A300 all-wheel-steer loader. A proportional hydraulic valve provides three speeds at which the moldboard is raised or lowered, to more closely match the carrier speed.

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Coneqtec-Universal

By using a heavy-duty hydraulic motor powered by the high-flow hydraulics of its carrier, the HS-57 manhole repair/removal tool turns a task that could take hours into minutes, says maker Coneqtec-Universal. After 40 carbide-tipped picks cut through concrete, asphalt or rebar, the tool's brackets lock into place on the interior rim of the flange and lift it and the surrounding layers of surface. The entire area can then be set onto a truck bed. The HS-57's chain/gear assembly has a removable cover.

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Caterpillar

A new laser-based AccuGrade grading system by Caterpillar combines ATI's Level Best grading box with the Caterpillar C-Series skid steer's integral electro/hydraulic controls to automatically create flat or single-slope grades to within a quarter-inch. Support wheels ahead of the grading box extend the carrier's wheelbase for smooth cuts. An in-cab display shows the blade's position relative to the finished grade. A trigger switch on the implement joystick allows manual operation.

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Volvo

The low profile of the scrap grapple bucket offered by Volvo Construction Equipment provides excellent visibility for the skid steer's operator when picking up and securing large, bulky waste and scrap. Patented grapple pins reduce torsion force, minimizing maintenance and downtime for the 994-pound grapple bucket. A bucket depth of 36 inches allows the attachment to retain large amount of material for increased productivity on the job, says Volvo.

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Paving Report

By MIKE ANDERSON, Senior Editor

Power Curbers Takes 5700-C to the Max

Marking the model's 25th anniversary, the all-in-one-paver 5700-C is now available with an optional Max package to accommodate even larger concrete paving applications

The model itself has been around since 1985, but beyond machine features, the 5700 concrete paver actually picks up additional applications seemingly every time manufacturer Power Curbers introduces a new version. From its roots as strictly a curb-and-gutter machine, the 5700 has evolved into the 5700-C, a “one-machine-does-it-all” slipform paver capable of forming sidewalk, V-ditch and barrier wall.

For the 25th anniversary of the model, along comes the 5700-C-Max.

“We’ve seen more projects requiring large profiles, like variable barrier wall, wide V-ditches and other structures involved in infrastructure,” explains Stephen Bullock, Power Curbers vice president, sales and marketing. “Our latest response has been to introduce an option package for the 5700-C, giving the machine more capability and flexibility than ever before. The repositioned right post and larger crawlers of the 5700-C-Max have been very well received.”

On display at World of Concrete 2010 in February in Las Vegas, the 5700-C equipped with the optional Max package features all-crawler steering; larger crawlers; and the repositionable right post for the pouring of large variable barrier up to 8 feet high, paving to a width of 12 feet, or other large concrete applications.

The new crawlers on the 5700-C-Max are both heavier and 12 inches longer, and move from three rollers to four for increased stability. The new low-speed crawler torque hubs keep the machine pouring at a steady crawl when handling large offset molds, says Power Curbers. This is in addition to all-crawler steering, a longtime option on the 5700-C that the company says improves directional accuracy when paving and pouring large walls.

The Max package includes mounting plates on the ma-



The Power Curber 5700-C equipped with the optional Max package features larger crawlers, all-crawler steering, and a repositionable right post for the pouring of large variable barrier up to 8 feet high or paving to a width of 12 feet.

chine's right side to allow contractors to bring the right rear post forward. Bringing the leg forward redistributes weight, improving the 5700-C's performance when using large barrier molds and when paving in the center pour position, says Power Curbers. When contractors have completed large jobs and want to return to curb-and-gutter work, the right post is moved back to its standard position, allowing the machine to turn the tight, 2-foot radii that remains at the heart of a curb-and-gutter machine. In standard configuration, the machine maintains its established transport width of 8 feet 6 inches.

Other options for the Power Curber 5700-C-Max concrete paver include dual side pouring and a manifold for additional vibrator circuits.

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There's Always Room for a Large Crawler Loader

The largest tracked loader model on the market, the 973 completes Cat's D-Series with new hydraulics, joystick steering and increased engine power

During an interview last summer with *Construction Equipment* for a Buying File feature on crawler loaders, Ken Nebergall was enthusing about the Caterpillar 953D and 963D models out in the market . . . and couldn't stop there. "And we can start talking about the 973D," he offered. "A lot of the same features and benefits that we built into the smaller D-Series machines are also incorporated into the 973 size."

At that point, a formal introduction was "coming soon" for a D-Series version of the Caterpillar 973, the largest crawler loader model on the market. With the arrival of 2010, so finally came that product introduction.

Completing the D-Series "track" loader lineup, the 973D features load-sensing hydraulics, joystick steering, an updated and tilting operator's station, and 10 percent more engine power than the predecessor 973C. Again powered by a Cat C9 ACERT diesel engine, but increased from 242 to 263 net horsepower, the 973D retains the hydrostatic drive, single-fabrication mainframe, Z-bar loader linkage, and oscillating undercarriage of the "one-machine workforce" legacy of the 973C.

"The folks I talk to when I travel, they swear by track loaders," says Dave Cusac, track-type-tractor product application specialist with Caterpillar's excavation and earthmoving divisions, "and it's all about keeping the rest of their fleets utilized. If they're moving bedding material and they just had a day or two of rain, 6 psi is a lot better than 30 psi, when you're looking at track ground pressure versus wheels, and still keeping up and keeping some of those other machines moving. It was very clear that those folks are very passionate about their usage of track loaders."

Supporting its tough large-machine stature, the 61,857-pound 973D is available in two waste-handling packages and a steel-mill package, utilizing the 74 additional horsepower it has over the next-largest crawler loader model available.

However, it's not only harsh-application contractors or the traditional basement diggers who can benefit from the crawler loader, but any operator who accepts "how produc-



Caterpillar 973D Basic Specs

| | |
|--------------------|-------------|
| Operating Weight | 61,857 lb. |
| Net Engine Output | 263 hp |
| Bucket Capacity* | 4.2 cu. yd. |
| Hydraulic Pressure | 3,988 psi |
| Hydraulic Flow | 91.4 gpm |
| Fuel-Tank Capacity | 164 gal. |

* Equipped with general-purpose bucket

Electro-hydraulically actuated loader controls for the Caterpillar 973D crawler loader are seat-mounted, compared to the console mounting of the predecessor model. By moving with the operator, the low-effort loader controls transmit less vibration and provide fast, precise response.

tive they can be with this big skid-steer loader," says Cusac's colleague Nebergall, who uses the compact

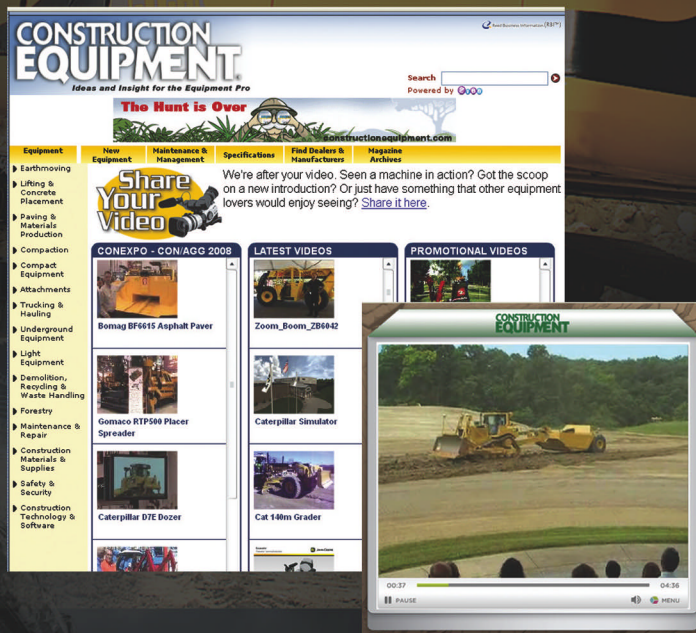
loader reference quite deliberately. "I think most of our customers all over the U.S. and the world understand the value of those products," he explains. "Well, when you look at the current track loader – our 953D, 963D and the 973D – you can very easily visualize that it's a larger and more productive version of those smaller machines."

And the recent product developments will only help in the understanding, says Nebergall, tractor-type tractor and track-loader product sales engineer with Caterpillar's earthmoving division. "The joystick steering system is a new option that allows the newer, younger operator to get on and learn this machine very quickly," he says, "or if he's already been running one of these compact track loaders or skid steers, he already knows those controls."

The 973D's new closed-center implement hydraulic system uses a variable-displacement pump that produces only the required amount of oil for the task. The lift and tilt cylinders use position-sensing electronics, allowing the operator to program kick-outs for faster cycle times.

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Cub Cadet Yanmar Moves into Construction

Yanmar-and-MTD joint venture brings co-developed compact backhoe loaders

The joint venture marketing Cub Cadet Yanmar compact utility tractors in the United States took a deliberate step toward industrial/commercial customers with the 2009 introduction of the Sx3100 compact backhoe loader. The four-wheel-drive tractor's new chassis and new 31.2-horsepower Yanmar diesel fills a gap between the venture's Sc and Ex tractor lines. Starting at \$24,000, the Sx3100 is a competitively priced backhoe loader for municipal and commercial buyers.

"We've opened up the operator platform, making more room for people wearing construction boots, and making the controls more operator friendly," says Nathan Walker, senior vice president of sales for Cub Cadet's parent, MTD Products. "We're getting a little better flow (gaining about 1 gpm) with the dual hydraulic pumps, and more-efficient circuit design facilitates using the loader and power steering or multiple backhoe functions simultaneously — you're not robbing power from one function to use another."

The Sc line starts with utility tractors at about \$10,000 and goes up to the new 24-horsepower Sc2450 compact backhoe loader at about \$18,000. The Ex line starts with a 29-horsepower Yanmar at about \$14,500, and extends to 32- and 45-horsepower models with backhoes that top out around \$18,000.

Like all of the Cub Cadet Yanmar compact tractors, the Sx3100 makes use of Cub Cadet's Select Cut System drive-over mower deck. The Sx3100 is matched to a 60-inch version of the mid-mount deck. Users can drive the tractor over the seven-gauge-steel deck and attach it to the tractor with a few simple connections.

None of the backhoe sub frames interfere with mower-deck installation. Curved-boom backhoe attachments used across the Cub Cadet Yanmar line are manufactured by Amerequip (www.amerequip.com). They're designed to attach and detach quickly from a four-point, sub-frame mount-



Top of Cub Cadet Yanmar's Three Lines

| | Net Horsepower | Max. Hydraulic Flow (gpm) | Backhoe Dig Depth | Loader Lift Capacity* (lb.) | Weight (lb.) |
|---------|----------------|---------------------------|-------------------|-----------------------------|--------------|
| Sc2450 | 20.4 | 6.9 | 6' 4.5" | 700 | 2,525 |
| Sx3100 | 30 | 10.1 | 6' 9" | 964 | 1,973 |
| Ex450TL | 43 | 13 | 8' 7" | 1,692 | 3,499 |

* At pivot pins, maximum height Source: Cub Cadet Yanmar

Cub Cadet Yanmar's Sx3100 is a \$24,000 backhoe loader with rare 6-foot-9-inch dig depth.

ing system. Smaller loaders, like those on the Sc Series and Ex2900 and Ex3200,

are made by MTD. Loaders for the Ex450 and Sx tractors are made by Yanmar.

Cub Cadet Yanmar tractors are the result of a three-year-old joint venture called Compact Utility Tractor Supply Co. (CUTSCO) formed between Cleveland's MTD Products and Yanmar. Yanmar continues to wholesale slightly larger compact tractors to John Deere, which Deere markets under its own brand. But Yanmar and MTD share ownership in CUTSCO. Yanmar designs and manufactures the little yellow tractors, with final assembly in its Adairsville, Ga., facility. As the marketing partner, MTD provides input to keep the machines in step with North American preferences.

"We have heavier tractors coming," says Walker, "and expect to introduce new models every year for at least three, but probably five years."

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Market Watch Lite

By KATIE WEILER, Managing Editor

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▶ SnowEx

The SPB-072 and SPB-090 snow brooms from TrynEx are attachable to most brand-name snowplows. Brooms clear snow and slush without damaging concrete, sod or sprinkler heads. Brooms can also clear sand, salt and other debris in the winter off-season. Models are 72 and 90 inches wide, and include mounting hardware.

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▶ Larson Electronics

Larson added several new LED spreader lights with lightweight aluminum housings, 35-degree angle LED light spreads, and hinge-style mounting for vehicles, boats and equipment. Ranging from 10 to 280 watts, the LED10W Series features 10-watt LED packages in single-row arrays numbering with up to 28 LEDs that are an alternative to conventional incandescent and HID lighting. LEDs are available in black, white or custom colors.

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▶ Bobcat

Two models of front-mounted snowblower attachments work on the company's CT120 to CT235 compact track loaders. Discharge chute rotates hydraulically, so operator can redirect snow as needed. Carrier must have a mid-PTO, loader joystick and control valve. A lift kit and PTO kit are required for

mounting. Model FCTSB49 has a 49-inch cutting width; FCTSB62, 62 inches.

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▶ Sellick Equipment

A three-wheel-drive, trailer-mounted forklift, the STM55LP joins Sellick's family of low-profile rough-terrain vehicles. Sharing many design qualities of the company's four-wheel machines, including a roomy platform and clear visibility for the operator, the three-wheel "loader" is easy to operate and nimble for quick loading times.

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▶ Ditch Witch

The PR100 pipe-bursting system fractures or cuts any type of existing pipe, including clay, PVC, steel, cast iron, and ductile iron. Constructed with heavy-duty, commercial-grade steel, the unit can pull in new pipe up to 16 inches in diameter with 100 tons of pullback force. Load-sensing hydraulics allows for automatic downshifting when a load is introduced, and higher speeds during makeup and breakout.

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Market Watch Lite

► Terex Aerial Work Platforms

To improve battery life, Terex Aerial Work Platforms upgraded the battery charger for its Genie-branded slab scissor lift aerial work platforms GS-30, GS-32 and the GS-46 Series. The receptacle on the scissor was relocated from the side to the rear to make it less susceptible to damage. An A/C power indicator was added. The charger also offers better diagnostic capabilities.

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◀ Radmeister

Radmeister mounts four grapple arms with 5/8-inch-thick steel tines on a 20-inch-deep digging bucket with a 6-inch cutting edge of 3/4-inch-thick manganese/chromium alloy. The Dig-and-Grab Bucket's single grapple cylinder can open the tines 35 inches wide to dig normally with the bucket, or to get hold of big loads. The bucket's standard quick-coupler mounts fit couplers on Bobcat 8/7 series loaders and machines with the same coupler. It comes in 66-, 72- and 78-inch sizes.

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► TT Technologies

TT Technologies added a 3-ton Grundowinch hydrostatic constant-tension winch to its line that can pull up to 3,280 feet of 3/8-inch cable at speeds of up to 160 feet per minute. The compact winch offers infinite speed control throughout the pulling range. The Grundowinch also features a level winding mechanism and a twin capstan cable management system.

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◀ RCI Technologies

Newly redesigned Emergency Fuel Transfer and Filtration Unit (PTFU) cleans stored diesel fuel and transfers fuel between tanks. Unit is portable and includes an FP 700 fuel purifier with an 8-gpm flow rate, 20-foot-long power cord, and thermal protection circuit. A more compact design makes the unit lighter and more convenient to transport, use and store.

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▼ Knaack

The E-Line Model 143 is the first truck saddle box to offer Weather Guard quality at a lower cost, says Knaack. With a tamper-resistant, piano-style hinge providing security, the saddle box has a reinforced aluminum diamond-plate body with an automotive-grade, baked-on, powder coat. Automotive-style latches with a paddle handle mechanism allow for single-handed opening. When fully open, the box cover sits at a 90-degree angle.

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▼ AIM Attachments

Incorporating a five-tine design with two AR400 steel tines over three, the QC excavator is designed for carriers equipped with quick couplers. A mounting bracket offers three working positions, and a reinforced solid box body is an improvement over common hollow box configurations, says AIM. Suited for demolition, recycling, excavation and salvage operations, grapples are available for excavators ranging 25,000 to 100,000 pounds.

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▶ Leading Edge Attachments

The design of a new offset single pointed ripper allows the entire breakout force of the excavator and backhoe to be focused on one shorter tooth, yet still rip a side wall flat, says the company. The operator can also rip down one side of a trench, turn around and rip the opposite side, and then rip the middle for a clean flat wall not possible with center-mounted rippers. Rock, asphalt or frozen ground can be ripped with the tooth, offset to the side of the hydraulic carrier's stick.

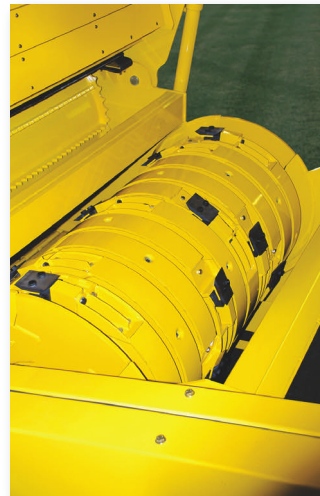
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▶ Vermeer

Vermeer's fuel chip attachment converts the company's HG6000 or HG6000TX horizontal grinder cutting drum from a ripper/shredder to a chipper. The attachment requires about four hours to install and is compatible with the Vermeer Series II Duplex Drum. Operators can select specialized screens and adjust the intake speed to help fine-tune the material size, shape and quality.

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▶ CE Attachments

New high-torque Edge chain drive augers are an alternative to planetary drive augers for medium- to heavy-duty applications. The pre-stressed, fully adjustable, chain-reduction auger drives are capable of digging holes from 24 to 48 inches in diameter. The lineup includes 16 units with models available in round and hex output shafts, complete with a universal skid steer mount, 100-inch hoses and flat-face couplers, or without mount.

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Market Watch Lite

► Bridgestone

With a computer-optimized center block, the V-Steel J-Traction (VJT) radial off-road tire creates improved loader operator comfort and stability by minimizing vibration levels, says the manufacturer. An enhanced sidewall design provides improved cut resistance under heavy loads. The VJT is immediately available in 20.5R25, 23.5R25 and 26.5R25 sizes; 17.5R25 and 29.5R25 versions will follow.

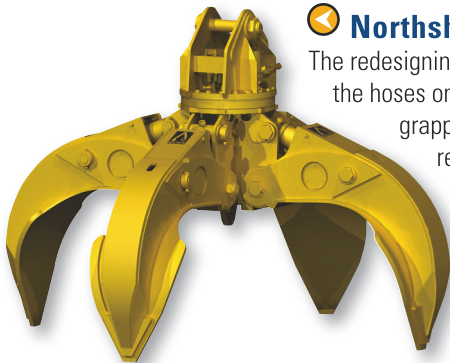
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◀ Northshore Manufacturing

The redesigning of the upper head and connecting link allows the hoses on Northshore's Builtrite four-tine orange peel grapples to be rerouted over the top of the carrier's jib, reducing the likelihood of them being torn off during scrap handling. Also, bolt-on cylinder covers are now standard on all models sized at 0.5 cubic yards and up. The covers and bolt-on heads are recessed to prevent from being caught on materials.

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► Doosan

At 3,572 pounds, the DXB 170h hammer fits the most popular sizes of Doosan excavators, the DX225 and DX255 models. Competing in the 5,000-foot-pound impact energy class with a tool diameter of 5.39 inches, the DXB 170h hydraulic attachment operates with 2,610 pounds per square inch of pressure and requires 26.5/39.5 gpm of flow. Developed from the Montabert breaker tradition, the DXB 170h is a product of DII Attachments.

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◀ HCSS

Equipment360 software provides both an itemized cost history for each piece of equipment in a fleet's program and a work-order management system that provides a framework for capturing labor and parts costs. Timely maintenance reduces downtime, fuel consumption and jobsite repairs, says HCSS, adding that performance metrics within Equipment360 identify unreliable equipment that should be sold.

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▼ Lowell Scott Enterprises

TrunkPump dewatering pump is built to work with heavy equipment and other hydraulic power sources. The HYD-3D skid-steer hydraulic dewatering pump attachment is ideal for construction companies, farmers and municipalities who need to move water or irrigate, the company says. It is also capable of one-person operation, and features a low-maintenance design.

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▼ Enerco

New indirect-fired Heatstar mobile units are designed to provide clean heating solutions for large indoor worksites. Two heavy-duty models are available — the HS4000ID-XL and HS7000ID-XL are rated at 400,000 and 700,000 BTUs per hour, respectively. Thick-wall stainless-steel combustion chambers keep heated air and exhaust air separate, and each model offers a choice of an oil or natural gas burner.

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▶ CEAttachments

EDGE Angle Brooms, which can reach angles up to 30 degrees, feature 50/50 poly/wire brush material and are available in 26- and 32-inch brush diameters. The motor and bearings are mounted to a plate that pins to the brush frame, allowing simple replacement of brush segments. Options include an electro-hydraulic angle kit and dust-control kit.

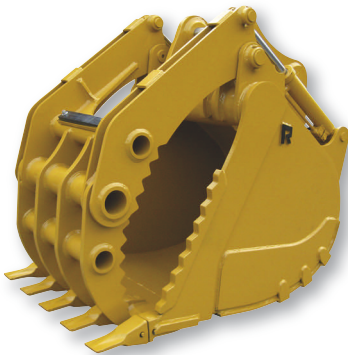
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◀ Rockland

Entek Krypto Klaw bucket is designed for demolition and land clearing. Design brings the bucket and thumb together as a collective working unit for maximum operator efficiency and full use of the carrier's reach throughout 100 percent of the curl cycle, the company says. It can be used on all sizes of excavators, including minis, and mates directly with the stick. Multi-rib, open design gives the operator visibility while manipulating material.

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▼ Atlas Copco

The QAS 600 is powered by a Volvo TAD 1641 GE diesel engine driving a Leroy Somer alternator. The generator set is rated at 575 kilovolt-amperes at the optimum 60 hertz, and has a standard 239-gallon fuel tank for continuous operation at full load for a complete work shift. A housing of zinc plated steel with powder coat finish provides resistance against corrosion, as well as reduced noise levels, operating at 77 decibels at optimum output.

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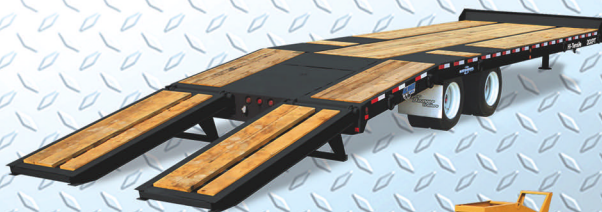


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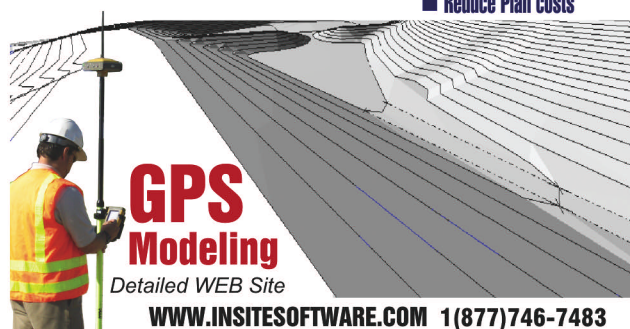
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What New Equipment Will 2010 Bring?

Construction Equipment was able to get a sneak preview of new products that will be unveiled at this year's Bauma, the triennial construction-machinery trade show held in Munich, Germany, in April.

New machines include three Bobcat M-Series excavators in the 4- to 5-ton weight class; a remote operated vibratory plate compactor from Wacker Neuson with 29,225 pounds of centrifugal force; and a six-axle all-terrain crane from Manitowoc, boasting a capacity of 300 metric tons.

Find out more about these machines and other new equipment at ConstructionEquipment.com/Digest.

Test Driving 2010 Diesels

Construction Equipment gathers news and hands-on coverage on EGR- and SCR-based engines, including a feature on the pros and cons of both technologies, as well as truck editor Tom Berg's experiences driving the International Workstar with its EGR MaxxForce engine, and a Mack Granite dump truck with an SCR Maxidyne engine.



Watch Bobcat's S630 Skid Steer Take on Bigger Brother

The S630 skid steer boasts improved visibility, instrumentation, and hydraulic efficiency to help it overcome a high-flow horsepower disadvantage and match the larger S220, Bobcat says.

Which loader performed better in *Construction Equipment's* in-depth tests? Watch the video Field Test and learn about the S630's features at ConstructionEquipment.com/digest.

Latest from Big Iron Blog

CE demolition blogger Mark Anthony questions why American contractors were underrepresented at the international D&Ri Demolition Awards last November. New award entries are being accepted through July 30.

More Digital *Digest*

High-Speed Grading with a Dozer?

Komatsu's Hybrid Excavator 'Swings' into Action

More Emissions Regulation on the Way

How Will Contractors and Equipment Suppliers Do in 2010?

We Can't Wait to Show You Our New Paving Concepts at Bauma 2010!



United States



Brazil



Italy



Japan



Belgium

**Open Air Area F12
Stand #1210/3
(same 2007 location)**



GOMACO will bring the world a series of "firsts" at Bauma 2010. It's the first time GOMACO has ever had an equipment display this large and far reaching at an international exhibition. The new IDBI attachment, on a Commander III four-track, will be introduced to the international market at Bauma 2010. It's the paver for up to six meters wide pavements requiring transverse joint placement. The C-450 cylinder finisher for flat and slope paving will make its first appearance at an international exhibition. A four-track Commander III with a European-style step barrier mold for right-side pour will also be making its international debut. Finally, rounding out the display, is a GT-3600 set up to slipform above-ground water channel. All of this and more will be on display, showcasing GOMACO's exciting, new paving concepts and what they can do to make your concrete paving projects successful and more profitable.

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