

MINI- EXCAVATORS

Increased Productivity Provides Better Profit Potential

by Pam Gruebnau
Publisher/Editorial Director

Whether you call them mini-excavators or compact excavators, manufacturers of these junior members of the excavator family are packing more performance and productivity in every pound to make them irresistible to your customers. And it's paying off.

According to *Construction Equipment* magazine's 2003 Universe Study, "units [crawler-mounted hydraulic excavators] less than 20,000 pounds have grown from 9 percent of the [excavator] universe in 1995 to 18 percent in 2003." Of that group, the study found 56 percent were less than 12,000 pounds.

In a recent survey of contractors by *Equipment World* magazine, 7.3 percent of respondents said they planned to buy one or more compact excavators in 2004. And, despite the perception that mini-excavators are for smaller contractors, the percentage prepared to buy next year is virtually the same for firms doing more than \$5 million as for firms doing less than \$5 million.

When respondents to the *Equipment World* survey are analyzed by business category, 10.6 percent of contractors engaged in "Both Highway & Heavy and General Building Construction" say they will purchase mini-excavators this year, as will 8.2 percent of contractors who cate-

Kubota's 2,200-pound K008-3 ultra-compact excavator is powered by a new Kubota liquid-cooled, three-cylinder diesel engine rated at 10.2 horsepower. The K008-3 can operate on sensitive surfaces without damaging the ground and deliver a maximum digging depth rated at 5 feet 8 inches, digging radius at ground level of 9 feet 11 inches and a bucket breakout force of 2,200 pounds. It comes standard with a Two Pattern Selection System and a two-speed travel system that allows the operator to switch between hi and lo speeds for faster travel between jobsites.

gorize themselves as "Other" (electric, mechanical, demolition and other contractors).

Regionally, the survey found sales expectations for compact excavators are brightest in the Northeast (12.7 percent), South Atlantic (12.6 percent) and Pacific (12.5 percent) regions, although the Mid-Atlantic (11.4 percent) and East South Central (9.0 percent) regions are also strong. The Midwest region is forecasting the lowest level of sales; only 3.2 percent of contractors plan to buy a mini in 2004.

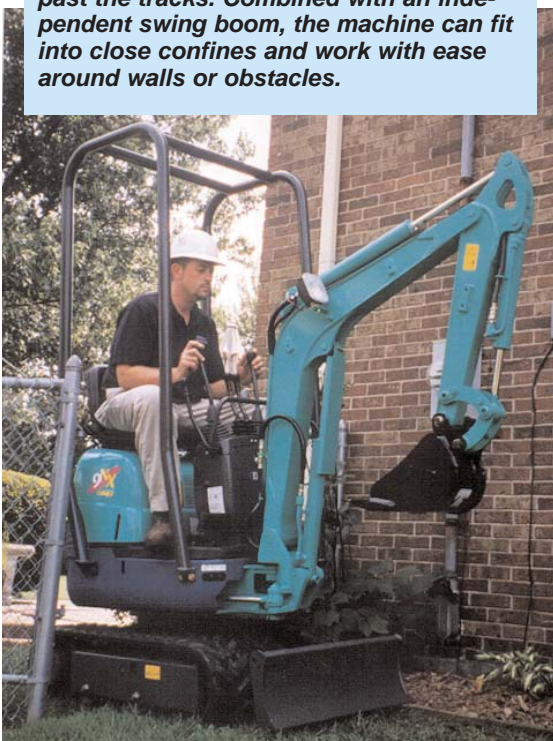
Mini-excavator life cycles

Using their historical UCC database of new mini-excavator sales and lease transactions, Equipment Data Associates (EDA) calculates a replacement cycle for mini-excavators of 3.33 years, i.e. on average, a contractor replaces a mini-excavator every 3 years 4 months.



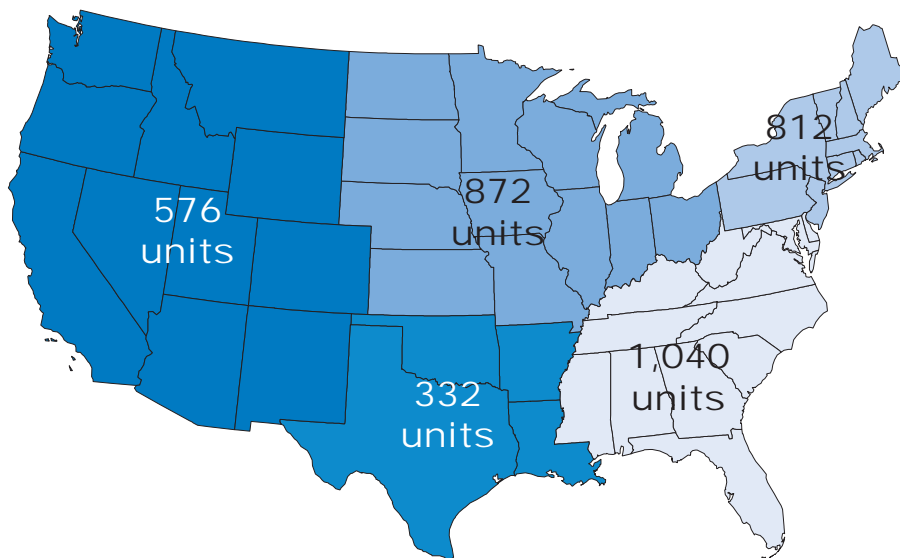
The new JCB 8027Z and 8032Z mini-excavators give users more flexibility by providing zero tail swing when the excavator is positioned 90° to the tracks. The 8027Z, weighing 6,533 pounds, and the 8032Z weighing 7,423 pounds, feature a 28-horsepower Perkins diesel to provide extra power while maintaining the ability to work in confined spaces. Both new models offer a full-size cab with unrivalled access and spacious legroom. Maximum dig depth with the 8027Z is 9 feet 5 inches. The 8032Z has a 9-foot-5-inch and a 9-foot-10-inch dig depth choice.

The 9NX is the newest model in the zero-tail-swing excavator line by IHI. Weighing 2,060 pounds, the 9NX features more than 9 feet of reach, a digging depth of 5 feet 2 inches and bucket breakout force of 2,360 pounds. The 9NX is powered by a 9.1-horsepower water-cooled diesel and comes standard with an expandable undercarriage (27.5 to 37.5 inches). The body of the excavator rotates 360 degrees without the tail extending past the tracks. Combined with an independent swing boom, the machine can fit into close confines and work with ease around walls or obstacles.



The 223 Gehl mini-excavator has a 15-degree house tilt that lets it work on slopes and maintain a flat bottom to the trench, it can be easily entered or exited from both sides, and most controls, including the travel circuit, are pilot operated. With 23.7 horsepower, it has the highest hydraulic oil flow in its class.

Regional Forecast for Replacement Mini-Excavator Sales to be Financed in 2004



Source: Equipment Data Associates

Based on UCC data, Equipment Data Associates (EDA) predicts 3,632 mini-excavators will be purchased and financed in 2004 as replacements. EDA estimates that UCC filings account for 45 percent to 55 percent of the entire market. Assuming a 45 percent representation puts mini-excavator replacement sales in 2004 at 7,264 units.

In 2004, replacement mini-excavator sales will be strongest in the Southeast.

EDA predicts 3,632 mini-excavators will be purchased and financed in 2004 as replacements. EDA estimates that UCC filings account for 45 percent to 55 percent of the entire market. Assuming a 45 percent representation puts mini-excavator replacement sales in 2004 at 7,264 units.

While this total only represents machine replacements and does not include fleet expansions or contractors buying for the first time, it is based on historical data and likely establishes the minimum mini-excavator sales level for the year.

Regionally, replacement mini-excavator sales in 2004 will be strongest in the Southeast with 28.6 percent (1,040 units) and the Midwest with 24.0 percent (218 units). (Again, this is only the units that will be financed.)

Where buyers buy mini-excavators

While the demand for mini-excavators is climbing, the number of buyers

purchasing them from independent authorized dealers is too low.

In 2003, AED asked buyers of mini-excavators where they had purchased them and found only 71.4 percent had purchased them from independent authorized dealers. In contrast, 87.8 percent of skid-steer loader buyers and 97.5 percent of backhoe-loader buyers had purchased those products from authorized dealers. In fact, mini-excavators are one of the least likely earthmoving equipment types to be purchased from



Ditch Witch introduced its first mini-excavator line in 2003—the MX9, MX15, MX27, MX35 and MX45, ranging from 0.9 to 4.5 metric tons. The mini-excavators feature an advanced counterweight design that allows the counterweight to be installed or removed in minutes and greatly increases lift capacity, while maintaining unmatched balance, stability and control. Operators can maintain precise control through all levels of operation due to the Closed Load Sensing System. Optional turf friendly tracks, combining the merits of rubber and the strength of steel, last twice as long as rubber tracks under most normal operating conditions.

an authorized dealer.

AED's *Construction Equipment Marketplace Study*, which included results of the survey, found that the percentage of buyers buying excavators from authorized dealers increased with the size of the machine. For excavators weighing 18,000 to 40,000 pounds, those purchasing them from authorized dealers rose to 81.8 percent. With excavators weighing 40,000 to 100,000 pounds, the number climbed to 97 percent.

Auctions were the second most likely

Where Buyers Buy Mini-Excavators

	Mini-excavator	Excavator 18k-40k lb	Excavator 40k-100k lb
Independent Dealers	71.4%	81.8%	97.4%
Rental	0.5%		1.2%
Auction	17.9%	11.4%	7.7%
Broker	0.5%	6.8%	2.6%
Another Contractor		2.3%	2.6%
Website		4.5%	
Direct from Manufacturer			

Source: AED's Construction Equipment Marketplace Study

Fewer buyers purchase mini-excavators from independent authorized dealers than purchase the larger machines. Multiple answers were accepted on the survey, i.e. a buyer may have purchased units both from a dealer and at auction.



Bobcat's 430 and 435 ZHS compact excavators, with 11-foot and 12-foot-3-inch dig depth, respectively, feature the company's FastTrack drive system. FastTrack is a hydrostatic drive system with two dedicated pumps and two dedicated drive motors) that allows these machines to travel nearly twice as fast as other compact excavators. With ZHS, the rear, front left corner and front right corner stay completely within the track without sacrificing serviceability, operator comfort or excessive cab height. The units also feature fingertip two-speed control, a single lever in the cab to switch between ISO and standard control patterns and a long-arm option for greater dig depth.

Nearly one in four of the excavators sold at auction in 2003 were minis.

source for buying new mini-excavators; 17.9 percent of mini-excavator buyers surveyed had purchased new mini-excavators at auction during the previous year. Only a half percent reported purchasing new minis from rental companies and no one reported purchasing them directly from the manufacturer.

New and used mini-excavators are a familiar site at auctions, and according to Primedia, nearly one in four of the excavators sold at auction in 2003 were "minis." Based on Primedia auction data for the 12-month period ending November 2003, the most popular

mini-excavator size is in the 6.1 to 8-metric ton category. And, although Bobcat is the top seller of mini-excavators weighing less than 6-metric-tons with 33.1 percent of sales, Caterpillar dominates the 6.1-to-8-ton auction sales with 69 percent of the market.

Appealing to buyers

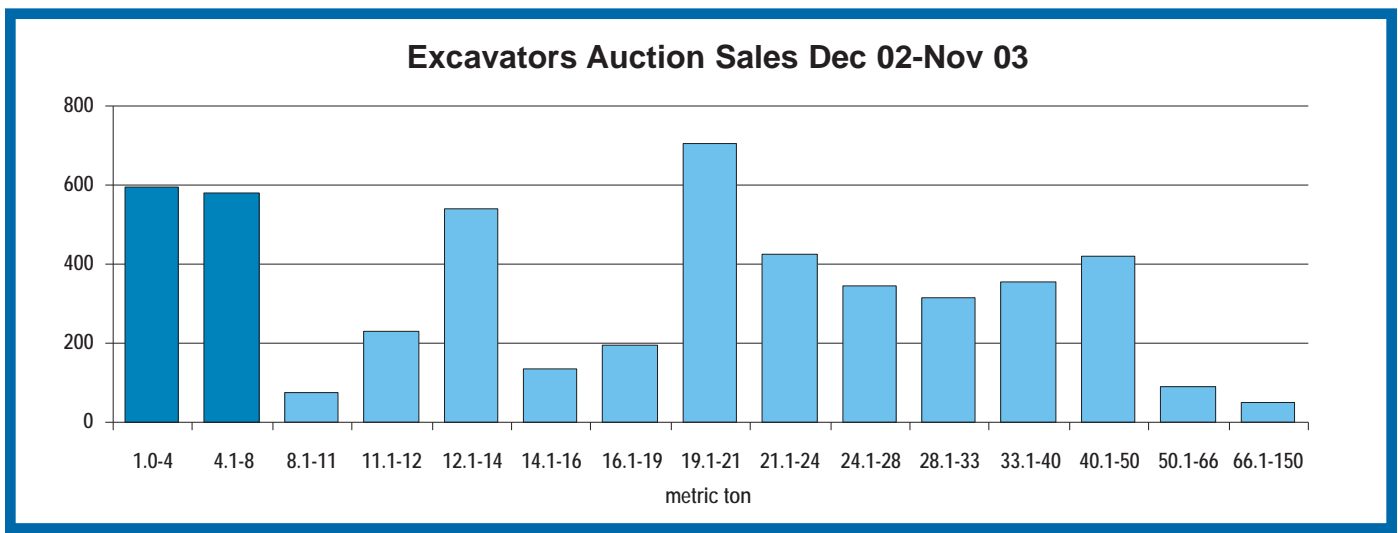
Recently manufacturers have introduced new and improved models that are faster, more productive, safer, and easier to operate.

For example, Bobcat's 430 and 435 ZHS mini-excavators feature FastTrack, a hydrostatic drive system with two dedicated pumps and two dedicated drive motors (one for each track). With FastTrack, these models travel nearly

twice as fast as other compact excavators, according to the company. These mini-excavators can move quickly for long distances in gated communities or to other jobsites faster than loading and trailering. Bobcat says the 430 and 435 ZHS can also backfill twice as fast as other models.

For faster travel between sites, Kubota's K008-3 now has a two-speed travel system that allows the operator to switch between high and low speeds. Simultaneous operation between the boom and house swing is made easy with foot pedal operation, especially helpful when digging along a wall.

To increase productivity, Takeuchi's TB53FR mini utilizes a patented Side-to-Side Offset Boom Swing that com-



Source: Equipment Watch, a PRIMEDIA Business Directories & Books Group

Based on Primedia auction data for the 12-month period ending November 2003, the most popular mini-excavator size is in the 6.1 to 8-metric ton category. And, although Bobcat is the top seller of mini-excavators weighing less than 6-metric-tons with 33.1 percent of sales, Caterpillar dominates the 6.1-to-8-ton auction sales with 69 percent of the market.

On average, a contractor replaces a mini-excavator every 3 years 4 months.

binesthe digging power of a conventional excavator with the ability to work in confined areas. The offset boom is stronger, provides better craning ability, improves visibility and delivers more reach when digging in the offset position.

When things get tight

Mini-excavators are also being redesigned to make it even easier to work in very tight locations.

The 9NX is the newest model in the zero-tail-swing excavator line by IHI. The zero-tail-swing design allows the body of the excavator to rotate 360 degrees without the tail extending past the tracks. Combined with an independent swing boom, the machine can fit into close confines and work with ease around walls and obstacles.

Bobcat's ZHS (Zero House Swing) models are so designated because the rear, front left corner *and* front right corner stay completely within the track area, allowing 320 degrees of rotation

when working near a stationary object. While improving performance, says Bobcat, the design does not sacrifice serviceability or operator comfort.

The Ditch Witch mini-excavator line features a new counterweight design that makes it possible to install or remove the counterweight in minutes, increasing lift capacity, while maintaining optimum balance, stability and control.

To improve productivity while working on an uneven surface, Gehl's model 223 mini-excavator features a 15-degree tilt floor. According to Gehl, the 15 degree house leveling is the most important feature on the model 223. It allows the operator to work on slopes without having to "bench" the machine to dig. Comfort sometimes seems to get overlooked on smaller machines, but mini-excavator manufacturers appear destined to dispel the myth that a small machine has to be uncomfortable.

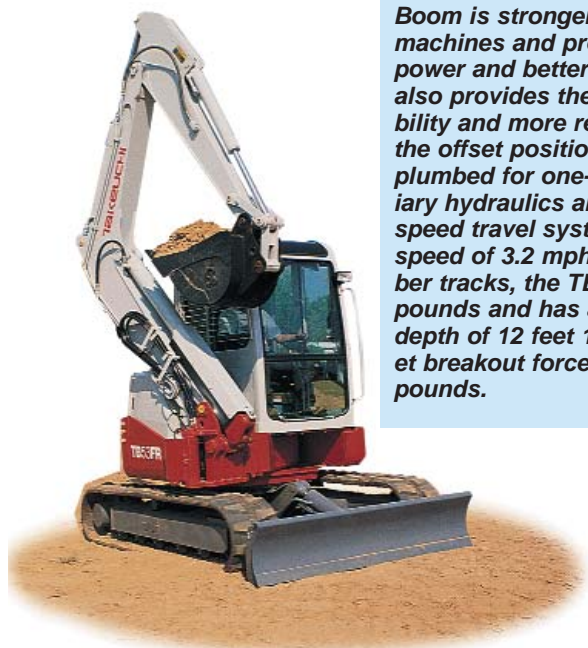
For example, JCB's 8027Z and 8032Z mini-excavators offer

a full-size cab, providing what the company calls "unrivalled access and spacious legroom."

Selling mini-excavators

Asked what dealers can do to sell more mini-excavators, manufacturers recommend that you find the supplier that offers the best support, and training.

"The most important thing a dealer can do to sell more mini-excavators is to partner with an excavator manufacturer that provides the best parts support, service training, and sales training in the



Takeuchi's TB53FR utilizes a patented Side-to-Side Offset Boom Swing, combining the digging power of a conventional excavator with the ability to work in confined areas. The Offset Boom is stronger than competitive machines and provides more digging power and better craning ability. It also provides the operator better visibility and more reach when digging in the offset position. The unit is fully plumbed for one- and two-way auxiliary hydraulics and features a two-speed travel system with a ground speed of 3.2 mph. With cab and rubber tracks, the TB53FR weighs 11,440 pounds and has a maximum dig depth of 12 feet 10 inches and a bucket breakout force of 11,076 foot-pounds.



Vermeer Manufacturing's CX219z weighs 3,968 pounds and is 3.3 feet wide. Dig depth is 8.3 feet, reach is 12.4 feet and bucket breakout is 3,307 pounds. A Kubota D 722-E diesel provides power. The CX219z swings up to 50 degrees left and 85 degrees right and features zero tail swing. Variable width tracks, auxiliary hydraulics, SAE/ISO controls and working lights are standard. Short-lever hydraulic pilot joystick controls are easy to operate and responsive.



The Terex HR16 mini-excavator, weighing in at 7,980 pounds with steel tracks, delivers a bucket digging force of 5,535 pounds. The HR16 is available with a spacious, quiet full-vision steel cab with two large doors, a skylight, thermo windows tinted green and cab heater with windshield defroster. The cab is rated at 80 dB(A). An optional canopy with working floodlight is also available, as is a deluxe operator's seat that is fully adjustable.

marketplace," says Mike Ross, product manager with Takeuchi Manufacturing. "Takeuchi has an excellent reputation with our dealers for providing timely and professional support of our products. We've been serving our customers since 1979."

A mini-excavator line should expand your customer base.

"To sell more mini-excavators look outside traditional "excavating" contractors," says Lance Mathern, segment marketing manager with Bobcat. "Try to get any customer who digs but hasn't tried a mini-excavator to demo one so they can see the difference in performance, maneuverability, and time savings compared to other product types."

Should your dealership add a mini-excavator line?

"We are definitely investigating adding a mini-excavator line," says Dan Moore, vice president & COO with R.W. Moore Equipment Co. headquartered in Raleigh, N.C. "As a Deere dealer, we have traditionally served the owner/operator very well with our core products...small dozers, backhoe-loaders, and other site development machines.

"But we're seeing new contractors coming into the business starting with another dealer because they have mini-excavators. We want a mini-excavator product to offer those smaller customers because they are the ones that will grow."

"Every year mini-excavator sales increase dramatically," says Brad Beaulieu, vice president of Payline West, St. Charles, Ill. "and we expect 2004 to be even better." □

Versatility, Reliability, Dependability

IHI

- 12 Models - 3 Styles
- Conventional, Zero Tail Swing & Zero Turning Radius
- Digging Depths from 5'2" to 14'1"
- 2 Speed Travel
- Standard with Rubber Tracks and Backfill Blade
- Multi-Function Hydraulic System

IHI 10th
Established 1994 ANNIVERSARY
COMPACT EXCAVATOR SALES LLC

202 Production Dr., Elizabethtown, KY 42702
 Tel (800) 538-1447. Fax (270) 737-1857
www.ihicompactexcavator.com