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On the cover
Rental Equipment Center owners (L to R): Phillip Priolo, Troy Miller, Jerry Morin and Bill Armstead.

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WELCOME



CLAIR URBAIN

REFINING AND REDEFINING

It's impressive how excavators and other construction equipment have grown in sophistication over the past two decades. Each new generation of equipment has higher levels of electronics and electrical controls that can fine-tune performance, increase productivity and safety while reducing total cost of ownership.

With that higher level of sophistication, these smart systems require higher level training to troubleshoot and repair them. Perhaps that's why construction and other contractors are increasingly relying on equipment rental to get their work done. Renting eliminates their primary responsibility of maintaining equipment; they only need to make sure fluids are topped off, complete general inspections and use the machine safely and productively.

Equipment manufacturers are rethinking every system – and even the whole machine – in their quests to provide more productive and reliable equipment.

Equipment manufacturers are rethinking every system – and even the whole machine – in their quests to provide more productive and reliable equipment. That's very evident in this issue's Equipment Insight story on excavators. It's exciting to see the technology that's making dirt work more productive and precise. For example, Mecac's MCR series of skid excavators totally rethinks excavator design to come up with a compact machine that can travel twice as fast and use larger buckets when compared with similar-sized models.

Case recently introduced its Minotaur compact track dozer (see page 50) that reimagines how the unit puts power to the business end of the machine. It pushes power through the machine's frame and its rear-mounted ripper makes it operate like a big-brother dozer. However, the unit's arms can be used in a compact track loader configuration where its parallel linkage arms can raise high enough to load dump trucks or run a wide variety of attachments. This versatility will make it an attractive choice for rental fleets and contractors.

Clair D. Urbain

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☐ Do it yourself/homeowner ☐ Party/Event ☐ Other _____

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Approximate annual rental volume
☐ \$0-\$500,000 ☐ \$500,001-\$2 million
☐ \$2 million-\$4 million ☐ \$4 million-\$6 million
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Opening in 2020, Troy Miller, Jerry Morin (pictured) and the other Rental Equipment Center owners leverage their decades of experience gained from working with national and independent rental centers.



Photo Caption

| RENTAL EQUIPMENT CENTER |

BY CLAIR URBAIN

BECOMING INDEPENDENT

Photo courtesy REC

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BECOMING INDEPENDENT

OPENING IN 2020, RENTAL EQUIPMENT CENTER OWNERS LEVERAGE THEIR DECADES OF EXPERIENCE GAINED FROM WORKING WITH NATIONAL AND INDEPENDENT RENTAL CENTERS.

Every industry has the submarine phenomenon. That's where seasoned professionals leave their place of employment, then seemingly travel under the radar, only to pop up somewhere else in the industry. This phenomenon gets even more noticeable as mergers and acquisitions take place in an industry.

The equipment rental industry is no exception, and Rental Equipment Center, which started in late 2019 out of Denver, Colorado, is an apt example.

Jerry Morin, president; Troy Miller, chief financial officer; Bill Armstead, general manager; and Phillip Priolo, fleet manager, have all worked with each other at some time or another in their careers that span as much as 40-plus years.

"I have been working in equipment rental since I was 21 years old as a driver for Center Rental in Denver and Bill was in sales for them in Fort Collins. This was in the mid-'80s and when Center Rental was sold to RSC in the late 90s, Morin and Armstead went to work for RSC. Bill reported to Greg Harrington, who was the regional RSC vice president," says Morin.

While at RSC, Morin and Armstead learned the ropes of equipment rental through the eyes of the ever-expanding company, but eventually went their separate ways.

"Bill went into a mobile mini business and I went to work for United Rentals in Denver as a sales representative for four years before moving to Minnesota as a United Rentals branch manager. Two years later, I returned to Colorado to work for a startup independent," Morin says.

RENTAL REUNION

Although years separated Armstead's and Morin's association with each other and Harrington, Harrington contacted David Blood-Smyth in 2008 with an idea: With so many corporate rollups of independent rental centers in the Denver area, the time was ripe to launch

an independent equipment rental company that could meet the needs of small- and mid-sized contractors.

However, 2008 was the beginning of the housing bubble pop and Harrington and Blood-Smyth struggled to raise capital to grow the new business, Contractors Equipment Center. However, by 2012, the momentum began to shift in the Denver market and the group looked to recruit specialists in key areas of the business such as sales and marketing, finance and accounting and operations.

"Harrington hired Jerry first, then Troy Miller and me in 2013," Armstead recalls.

Within five years, the group went from an ambitious independent rental business to the single largest independent in Colorado with three locations. In late 2017, Contractors Equipment Center was sold to a large national rental house.

After some time, the group again parted ways; Miller went to work as the CFO of D & D Lift, a private telehandler and aerial rental firm in northern California owned by George Barberick and Dave Priolo. The company was primarily a JLG dealer and had about \$8 million in its fleet in 2019. With Miller and Dave's son, Phillip Priolo's experience, they grew the fleet to \$38 million and D & D Lift was sold to Sunbelt Rentals in March 2022.

"In 2019, Jerry was semi-retired, and I asked him to help me with some consulting work at D & D Lift. While we were doing that, we began kicking around the idea of opening a lifestyle rental business in Denver," recalls Miller.



■ You'll find everyone, from top management down to laborers, working in the 7,000 square-foot, drive-through four bay maintenance shop. "It's mentoring on a daily basis. Management will sit at the counter, walk the yard and is always ready to offer to help and coach the employees," says Armstead.

NEXT CHAPTER

By December 2019, Miller and Morin had opened the doors at Rental Equipment Center, their next venture. "We had \$5 million in fleet already in hand, and then COVID hit. It was like a punch in the face. We had to decide whether to quit and cut our losses or plow on. Looking at the options, pushing forward made the most sense," Miller says. "We were getting approval for essential worker notes for our employees. We had a brand-new fleet that we weren't sure how we were going to cash-flow. We were pretty much in uncharted territory. With COVID, there were so many unknowns."

However, the phones continued to ring. Suppliers, at the time, had a backlog of equipment and could deliver it within a week. "We moved forward," Morin says. "We actually grew through COVID. We were able to add to our fleet at a very low average cost, and by the end of 2020, our fleet value had grown to \$18 million and by the end of 2021, it was \$44 million and at the end of 2022, we expect it to be at \$60 million."

In the last two years, Miller says Rental Equipment Center has proven its concept to financial lenders and investors. "We now have two locations, one in Denver and Fort Collins that is moving to a larger facility in Loveland due to growth, with plans to open a third location in

Colorado Springs in 2023. While we currently serve the majority of Denver and its surrounding counties and all the way into areas of Wyoming, opening the Colorado Springs branch will help us be more efficient with handling our customers' needs a little farther south. By then, we will have nearly 70 employees and a total fleet value of \$80 million. By the end of 2022, we expect more than \$12.5 million EBITDA," Miller adds.

Today's fleet is made up of 300 pieces of excavation equipment; 220 pieces of power and air equipment; 215 pieces of material handling equipment; and 575 aerial units.

"Those units make up about 75 percent of our fleet," says Priolo. "We have approximately 400 miscellaneous items and smaller tools also in our fleet."

"We're very disciplined in our core categories of earth-moving, power and air, material handling and aerial equipment. The majority of our customers are general contractors," Miller says.

No one customer makes up a majority of the customer base. "Our largest customer is only six percent of our total business, and their spend averages \$1.5 million a year with us. The vast majority of customers spend an average of \$50,000 annually with REC," Miller says.

continued on page 14 ➔

“WE ACTUALLY GREW THROUGH COVID. WE WERE ABLE TO ADD TO OUR FLEET AT A VERY LOW AVERAGE COST. BY THE END OF 2021, IT WAS \$44 MILLION AND AT THE END OF 2022, WE EXPECT IT TO BE AT \$60 MILLION.” — JERRY MORIN

OLD HOME WEEK

With that fast growth in such a short time, it's surprising that Rental Equipment Center can find employees to fill the rapidly growing company. "During COVID, there was a lot of employment uncertainty, and we were fortunate to attract some of the best talent in the industry at that time," Miller says. "Our staff and vendors are very stable, and it's because we have had long-term relationships with them over the span of our careers," says Morin.

"We kind of all grew up together, our employees and our customers," says Morin. "All we are doing is putting our employees on the same page as our customers as far as customer service is concerned. Our employees like to be a part of something that is growing."

"We've created an underdog mentality. We give employees the ability to fix the problems as they arise. We don't have a phone tree that must be followed to get the authority to do the right thing. We take great pride in doing the right thing and doing it quickly," Miller says.

"We are deep in talent in every position. We spend a significant amount of time focused on training the next generation of rental professionals. We provide individuals an opportunity to excel; built on a strong foundation of core business principals, safety, and a positive customer experience," Armstead adds.

LESSONS LEARNED

Rental Equipment Center's management team has learned much about the equipment rental business from their years of experience in the industry. "We learned a great deal about fleet size, mix, and how the branch should be set up from a culture perspective. Because of that, we have the vision, knowledge and relationships with vendors and customers to make this independent rental center work," says Morin.

"As a result of the recent consolidation in the industry, there seem to be fewer and fewer local independent rental houses in the nation," observes Miller. "The type of equipment we rent is the same as everyone else's at relatively the same price; it's really a commodity. Our single differentiation is the customer experience."

Although Rental Equipment Center stays close to its



■ The Rental Equipment Center management team. From left to right: Phillip Priolo, fleet manager; Troy Miller, chief financial officer; Jerry Morin, president/CEO; and Bill Armstead, general manager.

fleet mix of dirt moving, air and power, material handling and aerial equipment, it's open to trying new pieces of equipment as well. "We are nimble. If a customer needs or wants something, we'll give it a shot. Our equipment decisions are made here, not in some district or regional office. We try to not say 'no' to a customer, and when we can do that, we usually have a customer for life," says Morin.

CHALLENGES

The owners at Rental Equipment Center are well-aware of the challenge they face in the near and longer term. "We have a large backlog of ordered equipment and with our expansion plans, we need to make sure we have the equipment we need. We are looking at what we will need in 2024 and 2025 now, and the cost of that equipment is unknown," says Priolo. "The price per unit will go up and that's a challenge for independent rental centers. We'll need to see an increase in rental rates; we're seeing rental rates across the country increasing five to six percent on average. Our fleet is newer, and we acquired much of it at a lower cost, so we have a competitive advantage. That's a positive. But in the future, our cost of doing business will get higher. Fleet costs, cost of financing is increasing." **PCR**



■ Troy Miller

In the last two years, Miller says Rental Equipment Center has proven its concept to financial investors. "We now have two locations, one in Denver and Fort Collins with plans to open a third location in Colorado Springs in 2023. By then we will have nearly 70 employees and a total fleet value of \$80 million."



■ Bill Armstead

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■ Jerry Morin

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■ Phillip Priolo

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Bobcat recently unveiled its electric compact track loader, the T7X. Aside from its electric powertrain, one of the vehicle's most interesting design features is the replacement of hydraulic cylinders with ball-screw mechanical actuators.

THE SHIFT TO ELECTRIFICATION

As OEMs work toward powering equipment with electrical power, no one-size-fits-all option exists. | by Brianna Jackson |

As vehicle electrification accelerates, the role of the hydraulic system is being more closely examined. Battery life is paramount in electrified architectures and hydraulics have traditionally been an energy-taxing technology. Improvements in the hydraulic system is key to enabling a longer battery life for electrified vehicles.

So far, vehicle OEMs have explored a variety of solutions aimed at improving the efficiency of their vehicles.

Within hydraulics, these changes range from incorporating novel technology to redesigning the entire system. Through

trialing these new components and systems, one thing is clear: improving vehicle efficiency through the hydraulic system will not be a one-size-fits-all solution. Factors such as vehicle size, operating conditions, duty cycle and the degree of control an application requires determines the viability of the solution.

As OEMs strive to achieve electrification, these factors must find a balance between efficiency and practicality.

There are challenges that traditional hydraulic architectures face in the wake of electrified off-highway vehicles and there are pros and cons of emerging hydraulic technologies.

Status quo must change

The advantage of traditional hydraulic systems has always been their ability to achieve unmatched power density at a very low cost. From a vehicle OEM perspective, this benefit was so great that the efficiencies in the hydraulic system became an afterthought. While vehicle OEMs are not quick to eliminate or even alter this tried-and-true technology, hydraulic systems will need a significant boost in energy efficiency to accommodate electrification.

Some OEMs are electrifying certain portions of their portfolios. One example where electrification is emerging is in electric mini excavators. The estimated market for hydraulics sold to this vehicle type to be approximately \$1.6 billion in 2021. Given the size, these vehicles will be a fertile testing ground for new hydraulic technology. Here's the technology being used in these models:

Electromechanical actuators: What they lack in power density, they make up for in other ways.

Bobcat recently unveiled its electric compact track loader, the T7X. Aside from its electric powertrain, one of the vehicle's most interesting design features is the replacement of hydraulic cylinders with ball-screw mechanical actuators. Electromechanical actuators have an advantage in maintenance over hydraulic systems. However, the most pressing constraint of replacing hydraulic cylinders is a loss of power density. However, in applications with low power-density requirements, electromechanical actuation offers tighter control and less noise. Additionally, within an electrified vehicle, the removal of the hydraulic system can simplify the overall design.

The best-use cases for replacing hydraulic cylinders with electromechanical actuators are found within the material handling sector such as aerial work platforms and telehandlers. In the right applications, replacing hydraulic actuation with electromechanical actuation can lead to a lower total cost of ownership (TCO) from fuel savings, reduced maintenance costs and tax subsidies associated with implementing green technology.

Digital Hydraulics: Digital hydraulics gets its name from the fast-switching on/off valves used in this system. This technology tends to carry significantly higher efficiencies when used in place of traditional hydraulic components. Over the past few years, there have been a variety of digital hydraulic solutions released.

In late 2020, Volvo announced a partnership with Norrhydro to produce an electric excavator. Norrhydro's proprietary technology, the NorrDigi system, features a multichambered digital hydraulic actuator. This modular system reduces the bill of materials significantly by eliminating the main control valve and shortening the length of hosing required. The higher efficiencies brought by the digital hydraulic system also supports a longer battery life, which is key to making electric excavators a practical solution.

Another example in the digital hydraulic space is Danfoss's widely discussed Digital Displacement Pump (DDP). This pump has been shown to increase fuel efficiency by 30 percent in internal combustion engine-powered vehicles. The technology is promising as a successor to traditional hydraulics and Danfoss is positioned as an early mover in the digital hydraulic space.

Digital hydraulics offer enhanced efficiencies while largely maintaining traditional hydraulic architectures. By maintaining traditional architectures, many of the drawbacks faced by other solutions such as electromechanical actuators, are avoided. More digital hydraulic technologies will likely be introduced as

the off-highway vehicle market moves towards electrification.

Electro-hydraulic actuation: Electro-hydraulic actuation involves each actuator being driven by its own pump and motor. This reduces throttling losses from valves and the modular nature of the technology can simplify machine maintenance.

Additionally, separating the drivetrain from the working functions simplifies machine design when going electric. One example of an electro-hydraulic actuator is Bucher's HELAX system. According to Bucher, the system is significantly more efficient than traditionally actuated systems. One way it achieves this higher efficiency is through an energy recuperation process. Traditional hydraulic systems need an accumulator, but HELAX offers the ability to regenerate power back into the battery through the electric motors that drive the system.

The main drawback to electro-hydraulic solutions is the increased upfront costs that can be several orders of magnitude higher than traditional hydraulic actuation. However, for the long-term TCO, higher efficiencies could significantly reduce the total operating costs. For this reason, electro-hydraulic architectures are continuing to gain interest from many OEMs.

Final thoughts

Electrification has undoubtedly shaken up the mature mobile hydraulics market. Although no one way forward is clear, it is apparent that a one-size-fits-all solution to optimize vehicle efficiency does not exist.

The variety of vehicles, applications and requirements within the off-highway market will continue to challenge mobile hydraulic suppliers. However, this will also offer suppliers an opportunity to innovate as OEMs progress toward electrifying their fleets. **PCR**

Brianna Jackson is a research analyst at Interact Analysis, and international technology research firm.



EXCAVATORS

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Hydronic excavators are versatile additions to any rental fleet and new models are offering more advanced technology that improves their productivity, safety and ROI. But with more advanced technology, rental centers must consider models that may require more operator training to assure they get the top level of productivity the units can offer. *Pro Contractor Rentals* asked hydraulic excavator experts on the trends they see customers are wanting from these units and how rental centers can achieve greater ROI on new units.

Senior Marketing Professional
BRIAN STELLBRING
Caterpillar

■ TECHNOLOGY REDUCES OPERATING COSTS

Customers are always looking for ways to reduce operating costs, address labor challenges and maximize production. The advanced technologies on Cat excavators, such as grade control and payload system are two great examples that answer those customer needs. Standard Grade Control with Assist helps operators quickly get to and stay on grade. This lowers operating costs by requiring less time, less fuel, less rework, less import material while providing high quality finished product.

This also helps newer or less-experienced operators be more proficient and learn at a faster rate. This is important, especially in today's market where find-

ing and retaining quality operators is a major challenge for contractors.

The standard Cat Payload system helps operators prevent under- or over-loading trucks as well as providing production information. This helps customers maximize productivity and ensure the most cost-effective trucking of material.

Additionally, advances in smart electro-hydraulic systems help customers lower operating costs through increased efficiency and ultimately lower fuel consumption. In conjunction with more efficient hydraulic systems, there are also operating modes such as Smart Mode to help lower operating costs while ensuring performance matched to the job site.

Smart Mode can automatically adjust the power based on the operator and application demands. So, in light- to medium-duty applications, the machine behaves more like it's in economy mode, and while in more demanding applica-

continued on page 18 →



In conjunction with more efficient hydraulic systems, Cat excavators offer operating modes such as Smart Mode to help lower operating costs while ensuring performance is matched to the job site.

tions, the machine automatically provides maximum or high power to ensure the highest level of performance.

As rental center managers contemplate expanding or updating their excavator fleet, decisions should revolve around on how to maximize ROI while meeting customer needs. Standard grade and payload technologies should be considered. These technologies need to be a part of the rental center strategy and delivery process to help differentiate the offering to contractors and ensure they understand the value of what these technologies can do for them.

Other more traditional considerations are understanding and promoting fuel-saving features and technology such as Smart Mode or Engine Idle Shutdown.

It is also critical that the rental center decision makers are properly configuring the machines to meet the needs of its customer base and provide the most versatility. This includes specifying auxiliary hydraulics, quick-coupler circuits and a range of the most used attachments.

Rental centers should also consider providing differentiated rental rates that match the machine offering to the

most common types of applications of customers in their market. For example, Cat Next Gen excavators include the GC range of machines. The GC models are focused on lower acquisition and operating costs yet provides a base level of performance that matches very well to common applications where maximum productivity is not always required.

Rental centers can do several things to focus on increasing demand and ROI. Utilizing the standard Grade and Payload technologies on Next Gen excavators provide customers with a differentiated product that can lower operating costs and increase job site efficiency. Many customers are already asking for these technologies and see the value of renting machines with these features.

It is also critical rental centers have a well-maintained, inspected, lower-hour fleet of machines. This ensures maximum uptime for customers. Also, having the right machine configuration and versatility of that configuration, along with the most popular work tool attachments, is critical to matching the rental fleet offering to the needs of the market. ●



Product Specialist
JOEL ESCALANTE
Doosan Infracore
North America

■ FUEL EFFICIENCY GAINS IMPORTANCE

Fuel efficiency is clearly a need for customers right now and the Doosan D-Eco Power system in new -7 Series excavators improves productivity and saves fuel. An electronically controlled pump, closed-center main control valve and system sensors electronically detect and control the precise amount of hydraulic power required to perform a task. The exact amount of hydraulic fluid required is metered instead of a fixed amount of fluid continuously being forced through the system. That means the hydraulic and engine power are matched in any digging condition to maximize fuel efficiency and improve productivity.

Improved feedback through the controls results in an outstanding level of operator comfort and much smoother machine operation.

Another technology that supports fuel efficiency in the new Doosan excavators is Speed Control, which enhances fuel efficiency by reducing engine speed in the low-load range to an appropriate level through variable engine speed control. It does this by detecting actual engine load and the operator's activity for heavy-load operations. Speed Control works hand in



New Doosan excavators feature Speed Control, which enhances fuel efficiency by reducing engine speed in the low-load range through a variable engine speed control.

hand with Smart Pump Torque Control, which reduces unnecessary engine load through optimized control of pump torque to match the engine torque.

When considering whether to add new models to the excavator fleet, cost of ownership is always the chief concern for any rental center. Upfront cost, the durability of the machine and how easy it is to maintain are crucial.

Beyond that, support from not just the dealer but also the OEM when necessary is very important. Some of the largest Doosan customers in North America work with Doosan because it meets with them as a manufacturer, understands their needs and comes up with customized solutions.

To increase demand or increase ROI with these units, the DoosanConnect telematics system is easy to use and can give rental centers more control over their rental fleets. The system allows rental centers to track the location of its excavators, set geofences for where they can be operated, see their maintenance needs and monitor how they are being operated. For example, the telematics system can track the number of hours the customer is putting on the excavator; it also allows fleet managers to see if someone is letting the excavator idle excessively, which can cause emissions trouble in any Tier 4 machine, and contact them to try to fix that behavior. ●



National Rental
Account Manager
JASON MIZEN
Hitachi Construction
Machinery Americas

■ FINE-TUNED PERFORMANCE FOR PRODUCTIVITY

Fuel efficiency and productivity improvements are the results of power system enhancements. Many Hitachi compact excavator models feature power/economy modes that are usually only available on larger excavator models. These modes allow the operator to match the engine speed to the job. The power mode provides higher engine speed for most general digging work, while the economy mode reduces engine speed for lighter digging jobs. This results in lower



Many Hitachi compact excavator models feature power/economy modes that are usually only available on larger excavator models. These modes allow the operator to match the engine speed to the job.

noise and decreased fuel consumption.

Hitachi compact excavators also use the Triple H (HHH) hydraulic system, which enables combined operations by adjusting the optimal flow rate for all actuators. This gives the operator the freedom to provide simultaneous control inputs with no impact on machine performance. The compact excavators feature full hydraulic pilot control to maximize controllability for the boom, swing, travel, blade, bucket/thumb and other attachments.

The new standard-size Hitachi high-performance construction excavators use the TRIAS II three-pump hydraulic system, which offers the performance to excel at earthmoving, material handling, demolition, underground excavation and more. The pumps supply an optimal amount of pressurized oil to each actuator. These pumps are electrically controlled for precise oil flow for sensitive front attachment control and lower fuel consumption.

The TRIAS II technology minimizes hydraulic system losses by reducing the

hydraulic oil returned to the tank. This helps lower fuel consumption in Eco mode with the same productivity. A high-power HP mode increases engine speed and hydraulic-pump output torque when extra speed and/or heavy-duty work is required.

Rental centers considering adding new models to their rental fleets should always consider simplicity of operation. The control pattern on Hitachi compact excavators can be quickly switched from backhoe- to excavator-style controls with a control-pattern selector located beneath the seat. This allows operators to use a familiar control pattern and be more productive during the workday.

Attachment versatility can result in higher utilization. The excavators should be ready to run multiple attachments with auxiliary plumbing installed on the stick. Hitachi compact excavators come with additional plumbing on the stick and selector valves to accommodate various types of attachments. An auxiliary function lever (AFL) is available with an analog switch, trigger

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switch and horn for running attachments, such as a breaker or an attachment with swing.

Ease of maintenance and durability are also key considerations, especially with compact excavators. Compact machines can be more challenging to maintain with components crowded into tight quarters. HCMA models group daily maintenance points behind easy-access covers and a large engine cover slides open vertically for access when the machine is in a confined area. All critical components can be accessed through easy-to-operate access panels. A hinged door provides wide-open access to the side-by-side oil cooler and radiator for easier cleanout.

Hitachi compact excavators are built to the same durability standards as larger Hitachi excavators. Oil-impregnated HN bushings are used on the boom, arm and bucket joints for increased durability. Heavy-duty X-frames provide a solid base that resists material and dirt buildup. A single-pin swing post increases the structural integrity of the digging components. E excavators that are plumbed to handle a wide range of attachments and include quick couplers for switching attachments can offer greater ROI.

This can increase the versatility and, therefore, the utilization rate. Being able to offer the right attachments to simplify a task makes the unit more attractive to the contractor.

The latest technology can help customers track performance and minimize downtime. Hitachi Global e-Service is available on many excavator models. It allows equipment owners to monitor their excavators remotely via Owner's Site and ConSite, Hitachi's full data toolkit with a suite of apps for managing machine performance and productivity.

ConSite tracks performance metrics including idle time, operating time and fuel efficiency along with providing location services in real time and it alerts owners and operators to upcoming maintenance needs. These predict-and-prevent tools help fleet managers maximize machine efficiency, minimize downtime and improve overall performance. ●



Senior Product Manager
MIKE FULLER
Hyundai Equipment Americas

■ NEW-GENERATION EXCAVATORS ADD PRODUCTIVITY, SAFETY AND EFFICIENCY

Rental centers traditionally have focused on the 8.5- to 14-metric ton excavator weight classes that they offer to customers. But as the demand increases for more powerful and versatile machines, there is a shift toward larger machines.

Hyundai has responded to that demand by creating a machine that provides the right combination of size, power, efficiency, versatility and affordability. All those factors come together in the recently introduced Hyundai HX210AL excavator, designed to appeal to rental houses and dealers with high volumes of rental business. The idea is to offer the rental center or dealer a machine that is easier to monitor and maintain and offer the customer a machine that is less complex, more intuitive and safer to operate.

The HX210AL is powered by a 170-horsepower Cummins B4.5 Stage 5/Tier 4 Final diesel engine. It is in

the 22-metric ton class with a standard operating weight of 50,460 pounds. Standard bucket capacity is 1.3 cubic yards and the machine accepts a wide variety of attachments that also fit the larger Hyundai HX220AL excavator, with which it shares the same arm and coupler design.

The two models also share the same undercarriage, the same engine power rating and the same hydraulic system capacity and features. As a lighter machine with a slightly smaller upper structure, the HX210AL comes with a significantly lower price tag, which is a big consideration for rental houses, and helps them recoup their investment more quickly.

The Hyundai A Series machines offer a variety of new and enhanced standard features appealing to rental centers, dealers and end users. For example, the HX210AL excavator features Electric Positive Flow Control (EPFC) that improves fine control while reducing fuel consumption, ensuring the optimal balance of power, precision and economy.

Of interest to rental fleet operators is a new ability to edit menu functions available to the machine operator. This enables the machine owner to provide or restrict access for machine operators by using a password to lock or unlock the menu of control options.



As a lighter machine with a slightly smaller upper structure, the HX210AL comes with a significantly lower price tag, which is a big consideration for rental houses and helps them recoup their investment more quickly.

Rental fleet operators also will appreciate Hyundai's new auto safety lock feature that prevents unintentional operation. When the lock is activated, no hydraulic functions can be activated/operated.

Hyundai provides five years of free access to its global HiMate telematic monitoring system. With satellite and GSM connectivity, HiMate enables remote monitoring of productivity, fuel consumption, system warning and maintenance status, which can help reduce unplanned downtime and improve fleet utilization. HiMate also enables geofencing to keep the machine confined within prescribed geographic limits.

The HX210AL excavator also offers the optional Hyundai-exclusive All Around View Monitoring (AAVM) system, giving a 360-degree bird's eye view around the machine, greatly improving jobsite safety. The system includes Hyundai's Intelligent Moving Objects Detection (IMOD) technology. IMOD alerts the operator to the presence of anything within a 16.5-foot range of operation via an audible alarm and color changes displayed on the 8-inch in-cab monitor.

As another option, the HX210AL excavator incorporates Hyundai's proprietary Two-Dimensional Machine Guidance (2D MG) system that displays the height of bucket teeth from the target depth and angle of the bucket in real-time. It's ideal for trenching, grading and making a slope. With 2D MG, the operator can increase productivity by about 30 percent without a worker in the dig site for a safer work environment overall. The 2D MG provides a more cost-effective solution than 3D machine guidance systems.

The Cummins Performance Series engines in the Hyundai A Series lineup are the most environmentally friendly and fuel-efficient engines available today. With these engines, Hyundai's A Series machines are approximately 7 to 11 percent more fuel efficient than previous comparable models.

Cummins' Stage V-compliant engines offer several improvements over previous generation engine models, including improved power and torque, reduced complexity, enhanced reliability, reduced cooling system requirements and remote real-time diagnostics. ●



JCB's latest machines have universal attachment pick-up dimensions so customers with existing attachments can continue to use those with the new excavator models.



Product Manager – Excavators
CHRIS LUCAS
JCB North America

■ TECHNOLOGICAL OPTIONS BECOMING STANDARD

JCB has improved the technology features on its excavator models to include standard features such as automatic health checks to eliminate the need for pre-start walk-arounds. Further, on JCB models, advanced tool select is standard, which simplifies changing attachments and makes attachment setup easy.

As rental centers consider adding excavators to their fleets, they need to consider their existing fleet of attachments in the selection process. JCB's latest machines have universal attachment pick-up dimensions so customers with existing attachments can continue to use those with the new excavator models.

Rental houses should consider theft protection, uptime monitoring, maintenance concerns and the need to monitor potential abuse. These are available through JCB Livelink telematics, which comes standard with all JCB mini excavators; every JCB mini excavator comes with a free five-year subscription.

Rental centers can increase demand, and in turn, ROI by making sure the

models are readily available. Demand is often measured by availability; who has machines available when the customer comes looking? One way to do this is by utilizing services such as data from Livelink telematics to schedule and preemptively control maintenance issues. Improved uptime means more time on the lot available for rent.

When comparing ROI across units, consider service intervals, serviceability and parts availability for that brand or model. Make sure your rental center offers the most demanded machine class for your market, and then consider ease of use for the operator. Each of these will improve equipment uptime, increase demand and reduce time needed to support the customer in the field.

For example, JCB excavator service intervals are more than 500-hour greasing intervals, 2,000-hour air filter life, 500-hour oil changes and 1,000-hour hydraulic oil changes. When it comes time for preventive maintenance, technicians will find the JCB excavators are very serviceable, with fully removable panels, large service doors, removable cab floors, tilting cabs and easy-access hydraulic valves. Further, JCB offers greater than 95 percent parts availability through its regional part distribution centers.

JCB excavators feature QR codes in every cab that will take customers directly to

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EQUIPMENT INSIGHT

JCB's landing page for Quick Start Guides, providing step-by-step instructions for most standard operating questions. ●



Solutions Marketing Manager
JUSTIN STEGER
John Deere

■ CONSIDER LOWER-MAINTENANCE MODELS

John Deere is committed to providing customers with solutions that meet their growing needs and continues to introduce new features to do just that.

With convenience always top of mind for operators, one important advance incorporated on all six John Deere G-Series compact excavator models is the standard mechanical wear-compensating couplers for buckets and attachments. G-Series units are compatible with the D-Series buckets, so operators can utilize equipment they likely already own.

In addition, John Deere uses oil-impregnated bushings in the front joints of the boom, arm and bucket. These bushings do not replace the need for grease;

but rather provide extra protection should a joint not get greased properly.

There has been increasing demand among rental organizations for mini excavators that are versatile, reliable and compatible with new technology such as telematics. While auxiliary hydraulic lines have long been standard equipment on John Deere mini excavators for years, John Deere engineers have added a selector valve on the arm of all models 26G through 60G, enabling operators to plumb two attachments simultaneously. With a simple turn of the valve, the operator diverts hydraulic oil to the attachment he or she wants to use without swapping hoses.

When rental centers think about bringing new excavator models into their rental fleets, they must prioritize time, versatility and quality. Quality of the machines is very important when faced with companies with tight turnaround times. The machines should have the ability to run for longer periods of time, even when faced with harsh conditions. High-quality machines and proper routine maintenance will help limit maintenance downtime, ensuring the job site is always running on schedule.

Customers are also always looking for ways to increase efficiency and convenience on the job. Machines that offer versatility are an attractive option for any operator. For example, machines that are compatible with multiple attachments or machines that can easily fit in small spaces without sacrificing the power of larger-scale models, such as the John Deere 30G compact excavator, which is a good example.

The first thing rental centers can do to increase demand for a given machine is to make sure that it is configured to meet the needs of the market. Things such as model size, transportability, arm length and track type will dictate the demand for the excavator. Understanding the requirements of the local customer base – and then assembling a rental fleet based upon those needs – will return the highest yield. Standard rubber tracks and optional arm and counterweight configurations are just a few of the ways John Deere tries to make its mini excavators appealing to a broad set of users.

While Deere mini excavators are among the most reliable and durable machines in the Deere product portfolio, following regular maintenance will help rental centers get ahead of potential downtime issues and major repairs. Using the recommended engine oils, filters, grease, and coolants – and adhering to the service intervals – is key to getting the most out of your mini excavator. ●



Sales Representative
DOUG HACKER
Kato CES

■ COMFORT, VERSATILITY KEY

The excavator industry has set the bar extremely high and manufacturers are always striving to make better machines by creating the ultimate machine for users.

Kato is finding ways to meet these needs, starting with a larger ROPS/cabin. This allows the operator more space and higher visibility. The ergonomic design provides the ultimate in comfort and usability.

Versatility is key when it comes to equipment advances. Battery-powered excava-



Kato excavator models feature a larger ROPS/cabin that allows the operator more space and greater visibility. The ergonomic design provides the ultimate comfort and usability.

tors, zero tail-swing models and multiple hydraulic lines for uses ranging from couplers to attachments, such as a hydraulic hammer, brush cutter or rock crusher.

Key things to think about when rental centers are contemplating bringing a new excavator model into the fleet should be the overall machine performance – its weight, horsepower, breakout force, lifting capacity and digging depth. Customer demand is the key to selecting a new excavator for the fleet which can greatly affect ROI.

There are many ways to increase the demand or ROI with the new excavators. First would be to have a competitive machine that meets or beats industry standards. Identify the key points that help the overall demand and ROI; having units readily available is important, which means a larger fleet; and make sure it well maintained and service intervals are up to date to keep the machine operating at peak performance.

Rental centers can increase utilization with strong a marketing plan that includes social media, road signage and demo days.

Having a stellar sales team that has access to a fleet large enough to meet the market demand and having multiple buckets and attachments to meet the customer needs and demands can help improve utilization rates. ●



General Manager
PETER BIGWOOD
Mecalac North America

■ LOOK AT MULTI-PURPOSE MACHINES

As job sites have more restricted access, contractors require more compact equipment and manufacturers continue to work on reducing the size of their machines, especially tail swing radius. However, this often has been at the expense of stability, lifting capacity and cab space.

Mecalac was the first manufacturer to recognize the need for new urban excavators that combine compactness with performance. Along with reducing the rear radius, Mecalac engineers have addressed boom design to ensure 360-degree compactness. A traditional excavator has a dipper mounted at the front of the machine, making it front-heavy and limited in its ability to operate in confined spaces. To eliminate that inefficiency, the patented Mecalac boom system can retract fully, making the machine compact both at the front and rear, while decreasing the height clearance above the machine.

Multi-purpose equipment can reduce

operating costs. Traditionally, a multi-purpose machine excels at one function and offers mediocre performance on other functions. Mecalac has changed that by designing compact equipment that can serve as an excavator, a compact track loader and a material handler, and do it all equally well.

The 8MCR, Mecalac's 8-ton skid excavator, for example, can travel at 6.2 mph, which is twice as fast as any other compact excavator. It can use buckets that are 77 percent larger than the buckets used traditionally on this size-class, which are typically .70 cubic yard bucket for an 11-ton excavator and operate with a total swing diameter of a 2-ton excavator. This ratio is unheard of and with this level of performance, a contractor can complete a task much faster with a single machine.

Telematics systems are also very useful for rental centers. This technology provides a streamlined way to manage their fleets. MyMecalac, for example, delivers everything from high-level summaries to specific machine details, such as maintenance, inspection and damage notifications, in real time.

Important factors to consider when selecting new excavator models is level of operator experience, ergonomics and intuitive controls. How easy and safe it is for the operator to enter and exit the cab? If he or she must step on a frame or muddy wheel, for example, that is a safety risk that no one thinks about until something happens. There are excavator models that are more like entering a car, reducing the risk of slipping or misstepping. Also, think about blind spots; how much visibility does the operator have? This is critical on cramped job sites where workers, equipment and activities are all in motion at the same time.

Another consideration is the value that piece of equipment offers a contractor. Does it provide something unique and innovative? With excavators, there are many good options, but they tend to be very similar. A way for a rental center to help their customers gain an advantage is by offering something that has meaningful differences that improve efficiency and lower operating costs.

An easy way for rental centers to increase utilization and improve ROI for

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Machines that offer versatility are an attractive option for any operator. For example, machines that are compatible with multiple attachments or machines that can easily fit in small spaces without sacrificing the power of larger-scale models.



Mecalac compact excavators have the ability to legally operate as a crane with a published load chart, have a significantly reduced operating radius and have travel speeds double that of any other small excavator.

compact excavators is to offer a wide selection of compatible attachments. Mecalac offers a variety of buckets, grapples and specialty tools to further increase versatility. But it doesn't stop there. Mecalac compact excavators outperform the ROI of industry peers through:

- The ability to legally operate as a crane with a published load chart
- A significantly reduced operating radius
- Travel speeds double that of any other small excavator

With the speed and agility of a compact track loader, the reach of a telehandler along with its excavator capabilities, contractors are getting incredible versatility in a single package of the Mecalac compact excavator. This level of versatility gives a contractor three to four machines in one, eliminating multiple pieces of equipment on the job site. It also equates to fewer operators and fewer pieces of equipment to transport.

These benefits are significant and should command a higher rental rate than traditional mini excavators. Ultimately, a piece of equipment that helps a contractor do more work faster with fewer pieces of equipment and less labor, is sure to be popular and pay for itself many times over. ●



Product Marketing Manager
RYAN ANDERSON
New Holland Construction

■ IMPROVED VISIBILITY INCREASES PRODUCTIVITY, SAFETY

To stay competitive in a fast-moving industry, it is important to offer equipment that is up to date with customers' wants and needs. Rental centers can meet these demands by including advanced excavators in their fleet and keeping customer satisfaction as a priority in their businesses.

One of the key components in making advances to the New Holland excavator line was customer feedback. To better serve customers, these excavators have improved comfort features including rear cameras, easier display operation and auxiliary hydraulic flow control. The rear cameras and easier display operation double as safety improvements with increased visibility for the operator. As far as improved performance, these excavators have auto-idle and eco modes and ease of daily maintenance. The newest models have the

highest efficiency, with less maintenance hours and longer run time.

When contemplating about bringing new excavators into your fleet, keep in mind who the end customer is in your market. A landscaping company is very different from a residential construction company, but both need excavators. To serve both, a rental center may need different-sized excavators with multiple attachments. The landscaper will likely want a 3- to 4-ton class excavator or smaller, while the contractor will want a 4-ton or larger class excavator.

The attachments will also vary between segments, however, many of them overlap. The auxiliary hydraulics on New Holland excavators allows them to pair with most attachments but keep flow and pressure in mind to ensure the machine maintains efficiency. With multiple attachments available, your rental center will be the renter's one-stop shop.

For customers to recognize a rental center as a true rental house, make your units visible in your yard. A sufficient fleet consists of 4 to 10 excavators and enough attachments to fulfill customers' needs. To maintain a high demand of these rental excavators, a rental center must stay current with new attachments, both broad and niche. Having multiple options of attachments will ensure the facility can serve a range of customers, everyone from the weekend warriors to commercial contractors. By staying in-the-know of industry attachments, customers will trust that you have the best match for their rental needs.

Return on investment is also key for rental centers when making excavator purchases. To increase ROI, your business should be tracking each individual machine. This includes not only the hours being put on the machine, but also how many hours the machine is idling vs. working.

The type of work each individual excavator is performing should also be tracked. Machine maintenance should be prioritized based on the number of hours and type of work performed. By keeping up with maintenance, machines will run into fewer problems, resulting in more work hours, lower operating costs and higher profits. The better you take care



The newest New Holland models have the highest efficiency, with less maintenance hours and longer run time.

of your excavators, the higher ROI on each machine. ●



Product Manager
GPE Products
MATTHEW MCLEAN
Volvo CE North America

■ TECHNOLOGY INCREASES PRODUCTIVITY, SAFETY

Technology has become a major focus for excavators because of how much it can impact efficiency, accuracy and operator satisfaction.

Assistive software makes work faster and easier by allowing the operator to set up and automate some of the most common tasks such as leveling and sloping, creating layers of different materials or weighing the material moved. On Volvo excavators, this is called Dig Assist.

There are also safety benefits to this technology. For example, setting a swing fence keeps the operators from swinging into a lane of traffic. Or a depth limit can prevent them from hitting a fiber optic cable or sewer pipe.

Work modes are a great feature that can help save on fuel costs; with today's fuel prices this can't be overlooked. Some operators tend to jump directly to the highest mode, no matter the task. That burns fuel unnecessarily and results in speeds that only the most skilled operators can handle effectively. Many excavators now include an auto-idle function that can be set to kick in after a predetermined amount of time, or an auto engine-shutdown feature that will shut the excavator off after a certain period. Depending on the situation, an excavator can idle for as much as 60 percent of its operating time, so these features are an easy way to help cut down on that.

The right technology saves time, money and makes the operator's day easier. With the current labor shortage, a happy operator is key. Technology can also help a less-experienced operator learn faster and feel more confident.

When evaluating new models to bring into the rental fleet, make sure your rental center offers excavators that match the jobs your customers typically do and the equipment they will be working alongside. Using too small of a machine will make it work harder than it needs to; using too big of a machine is a waste of resources. If the excavator will be doing repeated motions such as loading muck pile into a hauler, right-sizing the

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Assistive software, like Volvo's Dig Assist, makes work faster and easier by allowing the operator to automate some of the most common tasks such as leveling and sloping, creating layers of different materials or weighing the material moved.

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excavator to the material and the hauler will optimize cycle times and ensure proper use.

It's also beneficial to carry excavators that include any technology that will help your customers make the most of their time and resources. Make sure rental center team members are well-versed in this technology so they can help renters utilize and enjoy it instead of being frustrated by it.

Because the bottom line is the top priority for rental centers and customers, features such as machine control and advanced telematics can make a huge difference. Rental centers that share real-world data and examples will help renters understand just how much assistive software can boost their productivity. Educate them on proper work modes, machine control features and telematics' ability to optimize behaviors and streamline maintenance. It will save them – and you – time, hassle and money. The technology exists to make everyone's jobs easier, so let it. ●

Director of Sales

JEFF PATE

Yanmar Compact Equipment

LOOK FOR VERSATILITY

Labor shortages continue to make it difficult to find and retain workers, so it's more important than ever that rental centers offer equipment that is suitable for long days of hard work. Some manufacturers are meeting this need by incorporating more comfort features into their mini excavator models, such as more supportive seats to minimize fatigue during strenuous workdays.

Cabs are seeing improvements in ergonomics, such as switches and displays that are more viewable and controls that are easier to use. Enhanced attachment coupling options also improve efficiency on the job site, with hydraulic options allowing switching attachments without leaving the cab.

A recent feature introduced by Yanmar Compact Equipment is a convenient, factory-designed lifting point to enhance mini excavator lifting versatility without needing to use an attachment.



Cabs are seeing improvements in ergonomics, such as switches and displays that are more viewable and controls that are easier to use. Enhanced attachment coupling options also improve efficiency on the job site, with hydraulic options allowing switching attachments without leaving the cab.

This lifting point – Yanmar's stowable utility hook – is built into the machine's linkage to improve the longevity of the excavator and job site safety by minimizing the strain that can occur on the end of the arm by lifting heavy objects with a chain attached to a bucket.

For even more productivity, Yanmar and others have integrated a light into the mini excavator boom to shine directly onto the work area so operators can easily see what needs to be done, no matter the time of day or job site lighting. This placement has the added benefit of protecting the light from damage during tough rental applications.

Rental centers should keep in mind that while a larger mini excavator does mean more power, many of their customers' jobs can likely be completed by a smaller machine. Smaller machines have the added benefit of easier transport and more efficient work in tighter spaces. A popular size class to consider is three to four tons. This type of mini excavator packs a great power-to-weight ratio in an easily transportable package.

Technology, such as a retractable undercarriage that is offered on Yanmar's

ViO17, can hydraulically extend and retract the track width so it can access narrow job sites. Features such as zero- or ultra-tight tail swing add flexibility and minimize the risk of damage for customers operating around walls, buildings or landscaping.

Reliability is a crucial consideration rental centers should prioritize. Does the OEM have a track record of reliable equipment? Do they stand behind their products? Reliable equipment requires less maintenance, which means fewer headaches for everyone involved. Yanmar has a history of manufacturing reliable engines, and that reputation extends to its excavator line as well. Yanmar offers a 4-year/4,000-hour warranty; that's double what's offered by many OEMs.

One of the best ways to increase demand is to offer comfortable, reliable equipment. If it's something an operator can work long days in with less fatigue and no breakdowns, they are likely to rent it again.

A quick ROI often comes from investing in reliable, low-maintenance equipment because if it can be broken in

a rental application, there's a high likelihood it will be. This not only applies to the engine and other interior working parts of the excavator but applies to the exterior as well. Look for cylinder guards that come standard on the excavator to minimize damage and repair costs that come from improper operation. Some manufacturers also route hydraulic hoses inside the boom for additional component protection to further protect rental centers' investments. ●



Engineering Manager
Control Systems
ROBERT DELLEMAN
Zoomlion

TECHNOLOGY TAKES EXCAVATORS TO NEW LEVELS

With 2D grade guidance, the operator uses a gauge on the cab display to achieve the correct grade depth. It gives a less-experienced operator the ability to learn machine operation quickly. It also avoids having to step in a trench to measure the depth.

One implementation of 2D control uses four sensors that can discern the angles of the boom, arm, bucket and machine platform pitch along with trigonometric math determine the depth of a trench.

With 2D grade control, the operator simply pulls back on one joystick and the machine controls the depth of the boom and arm.

On large drainage projects, 3D grade guidance/control can form complex shapes and designs. Plans are downloaded from off-site engineers using software programs such as Autodesk Civil 3D. Besides the four sensors used on 2D control/guidance, 3D uses a pair of GPS antennas plus an RTK radio positioning signal to achieve centimeter accuracy. In addition to the off-site engineered plan being downloaded to an excavator, as-built data can be uploaded back to the engineering software.

Most heavy construction equipment manufacturers are investigating electrification of excavators. Two advantages of electrification are low noise in urban areas and elimination of exhaust in en-

On large drainage projects, 3D grade guidance/control can form complex shapes and designs. Plans are downloaded from off-site engineers using software programs such as Autodesk Civil 3D. Besides the four sensors used on 2D control/guidance, 3D uses a pair of GPS antennas plus an RTK radio positioning signal to achieve centimeter accuracy.



closed spaces. The internal combustion engine is replaced with an AC electrical motor that drives the hydraulic pump(s). Voltages may be higher than the OSHA safe limit of 48 volts so copper diameters are large and less expensive. Some excavators are corded and plugged into AC outlets while others are powered by batteries. Li-ion batteries are designed so an excavator can last an eight hour shift.

Telematics has been around for years, but advances in new features are progressing. This potential is seen by cellular companies partnering with tech companies to offer telematic solutions. Artificial intelligence is being employed in predictive analysis to analyze engine data and predict the optimal maintenance schedule.

Software in excavators has increased significantly over the last two decades. With controllers replacing mechanical components, it's easy to implement new features such as auto-idle control. When a joystick is idle, the vehicle controller lowers engine speed but quickly ramps

up on joystick movement, saving fuel costs. Auto-shutdown is also possible.

Excavator remote control is now possible and can be used in cases where conditions make it unsafe for an operator to be near the excavation. An operator uses a radio transmitter with joysticks that sends commands to a receiver connected to the data bus on an excavator. Mostly in research today, these machines use similar sensors as found in an autonomous car. However, conditions are different on construction sites. For instance, obstacle detection using radar must be able to manage the refractive properties of dirt clouds. Zoomlion is researching this topic and had presented an autonomous excavator at Las Vegas Con Expo 2020.

Rental centers need to consider what machines are in their current fleet and what their customers need. The new excavators should be flexible. Multi-function hydraulics are a must in any type of application. That flexibility is

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a must to increase ROI and demand. Having machines that can be used for all applications help because they will work for any customer. Units that are only used for one application, bring down the ROI and have less demand than machines that can be used for multiple applications. ●



National Product Manager
DAVID CALDWELL
Takeuchi-US

■ ELECTRICS ARE COMING

Compact excavators are leading the way in electrification, and with electrification come certain advances that are changing the ways customers can use these machines. Takeuchi's new TB20e is a prime example of an electric compact excavator with unique qualities that make it ideal for the rental market. Because electric excavators like the TB20e are very quiet and generate no emissions, they're a great solution for rental customers working in sensitive or enclosed areas. These applications include indoor demolition or working in and around schools, hospitals, residential neighborhoods and food processing facilities. Their low noise levels also make it easier for operators to communicate with others on the job site for enhanced safety and peace of mind.

In addition to low noise levels and zero emissions, these new electric excavators can run up to a full day depending on the system load and the application. They can be charged in four to 10 hours depending on the power source; some can even operate while tethered to a power source.

These electric excavators deliver performance that is on par with their diesel counterparts, provide the same working ranges and they can operate a wide range of hydraulically driven attachments for greater versatility.

When a rental center considers any machine, including compact excavators, it's important to determine cost of ownership. How much maintenance will this machine require compared to how much income it could potentially generate? The new electric models like the TB20e have very low maintenance requirements and



Rental centers that purchase and rent out electric excavators can demand premium rates for them. The primary inherent benefits of electric machine – no fuel, fuel filters, engine oil, engine oil filters – all lead to lower lifetime operating costs and less maintenance.

as a result, they're consistently available for rental or in the field working, which positively impacts the bottom lines of the rental company and its customers.

The availability of telematics – the ability to track assets and manage rental fleets remotely – on these machines is also key when contemplating the purchase of a new compact excavator. Telematics takes out the guesswork when it comes to maintenance and operation, making it easier to keep these machines in top working condition. This is especially important on a rental unit that will be used by various individuals with different levels of skill and knowledge when it comes to equipment operation and upkeep.

All these factors also lead back to another consideration: resale value. Eventually, every piece of equipment gets phased out of a rental center's fleet, so choosing a machine that should have a high resale value is a sound investment.

To increase demand or increase ROI with these units, rental centers need to get the word out to their customers and

let them know that the compact excavator is available, particularly with the new electric units that they may not know about. Explain the benefits of using an electric model and how it will open doors to jobs they may not have been able to access previously due to noise or emissions concerns.

Contractors who rent these quieter, cleaner machines can demand higher rates for applications that require their use. Let them know that electric machines deliver the same level of performance of their diesel counterparts and can be run during off hours where other machines cannot be due to noise ordinances or restrictions.

Rental centers that purchase and rent out electric excavators can demand premium rates for them. The primary inherent benefits of electric machine – no fuel, fuel filters, engine oil, engine oil filters – all lead to lower lifetime operating costs and less maintenance.

When you add up all the benefits of electric units – lower cost of ownership,

wider application range, less maintenance required and premium rental rates – it's clear to see that today's electric excavators can generate higher ROI for rental centers everywhere. ●



Head of Construction Equipment Product Management
BRAD STEMPER
Case CE

■ PLATFORM FOR DOING BETTER, PRODUCTIVE WORK

If you look at new models coming out — and we're about to introduce a whole new lineup of Case E Series excavators where ease of operation and operator satisfaction are the focus of the improvements — it's all about giving operators a platform for doing better, more productive work. With that, we focus on advances such as a massive new operator interface that is loaded with intuitive enhancements to make the operator more capable. One of the key new features is on-screen hydraulic flow control balancing of function combinations to optimize cycle times to meet job site needs. The function combinations are arm/boom and arm/swing. These are both independent adjustments. An operator can adjust flow balance to favor arm or the other function (boom and/or swing) based on the type of work they are doing.

The display also incorporates other functionality such as menu customization to provide quick menu access to features the operator prefers to use most often, increased setup functionality for attachments (with pressure and flow adjustments) and increased service tracking and notifications to the operator.

The E series also includes new working modes that incorporate throttle selection for greater control of machine performance in varying job site conditions. In the past, engine throttle speeds were not adjustable within these working modes.

All of these factors add up to equipment that is easier to use and extremely easy for you to add into your rental fleet.

In the rental business, so much of the demand revolves around size of equipment, ability to haul and transport and the type of sites where the equipment



The new Case E series excavators feature working modes that incorporate throttle selection for greater control of machine performance in varying job site conditions. In the past, engine throttle speeds were not adjustable within these working modes.

is being used. You need to know and understand your local clientele. If you have large earthmoving contractors in your area, it's worth talking to them to understand what their excavator rental needs are and to understand the size of excavators they need. You may think that a 25 metric-ton excavator is too large for your rental business, but if you have a contractor who regularly runs that size of machine and they tell you that they'd likely rent it from you on a consistent basis, then you may want to invest in equipment larger than what you've historically purchased.

What is your hauling and transportation capability? That will ultimately create size parameters that will guide you on the right excavator to add to your fleet. If you're limited by the size of truck and trailer you have, that gives you an idea of your upper size level.

While it is important to have a good understanding of who your customers are, there's a general truth around rubber-tracked excavators, from minis to conventional full-sized excavators, with rubber tracks or rubber track pads: they can work anywhere. While a steel-tracked machine is obviously great for working off road, it has limiting factors on asphalt, concrete and other improved surfaces. Rubber-tracked excavators will provide universal rentability regardless of the job site.

It seems like an obvious answer coming from a manufacturer, but presently, having inventory is critical. Contractors are looking for equipment to fill in the

gaps where they cannot get new equipment to purchase. Having a healthy fleet of equipment that gives your clients variety when they need it will make you a reliable and consistent resource.

Focusing on excavator sizing and selection that delivers ease of transportation, ease of use and bucket sizing/selection will ensure the excavators in your fleet can be rented out for a variety of tasks.

Equipping the excavator with a hydraulic or mechanical thumb will make the excavator of excellent use for clients who need to do material handling, dumpster loading and other tasks.

Having a machine that is outfitted with machine control or is machine control-ready, will make the excavator attractive to contractors who know how to use it. Simple 2D systems can even be added and are relatively easy to teach your clients how to use — so you are not only providing them iron, but also value-added technologies that can improve how they work.

Auxiliary hydraulics and attachments add versatility to the machine so that it can do more than just dig — think breaking, compacting and other jobs. This increases its utilization and value.

Many of these things may go against the mantra some folks have in the rental industry of keeping machines basic, but it's important to remember that adding some of these extra capabilities will add value to the machine when you're ready to retire it from your rental fleet and sell it out on the secondary market. ● **PCR**



▲ Mini excavator line

New Holland C-series mini excavators from 1.7 to 6 tons combine power, performance and versatility to drive productivity. The E57C delivers huge digging and grading performance with bucket breakout forces up to 8,490 foot-pounds and dig depth up to 12.5 feet. The E57C offers additional ground clearance and a 4-way angled dozer blade for maneuvering and working in tough conditions. Their compact design allows you to dig, fill, and grade in the most confined spaces. The wide cab on the E57C is designed for spacious, all-around visibility, with comfortable seating and smooth control for safe and efficient operation.

www.newholland.com

▼ 40-ton excavator ▼

The Cat 336 excavator offers class-leading production and low-cost operation. Its hydraulic system delivers strong digging forces and swing torque to boost production in the most demanding applications. Three engine modes match excavator power to job demands while saving fuel. Power mode delivers maximum power; Smart mode automatically matches engine and hydraulic power to digging conditions; and Eco mode minimizes fuel consumption. Engine oil and fuel filters have 1,000-hour service intervals, increasing uptime and reducing parts and labor costs. It has a high-ambient temperature capability of 125F and cold-start capability at 0F. Product Link telematics helps maximize machine uptime, remote troubleshoot and allows dealers to remotely update operating software. Deluxe cabs come with a heated air-suspension seat; Premium cabs have a heated and ventilated air-suspension seat.

www.cat.com



▲ Next-generation excavator

Kobelco Construction Machinery USA Inc. (KCMU) adds the SK260LC-11 excavator that delivers superior performance, greater efficiency and more productivity. Equipped with a new Tier IV Final Yanmar engine, it delivers 194 net horsepower at 1,500 rpm, with a 23 percent increase in torque vs. the previous model. It offers 42,000 pounds bucket digging force, 63,300 foot-pounds swing torque and 55,600 pounds drawbar pulling force. The Independent Travel function dedicates one hydraulic pump to travel and one to power the attachment continuously. Three work modes – Eco, S, and H – balance between high performance, economy, and low fuel consumption. Heavy Lift and Power Boost add the power needed to get through the toughest conditions and the in-cab hydraulic pressure release function allows changing work tools or hoses easily and safely. Major components have been redesigned for improved durability and performance. For example, side panels are thicker and a larger bucket cylinder pin enhances durability. The uniquely designed cabin reduces operator fatigue, provides excellent shock absorption and offers superior ride comfort. The hydraulic flow-rate modes of the bucket or attachment are fully adjustable through the monitor. A standard radiator clean-out screen and cooling fins can be easily removed for cleaning.

www.KOBELCO-USA.com

▼ 4.2-ton excavator

The Wacker Neuson ET42 4.2-ton excavator offers improved visibility for the operator. The low-profile hood and expanded side window glass in the lower portion of the cab allows the operator to see the front of both tracks. Operators have complete view of the boom and attachment and working area. A unique kinematic linkage system offers a 200-degree angle of rotation that combines excellent breakout force with a greater range of motion. It also provides greater digging depth, which can be especially helpful when excavating next to walls and can rotate the bucket further to keep more of the load in the bucket before dumping. Productivity-boosting options include a hydraulic quick-connect system that allows an attachment to be changed in seconds without having to leave the cab and a diverter valve on the auxiliary hydraulic line to switch between thumb and another attachment. The ET42 is available in cab or canopy models with LED working lights and an optional angle blade or Wacker Neuson's redesigned Vertical Digging System (VDS).

www.wackerneuson.com



◀ Rental market-friendly model

Hyundai Construction Equipment Americas recently introduced its A Series excavators, including the HX210AL with standard features and pricing designed to appeal to rental centers. It is powered by a 170 horsepower Cummins B4.5 Stage 5/Tier 4 Final diesel engine and has a standard operating weight of 50,460 pounds and has a 1.3 cubic yard bucket. Electric Positive Flow Control (EPFC) improves fine control while reducing fuel consumption. It can be equipped with the Hyundai All Around View Monitoring (AAVM) system for a 360-degree view around the machine. The system includes Hyundai's Intelligent Moving Objects Detection (IMOD) technology that alerts the operator to the presence of anything within a 16.5-foot range. It uses Hyundai's new Lift Mode, which adds Fine and Free Swing control that allows the hydraulic system to go to Power Boost, the highest secondary relief setting for lifting heavy loads.

www.hceamericas.com



◀ Compact excavators

The Bobcat E32, E35 and E35 are ideally balanced to improve lift capacity and increase operator confidence. The E35 has a redesigned Bobcat engine that delivers efficiency and performance, plus offers simplified maintenance and improved cold-weather performance. The new low-effort joysticks, coupled with the new hydraulic control valve give quick, smooth and precise control. The cab is spacious and has an easy-to-reach control pattern selector under the seat. With easy-to-reach arm-mounted auxiliary hydraulics and attachment hookup interface, the optional clamp diverter improves its ability to run a variety of attachments without having to disconnect the clamp. The standard lift eye provides a convenient method for handling objects or moving them in or out of a trench.

www.bobcat.com



▲ Mid-sized excavators

John Deere unveils 350 and 380 P-Tier excavators with SmartGrade technology factory options and field upgrade kits. These revamped machines are the first excavator models to launch as part of John Deere's new Performance Tiering strategy. The 350 P-tier and 380 P-tier support on-demand safety, comfort and control while delivering the power needed to produce at high levels on the job. Both excavators offer SmartGrade technology as a factory option and field upgrade kits. Customers can choose from 2D guidance, 3D guidance, 2D SmartGrade Ready Control or SmartGrade 3D Control. Visibility around the machines has been improved with the option of a right, rear and left camera systems with LED-surround lighting. The machines' fuel economy is up 7 percent compared to previous models.

www.JohnDeere.com/Excavators

Automated excavator operation ▼

Komatsu's proprietary intelligent Machine Control 2.0 promotes significant productivity gains for PC290LCi-11, PC360LCi-11, and PC390LCi-11 excavators. Built on Komatsu's intelligent machine control platform and developed with input from leading construction companies, iMC 2.0 offers additional new features on the company's mid-to large-size construction excavators: the PC290LCi-11, PC360LCi-11 and the PC390LCi-11. An excellent match for footing excavation, trenching and slope work, these excavators with updated factory-integrated systems help to minimize over-excavation and empower operators to dig straight to grade quickly and accurately. With integrated machine control, auto-tilt bucket control aligns the bucket parallel with the slope for finish grading. The bucket angle hold control helps operators reach finish grade quickly and accurately.

www.komatsu.com/en/products/excavators



◀ Compact excavator

Hitachi introduces the ZX26U-5N compact excavator that is easy to transport and offers fine control in confined spaces. With its reduced tail-swing design, the 4 feet, 11 inch-wide model has an operating weight of 5,560 pounds, has an independent swing boom and 360-degree rotation. It has a reach of 15 feet 2 inches and a dig depth of 8 feet 6 inches. Control patterns can be quickly switched from backhoe- to excavator-style operation. A one-way/two-way selector valve accommodates breaker and grapple attachments with extra plumbing installed on the stick. A V-shaped boom cylinder guard and hose protector protects hydraulics. The quiet Tier 4 Final-compliant, direct-injected Yanmar engine produces 20 horsepower and provides a high torque level for more pull-through power. A canopy or cab is available.

hitachicm.us

Next-generation excavators ▶

Doosan Infracore North America introduces its next-generation -7 Series excavators. The first models are the Doosan DX140LCR-7 (33,800 pounds, 19 feet 8 inches digging depth), DX225LC-7 (52,600 pounds, 21 feet 7 inches digging depth), DX255LC-7 (59,300 pounds, 22 feet 4 inches digging depth) and DX350LC-7 (81,791 pounds, 35 feet 11 inches digging depth). More models are in development. They include a strengthened work group with reinforced castings and forged steel pivot points. A new Y-shaped seal on the excavator arm provides better sealing to the bucket connection. The X-Chassis undercarriage is stronger and more stable; the track chain is sealed and self-lubricating. Cast-steel, heavy-duty sprockets offer longer life and track rollers and idlers have oil level check plugs. The units offer four power modes for more control over performance while reducing fuel consumption.

na.DoosanEquipment.com



▲ 3.5-ton model

JCB offers the 352-1 3.5-ton zero tail-swing compact excavator to its Next Generation equipment line-up. It features an engine designed for global markets and a new hydraulic system, larger ROPS cab/canopy with new instrumentation, improved dig-end geometry with 1.73-inch bucket pins and 500-hour greasing intervals. The easy-to-clean H-frame undercarriage, auto kick-down motors and reprofiled dozer blade deliver increased productivity. It is powered by a three-cylinder Perkins engine, delivering 24.7 horsepower. A programmable 2- to 30-second auto-idle function reduces engine speed to 1,400 rpm when the levers have not been used for a pre-set time. A closed-center valve block improves fluid flow, for smoother operation, particularly when multi-functioning. The hydraulic system has all O-ring face seals for maximum sealing; all hydraulic hoses are color-coded for easy identification. High-flow, electro-proportional, double-acting auxiliary hydraulics are now standard on the machine, delivering 18.5 gpm of flow. The auxiliary flow is controlled using a thumb roller on the right-hand joystick. Available as a canopy, a cab with heater, or a cab with air conditioning.

www.jcb.com

Short swing compact excavators ▼

Volvo Construction Equipment boosts its compact excavator range with two new short-swing models: the ECR50 and ECR58. The 5-ton ECR50 is a new entry for Volvo in North America, while the 6-ton ECR58 gains performance updates from the D-series model. The zero-tail-swing radius of the ECR50 and short-swing radius of the ECR58 enable the excavators to work in confined spaces while reducing the risk of damage. Additionally, the in-track boom swing ensures the swing post and cylinder remain within the track width when digging alongside obstacles. The ECR50 features reinforced digging equipment, undercarriage and hood for increased durability. A 50-hour greasing interval, wide-opening engine hood and easily accessible service points make maintenance and repair simple. The next-generation ECR58 has a 10 percent increased lifting capacity, has 5 percent greater bucket breakout force and 7 percent greater arm tear-out force compared to the D-series.

volvoce.com/na





▲ 1.8 metric ton mini excavator

LiuGong North America offers the 9018F 1.8 metric ton mini-class excavator. Its compact dimensions, foldable dozer blade and retractable undercarriage make it ideal for working in tight spaces. Its 51-inch outside tread-to-outside tread measurement retracts to 39 inches, allowing it to pass through most bay doors. It has a low-speed, high-torque Tier 4 Final Yanmar engine rated at 18.0 gross horsepower with auto-idle and auto shutdown. A more efficient hydraulic system uses up to 20 percent less engine power than its predecessor; an improved load-sensitive hydraulic system with 14.5 gpm main pump displacement has a proportional control valve for better management of flow distribution for all attachments for more precise operation.

www.liugongna.com



◀ Two new mini excavators

Kubota adds the K008-5 and U10-5 mini excavators in 2022. The K008-5 replaces the -3 model with various upgrades; the U10-5 takes an all-new, in-demand spot in the U Series minimal tail-swing lineup. The models offer single-level maneuverability with hydraulic adjustable track widths that contract to fit through tight spaces. On the K008-5, the tracks adjust down to 2 feet 4 inches and the U10-5 contracts to 2 feet 6 inches; the tracks widen to 2 feet 10 inches and 3 feet 3 inches, respectively. The K008-5 has a digging depth of 5 feet 8 inches and a bucket breakout force of 2,205 pounds. The U10-5 has a 5 feet 11 inch digging depth with a bucket breakout force of 2,337 pounds. The K008-5 is 2,315 pounds, while the U10-5 weighs in at 2,646 pounds. The units can travel up to 2.5 mph. They feature easy-change ISO/SAE operational patterns to match the operator's preference.

www.kubotausa.com

▼ Largest mini excavators

Yanmar Compact Equipment offers the ViO80-1A and SV100-2A, the largest models in its mini excavator line. The ViO80 features zero tail-swing and the SV100 features an ultra-tight tail-swing. The ViO80 can rotate next to a structure with far less risk of hitting it; The SV100's ultra-tight tail swing has just 6.7 inches of overhang. The 8-ton-class ViO80 weighs in at 18,136 pounds with 56.9 horsepower and a maximum digging depth of 15 feet, 4 inches, while the 10-ton class SV100 has a 21,550-pound operating weight while providing 72 horsepower and a maximum digging depth of 15 feet, 9 inches. Standard features include ECO mode, auto-deceleration mode and auto-shift two-speed travel. Yanmar's hydraulic quick coupler comes standard on the ViO80 and SV100.

www.YanmarCE.com



▲ 15-ton excavator

Takeuchi's new 15-ton TB2150R excavator features a fixed boom design and reduced tail swing. It has an operating weight of 34,215 pounds (rubber track model), bucket breakout force of 22,256 pounds and 13,490 pounds of arm digging force. It is powered by a 114 horsepower Deutz TCD3.6L4 turbocharged engine with a DOC+SCR aftertreatment system. Three working modes – ECO, Standard, and High Altitude – allow operators to match the working mode to the application. The hydraulic system has three auxiliary circuits; the primary circuit delivers up to 59.2 gpm. The second auxiliary circuit can deliver up to 14.5 gpm. The third circuit serves as a dedicated coupler circuit. The Takeuchi Fleet Management (TFM) telematics system is standard, which allows remote access for alerts and machine information such as location, utilization, performance and maintenance status.

www.takeuchi-us.com

▼ Compact skid excavators

The Mecalac 6MCR, 8MCR and 10MCR models offer superior speed, productivity and compact operation over traditional mini excavators. The machines provide the swiftness of a skid steer with the 360-degree rotation of an excavator for versatility and travel speeds two times faster than any small excavator. With travel speeds up to 6.2 mph, users can significantly reduce time spent traveling across job sites, resulting in faster cycle times. The patented Connect quick coupler allows operators to quickly transition between attachments. The units have a three-part arm and a rotating ability, allowing operators to do more from a single position or within confined spaces. The three-part arm can be tucked in, even with a full bucket, without overbalancing the unit for a true zero-turn radius.

www.mecalac.com



www.ProContractorRentals.com



Electric mini excavator ▲

Cratos Equipment offers the all-new CMX18 electric mini excavator. The CMX18 has a 7.5-foot dig depth, but unlike most excavators, the CMX18 is smaller, allowing it to fit in most areas that larger excavators couldn't possibly be used. It will run from 6 hours to 12 hours on a single charge. Charging requires only a 110-volt outlet. A variety of attachments are available.

www.cratos.com



New excavator line ▲

The new Case E Series excavators feature on-screen adjustable hydraulic flow to balance arm and boom/arm and swing to best the job at hand. To further fine-tune productivity, engine speed can be varied within each working mode. Powered by a responsive FPT Industrial engine that delivers more power, lower emissions without engine gas recirculation and longer service intervals. The new line is made up of CX190E, CX220E, CX260E, CX300 and CX365 models and officially launched September 7, 2022.

www.casece.com

| PRODUCT FOCUS | WHEEL LOADERS



▲ Utility loaders

John Deere launches its Performance Tiering Strategy, delivering a range of products at different levels of capability and user experience. Available first on the wheel loader lineup, the Performance Tiering Strategy supports customers by providing machine solutions built for various applications and jobs to enhance profitability and efficiency. Moving away from the traditional series letter designations, the Performance Tiering Strategy provides three tiers of machines: G, P and X tiers. X-tier models are built with the most innovative John Deere technology and features, delivering the highest levels of productivity, efficiency and customer experience; P-tier models can be counted on to produce at high levels day in and day out. Advanced features deliver exceptional performance, efficiency, comfort and service life in demanding, high-production applications; and G-tier models are practically equipped and economical, providing proven capabilities with the reliability and ruggedness expected from John Deere, sources report. www.JohnDeere.com/Findyourfit



▼ Swing loader

Mecalac offers the AS1600 swing loader that has the unique ability to pivot its bucket 90 degrees to either side. A rigid frame and 4-wheel steering provide productivity and stability while driving, operating and unloading in any condition or terrain. Sources report it provides game-changing space management, requiring only half the space of conventional loaders for tasks such as loading trucks or discharging materials into trenches with a standard 2.1-cubic-yard bucket. The equipment features three steering options, two-wheel, four-wheel and crab, which offer further flexibility for congested job sites. It has increased stability over traditional articulated loaders and has a 20 percent smaller footprint than regular loaders to maximize mobility in even the most confined spaces. Bucket capacities range from 2.1-3.3 cubic yards. www.mecalac.com



◀ Compact wheel loaders

The Next-Generation Cat 906, 907, and 908 compact wheel loaders offer simple, intuitive controls, feature-packed options and all-round better drive performance. The reengineered operator's station improves operator experience and provides larger wheel loader model comfort on a smaller platform. Featuring the new Cat C2.8 engine, the upgraded drive and powertrain deliver faster roading speeds and drive train performance. The operator remains inside the cab while setting upper, lower and attachment kickout positions. The control monitor allows the operator to configure transmission response and auto engine idle/shutdown. A utility powertrain mode controls ground and engine speed when working with hydromechanical attachments. The Cat C2.8 engine delivers 74 gross horsepower with 13 percent more torque, resulting in roading performance and tractive effort improvements. www.cat.com



▲ Upgraded wheel loader

The small, yet powerful ZW100-6 wheel loader features an operating weight of 17,042 pounds, bucket capacity of 1.4 cubic yards and a 101 horsepower Tier 4F engine. The cab has 360-degree visibility, ride control and onboard technology that enhances operator comfort and increases productivity with quick and efficient cycle times. It is equipped with a diesel aftertreatment system that eliminates diesel particulate filter (DPF) systems, plus onboard technology and an advanced telematics system to help contractors better manage their fleet and operating expenses. The operator can choose between two hydrostatic transmission work modes to match the task and terrain. Ride control minimizes machine pitching for a smoother ride and reduces bucket material spillage. The oscillating rear improves stability and traction on uneven ground. The 360-degree visibility from the cab creates a comfortable, productive working environment. An optional rearview camera also contributes to excellent all-round visibility and safety on the job site. The ZW100-6 has wide, easy-to-open engine covers that offer quick, convenient access to the machine's critical components. This feature enables operators to conduct daily machine inspections safely, and quickly from the ground. hitachicm.us

▼ Rough-terrain forklift

The Pettibone Cary-Lift 204i rough-terrain forklift can be equipped with a scrap baler attachment for handling debris and materials in demolition and recycling applications. It features a unique over-



head lift arm design, giving the operator full front visibility when lifting or transporting loads, which is a sharp contrast to the lift arms on wheel loaders that are located directly in front of the vehicle. Additionally, Cary-Lift forks are capable of tilting 90 degrees for specialized lifting tasks. It is powered by a 200-horsepower Cummins QSB6.7 Tier 4 diesel engine with DOC and SCR aftertreatment. The unit includes an engine-driven fan, cooling package and engine block heater as standard equipment. The machine provides a maximum load capacity of 20,000 pounds and lift height of 16 feet. It is 4-wheel drive with 2-wheel, 4-wheel and crab hydraulic power steering modes with the wheelbase limited to just 12 feet, the 204i can achieve a turning radius of 21 feet 6 inches. www.gopettibone.com

Compact wheel loaders ▼

Yanmar Compact Equipment offers a line of reliable compact wheel loaders built for maximum efficiency and ease of operation. The lineup includes the V4-7, V8, V10 and V12. Operating weights range from 8,422 to 15,432 pounds with bucket capacities ranging from 0.65 to 2.35 cubic yards and lift capacities of 7,451 to 15,962 pound-force. Fast travel speeds, ranging from 11.8 mph to 22 mph, improve jobsite productivity. The loaders have intuitive controls and include features that allow for easy operation, such as fixed travel speed mode, fully automatic accelerator mode and auxiliary hydraulics with proportional control. Operators of all skill levels can easily manage the intuitive, multi-function joysticks. Hydraulic quick couplers allow for fast and easy changing of attachments. All models feature two doors for easy entry from either side and maximum ventilation. The machines offer smooth off-road operation thanks to an oscillating rear axle that securely transmits traction force to uneven ground. This keeps the bucket level in operation and reduces operator fatigue. Yanmar.com/us/products/construction/





▲ All-electric scissor lift

JLG Industries, Inc. offers the AE1932, its first model in a new category of all-electric lifts. It features fully optimized components that allow it to be powered with a single Li-ion battery and no compromise to performance. The 19-foot platform height, 32-inch wide scissor lift provides a class-leading platform capacity of 600 pounds indoors and outdoors, a 20 percent improvement from typical scissors and is compliant to A92.20 standards. The machine travels 2x faster than a standard scissor lift and charges 3.5x faster, delivering unmatched uptime and flexibility on the job site, sources report. Each wheel is controlled independently for reduced tire wear and limits damage to sensitive flooring. It recovers energy while the platform lowers, which contributes to a 70 percent decrease in power consumption with longer life on a charge than a standard scissor lift.

www.jlg.com

▼ Curb maker for monolithic pours

Curb Roller Mfg. introduces the Badger Curb Maker that seamlessly shapes and finishes curbs. Sources report the Badger Curb Maker increases productivity for curbing work by up to 150 percent, turning a once tedious task into a quick procedure that can be completed by almost anyone on a job site.



Once concrete is poured and the flatwork is completed either by a roller or laser screed, the Badger Curb Maker is positioned along its perimeter to form the concrete to the shape of the curb. It is powered by a 12 amp-

hour DeWalt battery and can complete a length of concrete curb as long as 200 linear feet with a single charge.

www.curbroller.com



▲ New li-ion compact battery

The DeWalt Powerstack battery is the world's first major power tool brand to use pouch cell batteries designed for the construction industry. This design delivers the lightest and most powerful compact battery from DeWalt and offers twice the lifespan providing the user benefit of more overall investment value. The battery pack has a LED fuel gauge that displays the battery's state-of-charge, helping the end user avoid unplanned work stoppages, and is designed with a durable, non-marring rubber overmold that provides impact resistance while helping to protect finished surfaces. The battery is ideal for cutting, drilling and fastening applications, precision and finishing tasks, and when working in tight spaces. It is compatible with all DeWalt 20V Max tools and chargers.

www.dewalt.com/powerstack



Wet screed ▲

The MBW Screedemon is one of the most innovative and ergonomically friendly wet screed on the market. It may also be the easiest screed to assemble, MBW sources report. It has a 9/16-inch wrench attached to the back of the powerhead, making it even easier to attach boards. Clamp system makes assembly and disassembly fast and easy and a sealed exciter requires no maintenance. Hand/arm vibration is up to 90 percent less than the competition, MBW sources report.

www.mbw.com



▲ Mini excavator with heated cab

JCB offers a fully glazed cab on the 19C-1E – an industry first for the electric mini excavator sector. The machine uses the same spacious cab as JCB's conventional 1- to 2-ton models and will be equipped with an electric heater to provide instant heat to demist windows and warm the cab working environment for the operator. With a large, glazed area, the ROPS/FOPS cab is equipped with easy-to-replace laminated flat glass. It has a 70/30 front windshield split, with clear jointing for an unobstructed view of the digging area. The cab uses the same LED working lights and wipers as the diesel models, making it easier to work in poor visibility or during hours of darkness when required. When operating the machine with the heater on, there is zero impact to the machine's digging or tracking performance and still can work a full day's shift.

www.jcb.com



◀ Advanced electrified power unit

American Honda Motor Co., Inc. launches the Honda eGX, an advanced electrified power unit and its first Li-ion battery-powered motor designed for use in commercial OEM power equipment products for indoor and outdoor use. It offers durability, rugged performance for applications including rammers and vibratory plate compactors. It offers quiet operation, reduced vibration and quick charging for maximum operating time. A high-

power, 3-phase brushless DC motor increases performance and reliability. Future applications are projected to include hydraulic power units and compressors. Sources report it is an ideal battery-powered option for applications in the 100 cc to 120 cc engine displacement category. Batteries can be interchanged rapidly, and the Honda quick charger (<1 hour/80 percent charge) provides maximum operating time and productivity.

www.hondaengines.com/

www.ProContractorRentals.com

▼ New battery power option

Briggs & Stratton launches the Vanguard 7kWh Diecast commercial battery that can be utilized in a wide variety of applications. Vanguard now offers a range of battery power solutions including 1.5kWh, 3.8kWh, 5kWh and 10kWh options. With a compact footprint, the 7kWh battery delivers more power in a smaller package and can be paralleled with other Vanguard battery packs to meet larger power needs. The battery can be fully charged in less than eight



hours. It includes the battery, charger and electronics in one complete solution and easily integrates into OEM equipment. Designed for a life of up to 2,000 cycles with almost no scheduled maintenance.

www.vanguardpower.com

New cordless tools ▼

Adding to the more than 100 cordless tools and nailers in the Metabo HPT 18V system, the 18V Bluetooth radio, an 18V work light, and a convenient 18V workshop blower are now available. The 18V cordless Bluetooth radio (model UR18DAQ4- bare tool) delivers clear and powerful sound quality no matter where the job takes you, thanks to the 15-level equalizer function; the 18V cordless 4000 lumen LED work light (UB18DCQ4) offers 15 levels of brightness from 700 to 4,000 lumens; and the 18V cordless compact blower (model RB18DCQ4- bare tool) delivers 60 percent higher cfm than a previous Metabo HPT blower model at 124 cfm. Paired with 213 mph of maximum air velocity, the unit will save time and increase productivity.

www.metabo-hpt.com



www.ProContractorRentals.com



Diamond Tools and Equipment
for Construction and Infrastructure

536-E ELECTRIC POWER CUTTER

When there's a job at hand, contractors are laser-focused on getting it done. That means having the right tool when and where they need, whether it's rented or purchased. Contractors and other professionals looking for the temporary use of a power cutter have an array of choices before them, with gas saws ranking as a time-tested, tried-and-true option. While gas and hydraulic saws may have laid the foundation in power cutting, electric options are quickly becoming the preferred tool of today for certain applications in the field.

ICS Diamond Tools, which invented the concrete cutting diamond chain category and manufactures the world's #1 concrete and pipe saw chain, has just introduced its first electric power cutter, the 536-E. The tool provides the professional-grade cutting capabilities long associated with the brand – square corners, deep cutting and no

overcuts – only now with electric power. But this power cutter goes beyond being electric – it's an innovative tool that is beneficial for both the dealer and end user.

All-in-one controls

The 536-E integrates all the motor controls into the power head, so there's no external control box. Most competitor options still utilize a separate electronics module that sits apart from the saw itself. The onboard system makes the unit less complex, and users will see benefits such as less wear and tear on key parts, fewer parts and therefore fewer points of failure, and an overall more robust saw.

An additional advantage is that the design results in a well-balanced, ergonomic tool. Operators experience better cut control, especially when tackling obstructed or small-size openings, and less fatigue. One user noted that the streamlined design of

the 536-E made it “easier to maneuver above waist level than hydraulic saws because of the lack of hydraulic lines.”

But that's not to say that this power cutter lacks punch. The 4.8 hp motor is designed to slice through concrete, stone, masonry and ductile iron, and it runs on 220V, making it compatible with most generators, which minimizes compatibility issues. Because many competitive systems rely on powerpacks, if those fail, the tool stops working – and the job comes to a standstill. Pairing the 536-E with a generator keeps the job moving and minimizes downtime.

No fuel, no problem

With the 536-E, users don't need to moonlight as master mixologists anymore. Mixing fuel is messy, complicated and comes with a laundry list of troubleshooting items to tick through when using the saw, among them: Is the fuel mix right? Is there extra fuel on hand in case more is needed? Did the motor flood? Why am I experiencing such a hard start?

The more time it takes to work through these issues, the longer it takes to get the job

started – and ultimately, completed. Many gas saw failures are the result of an improper gas and oil mixture, which is completely eliminated by using an electric saw. Hydraulic options put users at risk of burns because of hoses, fittings and fluid getting too hot. Removing the need to mix fuel and oil or maneuver hot and heavy hydraulic hoses further simplifies the user experience, giving maximum power without the need for mastering extra steps.

Safe for indoor use

Extending the “no fuel” benefit one step further, it probably goes without saying that the 536-E is completely compatible for indoor use. No gas means no fumes, so operators won't get smoked out from the exhaust (nor will air quality be compromised for those nearby). And since there aren't any hydraulic hoses to manage, it eliminates the potential for powerpack failures, leaks and line ruptures – all of which are major (and messy) job disruptors. Minimizing the indoor impact further, this power cutter is 80% quieter compared to ICS' larger gas saw, the 695XL – an audible win for both users and bystanders.

Improved chain life

With the quick switch of a drive sprocket and guidebar, the 536-E power cutter operates FORCE3®, FORCE4® and PowerGrit® guidebars and diamond chains. Diamond

chains are great with electric saws due to the smoother nature of the driver, which means less vibration and therefore longer blade life. The 536-E chain tensioning system allows for quick and easy chain adjustment without having to remove a side cover or any other piece to tension the chain so users spend more time cutting and less time tensioning. This is important because proper tension plays a key role in maximizing chain life.

Minimal maintenance

Keeping tools in good working condition is a must to ensure contractors are not only able to rent the tool they need, but that it delivers for them on the job. While hydraulic or gas-powered units are critical to have available, routine maintenance is a constant task to contend with for these tools. The checklist can be long, including

assessing their condition, taking inventory of parts on hand, buying replacement parts and repairing the tools themselves. These must-do's can take available rental units off the floor, decreasing the inventory of power-cutter options for contractors. This amounts to a lot of time – time that could be better spent elsewhere. And everyone knows time is money.

So, instead of investing in adding more maintenance-intensive gas-powered and hydraulic units, expanding a rental fleet with the 536-E has a lot of upside. The 536-E's minimal maintenance helps ensure it is consistently available for rent, which not only offers contractors a great tool for the job – but also gives dealers a tool that will require less maintenance and the potential for more profit over the lifespan of the tool.



Putting the best in the hands of contractors

When convenience, life performance and clean cuts are key, the 536-E is among the tools leading the way. It doesn't have the common pain points associated with gas and hydraulic counterparts, which makes it a compelling option for dealers who want to expand their inventory – and for customers who need an easy-to-use tool that can conquer the cut.

For more information on how to get the 536-E in your store, visit <https://www.icsdiamondtools.com/en/contact-us>.

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SO IT'S TIME TO SELL YOUR RENTAL BUSINESS

Have the right tools and strategies in place to win top dollar for your business. | by Malcolm Roach |

If you are the owner or founder of an equipment rental business, it is important to prepare well ahead of time for the eventual transfer to new owners if you want to maximize your proceeds. There are many reasons why you might be ready to move on from your rental business, but one thing is for sure: it won't be simple.

Why consider a sale

Reasons why people sell their businesses include health issues, marital issues, boredom, financial problems, a change in priorities, retirement, shareholder conflict or even an unexpected offer you can't refuse. Unfortunately, many businesses are sold after the owners waited too long and lost their health or even their lives. Family and stakeholders may end up in an unenviable position.

Knowing why you are selling has important ramifications for choosing the method to sell the business and the price you are likely to receive. Selling a business properly takes significant lead time.

If the business must be sold quickly, options are fewer and your price will likely be lower, sometimes significantly so.

Plan on six to 24 months

You get one chance at selling your business; there are no do-overs. The prospective buyers only care about results from the most recent years. You need to maximize the results for the periods they look at and it may mean running your business for longer than you would like.

To maximize your value, consider the following steps:

Have an accountant carefully review your financial system for the past few

years. Your potential buyer will do so and surprises will not go well.

Maximize your cash flow by making changes where it makes sense. Get rid of unnecessary expenses or assets including any arguably personal items. Valuation depends primarily on the cash flow your business generates, which you need to maximize.

It is likely your perception of the business value will be inaccurate. Have your business valued by an experienced business valuation expert. Too high and it will be difficult to sell, too low leaves money on the table. This number is unlikely to be the final sale amount, but it gives you a starting point.

Get rid of underperforming assets. The equipment rental business is capital intensive. Improve your equipment utilization and sub-rent equipment from

your competitors if necessary.

Determine if you have a legitimate private buyer. Can they operate your business successfully and do they have access to financing to make the purchase? Selling to someone you know will significantly change your approach.

Decide whether to use a broker. Using one can cost six figures or more but can significantly increase your net proceeds even after commission. A good broker will take over much of the sale process. He or she may charge as high as 10 percent for a smaller organization, but this percentage can drop substantially for larger organizations. The percentage may also be calculated in layers of revenue, sometimes referred to as the Double Lehman method.

Some brokers may request a retainer to ensure the seller is sincere or to cover expenses while selling.

Keep running the business while it is for sale. Otherwise, sale price may suffer. Decide on how many buyers you will entertain and what information you are willing to share throughout the process.

Having more than one buyer will do much to raise the sale value of your business and the broker should be experienced in playing them off each other. Giving information to an insincere buyer, especially a competitor, could be incredibly damaging. Don't share anything without a non-disclosure agreement reviewed by your lawyer.

Make sure your lawyer is familiar with contract law. You may need to deal with the bill of sale, an assignment of property or equipment leases and a security agreement if you need to retain a lien on the business until all proceeds have been received. There may also be a non-compete agreement to prevent you from starting up a competitive business within specified geographic areas for a fixed period.

Consider lining up a funding source in case the buyer needs funding. Most will have their own arrangements; resist holding a lien against the value of the business if the buyer only has a down payment. If you have a solid business, you will have no shortage of possible buyers and most are paying cash these days.

Many buyer types

It is important to understand the

buyer's motivations. Types of buyers:

A buyer looking for a specific rate of return on their investment. The buyer will carefully analyze your financials, will likely retain your organization and will not overpay as there are probably other alternative investments.

Someone looking to buy a business he or she can run. This buyer will seek to pay as little as possible and may make limited changes to the organization.

A competitor. Drop any emotional reaction you may have to this idea.

It is one of the best alternatives as the purchaser may be willing to overpay for the business. It may mean significant changes to your organization if you have a concern for your staff.

A buyer seeking to gain a presence in your geographic region. They may be willing to overpay for it. This type of buyer will favorably review cleaning up your rental fleet.

A growth investor. Depending on whether you have a unique competitive advantage that is replicable in your market or others, this type of investor may pay substantially more so they can use it elsewhere. They are looking ahead to the future value of the company and may pay much more.

Valuation methods

Here are the ways to value a business:

Fair market value: The price determined by a buyer and seller who understand the industry and the process.

Investment value: This assumes the business will continue as an ongoing concern with the existing staff and assets. The price the investor is willing to pay is

based on investment objectives.

Liquidation value: This is used when an organization is suffering financially and the value of the net assets is higher than the cash flow of the business.

Fair value including adjustments for goodwill: The fair market value can be adjusted up or down by many factors.

Buyers consider several factors

Has the business shown a consistent pattern of growth over the past few years based on a carefully thought-out and executed corporate growth strategy?

Is there a competitive advantage held by the business? This may be a unique process or culture, exclusive equipment lines or even market domination in an area or market segment.

Buyers will look closely for strong cash flow or earnings. Valuations based on earnings are usually based on earnings before interest, taxes, and amortization (EBITA) or some similar measure, not net income.

Finally, buyers will look at how the company is organized and if it has strong systems and capable, experienced staff.

Most buyers are paying cash

Most buyers now pay cash up front for the full purchase price. If someone offers you more money to defer a substantial portion of the payment, you are generally better to take the upfront amount. **PCR**

Malcolm Roach is CEO of Open Door Technology Inc. He has been involved with the equipment rental software market for more than 20 years and leads an organization spanning four countries.

MERGER AND ACQUISITION TRENDS IN EQUIPMENT RENTAL

Several large organizations, such as United Rentals and Sunbelt, are rapidly vacuuming up local equipment rental shops to add to their locations.

They are looking for profitable businesses and are not trying to take advantage of the sellers.

If sellers play their cards right, they can engage with them as one of several possible buyers when it is time to sell.

As with any other buyer, try to determine their motivations for the purchase and what their plans are for your organization. It is perfectly normal for you to want to protect your existing staff, so don't be afraid to ask. With some due diligence, it can be a win-win for everyone.



KNOW BECAUSE YOU KNOW

Market research helps identify unmet customer needs. *Here's how to do it.*

Market research is the process of gathering information about your customers, competitors, markets, trends and related information. There are several options for gathering information about customers, their buying preferences and purchase intentions. Market research is increasingly important in the construction industry where economic trends influence the outlook for the industry. Following are tips collected by the Construction Marketing Association.

Why do market research

Market research can support planning and budgeting and decision making for new products. It can also find out if it makes sense to expand into new lines or areas. It can be used to fine-tune marketing communications and develop

customer initiatives. Marketing without research, customer or market insight is guesswork, with a high risk of failure.

However, niche markets within the construction industry likely do not have available secondary research, so they require primary research.

Types of market research

There are many types of market research, often categorized as primary vs. secondary research, quantitative or qualitative research, and syndicated research.

Secondary research is the most common. It is published, publicly available and free information from websites, magazines and publications, trade associations, government, census data and search engine results.

Primary research is information collected directly from the source, often custom to the project and typically includes surveys, interviews and focus groups.

Qualitative research uses open-ended responses, typically with interviews or focus groups. On the other hand, quantitative research employs statistically significant sampling and closed-end questions and is typically gathered with surveys.

Surveys are more convenient than ever with the ability to utilize online surveys such as SurveyMonkey, eSurveysPro, FreeOnlineSurveys.com, SurveyFactory and Crowd Signal.

Syndicated research is conducted by a research firm and sold to several users

on a fee or subscription basis; Dodge Analytics and ConstructConnect are examples of syndicated research relevant to the construction industry. Some other types of research include competitive intelligence, customer satisfaction, brand awareness/equity/preference, positioning, segmentation and more.

Step by step

HubSpot provides some great tips for conducting market research in the construction industry.

Getting started. Determine what type of information you need about your business and the construction market. Perhaps you want to launch a new product or service for your business or you may want to know why potential clients don't seem to know about you. Make market research goal-oriented by setting objectives and a timeline.

Don't research what's already been done. Don't reinvent the wheel when some of the information you want is yours for the asking. Review business information provided by your local media. You may gain insightful information and new leads for information at the same time.

Read or watch national media to learn about the global construction market. For example, homebuilders can gain access to residential construction market information through membership in builders' organizations such as the National Association of Home Builders (NAHD).

Fill in the information gaps. After gathering relevant information from other sources, look for gaps in the information you still need. Chances are this is the subjective information, also known as qualitative data, that comes from people's opinions.

Decide on the best research methods for gathering this information. Questionnaires and surveys are inexpensive ways to gather information about the building construction market.

Analyze the data. Once the data is collected, find a way to organize the results to provide the information you need. Focus on consistency and quantification. Twenty people making a similar statement is a stronger result than the opinion of one person. Make conclusions from tabulated results. **PCR**

MARKET RESEARCH TIPS

1. Rely on the experts. Make sure your market research partner has experience completing a variety of market research projects with contractors. You may need to get creative to complete your project; a partner who has been there/done that can be beneficial.

2. Consider multi-modal research. For very low-incidence or tough-to-find audiences such as specialty contractors, combine email or phone efforts with an online survey. Mailed surveys may work well with contractors.



3. Be creative in sampling. Using a dedicated contractor panel is a good way to get statistically significant data, but you may need to use other methods. Consider buying a list from a trade magazine or association. Consider going directly to the job site to find respondents to complete the survey.

4. Multilingual is required. Not every respondent will be able to complete a survey or interview in English. Offer Spanish as an option in all cases; regionally you may need to offer other languages as well.

5. Give them time. Completing your market research is not their top priority, so allow for longer field time. Include one or two week-ends as contractors may be better able to respond then.



6. Be aware of seasonality. In many parts of the country, contractors are busiest in the summer; in other parts of the country, they work year-round. Think about the timing of your project. You will get a better response with more thoughtful answers if you field your project at a less busy time of year. If you need to survey groups during their busiest times, plan on giving them more time to respond.



7. In-person research works great. Most contractors are very interested in tools and equipment, especially new tools. Getting to them one-on-one in equipment or tool trials works well.

Meet them at a central location and talk about the tools or other products in which you are interested. Let them try the tools or equipment, then interview the contractors about how it compares with other tools and equipment they use or have used.



8. Open the funnel. Many contractors move fluidly between job categories. General contractors tend to be Jacks and Jills of all trades. So, while they may specialize in one trade, they may be perfectly qualified to talk to you about many other areas.



9. People know people like themselves. Ask your respondents to refer you to other people who could help you with your project. Moving between job sites, contractors regularly meet other people like themselves and, for the right incentive, are willing to make those introductions. At the end of the interview, ask them to refer others.

Although market research with contractors is challenging, it can be done and can deliver important and insightful results. Just because it is difficult does not mean you should not attempt it.

Symmetric Sampling has more than 20 years of experience completing market research through its Contractor Advisory Board panel.

■ ARA: Bullish on equipment rental revenue growth despite headwinds

Today's economic indicators are mixed and uncertain, but all continue to point toward significant growth for equipment rental revenue in the U.S., according to the latest quarterly update of the five-year forecast released by the American Rental Association (ARA).

The update, released in August, projects equipment rental revenue, including the construction and general tool segments to grow 11.2 percent to nearly reach \$55.9 billion in 2022. ARA expects growth of 6.2 percent in 2023, 2.5 percent in 2024, 3.3 percent in 2025 and 3.7 percent in 2026 to total more than \$65.1 billion.

"Rental revenue continues to experience significant growth, despite some headwinds in 2022. The longer-term forecast, while showing slower growth than this year, remains bullish. It is generally a good time to be in the equipment rental industry," says Tom Doyle, ARA vice president for program development.

"In these times of higher uncertainty, it is prudent to closely watch the driving factors to the forecast for changes that will affect build schedules for original equipment manufacturers (OEMs) or demand for rental companies. Depending on how long we have high inflation, supply chain constraints, labor shortages and climbing interest rates, those econometric drivers can have an impact on the rest of 2022 and the outlook for 2023," Doyle says.

For construction equipment rental revenue, the forecast calls for a 12.5 percent increase in 2022 to surpass \$41.6 billion, with growth slowing to 7 percent in 2023, 2 percent in 2024, 3 percent in 2025 and 3 percent in 2026.

General tool growth is expected to be 7.4 percent in 2022 and then remain steady with 5 percent growth in 2023, 3 percent in 2024, 5 percent in 2025 and 5 percent in 2026.

www.ARArental.org

■ 2022 equipment rental Top Gun winners

The awards recognize rental store

operators who receive the Peer Executive Group (PEG) Pinnacle Award for Financial Excellence. The accolades are given to the top 25 percent of rental stores, based on financials submitted by rental operators, and verified by PEG.

The 2022 winners for equipment rental include:

- A-1 Rent-It, Minnesota
- A&E Equipment Rentals, Michigan
- Action Rental, Pennsylvania
- Atlantic Lift Systems, Virginia
- Best Rental, Colorado
- Bottom Line Equipment, Louisiana
- Brainerd General Rental, Minnesota
- Bullet Rentals, Oregon
- Bunce Rental, Washington
- C&E Rentals, Oregon
- Cal West Rentals, California
- C.E. Rentals, Illinois
- Chet's Rent-All, Michigan
- Cooke Rentals, North Carolina
- First Place Rental, Illinois
- First Source Equipment Rental, North Carolina
- Grand Rental Station of Luddington, Michigan
- George's Tool Rental, Pennsylvania
- Mako Equipment, California
- Only 1 Rentals, Texas
- Ore Rentals, Pennsylvania
- R&R Rentals, Washington
- Rabern Rentals, Texas
- Redtail Rentals, Texas
- Rent Ready Equipment & Sales, Alabama
- Rental Guys, California
- Rental Networks, British Columbia
- Talisman Rentals, Georgia
- Tates Rents, Idaho
- Tejas Equipment Rental, Texas
- Vandalia Rental, Ohio

Peer Executive Groups administers peer groups in a variety of industries. In the rental industry, more than 170 participants learn from each other in 17 peer groups.

www.peerexecutivegroups.com

■ MEWP rental markets recover

MEWP rental markets continued to recover strongly after the pandemic in 2021 and 2022, despite clouds on the horizon caused by global uncertainty

around geo-political upheavals and increased input costs, driven by rising inflation and the war in Ukraine, according to the latest analysis conducted by Ducker for the International Powered Access Federation (IPAF).

The newly published *Global Powered Access Rental Market Report 2022* indicates that after a relatively cautious start to the year in which many countries under study were still dealing with second and third waves of the Covid-19 virus, most MEWP rental companies sought to increase rental fleet size and utilization rates during 2021; post-pandemic recovery was fairly even worldwide and maintained a steady rate.

Companies returned to planned investment strategies and supply struggled to keep up with demand in terms of new machines, especially specialty and all-electric MEWPs. This led to longer lead times on machines and more reliance on older or second-hand machines to meet machine demand.

Overall, the report indicates that the European MEWP rental market partially recovered from the pandemic in 2021 and overall showed revenue growth of 7 percent across 2021. Europe's rental market reached €3 billion total revenue, to almost regain pre-pandemic levels. The European fleet stood at approximately 325,000 units at the end of 2021.

Utilization rate went up by 6 percentage points, driven by the post-pandemic recovery and ongoing OEM MEWP shortages and supply issues. Countries such as the UK (11 percent revenue growth), Italy (12 percent) and France (13 percent) that were hit hardest during the 2020 pandemic demonstrated the fastest rates of recovery.

Elsewhere in Europe, the recovery was more modest: Spain and Sweden saw revenue growth in 2021 of 5 percent; Germany and Norway 3 percent; Denmark, Finland and the Netherlands saw growth of just 2 percent.

In the United States, MEWP rental revenue increased by 15 percent across 2021 to surpass pre-pandemic levels, owing to rapid reopening of non-construction business and pent-up demand from construction projects paused

during 2020. The vaccine roll-out and post-pandemic recovery stimulus were instrumental in rebuilding confidence and rebounding activity in the United States. MEWP fleet size in the United States grew by 10 percent in 2021 as rental companies resumed their pre-pandemic investment strategies and attempted to prevent utilization rates from increasing extensively.

Overall United States fleet growth was hampered by supply chain disruptions, as in other western markets, though the United States was able to increase fleet size by more than 60,000 units, to stand at 722,105 by the end of 2021. This growth is forecast to continue in 2022 but may be inhibited by inflationary pressures on the economy and trade issues, including a prohibitive tariff ruling on Chinese MEWP imports.

As in Europe, typical power source types continued progressing toward hybrid or all-electric machines during the year, albeit at a slower pace than in European markets. In the United States, electric booms are not so much in demand because of limited autonomy and charging infrastructure issues and because of climatic constraints that prevent the use of electric equipment outdoors during certain months in parts of the United States.

www.ipaf.org/reports

SUPPLIER NEWS

■ Makinex USA to move U.S. headquarters and operations

Makinex USA announced it is moving its U.S. headquarters from Torrance, California, to a new facility in the Dallas-Fort Worth area.

In the wake of substantial growth over the past few years, Makinex USA will relocate to Mansfield in the northeastern part of Texas. The new facility greatly increases the capacity of warehousing, storage, production and staffing capabilities. Business partners will continue to work with their same Makinex sales representatives throughout and after the relocation.

"We are excited about moving to Texas, where we have a central location, giving us not just additional space but the ability to integrate more operations under one roof. Most importantly, we will improve our capability of servicing our business partners," says John Stewart, group CEO of Makinex.

Makinex USA has been located in Torrance, California since its opening in 2013. Torrance houses many thriving businesses and is close to airports and shipping, which has allowed Makinex to grow exponentially in its short time. Mansfield is close to the Dallas-Fort Worth International Airport and offers the same location benefits as Torrance but allows greater office and warehouse space expansion.

"Torrance has given us a great foundation to build on, and we have big plans for the future. We are expanding our current product range, but we're also firmly committed to renewable technology. The construction industry will be radically different in the next five to 10 years, and we are positioning ourselves at the forefront of that shift. Mansfield gives us a central location, generous space and a wealth of local resources

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to support us. We are very excited for the future,” Stewart says.

Makinex USA’s new address is 2151 Heritage Parkway, Mansfield, TX 76063. www.makinex.com

■ Ditch Witch acquires HydraWheel line of rock saws

Ditch Witch has acquired specific assets from River City Manufacturing, Inc., including the HydraWheel design of rock saws. Based out of Bertram, Texas, the company has designed and manufactured rock saws since 1982, earning a strong reputation throughout the industry.

Through this acquisition, Ditch Witch continues to show its commitment to the traditional open-cut utility installation industry.

The product line features saws, ranging in depth from 9 to 46 inches, and can be paired with stand-on skid steers and heavy-duty tractors. As the fiber-optic market continues to drive demand, Ditch Witch is uniquely positioned to meet the needs of contractors around the world.

The rock saws will be manufactured, branded and sold under the Ditch Witch name and are available through the global Ditch Witch dealer network, with nearly 200 locations worldwide.

www.ditchwitch.com

■ Point of Rental, IDScan.net launch partnership

Point of Rental Software and IDScan.net have announced an integration to enhance the ID scanning process for rental businesses. The full integration with Point of Rental’s software means more than 15 fields are automatically imported into Point of Rental’s database, including name, address, ID number and photo. This eliminates more than a minute of data entry and virtually eliminates errors.

“We’re always trying to make the rental process as simple and error-free as possible,” says Wayne Harris, Point of Rental CEO. “This integration is a big upgrade over previous generations of ID scanners and will result in time saved for people at the counter.”

“Our goal with this partnership is to help streamline operations for rental businesses and make data entry and identity capture easy and efficient,” says Denis Petrov, CEO of IDScan.net.

IDScan.net’s solution increases data capture accuracy to more than 99 percent by scanning ID barcodes instead of relying on optical character recognition. idscan.net/product/point-of-rental/

■ Yanmar opens regional distribution center in Texas

Yanmar America Corporation has announced the opening of a new regional distribution center in Gainesville, Texas.

The 54,000 square-foot facility will distribute tractors, UTVs and related products to dealers and customers in the Texas market.

“This investment demonstrates Yanmar’s continuing commitment to the important Texas market,” says Jeff Albright, Yanmar America president. “With this new regional distribution center, Yanmar America is committed to offering exceptional purchase and ownership experiences to our customers and we will continue to support our dealer partners to provide parts and service support.”

The regional distribution center was opened in cooperation with Yanmar flagship dealer Tractor Bob’s and will distribute Yanmar’s YM, YT and SA series tractors and the company’s Bull and Brahma series UTVs.

The center, which will also ship a wide range of tractor attachments and spare parts, is expected to streamline dealer operations by reducing the need to maintain high levels of inventory on-site, while at the same time, significantly reducing lead times for delivery of products to customers.

yanmar.com/useemployeesandcommunities

■ Caterpillar to move global headquarters to Dallas-Fort Worth area

Caterpillar Inc. will move its global headquarters to the company’s existing office in Irving, Texas, from its current

location in Deerfield, Illinois.

“We believe it’s in the best strategic interest of the company to make this move, which supports Caterpillar’s strategy for profitable growth as we help our customers build a better, more sustainable world,” says Jim Umpleby, chairman and CEO.

Caterpillar has had a presence in Texas since the 1960s across several areas of the company. Illinois remains the largest concentration of Caterpillar employees anywhere in the world.

The company will begin transitioning its headquarters to Irving in 2022.

www.cat.com

■ MBW, Inc. starts new building

MBW, Inc. has been Slinger, Wisconsin since 1967 and recently announced a facility expansion. The new building create more space for more employees, streamline production and allow year-round research.

By moving sales, marketing, accounting, service, engineering and research and development over to the new building, manufacturing will be able to increase capacity and change the manufacturing flow for greater efficiency.

Currently, equipment and prototype testing is conducted outdoors, so it is typically shut down for about four months out of the year due to Wisconsin winter weather. The new building will have an indoor area that will allow year-round product testing.

Finally, a larger training room and service area will allow more customers to attend MBW training schools. Attendees will also be able to run MBW equipment first-hand in the test area.

The plan is to have the building completed by March 2023.

www.mbw.com

DEALER NEWS

■ Michigan dealer added

Hyundai Construction Equipment Americas adds Holland Equipment Services (HES) of Holland, Michigan, which will sell and service Hyundai

wheel loaders and excavators in western Michigan.

Aric Geurink, president of HES, says the agreement with Hyundai represents a major growth opportunity for the dealership, which has built a presence in southwest Michigan as a supplier of used equipment, attachments, parts, service and rentals.

“Selling, servicing and renting new Hyundai equipment adds important value to the HES brand and gives us a competitive edge,” says Geurink, whose late father, Robert, established the family-owned dealership in 1988 as HES/A&B Farms. “It’s a win for our dealership and our customers. We’re getting great training and support from Hyundai, and our customers have an expanded variety of Hyundai equipment and financing solutions to meet their needs.”

Geurink looks forward to adding Hyundai’s newly announced articulated dump truck models to its rental fleet. “We have customers who will find the new Hyundai ADT trucks a great match for their applications,” he says.

“Hyundai welcomes HES to our expanding network of North American dealerships,” says Ed Harseim, Midwest sales manager, Hyundai Construction Equipment Americas. “Having built a successful business on the sales and rentals of used equipment, HES now provides its customers a variety of new equipment solutions from Hyundai.”

www.hceamericas.com

■ Doc Bailey Cranes & Equipment adds Merlo telehandlers

Doc Bailey Cranes & Equipment is a full-service crane, boom truck and bucket truck rental company that recently added Merlo telehandlers to its fleet for rent and sale.

Machine-moving companies are a large part of Doc Bailey’s customer base. Along with cranes and truck-mounted lifts, customers have requested machinery that is not as large as a crane and is nimbler than a truck-mounted lift. The Merlo P120.10 was a good fit to the needs of his customer base.

“It offers 26,500 pounds maximum load capacity,” Bailey says. “Something my typical competitor does not have. We are a lift specialty company and one of our goals is to be able to fill a niche for our customers. Merlo’s P120.10 is that machine.”

“The particular machine checked a number of boxes,” Bailey continues. “Its cab is larger than others. It is more ergonomic, which my customers like. It is easy to use, and the controls are responsive. Overall, it’s a very nice design. It’s small enough to be nimble, yet has the power needed to safely do what is asked.”

Along with filling needs as they arise, Bailey says fairness is always at the top of the goal list. “We take care of our customers. Our primary goal is to save our customers money with products that deliver consistent efficiency and safety whether direct, through rent, or re-rent. We both win when we deliver on all points.”

Doc Bailey carries Link-Belt, RT cranes, bucket trucks and mobile truck cranes. It offers rentals, sales, inspection, service work and repairs. The P120.10 will be available at San Lorenzo, California; Las Vegas, Nevada, and Oahu, Hawaii.

www.888docbailey.com/ams-merlo.com

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In its loader configuration, the Case Minotaur DL550 features a 5,500-pound rated operating capacity (50 percent of tipping load) with 12,907 pounds of breakout force. It features a vertical lift that operates in the ISO control pattern.

■ Compact dozer loader opens new equipment category

The Case Minotaur DL550 looks like a compact track loader, but in reality, it is a compact dozer with ripper that can also work as a compact track loader.

Weighing in at more than 18,000 pounds and working with 114 horsepower, the new first-of-its-kind machine delivers true dozing and grading performance as well as powerful site-loading capabilities and compatibility with hundreds of attachments. It is also equipped with an integrated ripper.

In its loader configuration, it features a 5,500-pound rated operating capacity (50 percent of tipping load) with 12,907 pounds of breakout force. It features a vertical lift that operates in the ISO control pattern.

The C-frame hydraulically couples into the chassis of the machine as well as the attachment. This design provides the stability and smooth operating plane of a small dozer because all operating power is channeled through the machine body. This establishes greater performance and long-term reliability than the simple combination of a dozer blade attachment on a traditional compact track loader.

The chassis-integrated C-frame can be outfitted with a six-way dozer blade. This design provides the stability and smooth operating plane of a small dozer while ensuring that all operating power is channeled through the whole body of the machine.

Instead of pushing the blade with its arms, it pushes material from its frame; akin to a person pushing with their hips vs. pushing from shoulder level, resulting in a more efficient transfer of power for greater productivity.

It also comes standard with Case Universal Machine Control, which makes the machine ready for any of the three major machine control providers. It is available with 14-inch single-grouser steel tracks, 18-inch triple-grouser steel tracks or 17.7-inch rubber tracks.

www.CaseCE.com/Minotaur

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