

# THE DIRT

SUMMER 2019

PROVIDED BY RDO EQUIPMENT CO. AND JOHN DEERE

## FROM THE GROUND UP

PAGE 4



## The Next Big Thing in Grade Control Technology

Grade control technology is nothing new. The first motor grader equipped with guidance technology was introduced more than 20 years ago and, since then, additional machines like dozers and excavators followed suit, enhancing accuracy, efficiency, and awareness in earthmoving projects.

John Deere has been and remains at the forefront of this technology. In the last five years, Deere led the industry with the shift to manufacturers integrating machine control technology directly into production equipment. Deere's new SmartGrade Motor Graders are the textbook example of what is possible when machine control technology and machines are developed together.

### Move More Material, More Efficiently

Original grade technology made it possible for operators of various skill and experience levels to operate faster and with better accuracy. SmartGrade furthers these advantages by expanding flexibility of blade placement and being able to utilize the machine capabilities as they were designed. For the motor grader, this means operators can now control grade fully-articulated and also, use all the setting of saddle placement and side shifting.

That was never possible with an aftermarket system, but now the machine can tell the system exactly where the cutting edge is in space. This is a game changer for motor grader operation. It allows customers to take accuracy and efficiency to the next level with the machine's awareness of speed, slip, and grade all working together.

Additionally, Deere's SmartGrade is the industry's first and only mastless motor grader. It addresses one of the biggest drawbacks of using traditional, aftermarket guidance technology – potential damage to external masts and cables. The days of bending a GPS pole or slicing a tire with the blade are over.

### Support is Key

Like Deere, RDO Equipment Co. is committed to being an industry leader in technology and machine innovation. As the machine capabilities increase, so does the complexity of operation. This is where RDO is investing in our customers' future. We are committed to hiring, training, and equipping our team, locally, to ensure customers have the support needed in the field to keep equipment working and maximizing the use of these new technological innovations.

In addition, RDO created a Solutions Center. This team, based in Billings, MT, was created to enhance the support we offer locally with expertise in modeling, machine control, survey equipment, and unmanned aerial vehicles (UAVs). Bottom line, we are committed to making sure technology works for our customers.

### Technology Forward

Just as manufacturers like Deere are changing the game with technology opportunities, RDO is committed to being a single source for support and training as customers implement these new machines and technology into their business.

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See used and new construction equipment for sale, learn about parts and service support, or find the RDO Equipment Co. store near you at [www.RDOequipment.com](http://www.RDOequipment.com).



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# FROM THE GROUND UP

STARTING WITH A SINGLE CREW, TOMMY SETTLE AND MIKE BROWN HAVE GROWN A THRIVING SITE-PREP BUSINESS.

*Just a short five-minute drive from B&S Site Development's office in Bristow, Virginia, is Manassas National Battlefield Park, site of the first battle of the Civil War. A massive statue of General Thomas "Stonewall" Jackson towers over the battlefield. According to legend, Jackson earned his nickname at the battle after holding back a fierce assault. Interestingly, Jackson taught at Virginia Military Institute (VMI), where a century-and-a-half later, B&S Site Development's founders, Mike Brown and Tommy Settle (hence the company name "B&S"), would both earn degrees in civil engineering. — continued*









## HITTING THE GROUND RUNNING

After graduation from VMI, Brown and Settle took jobs at residential-site-development companies for a few years before forming their own company in 2003. They started with just a single four-man crew. "We took a lot of small residential jobs that other contractors were too busy to do, including utility tie-ins, water services, sewer work, and water mains," remembers Brown. "Basically, a lot of odds and ends."

Today the company runs 10 crews and employs over 100 people. "In the beginning we were having trouble finding subcontractors, so we hired a project manager, bought more machines, and hired more operators," adds Settle. "From about 2004 to 2006, things really started to take off. We developed a reputation for getting the job done on schedule and under budget."

B&S Site Development provides complete site-preparation services, including dirt work, concrete, wet utilities, and paving. The company has transitioned from residential to predominantly commercial work, as opportunities are abundant. The area surrounding Bristow has grown dramatically since the 1980s after becoming the home to world headquarters for several high-tech companies. Almost 70 percent of the world's internet traffic flows through neighboring Loudoun County, where 75 massive data centers have been constructed in the last decade. The data centers store and manage data for internet search, social media, and e-commerce sites, and demand shows no signs of slowing down — another five million sq. ft. are on the drawing boards.\* B&S Site Development also does some government work, including parking garages, a municipal government firing range, and a project at Dulles International Airport.

\*Sources: Loudoun County, Virginia, Economic Development; *Washington Technology* magazine; and [datacenterknowledge.com](http://datacenterknowledge.com).



**VMI INSTILLED A "CAN-DO" ATTITUDE IN THE TWO BUSINESS PARTNERS. THEY WORK VERY CLOSELY WITH CUSTOMERS, WITH BROWN SUPERVISING FIELD OPERATIONS AND SETTLE OVERSEEING ESTIMATING, PROJECT MANAGEMENT, AND ADMINISTRATION.**

"In the last three years, we've really had to scale up our crews to handle bigger and bigger jobs, which are typically 20 to 80 acres," says Settle. "Many of the projects have very aggressive schedules, and our ability to get it done has established our reputation in the marketplace."

### LEAN AND MEAN

VMI instilled a "can-do" attitude in the two business partners. They work very closely with customers, with Brown supervising field operations and Settle overseeing estimating, project management, and administration. "Even though we've grown into a larger company, we're still very hands-on," says Settle. "Because we're lean, we can interact with customers and make timely decisions so we can meet our deadlines."

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***WE DEVELOPED  
A REPUTATION  
FOR GETTING  
THE JOB DONE  
ON SCHEDULE AND  
UNDER BUDGET.***

*— Tommy Settle, Owner, B&S Site Development*





"I think that has a lot to do with our success," says Brown. "If there's an issue with a schedule or contract, Tommy is just a phone call away. If there's a problem in the field, I'm there. People like that. They don't have to deal with echelons of middle management."

To help make the company more competitive, Brown and Settle opened a full-service construction recycling facility, Commonwealth Recycled Aggregates, in 2008. "We gather waste from our jobs, including concrete and asphalt, then crush it so we can use it as aggregate on our jobs," says Brown. "This really gives us an edge when we are bidding a project. It's very cost-effective and good for the environment, too."

#### NO SURPRISES

B&S Site Development started out running a variety of construction machines but has used primarily John Deere equipment since 2007. "We've tried many different manufacturers, but Deere is very productive and reliable, and we get excellent support from our local dealer, James River Equipment," says Brown.

At the firing range project in Loudoun County, a John Deere 755K Crawler Loader, 750K Dozers, and 310E Articulated Dump Trucks work in tandem, carving out parking lots and foundations during the initial stages of site preparation. As the crew winds down for the day, a James River service truck pulls in. A service technician from the dealership begins performing scheduled maintenance on the machines. "By scheduling this at the end of the day or on a weekend, James River helps us avoid downtime," says Settle.



*A full-service construction recycling facility helps Brown and Settle be even more competitive and cost-effective.*



**WE'VE TRIED MANY DIFFERENT MANUFACTURERS  
AND WE GET EXCELLENT RESULTS**


B&S Site Development has a service contract with James River to handle all preventive maintenance and repairs for its large fleet of over 50 John Deere machines. "It's hard to find good mechanics these days to work on the new machines," says Settle. "Having James River manage service really helps us focus on what we're good at."

Four months ago, B&S Site Development began leasing all its equipment from James River. "It's been a really good decision for us," says Brown. "Everything is built into the lease agreement, including service and maintenance, so now everything is a known, fixed cost."

Having an engine failure was tough to budget for. Now there are no surprises, which helps our bottom line."

JDLINK™, John Deere's machine-monitoring system, has also helped minimize surprises. "It's a great tool," says Settle. "We can track the hours, location, maintenance schedules, and production of each machine. And if there's an issue with any machine, both James River and our company get an alert. We can work with our dealer to determine if it is something we can handle, or if they need to send a technician. Because James River can diagnose the machine





*B&S Site Development has a service contract with James River Equipment, allowing the company to focus on its core business.*

**MANUFACTURERS, BUT DEERE IS VERY PRODUCTIVE AND RELIABLE,  
GREAT SUPPORT FROM OUR LOCAL DEALER.**

*— Mike Brown, Owner, B&S Site Development*

remotely, the technician can arrive with the right part the first time, without having to make a separate visit to determine the problem. That saves us time and money."

James River has always had the company's back. "I've known our dealer representative, Clay Campbell, for 20 years," says Brown. "He's another VMI guy. Our company has done some pretty unique jobs where I might need eight machines on the job immediately, and Clay will figure out a way to make it happen with just a handshake. We've always had a good relationship with them. They're such good people to deal with."

"We consider James River and John Deere our partners in what we are trying to accomplish," adds Settle. "We've always had very good luck with the equipment. There have been no major issues, and they are low maintenance. And if an issue does arise, James River is a phone call away."

The future is looking bright for B&S Site Development. "In 15 years this is the best economy I've seen," says Brown. "It's pretty steady and there's no end in sight. We're in a good spot right now."

Brown hasn't lost his passion for the company since it started with

a single crew. "I love doing this. I get to come out and play in the dirt and make a living at it. It's a lot of fun."

*B&S Site Development, Inc. is serviced by James River Equipment, Manassas Park, Virginia.*

 **Check out the video at:  
[JohnDeere.com/TheDirt](http://JohnDeere.com/TheDirt)**

# INTRODUCING THE



## EXPECT BIG THINGS

**The 850L Dozer boosts productivity, big time**

*Larger and more powerful than the previous K-Series model, the heavy-hitting 850L Dozer packs a productive punch on big jobs. And with new state-of-the-art controls, the usual arsenal of production-boosting hydrostatic advantages, and the John Deere SmartGrade™ option, it provides the finesse you need to tackle precision work. So whether you're mass excavating or fine grading, you'll find what you need in an 850L.*



**LARGER & MORE POWERFUL\***



**AUTO SMARTGRADE**



**NEW 172-IN. (4359 MM)-WIDE PAT BLADE**

\*Compared to previous K-Series model.



# 50T DOZER

## **MORE POWER TO YOU**

PowerTech™ PSS 9.0L diesel replaces the previous 6.8L engine, enabling 10-percent more engine power and 23-percent more peak torque.

## **GET ON THE STICK – WITH LESS EFFORT**

Updated ergonomic joysticks provide intuitive, low-effort control of the transmission, hydraulics, and rear implement.

## **STABLE PLATFORM FOR FINE GRADING**

New eight-roller, 130-in. (3300 mm) undercarriage and extra-long-track (XLT), wide-long-track (WLT), and low-ground-pressure (LGP) track configurations improve stability\* for fine grading.

## **FAST-TRACK PRODUCTIVITY**

Featuring the widest Power-Angle-Tilt (PAT) blade in its class, the 850L delivers more horsepower and torque than its predecessor, for increased productivity.

## **THIS DOZER MEANS BUSINESS**

Multiple undercarriage configurations, application-specific blade choices, and numerous other available options allow you to take on a variety of unique applications — and expand your business opportunities.

## **GET BIG RESULTS ON BIG JOBS**

Boasting more power, weight, and stability than its predecessor, the 850L Crawler Dozer gets it done.

## **EASY ON THE EYES**

Boasting exceptional visibility and eye-catching automotive styling, the new cab is even more spacious, quiet, and comfortable than previous models. Standard high-back air-suspension seat with 2-in. (51 mm) of extra travel, additional storage, and an improved HVAC system also help minimize fatigue.

## **WON'T SETTLE FOR AVERAGE GRADES**

Combining powerful Topcon technology with the Deere track load-sensing system, the SmartGrade solution is a fully integrated grade-control system that's easy to set up and run.



# TRAINING TOUGH



**48**  
ACRES

**20,000**  
TRAINING HOURS  
PER YEAR

**2**  
DEDICATED  
INSTRUCTORS



*At a 48-acre training facility in Marion, Illinois, local operators push their skills to the limit. They cut slopes, haul dirt, and lay pipeline. They traverse and transform hills, ponds, and ditches. On a busy day, they'll deploy a fleet of Deere machines — dozers, excavators, motor graders, articulated dump trucks, and more — to tackle six or seven scenarios simultaneously. And at the heart of these operations, overseeing a flurry of activity for the International Union of Operating Engineers (IUOE) Local 318 are two men — Justin May and Noah Ridgway.*

*"When I started my apprenticeship in 2010, we had 20 acres of land, one excavator, one backhoe, and a few other pieces of equipment," says May, the facility's head instructor. "Every-one would race here to see who could train first. You'd run half a day, then you'd watch. We used to have to rent a GPS dozer for the month, just so everyone could get some training in."*

*—continued*







DO THE WORK,  
BE SAFE,  
AND PROVIDE  
FOR YOUR  
FAMILY."

— *Noah Ridgway,*  
training coordinator,  
IUOE Local 318





## MEMBERSHIP PERKS

For Noah Ridgway, training coordinator for IUOE Local 318, it's easy to put a price tag on the educational opportunities provided. "This facility costs nothing to our members. They can come out here and run all of this equipment for free. We might burn 1,500 gallons of fuel in a week and operators won't pay a dime. The payback comes when they get sent out to work and they do a good job. That promotes Local 318, this facility, and our trade."

### PRACTICE MAKES PERFECT

After graduating from the apprentice program in 2014, May worked as a part-time instructor before taking on full-time responsibilities in 2017. Thanks to his years of experience, the efforts of the previous administration, and the strong bond he's developed with Ridgway, the facility's training coordinator, union members now have more access to training than ever before.

"Noah and I take the difficult experiences we've had out in the field and apply them here. We'll work out different scenarios — where to put a ditch, how much pipe to lay, what slopes we want to work, or how much dirt we want to move. We'll talk to members about the things they've seen on jobsites and simulate those environments. And we'll talk to different companies about specific work they want done. Our goal is to prepare everybody, so when they go to work there aren't too many surprises. They're confident and comfortable on the machines they're running."

May is a skilled operator in his own right, but the life of an instructor took some getting used to. "When you work out in the field, it's a different sort of excitement. You run a dozer all day, working on a slope, and at the end of the day, you think, 'Wow, that looks good. I did that today.' As an instructor, that feeling goes away a little bit, because you're training someone else to do that work. But when you see that

person learn how to tackle a problem, when you see that smile on their face, that's what I get excited about now. When I first started here, I missed running equipment. I missed cutting slopes. But now seeing other guys get better, it's very fulfilling."

### MOVING FORWARD

"You've got to be creative out here because things are changing all the time," says May. "There's never a permanent structure. We might have rolling hills today and flat ground three weeks from now. So we've got to always move forward. Whatever the scenario might be, it's good to put two minds together because you can catch yourself getting tunnel vision. Whenever Noah or I have an idea, we just run with it."

Ridgway has been with IUOE Local 318 since 2001. "I worked in the field for union contractors, then became a full-time instructor here. I've worked at this facility for five years and have run our day-to-day operations since last spring."

In that time, Ridgway and May have transformed the physical look of the training site. "We've put in a lot of work since we took over," Ridgway says. "We've worked on the terrain, so there are more rolling hills. We wanted land that was more typical of southern Illinois. We're trying to make it so members can sit on slopes and hillsides — scenarios they'll frequently encounter on a jobsite."





# NO TIME FOR DOWNTIME

YOU'VE GOT TO BE  
CREATIVE OUT HERE  
BECAUSE THINGS  
ARE CHANGING ALL  
THE TIME."

— Justin May, head instructor,  
IUOE Local 318

For IUOE Local 318 head instructor Justin May, a strong dealer partnership makes training more efficient and effective. "Kevin Trader and Erb Equipment Co. provide everything we need. We can't have iron down very long because members come out here and want to run specific machines. They have particular tasks they need to train to do. So we don't like equipment being down for more than a day. If a machine's down and repairs are above my mechanic skills, there's an Erb truck coming in no time. They have very skilled and personable mechanics who help us out. They're all very knowledgeable, and that's one of the big reasons we're with Kevin and his team."

And the terrain isn't the only thing that's changed recently. "We've grown from roughly 2,000 training hours a year to almost 20,000. Our members are looking for more than equipment training, so we're focusing on the classroom to provide additional hazmat, OSHA® [Occupational Safety and Health Administration], rigging, signaling, and MSHA [Mine Safety & Health Administration] courses. That way, members can get the certifications they need.

"We have men and women train here who've never set foot on a piece of equipment," continues Ridgway. "They've pretty much only mowed their grass. For others, it's a family business. Their grandfathers, fathers, and brothers, they're all members. All kinds of people come through here. I want to make sure every single person leaves this facility a competent and proficient operator."

## A GOOD EIGHT

When asked what's the most important part of their day, Ridgway doesn't hesitate. "Safety is paramount for us. We all want to put in a good eight and go home to our families. That's what we preach out here: Do the work, be safe, and provide for your family."

"I want to push apprentices to the max," adds May. "I want to push them so that when they get a job, it's easy. These scenarios might not be an everyday task, but when you're done training, you're comfortable sitting in that dozer on a steep slope. You're comfortable sitting in that excavator when you're digging pipeline. I really want members to say, 'Man, work's easy compared to what we do out here.'"

*The International Union of Operating Engineers Local 318 training facility is serviced by Erb Equipment Co., Inc., Mt. Vernon, Illinois.*



Check out the video at:  
[JohnDeere.com/TheDirt](http://JohnDeere.com/TheDirt)

## TAKING SIDES

Noah Ridgway, training coordinator for IUOE Local 318, isn't shy about his favorite Deere machines. "Motor graders are great. They're versatile pieces of equipment and they're fun to run. You can work ditches, back slopes, road projects, gravel, and dirt. You can get on surfaces you can't with a dozer. And I like the blade shift, too. You can work in one position while the blade works in another. You can work a slope or ditch and put your machine up on flat, level ground while the blade is in the bottom of a ditch. It's a great machine."





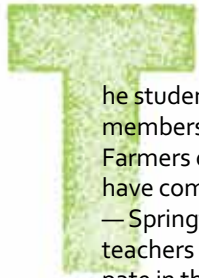
# REMAN

**ready**

*Decked out in reflective vests, safety glasses, bump caps, and gloves, dozens of high school students wind their way through a 130,000-sq.-ft. factory in southwest Missouri to witness the rebirth of John Deere engines, hydraulics, and drivetrains. Moving from station to station, they take in the sights and sounds around them — the burst of a welding spark, the clatter of lift chains — as skilled technicians break down, clean, and restore critical machine components before reassembling and returning them to like-new condition.*







he students, many of whom are members of the local Future Farmers of America® chapter, have come to John Deere Reman — Springfield, along with their teachers and mentors, to participate in the second annual Global Reman Day, an international event established by the Remanufacturing Industries Council to increase public awareness of remanufacturing and emphasize its impact on the economy and the environment.

Josh Kempel, Global Sales and Marketing Manager for John Deere Reman, believes these tours are key to growing the industry both worldwide and right here in Springfield. “We want students to understand the value of remanufacturing,” says Kempel. “We want them to see for themselves how we transform parts and components. These kids are the future of agriculture, construction, and forestry, and they need to know that Deere is committed to sustainability and protecting the environment. We also want them to be aware of the many career opportunities within the remanufacturing industry and that Deere can be a great employment option as they look for jobs after high school and college.”

## HOME SWEET HOME

Springfield, Missouri, is home to three of four John Deere Reman factories in North America: John Deere Reman – Global Core Collection Center, John Deere Reman – Springfield, and John Deere Reman – Electronics. The fourth factory, John Deere Reman – Edmonton, is located in Alberta, Canada. For the last 20 years, the team in Springfield has dedicated its efforts to returning previously used, worn, or damaged parts back to like-new condition through a rigorous manufacturing process.

*Students learn about processes and operations at the Springfield facility.*



## DESIGNED FOR A BETTER TOMORROW

*The circular approach to manufacturing is just one way John Deere is committed to product sustainability and environmental stewardship.*



**We want students to understand the value of remanufacturing. We want them to see for themselves how we transform parts and components.”**

— JOSH KEMPEL,  
Global Sales and Marketing  
Manager, John Deere Reman

“Throughout all of our facilities, our processes focus on building quality products,” says Kempel. “Each part is disassembled and cleaned before going through multiple inspection and qualification processes, which the students can experience up-close on their tours. All critical dimensions are measured and brought back to OEM [original equipment manufacturer] specifications through various reclamation techniques. During the reassembly of components, our factory-trained technicians follow strict guidelines and procedures including multiple

quality checkpoints. And finally, the components are tested against our OEM design specifications to ensure they’ve met all performance requirements.”

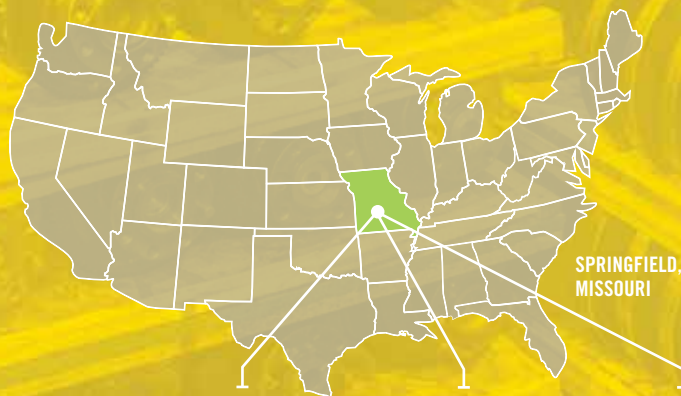
Kempel is also quick to highlight the numerous benefits of the remanufacturing process, which employees reiterated to students throughout the day. “Our reman parts cost 25–30-percent less than new components, which means lower repair and overall ownership costs for John Deere equipment. Our reman program improves uptime thanks to component exchanges, giving

—continued



JOHN DEERE REMAN

# FACTORIES



**90**  
EMPLOYEES

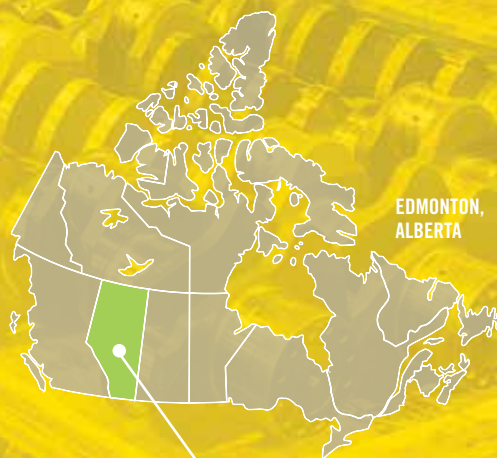
*John Deere Reman –  
Global Core  
Collection Center  
Springfield, Missouri*

**290**  
EMPLOYEES

*John Deere Reman –  
Springfield  
Springfield, Missouri*

**50**  
EMPLOYEES

*John Deere Reman –  
Electronics  
Springfield, Missouri*



EDMONTON,  
ALBERTA

**210**  
EMPLOYEES

*John Deere Reman –  
Edmonton  
Edmonton, Alberta*

customers the power of productivity when they need it most. We're providing high-quality parts backed by a factory warranty. And remanufacturing saves an average of 85 percent on energy use, 86 percent on water use, and 85 percent on material use when compared to the manufacture of an original part. These kinds of statistics really stand out to students."

## WORKING TOGETHER

To round out the Global Reman Day activities, several employees volunteered to collect hazardous and unwanted materials at a temporary drop-off zone in a parking lot just south of the factory. "We encouraged our employees to bring

in paint, pesticides, and whatever else they had at home, so we could safely and properly dispose of these materials at no cost to them," says Kempel. "It's just another way we're demonstrating our commitment to protecting the environment."

At this year's event, the three Springfield-based facilities collected 6,195 lb. of hazardous and unwanted junk, including drain cleaners, used motor oil, rust solvents, light bulbs, and computer monitors. As fellow employees pulled into the drop-off zone, technicians, supervisors, managers, and engineers worked together to lift, collect, and sort the materials into temporary containers bound for regional disposal sites.

From the early morning to late afternoon, Kempel and the John Deere Reman team exude a great deal of passion and pride about the day's events. "Those of us who work in the industry know the benefits of remanufacturing, and the value we provide to our customers, communities, and the environment," he says. "But the most rewarding part of Global Reman Day is showcasing our employees, processes, and products to people who don't normally get to see what we do — or even understand why we do it. Events like this are a great opportunity to share our hard work with the world."



## GOING GREEN

*Remanufacturing significantly saves on numerous environmental impacts compared to manufacturing an original part.*



**85%**  
LESS  
ENERGY  
USE



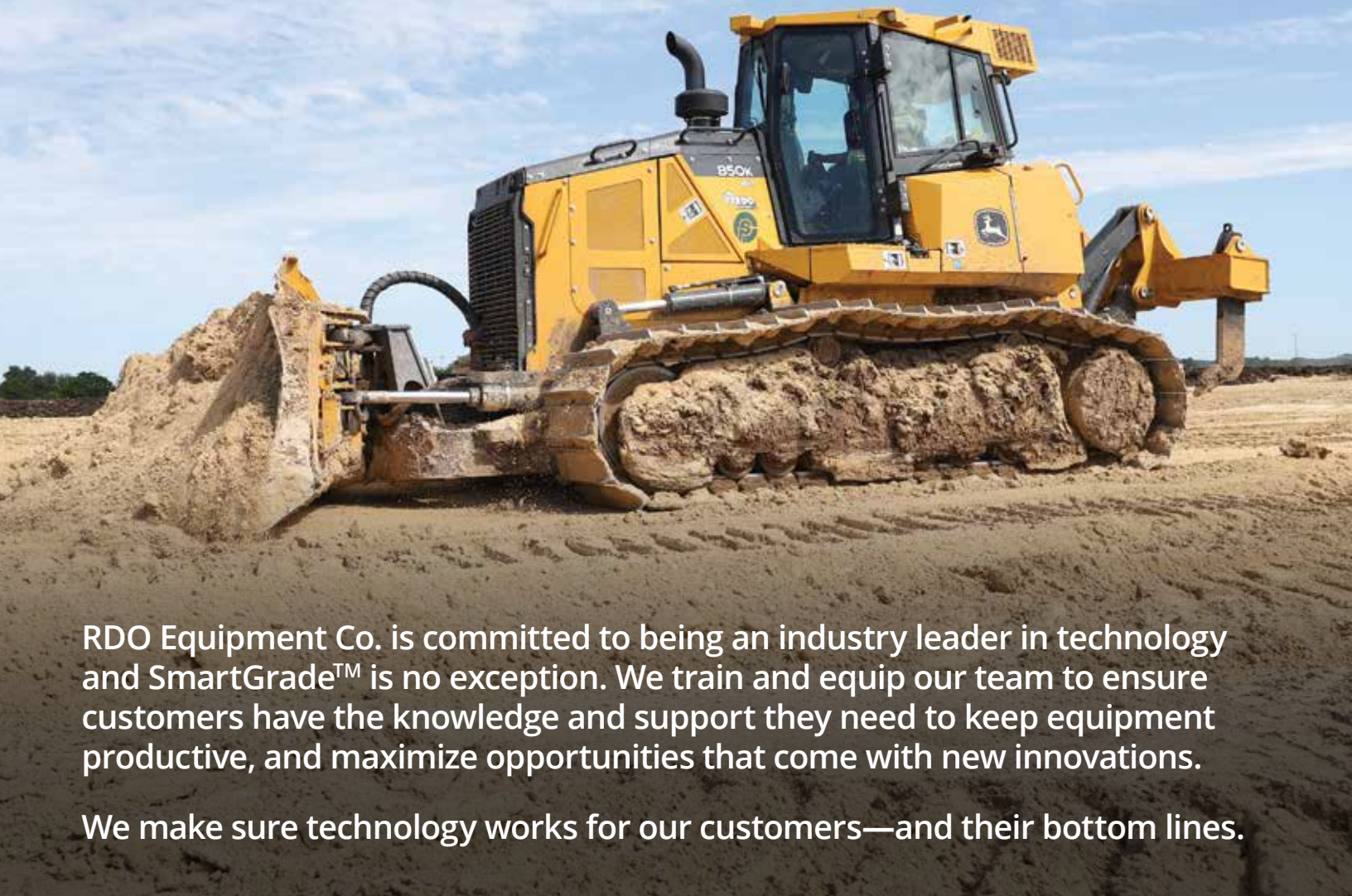
**86%**  
LESS  
WATER  
USE



**85%**  
LESS  
MATERIAL  
USE



# Technology solutions and support: **RDO does that.**



RDO Equipment Co. is committed to being an industry leader in technology and SmartGrade™ is no exception. We train and equip our team to ensure customers have the knowledge and support they need to keep equipment productive, and maximize opportunities that come with new innovations.

We make sure technology works for our customers—and their bottom lines.

Contact 866-424-0450 to learn more about SmartGrade™ technology.

**TEXAS**  
Fort Worth  
Hewitt  
Irving  
Laredo  
McKinney  
New Braunfels  
Pflugerville





# Connected Support for your machines: **RDO does that.**



RDO Equipment Co. is prepared to minimize your machine downtime and protect your investment with our Connected Support team. The Connected Support team is dedicated to watching machine health alerts and performance of your machine while it works. They also proactively monitor machine usage with JDLink™ and RDO Connect.

Contact 866-424-0450 for more information.

**TEXAS**  
Fort Worth  
Hewitt  
Irving  
Laredo  
McKinney  
New Braunfels  
Pflugerville



[RDOequipment.com](http://RDOequipment.com)