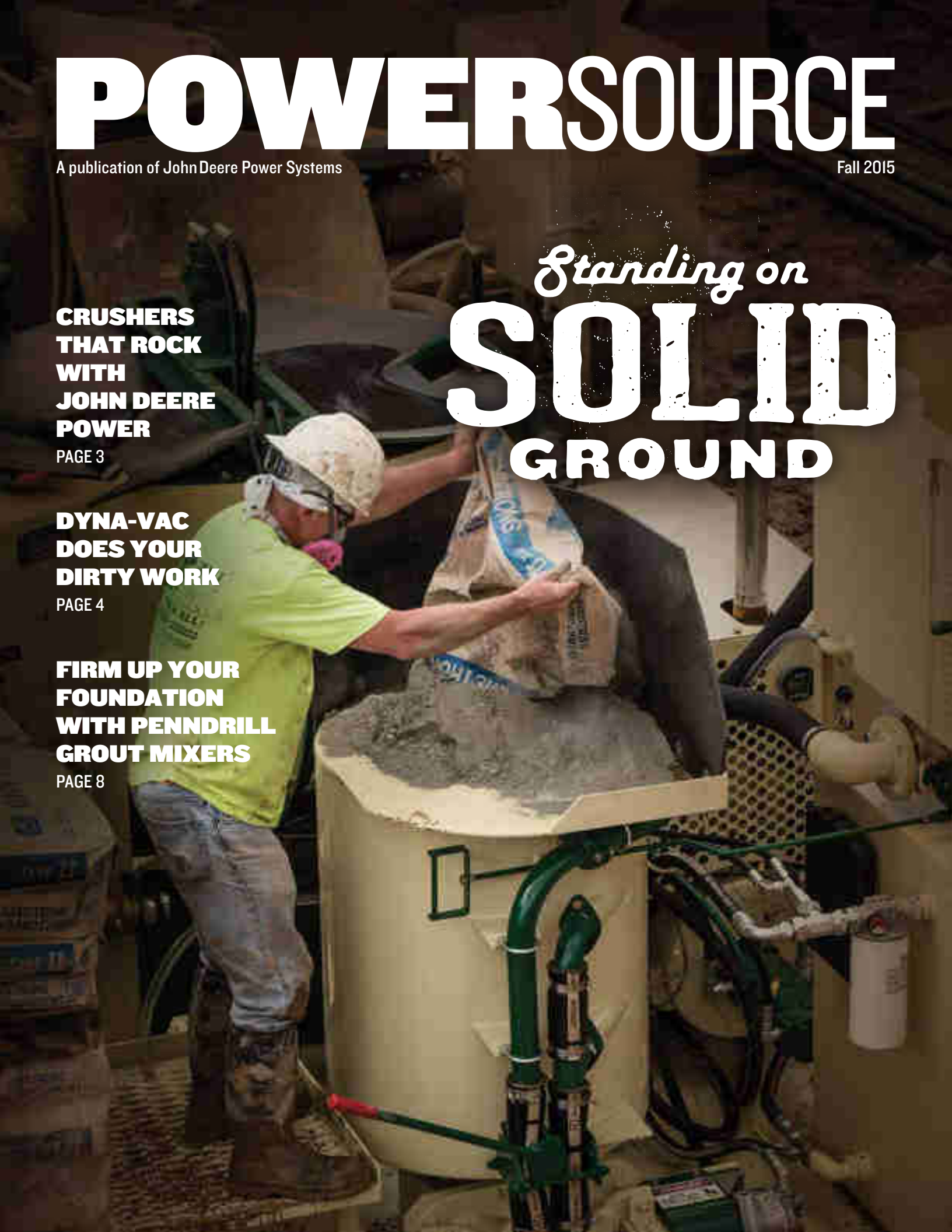
POWERSOURCE

A publication of John Deere Power Systems

Fall 2015



Standing on SOLID GROUND

ON THE COVER
The John Deere engine powers the mixing mill and a progressive cavity pump that delivers grout at a rate of 144 liters/minute at 17 bar (38 gallons per minute at 240 pounds per square inch).

POWERSOURCE

COVER STORY

DURABILITY IN HARSH CONDITIONS

NEW PRODUCTS

REPOWER

SERVICE

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FIGHTING FIRE AND FLOOD

RapidFire & Rescue Inc. battles the elements with a fleet of heli-portable John Deere-powered pumping units

Not many people find themselves in the middle of devastating floods, wildfires and oil spills on a regular basis, but that's a day in the life of Troy O'Connor.

As president of RapidFire & Rescue Inc. in Red Deer, Alberta, Canada, O'Connor has spent the past 17 years in these extremes, providing contract emergency firefighting, dewatering and spill services whenever and wherever disaster strikes.

Whether battling spills, fire, or floodwaters, RapidFire & Rescue relies on six heli-portable pumping units that are ready for deployment at a moment's notice. It's a job that keeps O'Connor and his team on the move. "I remember fighting the fire at Slave Lake in northern Alberta for 10 days. Then we literally took a 24-hour break and went to southern Alberta to deal with floods in Calgary."

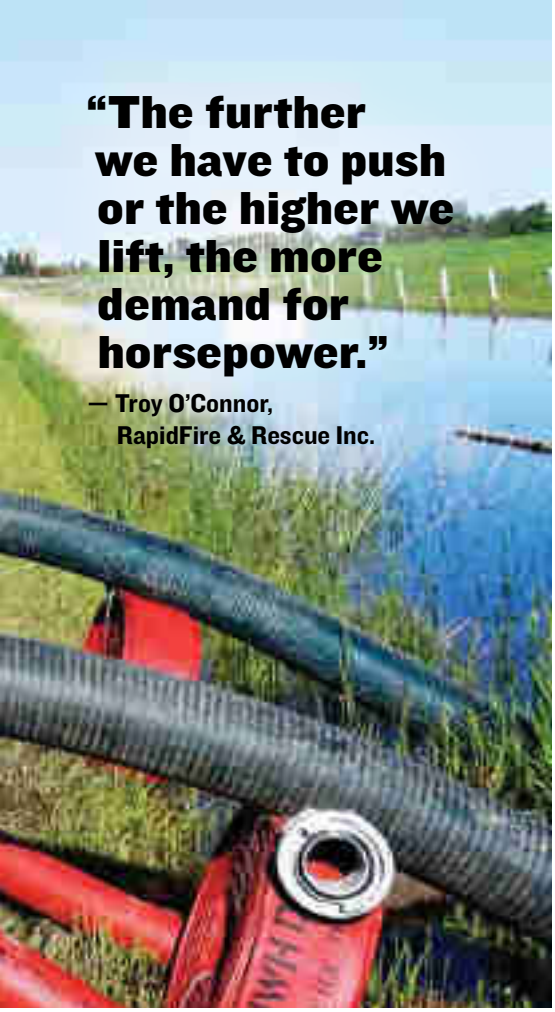
When emergencies strike, the pumping units and hoses are transported by land or flown to location by helicopter or cargo plane. In the case of a fire, pumping units can be positioned near a water source, like a lake or stream, and hooked up to enough hose to extinguish fires up to 5 miles away. The systems are capable of pushing water up a 610-meter (2,000-foot) elevation.

"The challenge is volume, distance, and elevation," says O'Connor. "The further we have to push or the higher we lift, the more demand for horsepower."

Pumping long distances in remote locations requires engines that are reliable, according to O'Connor. "John Deere engines have the best power-to-weight ratio, which is important to being mobile and flexible in our work environment."

O'Connor sources the engines from Frontier Power Products in Calgary, Alberta. The John Deere engine distributor has the in-house capability to package the complete skid-mounted fire-suppression/fire-support system. Frontier Power mounts a Berkeley pump to the John Deere engine. They also fabricate the tubular frame with lifting eyes and a custom built-in fuel tank with secondary containment that will capture hydrocarbons, if there's ever a leak. They also customize the exhaust and primers, and mount an emergency shutdown system.

"We spec the components, and Frontier Power assembles it from A to Z," explains O'Connor.



“The further we have to push or the higher we lift, the more demand for horsepower.”

— Troy O’Connor, RapidFire & Rescue Inc.

When emergencies strike, RapidFire & Rescue transports pumping units and hoses and other equipment by truck. If locations are remote, pumping equipment is delivered by helicopter or cargo plane.

◂◂◂ Two older-model John Deere-powered pumping units are among the fleet of equipment deployed by RapidFire & Rescue.

“The end result is a quality product that lands on our doorstep, ready to work.”

Purchasing the engine as a complete system from Frontier Power is well worth it, he says. “We’ve built one on our own, and it took twice as long to do it. You pay 20 percent more, but you get 80 percent more when you consider your time, the product warranty, and the rapport with the fabricators.”

Last summer, RapidFire & Rescue added two new pumping units to its fleet. Powered by PowerTech E 4.5L engines, the units deliver up to 11,356 liters per minute (3,000 gallons per minute). By fall, O’Connor says one unit was already proving itself on a large dump fire in the Arctic Circle.

“We loaded 18,000 pounds (8 metric tons) of equipment onto a cargo aircraft and flew to Baffin Island to put out a fire. Within 24 hours of the phone call, we were pumping water. The reliability of the John Deere engine has been excellent, even in that environment.”

O’Connor says engine reliability is paramount for his line of work. “In the environment where we work, we can’t afford downtime. It’s not acceptable to our clients. They expect operability and there’s no grey area. If you have one pump, it has to work. We’ve yet to have a John Deere engine fail.”

Impressive, considering one John Deere engine was purchased used with over 1,800 hours on it “and it didn’t miss a beat,” says O’Connor. “It’s 16 years old now. It’s old — and it’s not pretty — but it runs fantastic and has been as reliable as any piece of equipment in the fleet.”

Distributor: Frontier Power Products, Delta, British Columbia, Edmonton and Calgary, Alberta, and Winnipeg, Manitoba, *www.frontierpower.com*

RapidFire & Rescue sources the engines from Frontier Power Products in Calgary, Alberta. Branch manager Joe Leskovjan says the distributorship custom builds the skid-mounted pumping unit with a PowerTech E 4.5L engine and Berkeley pump.

BEYOND THE BLAZE

RapidFire & Rescue is a friend to the environment in other ways, as well. When not responding to fires and floods, the company uses the John Deere-powered pumping units to filter water produced during the drilling of oil and gas, as well as fracking. Up to 85 percent of water can be reclaimed, recycled, and safely placed back into the environment.