

“Bulletproof Pumps” Bring Oil Field Technology To Ag

Smart Turner Pumps are built to handle the acids and sand that quickly wear out pumps in ag applications. They were originally developed for Canada’s oil sands.

“Our company started out producing pumps for agriculture 140 years ago,” says Ron Lounsbury, Smart Turner Pumps. “As we developed them for other industrial markets, our pumps exceeded what farmers needed. When farmers kept asking us to rebuild their pumps, we realized the needs of agriculture had caught up to our pump technologies.”

As a result, Smart Turner Pumps returned to the ag market about 10 years ago. Two of their pumps are designed specifically for use with dragline manure spreading, pumping manure from dairies that use sand bedding. They are cast using a special heat-treated steel alloy and the double seal system designed for hazardous oil pumping situations.

The double seal system and special alloy are over-engineered for agriculture, admits Lounsbury. However, he notes that durability is vital here, too.

“Dragline operators run on a tight schedule, and they can’t afford to break down,” says Lounsbury. “Our pumps are designed with a 100,000-hr. bearing life.”

“Other dragline pumps operate at high rpm’s, which is hard on the diesel motors that drive them. Ours are designed to operate at a lower rpm with the diesel running at a fixed speed. This extends motor life and pump life, as well as reduces fuel costs.”

Smart Turner Pump’s larger pump moves 4,000 gpm at 250 psi. The smaller unit also pumps at 250 psi, but moves 2,000 gpm. “Our solid cast, 24-in. diameter impellers



Ron Lounsbury says his Smart Turner Pump has no trouble handling manure from dairies that use sand bedding.

can pump manure slurry up to 6 miles,” says Lounsbury.

The larger pump is priced at \$45,000, while the smaller pump is priced at \$35,000. Lounsbury emphasizes that not all manure handling or other ag situations require the premium alloy cast pump system. Other pumps from the company offer many of the same features, but at a third less cost.

“We can custom design a pumping system that meets your situation and your needs,” says Lounsbury. “Just give us a call.”

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Torsion Gooseneck Coupler Improves Towing

Carl Borkholder has spent much of his adult life towing equipment and motor homes behind vehicles, so he knows more than a little about hitches. He turned that knowledge into the very successful Gen-y Hitch several years ago. Recently he came up with an adjustable Torsion Gooseneck Coupler.

Borkholder says the new coupler results in a 90 percent smoother ride than a solid-mount hitch. That allows the truck to glide rather than bounce while pulling, increasing gas mileage and improving the ride. “The torsion action flexes, allowing the load to move up and down,” Borkholder says. “It also reduces metal fatigue caused by traditional hard-mount hitches and provides a smoother ride for animals in the trailer, too.”

The torsion hitch has heavy-duty rubber torsion flex cords that eliminate shock transfer without the use of airbags or bearings. It has a built-in mechanical tongue weight scale for balanced, safe loading. The hitch comes with a standard Gen-Y Versa-Ball and Pintle Lock. It’s powder coated with a tough, durable finish.

Borkholder says the coupler is computer engineered and manufactured to strict specifications that meet trailer and truck towing requirements. It’s a patented product that has a 10-year warranty on all moving parts. No greasing or lubrication is required. Available with a 4-in. round or square



Torsion Gooseneck Coupler is available with a round or square mounting shaft.

mounting sleeve, the coupler has up to 25,000 lbs. towing capacity and 3,000 or 5,000 lb. tongue weight capacities using a 2 5/16 in. ball. It has 5 in. of offset and 2 in. of up-and-down movement. Prices are \$799.99 for the light capacity model and \$899.99 for the higher capacity version.

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Combi Clamp platform and squeeze system is quiet, designed for ease of use, and works fast.

“Down Under” Chute Works Sheep Fast

Managing a flock of 11,000 ewes and 14,000 lambs that needed to be worked multiple times a year prompted Wayne Coffey to find a better way to handle sheep. The platform and squeeze system he calls Combi Clamp did the job so well that his neighbors wanted one too. As word spread, he stopped working with sheep and concentrated on making and marketing Combi Clamps.

“There are a lot of pneumatic systems out there, but there is too much to go wrong with them, and they are noisy,” says Coffey. “The Combi Clamp is quiet, sells for 1/3 to 1/2 the cost of the competition, and is faster. The sheep aren’t afraid of it because it doesn’t grab them and roll them over.”

As a sheep enters, the Combi Clamp, the operator steps down on a foot treadle plate. The plate activates a framework fitted with a flexible rubber mat that wraps around the sheep, pressing it against the padded panel on the operator’s side. No head gate is needed. Once the operator locks the panel in place with the foot pedal, front and rear feet, as well as the head and rump, are free of restraints and are easy to access.

Coffey designed the Combi Clamp for ease of use, putting the sheep at a handy working height. It can be set up for left or right hand operation and is adjustable for the size of the animals being worked. A 3-way shedding gate can be attached to the exit end, allowing the operator to sort animals in one of 3 directions. An auxiliary frame assembly

can also be added to hold various tools and supplies, as well as a scale. Other options include a wheel kit for easily moving the unit around the yard behind an ATV. A trailer unit is also available for road transport.

“Simplicity is a big thing with the Combi Clamp,” says Coffey. “A sheep producer can buy just the handler and then add on as they find more uses for it.”

Coffey started out selling the Combi Clamp in New Zealand and Australia, largely by word of mouth. Huber Ag Equipment, a Ritchie dealer in Alberta, is now introducing it to the North American market. The basic Combi Clamp is priced at \$4,995 (Canadian) plus shipping.

“We have a few out in North America now,” says Coffey. “People find out what it can do after they have it. We tell prospects they’ll be able to handle 150 to 200 animals an hour, and they think that’s good. Once they have it, they’ll realize they can do 250 to 300 head an hour. They wouldn’t have believed us if we had told them. We have one customer who runs 500 head an hour through his.”

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Boost Cylinder Lifting Range

Indiana handyman Gordon Brown built a simple device to double the lifting range of a hydraulic cylinder with a 3-ft. reach.

Brown says he fastened the base of a 3-ft. cylinder to the frame of his dump wagon and extended a cable through a pulley connected to the bottom of the trailer box. As the cylinder extends and tightens the cable, the box frame will lift twice the distance compared to using just the cylinder alone.

“With this mechanism on my trailer, I’m getting 6 ft. of lift height with a 3-ft. cylinder,” says Brown.

He made the device to dump the box on the 2-wheel trailer he uses to haul dirt in his grave-digging business. “When I tell people what I made this for they’re kind of amazed, first at how it works and second what I use it for,” Brown says. “After I explain it a little more they seem to understand on both counts.”

Brown says he needed the extra lifting height because his trailer is about 8 ft. long and slightly less than 5 ft. wide. “It’s narrower and longer than a conventional dump trailer, because we have to drive between rows of headstones and there isn’t a lot of room for a wide trailer. The 3-ft. reach cylinder didn’t raise my box high enough to dump the dirt, so I needed to improvise.”

Brown says his simple invention, which uses battery power from his truck to run

a power pack for raising and lowering the cylinder, works great.

“When we dig a grave we haul away about 60 percent of the dirt, so this trailer and its high lift really simplify unloading.” He pulls the trailer behind a 3/4-ton pickup with a heavy-duty power cable connecting the truck battery to the power pack on the trailer.

Brown says during his 40-plus years in the profession, he’s probably dug more than 6,000 graves, almost a third of them by hand. “Two men could dig a grave in about 4 hrs., and a lot of times I’d dig them by myself,” Brown says. I got about \$30 a grave when I first started and now my son is getting from \$500 to \$1,500 depending on where they’re located, how difficult the site is to access, and where the excess dirt needs to be hauled. He uses two different excavators and has contracts with about 30 cemeteries, so there’s plenty of work.”

Brown says his son’s name is in the Guinness Book of World Records for burying 108 people in one week. “It isn’t exactly what you might think,” Brown says with a laugh, “because he actually moved the remains from people buried in a 200-year-old cemetery that was being excavated for an airport runway.”

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