

## Latest New British Farm Inventions

Our friends at Farmer's Weekly magazine in England shared a few of the best ideas entered in their recent farmer invention contest. ([www.fwi.co.uk](http://www.fwi.co.uk)).



When he picks up a pile of square bales, Tucker can use the hydraulic-controlled top frame to hold them in place. Spikes fold up flat when not in use.

### Multiple Grabber Holds Bales In Place

Marcus Tucker from Devon made a bale handler for a neighbor that keeps bales from falling off when transporting. It mounts on a front-end loader.

The 3 bale spikes, which hydraulically fold up flat when not in use, pick up bales in the field. They can be used to stack up to 4 big

square bales on top of each other and then pick up the entire pile.

Once loaded, a top frame lowers down hydraulically over the top of the bales to keep them from bouncing off the spikes when crossing rough fields. He used diverter valves to control the hydraulics.



Loader attaches to a frame that pivots 180 degrees and is fitted with lift cylinders.

### Pivoting Loader Fitted To Industrial Tractor

Cornish farmer John Stephens took the dump box off an industrial "dumper", as they call them in England, and mounted a much-modified front-end loader in its place.

The loader attaches to a frame that pivots 180 degrees and is fitted with cylinders to raise and lower the loader. The pivoting loader makes it possible to reach into stalls and corners of livestock barns when cleaning out manure or feeding livestock.

The loader can be fitted with a manure bucket or a silage grapple for feeding. He can also remove the loader and reinstall the front dump bucket for hauling manure and other materials.



Pivoting loader makes it possible to reach into bunks when feeding livestock.

### Slick Way To Add Extra Hydraulics

You can get more hydraulic power from your existing tractor with HydraBoost from Command Hydraulics. Designed to meet the needs of new planters and other hydraulic power hogs, HydraBoost is a self-contained auxiliary hydraulic supply package. It can eliminate the need to trade up tractors to run a planter that needs more hydraulic power.

"HydraBoost is a closed center, pressure compensating system powered by a pto," says Dan Symington, Command Hydraulics. "We can produce the higher pressure needed for down pressure and for other precision planting equipment, as well as for vacuum fans and more."

The company suggests that HydraBoost works with every tractor/planter combination on the market. It is available in multiple sizes, from 12 gpm to 40 gpm, and can be equipped with either 4 or 6 additional ports. Reservoir capacity ranges from 15 to 25 gal., depending on pump size. The kit also

includes Command Hydraulics' PumpDoctor, designed initially for use with Case IH and Kinze planters.

"PumpDoctor is an integral part of HydraBoost," says Symington. "We also sell it by itself for use with other pto-powered hydraulic pumps. Anytime you put a pump directly on the pto, you tend to get vibration. Our double chain connection PumpDoctor cushions it."

The PumpDoctor is a support bracket that secures any pto pump directly to any tractor frame via a mounting plate. Without such a bracket, the pump hangs on the pto shaft. The weight causes excess vibration, shaft strain and warping or breakage. The PumpDoctor is available in 3 models for 16, 18 and 12-tooth sprockets.

The tractor mounting plate is designed to match the exact bolt pattern for specific tractor models, ensuring a secure and tight fit. The PumpDoctor kit also includes sprockets,



Hydraulically-controlled cage on trailer clamps down on top of bales once they're loaded, eliminating the need to strap them down.

### Trailer Fitted With "Hold Down" Clamp

After Robert Hooper bought a flatbed trailer to haul bales from field to farm, he and a friend, Dale Hutchinson, got to thinking about how they could hold a large cargo load of bales in place without having to go through the tedious procedure of strapping them down.

Their solution was to mount a hydraulically-controlled cage on top of the trailer that clamps down on top of the bales once they're loaded.

Hydraulic rams about 5 ft. long mount at front and back. The cage is high enough to

accommodate bales stacked up to 3 high.

Building the top of the bale clamp was tricky because it had to be light enough to stretch the length of the 30-ft. trailer but strong enough to avoid sagging in the middle. They used square tubing arranged in a ladder-style framework.

A series of 10-in. long steel spikes — pointing downward — run along both sides of the top framework to pin bales in place.

Hooper and Hutchinson say after a season of use that the clamping trailer saves them about 30 min. per load hauled.

### Retractable Sides Hold Bales In Place

Brothers Iain and Stephen Birnie, along with their father Harry, designed a custom big bale trailer with retractable sides that hold bales in place, eliminating the need to strap them down.

The brothers designed a sturdy 33-ft. long by 8-ft. 4-in. wide trailer with dual wheels and hydraulically-operated steel side frames. Cylinders lift each side panel into place and securely hold more than 30 round or square bales in 2 rows stacked 3 high. When the trailer is unloaded, one of the sides can remain in place to keep bales from being pushed off. Stephen says the side extensions can also be flipped upside down and used to secure smaller items such as seed, fertilizer or other cargo.

"The beauty of this trailer is that nobody has to sling straps over a load, especially on a windy day," Stephen says. "Each side operates independently from the tractor seat."

People from the U.S., France, Iceland and Germany have contacted the brothers after seeing the trailer in a YouTube video. A



Hydraulic-operated, retractable sides hold bales in place.

manufacturing company in Northern Ireland is currently building the trailers.

Contact: FARM SHOW Followup, SIB Services, Whynieton, Maud, Peterhead AB425SA, United Kingdom ([www.sibservices.co.uk](http://www.sibservices.co.uk)).



Pto-powered HydraBoost pump is designed to meet the needs of new planters and other hydraulic power hogs. PumpDoctor bracket, lower right, secures pto pump to reduce vibration.

chain and hardware for mounting.

HydraBoost ranges in price from \$5,245 to \$11,500. Pricing for the PumpDoctor is available from the company.

Contact: FARM SHOW Followup,

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