



James Bachert converted his 1969 12 hp Sears garden tractor into a handy forklift, attaching a home-built mast to the rear end.



He installed the seat on the hood of the tractor and replaced the hydrostatic hand control with a double action pedal.

## Handy Forklift Made From Garden Tractor

Whether loading his outside wood furnace or moving some pallets around the farm, James Bachert's forklift is sized just right. His 1969 12 hp Sears garden tractor was sturdy enough to handle the modifications and easily adapted to its new job. Best of all, parts were all salvaged or fabricated by Bachert, so it cost little to build.

"Those early Sears models were stout little tractors," says Bachert. "They had a sturdy frame, so I could just attach the mast to the rear end. The hydrostatic transmission made

it easy to reverse the tractor."

Bachert simply installed the seat on the hood of the tractor and replaced the hydrostatic hand control with a double action pedal. Step on one side, and go forward. Step on the other side, and move in reverse. Steering was left unchanged.

Not intending to use the forklift for extremely heavy items, Bachert built the mast from lightweight H-beam steel. The design was modeled after full-size forklifts with the mast designed to pivot approximately 10 de-

grees back from vertical when carrying loads. Even the forks, fabricated from channel irons with 3/4-in. sides, mount on a shaft so they slide left or right to suit the load.

To lift the forks, Bachert built a hydraulic cylinder with a 5-ft. reach. Two small cylinders mounted to the tractor and half way up the mast control mast tilt. Space previously used for a seat serves as a mounting area for the tilt cylinders and hydraulic control valves.

"I salvaged the rocker valves and a hydraulic pump from an old pickup-mounted snow-

plow," explains Bachert. "I mounted the pump on the front end of the tractor and used a belt tightener that used to control the belly-mount mower. I just release tension when I'm making a cold start."

Bachert says he can lift a pretty good-sized chunk of wood to load the furnace that heats his shop.

Contact: FARM SHOW Followup, James Bachert, 1940 S. 250 W., North Judson, Ind. 46366 (ph 574 896-5609).

## Truck Transmission Used To Start Dead Tractors

Larry Randall collects old tractors. They often won't start after sitting unused for long periods of time.

He didn't want to tow the tractors to start them because that requires another person, and it can be hard on the tractor's starter and ring gear.

To solve the problem, he uses a 4-speed truck transmission to start the dead tractor through their pto shafts. He welded the GM pickup transmission to a 3-pt. hitch frame off an old implement, then mounted the frame on the 3-pt. hitch on his 1952 Ford N tractor. The input shaft on front of the transmission was too long so he cut it down and then welded a U-joint onto it. He also mounted a big yoke on the output shaft on the back side

of the transmission to support a 3-ft. long telescoping driveshaft. The driveshaft hooks up to the dead tractor's pto.

He simply puts the truck transmission in reverse and engages the dead tractor's pto, which then turns the engine over to start.

The transmission's output turns in the right direction to crank the dead tractor through its pto shaft. "If I hooked up a driveshaft directly between two tractors, it would turn in the wrong direction and ruin the engine," notes Randall.

Contact: FARM SHOW Followup, Larry Randall, 26104 V Dr. North, Springport, Mich. 49284 (ph 517 857-2387; lrand@voyager.net).



Larry Randall uses a 4-speed truck transmission to start a dead tractor through its pto shaft. He welded a GM pickup transmission to a 3-pt. hitch frame.

## Cheap Hay Feeder For Goats

Old feed bins can be converted into inexpensive, covered big round bale racks for goats that are easy to move around, says Emma Corbin, Live Oak, Florida.

"We built it because we couldn't find a hay ring on the market that would keep goats off the hay," says Corbin. "The covered feeder keeps goats from climbing up on the bale and also keeps rain off. It can feed 25 goats."

The tin roof consists of two bin sections and is supported by four steel posts, two on each side, with metal bases welded to the bottom of each post. Corbin drilled holes at 4-in. intervals in the posts, then bolted a metal bracket to each. The brackets are in turn bolted to the bottom edges of the tin.

"The roof hangs about 10 inches over each side of the bale," says Corbin. "As the goats eat the bale down, we drop the bracket down a hole in each of the legs to keep weight on top of the bale. That way the goats can't knock the posts over," says Corbin. "The bale sets on a plastic pallet to keep it from rotting on the ground."

To make room for a new bale, they use a front-end loader and chain to lift the posts. The bale sits on top of a pallet.

Contact: FARM SHOW Followup, Emma L.



Tightly covered feeder keeps goats from climbing up on bale and also keeps rain off.



Tin roof is supported by four steel posts with holes drilled into them. Pins are pulled and the roof lowered as goats consume bale.

Corbin, 16796 16<sup>th</sup> St., Live Oak, Florida 32060 (ph 386 842-2966; cell ph 386 364-8553).

## Mini Incubator Suits Small Operations

Brinsea Incubation Specialists' latest incubator is a perfect size for small producers. Best of all, it takes the guesswork out of incubating.

"The Octagon 20 is a top quality unit, yet it's easy to use," says Pascale Deffieux, executive vice president of Brinsea, a company that originated in Britain 30 years ago.

The injection-molded body is durable and easy to clean, and the double-skinned base is filled with foam to reduce energy consumption. Eggs can be viewed through the clear top. A computer-grade fan and air diffuser maintain an even temperature. Two water reservoirs provide humidity.

Tray dividers can be positioned to accommodate different size eggs, from 60 quail to 24 chicken to a dozen goose eggs. Octagonal cabinet ends turn the eggs automatically as the incubator rocks from side to side.

Customers who raise exotic bird eggs that have specific humidity requirements purchase the Octagon 20 Advance EX with an Advance Humidity Pump. "It's all done automatically," Deffieux says.

"Our customers are varied, raising everything from exotic birds to ornamental waterfowl to chickens and geese," she



State-of-the-art incubator has a clear top for viewing eggs. Computer-grade fan and air diffuser maintain an even temperature.

adds. "Some sell birds as a business, some raise them as a hobby." Schools and universities also buy the incubators for school projects.

The incubators have a 2-year warranty and sell for \$369 and \$499 (with humidity pump). Distributors are listed on Brinsea's website.

Contact: FARM SHOW Followup, Brinsea Products, Inc., 704 N. Dixie Ave., Titusville, Florida 32796 (ph 888 667-7009; www.Brinsea.com).