

## Drive-Under Bins Make Feed Mixing Quick

By Jim Ruen, Contributing Editor

Grinding feed for a 85-cow herd takes time... too much time for David Carrier. He was spending 45-60 min. each day waiting for the roller mill to finish its job and then mixing in other elements of the ration. Trained as an engineer, the dairy farmer knew there had to be a better way, and he found it. Now it only takes him a few minutes to fill his mixer.

"I needed a reservoir of ready-to-serve ration ingredients quickly available," explains Carrier.

He decided to build four bins, each holding up to 5 tons. He also wanted them high enough off the ground that he could drive under for a quick fill with a gravity feed.

"The challenge was to work 30 ft. high," recalls Carrier. "I had to design it as I built it, and with the cow herd, I didn't have much time to play with it."

With the help of his "freshly retired" father-in-law, Carrier started construction. He set six 10-in. by 6 1/2-in. by 16 1/2-ft. I-beams (3 to a side at 8-ft. intervals) into a concrete foundation and pad.

These vertical I-beams are connected at the top by welding three 12-ft., 4-in. long I-beam cross members between the two sides to form three arches.

Two 18-ft. long 4 by 6-in. steel I-beams run the length of the structure across the arches.

He then constructed the four 8-ft. wide by 3 ft., 8-in. long and 10-ft. high bins. They

are made of 1/2-in. plywood with steel corners held together by 1600 1/4-in. bolts and threaded rod.

Plywood cones hanging from the bins end in 10 by 18-in. openings with sliding doors about 12 ft. off the ground. More support for the cones is provided by steel braces that run the length of the structure and are braced against the bins by 4-ft. long 3 by 4-in. angle irons running at an angle from each vertical I-beam.

Angle iron attached to the cone doors are bolted to a piece of steel tubing that is also bolted to a steel cross member about 10 ft. off the ground. To open or close a door, Carrier simply leverages the vertical tubing against the crosspiece.

The overall building is 32 ft. tall, 14 ft. wide and 16 ft. long. Carrier constructed walls and a roof around the four bins using 2 by 4s and covered it with siding. A ladder provides access inside the building for maintenance.

Protein and other ingredients delivered to the farm are blown into two of the bins through 4-in. aluminum pipes. The last two bins are filled with an auger that carries feed from a nearby hammer mill. A bale elevator carries dry hay from a barn behind the feed house.

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Carrier's 32-ft. tall structure houses four bins made from 1/2-in. plywood.



David Carrier built four bins high off the ground so he could drive under for a quick fill.



Safeload Tailgate attaches like a pickup tailgate. When fully extended the ramp is 85 in. long and 49 in. wide. Angle iron brace folds out under middle for added support.

## Pickup Ramp Doubles As Tailgate

Many tailgate ramps for pickups have come on the market over the years, but we've never seen one quite as slick as the new Safeload Tailgate that replaces the pickup's original tailgate.

"It's much safer than conventional ramps, and it doesn't take up any space in your pickup bed," says inventor George Huggins, Blanchard, Okla.

The Safeload Tailgate is made from 1 1/2-in. sq. aircraft aluminum tubing and it attaches like a pickup tailgate. It stores vertically and simply unfolds for use. When fully extended, the ramp is 85 in. long and 49 in. wide. Total weight is about 50 lbs. The ramp comes with an angle iron brace that folds out under the middle when extended.

"You can use it on everything from ATV's to golf carts to compact tractors that weigh up to 1,500 lbs.," says Huggins. "I came up with the idea one day after I backed my ATV off a commercial ramp that attached to the pickup tailgate. One side of the ramp came off and the ATV landed on top of me. I didn't get hurt but I decided there had to be a better way."

"As far as fuel efficiency is concerned, the ramp weighs less than a stock tailgate and, when not in use, it can easily be converted to



Ramp stores vertically in place of tailgate.



Long extensions can be removed when ramp is not needed.

an attractive flow-through tailgate."

Sells for \$369 plus \$35 S&H.  
Contact: FARM SHOW Followup, Scott Stephens, 12208 Lorien Way, Oklahoma City, Okla. 73170 (ph 877 600-7267); email: inquiries@safeloadinc.com; website: www.safeloadusa.com).

## Clamp-On Forks For Loader Buckets

These new heavy duty clamp-on forks attach quickly to any loader bucket, giving you a forklift whenever you need it.

The 48-in. long forks weigh 180 lbs. and simply slide on under the bucket. A pair of screw-type clamps, one for each fork, are used to hold them in place. The clamps slide back and forth on the forks so you can use them on any size bucket.

The clamp-on forks have a lifting capacity of 5,000 lbs. and sell for \$549 (U.S.) plus S&H. A set of 2,000-lb. capacity clamp-on forks is also available and sells for \$329 plus S&H.

"The alternative is to buy complete new assemblies that replace the bucket. They sell for anywhere from \$1,600 to \$2,000, so you save a lot of money with our clamp-on forks," says Bernie Sopol, Fabrication S. Houle, St.



Forks simply slide on edge of bucket. A pair of screw-type clamps, one for each fork, are used to hold them in place.

Germaine, Quebec.

Contact: FARM SHOW Followup, S Houle, 359 8E, Rang, St. Germaine, Quebec, Canada J0C 1K0 (ph 819 395-4380; fax 819 395-5516; email: info@fabrication-s-houle.com; website: www.fabrication-s-houle.com).

## Bale Ring Makes Great Nursery Pen

Keeping orphan lambs and baby goats out of trouble can sometimes be difficult, but not for W.M. and Betty Anne Smith of Pearson, Georgia.

They use a hay ring as a pen, and wrap it with woven fence wire to keep orphaned goat kids in. The wire is held in place with easy to remove fasteners so they can open up a section whenever they need to get an animal out. The Smiths can even feed the young animals by hooking the bottles to the side of the pen with wire.

Their goats even have their own little shelter inside - an old doghouse.

Contact: FARM SHOW Followup, W.M. and Betty Anne Smith, Pearson, Ga. 31642 (ph 912 422-3143).



Hay ring is wrapped with woven fence wire to keep orphaned goat kids in.