

Side Dump “Frame-In-Box” Trailer

To build a really big, really strong, side dump trailer, Lowell Weitzenkamp designed his own. He wanted it to have enough capacity to handle mile-long fields and the strength to handle anything from ear corn silage to composted manure.

“We had two commercial Smith Co. side dumps, but when we added sides for more capacity when hauling lightweight material, the frame got in the way because the hinges were on the side,” says Weitzenkamp.

Weitzenkamp realized that what he needed was a center hinge point. That required building a heavier box with an integrated frame. The design needed a double swivel in the front over the fifth wheel. A similar but single swivel hinge was needed at the rear over the tandem axles.

Weitzenkamp had one built, and it worked so well that he built a second. He has used the two trailers for 5 years, hauling everything from corn silage to composted manure.

The trailer boxes measure 8 by 8 ft. by 34 ft. long. They are more than big enough to hold ear corn silage from a full mile pass or a round on half-mile rows.

“We can save a lot of time if we don’t have to switch full loads in the middle of a field,” he says.

The hinges that allow the box to tilt and dump are made from heavy-duty, 14-in. dia. pipes. They are attached to the box and ride inside sleeves on the fifth wheel mount and on the mount over the rear tandems.

“There are a number of advantages to the design, including a complete dump in 30

seconds,” says Weitzenkamp. “The hinges also allow the trailer driver to tip the boxes toward the chopper. We were also able to have a shorter spout on the chopper.”

Being able to tilt the trailers while loading is also helpful when loading materials with a front-end loader, notes Weitzenkamp. “Payloaders often don’t go high enough to dump over the side of the box,” he says. “With these, we can tilt them to load them full.”

He points out that in the field, tilting the trailer also saves silage. “The chopper operator can’t see what he’s doing with standard side dumps or straight trailers,” explains Weitzenkamp. “A lot of times they’ll blow as much as 10 percent of the silage over the top in order to fill the box.”

At the dump site, the operator can pull up to a pile, crab the tractor around at a right angle to the trailer toward the pile, and dump. Hydraulic cylinders tip the trailer boxes to a 45-degree angle from the ground.

Once cleaned out, the operator is able to back out of the area without backing over the material. If the tractor is crabbed 90 degrees the other way, he can simply drive away.

“If I had a standard frame, I couldn’t tilt the box as far over,” explains Weitzenkamp.

While Weitzenkamp came up with the idea, he turned design and fabrication over to Brehmer Mfg. Joe Brehmer says he still has the plans and estimates the trailer would cost around \$65,000 to build.

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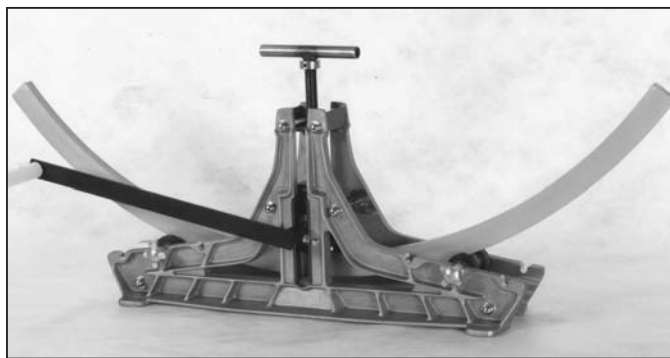


Lowell Weitzenkamp needed a big side dump trailer strong enough to handle anything from ear corn silage to composted manure. He came up with a new side dump design.



Trailer box measures 8 by 8 ft. by 34 ft. long. Hinges allow trailer driver to tip box toward chopper while loading.

yahoo.com) or Brehmer Mfg., 825 Main St., Lyons, Neb. 68038 (ph 402 687-2655; toll free 888 687-2655; joe@brehmer.com; www.brehmer.com).



Hawke Bender can be used to make gradual bends or sharper arcs, and is priced much lower than other benders.

Low-Cost Steel Bender Makes Big Curves

You can bend steel to a large radius – to make a big bale feeder, for example – with the Hawke Bender from Oroville Machine Shop. The manual rolling machine makes gradual bends or sharper arcs fast and easy. Best of all, it’s a third the price of similar quality benders.

“This isn’t a press,” says Brian Denny, Oroville Machine Shop. “You just roll it back and forth to make the material yield to the shape you want.”

The Hawke Bender comes with die sets for up to 2-in. square tubes, rectangular, flat stock, channel and solid stock steel. It sells for \$1,195. An optional die set is available for \$200. It bends molded cap rail vertically and horizontally, pipe up to 2 1/2 in. dia., trim stock, and solid stock pipe. Custom dies are also available.

“We use different benders for different things,” says Rick Bates, senior development specialist, Polaris Industries. “We have used the Hawke Bender for several years, it’s great for gradual bends and large radius curves. You can’t do that with other benders without spending 3 to 4 times as much money.”

The Hawke Bender is a simple aluminum

side casting machine, easy to set up and easy to maintain. “We’ve sold more than 5,000 over the past 15 years,” Denny says. “The only ones we’ve had returned hadn’t been cleaned or oiled.”

The Hawke Bender is being used in metal shops, machine shops and by blacksmiths, fence makers, welders and artists. Staircase builders and interior design craftsmen use it as well.

Bates likes the simplicity of the machine. He says it’s easy to change dies, and changing the radius is a matter of adjusting the wheel spacing.

“Just move the wheels in a little closer to make a tighter radius arc,” he says. “It’s very straightforward to operate with no learning curve needed.”

He also appreciates Denny’s customer service and customization. “When we need something, Denny is right there,” says Bates. “If we need a special size tubing die, he is really quick to provide it.”

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Washable “Pre-Filter” Extends Air Filter Life

If you’re tired of seeing filters plug up with mud, water or crop residue, you’ll like this new “pre-filter”. The polyester mesh is treated to repel water and protect air filters from longer particles and trash.

“I had been using a similar material on my vintage racing cars for nearly 20 years,” explains John Orlowski, Freedom Air Filters. “When an area farmer complained about rain and snow mixing with corn dust to plug up his filters, I asked my supplier if he could treat the poly material with water repellent. He did, and I made a pre-filter to fit my friend’s combine air filter.”

The pre-filter worked great, and the word spread to other farmers. Since then Orlovski’s pre-filters have been adapted to tractors, trucks and more.

“We’ve got them in more than 3,100 applications so far,” says Orlovski. “I just had a request from the local county highway shop. They want them for their road graders.”

The pre-filters fit like a snug bag over existing air filters. The UV resistant mesh filters debris down to .005 in., is freeze-proof and heat-resistant to temperatures as high as 450 degrees. The material is puncture resistant, and if threads do get pushed open, they quickly return to the original position. Seams are welded or reinforced with industrial grade thread to reduce potential failure.

The polyester mesh is also washable. Orlovski recommends removing and washing them every 6 to 12 months, depending on working conditions.

“Over time, they will lose their water repellency, but will still function fine as particle screens,” says Orlovski.

The company has just introduced under-the-hood pre-filters, selling for as low as \$15.95. Pre-filters for 13 and 15-in. external air filter canisters are available for \$39.95.

“Our farm customers tell us that when



Pre-filters are made from a polyester mesh that protects air filters from larger trash particles and also repels water.

they open the canister, they find dirt piled up below the pre-filter, and the filter inside is still clean,” says Orlovski. “One farmer told me he saved \$180 by not having to replace one air filter.”

Orlovski’s Freedom Air Filters can be ordered direct from the company. While he does have some dealers, he says it’s difficult to find an implement shop or vehicle dealership to carry them.

“A parts shop manager told me he would love to carry the pre-filters, but he needs to sell \$250,000 in air filters a year to retain their dealership,” says Orlovski. “My pre-filter could cut those sales at least in half.”

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