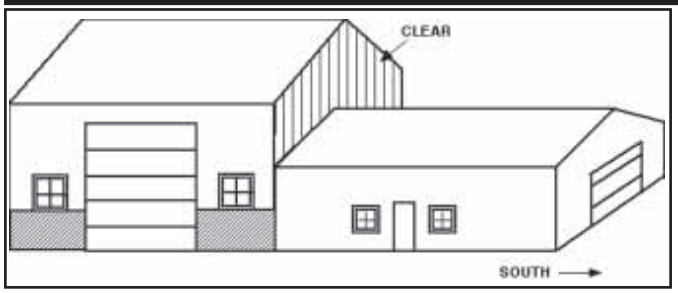

Bruellman raised half his shop building 4 ft. and added clear plastic paneling between the old and new roof line.

Raised Shop Lets In Lots Of Light

"If I was putting up a new building, I'd build it this way. It gives me more room to work and also lets in a lot of light," says Mark Bruellman, Rolfe, Iowa, who raised a section of his shop 4 ft. and added clear plastic paneling between the old and new roof line.

Bruellman's 42 by 72-ft. shop was originally equipped with a 9 1/2-ft. ceiling. He raised half the shop 4 ft. to make the ceiling 13 1/2 ft. high. He covered the section of the wall between the old and new roof line with clear plastic paneling on the outside and heavy plastic inside.

"Since there's no overhang on the roof, in winter the sun bathes the whole inside of the building just beautifully, since the raised section of the wall faces south," says Bruellman. "In the summer, the sun is directly overhead and just peeks onto the floor but excess heat is not a problem. On overcast days I'll occasionally turn on the lights but otherwise, no lights are needed.

"Before I raised the building, the cabs on our tractors and trucks were right up against the ceiling. Now I have a lot more room to work on equipment."

Bruellman operates a grain bin moving business (Vol. 26, No. 4). He used some of his bin moving equipment, including a hydraulic forklift mast on back of a truck as well as hydraulic jacks and portable movers, to raise the building. He raised one wall an inch or so, then switched to the other side. "It took 40,000 lbs. of lift just to get one wall up," he says.

He used hydraulic jacks to raise the building.

Once the building had been raised, he covered the bottom 4 ft. with black siding all the way around the exterior. The inside bottom 4 ft. is lined with sheet plastic over 1-in. thick plywood.

He bought the clear plastic paneling at Menards. "It's a high impact tough clear plastic that makes the whole building glow. On a sunny day, it's as bright inside the building as if I was working outside. The paneling is so clear that I can actually watch the clouds go by. I have windows on the south, east, and north sides of the building so I get a bit of fill light from those windows, too."

Contact: FARM SHOW Followup, Mark Bruellman, 29731 410th St., Rolfe, Iowa 50581 (ph 800 370-2467 or 712 848-3247).

Brake press measures 15 ft. high and has a 20-ft. wide bed. It weighs about 18,000 lbs.

Giant Brake Press

Not many people build their own brake presses to bend sheet metal, but Wilfred Mollenbeck made a giant one with a 20-ft. wide bed. It measures 15 ft. high and weighs about 18,000 lbs. A hydraulic power pack driven by a 17 hp electric motor is used to operate it.

Mollenbeck farms and also operates a custom fabricating shop with his brother Robert and sons Dennis and Kevin. They custom build everything from wheel chair lifts to grain trailers, hopper cones, etc. Their farm shop measures 8,800 sq. ft.

"We use it every day on sheet metal up to 1/4 in. thick," says Mollenbeck. "We've built a number of different dies for it. We used mostly salvaged steel to build it and spent a total of about $5,500. Commercial presses of comparable size sell for $200,000 or more.

The brake press is built from 12 by 36-in. steel I-beams and is equipped with eleven 4-in. dia. cylinders that provide down pressure. A 17 hp electric motor operates a 2-stage hydraulic pump. One side of the pump operates at 30 gal. per minute and the other side at 5 gal. per minute. When the high capacity side of the pump reaches 1,500 lbs. it cuts out, and the other side takes over.

"We're on single phase power so we couldn't use an electric motor big enough to operate a conventional hydraulic pump of the size we needed. The two-stage pump solves that problem," he says.

The unit has a leveling cylinder on each side, with one of the cylinders mounted upside down. Oil from the top end of one cylinder goes to the bottom end of the upside-down cylinder, which keeps the volume the same on both sides of the bed to keep it level at all times.

"We built it because we needed more capacity, and we couldn't justify the cost of a commercial model," says Mollenbeck. "We had been using a 10-ft. home-built brake for our own use. Then we started building 27-ft. hopper cone grain bins and needed a bigger model."

Contact: FARM SHOW Followup, Wilfred Mollenbeck, Box 46, St. Gregor, Sask., Canada S0K 3X0 (ph 306 366-2113).

Hydraulic-Powered Vise Doubles As Hydraulic Press

This new hydraulic-operated bench vise is as simple to use as stepping on a pedal. And, it doubles as a hydraulic press.

The Posi Lock hydraulic bench vise works off an air compressor (not supplied) that connects to a foot-operated air valve. Air pressure activates a hydraulic pump that mounts inside the vise and operates a cylinder, which is used to squeeze the jaws together. A gauge shows how much pressure is being applied.

"It's easy to use and has three to ten times more clamping power than a conventional hand-operated vise with up to five tons of force. That's enough to do some serious straightening work," says Mitch Trostad, Posi Lock Puller, Inc., Cooperstown, N. Dak.

A pair of aluminum jaw liners called "Hold-ets" can be used to convert the vise to a hydraulic press. By attaching a small socket to one jaw liner and a larger socket to the other one you can push out U-joints.

The same jaw liners can be used to hold threaded steel shafts without damaging the threads. Since aluminum is softer than steel, the material will "mushroom" around the threads. When you loosen the vise and remove the shaft, you'll still be able to thread a nut on the shaft," says Trostad.

The vise sells for $1,295.

The Hold-ets sell for $14.95 a pair.

Trostad says a smaller version of the vise, with 1 1/2 to 2 tons of clamping force, will be on the market later this year. It will be equipped with a manually-operated foot pump.

Posi Lock hydraulic bench vise works off an air compressor that connects to foot-operated air valve.

Contact: FARM SHOW Followup, Posi Lock Puller, Inc., 805 Sunflower Ave., P.O. Box 246, Cooperstown, N. Dak. 58425 (ph 800 533-5761 or 701 797-2600; fax 800 339-4159; email: m.trostad@posilock.com; website: www.posilock.com).

Simple Fix Solves Auger Problem

A Minnesota farmer has come up with a simple fix for a common problem on newer-style, Case IH 2200 series corn headers.

"The headers can be operated at either high or low speed, allowing you to speed up or slow down the rolls and gathering chains depending on crop conditions. Unfortunately, when you speed up the rolls and gathering chains you also speed up the auger. Switching from low to high range increases auger speed from 123 rpm's to 147 rpm's, which is way too fast. As a result, a lot of ears get thrown out onto the ground. The losses can be quite high," says Larry Palmby, of Dover.

His solution was to install a hydraulic motor on one end of the header that operates off the combine's reel speed control and drives the auger independently of the rolls and gathering chains. Motor speed is controlled by adjusting a knob in the cab.

To install the motor, Palmby drilled a 2-in. dia. hole in the side of the header for the motor's shaft to fit through. He also drilled two 1/2-in. dia. holes so he could bolt on the motor's mounting plate.

"It allows me to operate the auger at anywhere from zero to 147 rpm's, independent of the speed of the rolls and gathering chains," says Palmby. "I usually operate the auger at 60 rpm's. But if crop conditions get tough I can just rotate the knob to run the auger faster.

"I came up with the idea after I bought a 2200 series header three years ago. I liked being able to operate the rolls and gathering chains at higher speeds in tough conditions. However, I got tired of high ear losses from operating the auger too fast.

Hydraulic motor is powered by combine's reel speed control and drives auger independently of rolls and gathering chains.

"I used it last fall on corn that yielded more than 200 bushels per acre, and it worked slick. We had a lot of dry stalks with a lot of trash running into the header, but ear losses were minimal. I figure it paid for itself after the first 100 acres of use."

Palmby says this modification will work on any Case IH 2200 series header, which have been on the market for three years.

He has put together a kit that includes the motor, sprocket, and hydraulic hoses. It sells for less than $1,000.

Contact: FARM SHOW Followup, Larry Palmby, Palmby Farms, 607 County Road 10 S.E., Dover, Minn. 55929 (ph 507 932-3358).