

## Packer Pulled By Add-On Hitch Boosts Yields Of Drilled Beans

Adding a hitch to the back of a grain drill looks easy until you actually sit down to do it. That's what Mac Campbell and his son, Chris, found out when they decided to put a hitch on back of their 10-ft. Great Plains drill.

The men wanted to pull a set of packer wheels behind the drill to improve seed-to-soil contact and smooth out the seedbed.

"We knew we had to tie into the frame of the drill so we made a subframe of 2 1/2-in. sq. tubing. It connects to the 6-in. sq. main toolbar at the front of the drill with a couple heavy pieces of 3 in. wide 3/4-in. flat bar, so everything pulls directly off the drawbar of the tractor. The main tube of the hitch is made of 3 1/2-in. sq. tubing which has a piece of 2 1/2 by 1/4-in. seamless sq. tubing to accept the 2-in. square tubing that the pintle hitch is bolted to.

"The pintle hitch is a swivel pintle for added flexibility. This was the main concern since the drill raises about 30 in. when you turn at the head land.

"The tongue of the drill has to be raised from standard height to about 38 in. when hooking it to the back of the drill. We use two jacks and an adaptor to accomplish this.

"The pintle ring on the packer tongue can be removed by pulling a 3/4-in. pin when you want to pull it behind a disc or cultivator.

"Last year was a dry year in our area so I believe the packer really paid off in better yields. My highest yield in beans was 53 bu. per acre and I credit that to good soil-to-seed contact. The tractor was able to pull



Mac Campbell and his son, Chris, put a hitch on back of their 10-ft. Great Plains drill so they can pull a set of packer wheels behind the drill to improve seed-to-soil contact and smooth out the seedbed.

the drill and packer at 6 mph so it didn't slow us down. And at harvest, the combines were able to harvest beans much easier because of the even soil contour created by the packer.

"The add-on hitch also allowed me to expand the deck on back of the running board, which comes in handy when loading the seed box with bagged seed."

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Pintle hitch allows packer wheels to swivel for flexibility when drill is raised to turn on headlands.

## Buzz Saw Tree Trimmer Mounts On Loader Bucket

After reading an article on Bruce and Roger Elliot's tree trimmer in the "Best of FARM SHOW", Richard Shanks, Martinsville, Ill., decided to make one himself. But with a few differences.

"Their machine was mounted on a 3-pt. hitch so you have to turn around to see what you're doing. I decided it would be simpler to attach the boom to a tractor loader," says Shanks.

"It also seemed like it would be easier to trim fence rows if the cutter were offset to the side so you could drive along the edge. As it worked out, I wish I had mounted it at the center of the loader because it would be better balanced. As it is, I had to hang three counter weights on the opposite side to counterbalance the weight. Works fine but can be clumsy in tight spaces.

"A 3 by 8-in. cylinder mounts on the side of the bucket to move the buzz saw up and down. A 42-in. long 2-in. dia. cylinder telescopes the boom out so your foot doesn't have to be on the clutch all the time. There's also a small 2 by 4-in. tilt cylinder at the base of the boom that changes the cutting angle of the buzz saw about 8 in. from vertical. Altogether, there are about 5 hydraulic movements you can make.

"I converted the lift cylinders on the loader arms to single acting from double acting by unhooking two of the hoses. Converting to single acting, and using a flow restrictor, the boom moves more smoothly and is more easily controlled.

"The blade itself can be turned all the way to the horizontal so you can cut off trees at ground level or you can reach up as high as 22 ft. to reach tall-growing branches.

"The 29-in. buzz saw blade is powered by a hydraulic motor. I had to machine the mandrel down a bit and make a coupler

using standard Deere chopper bearings to connect the motor to the blade. It's powered off the rear remote which I rigged up with a foot control and a spring so the control would go back to neutral when I take my foot off. This is the best part of the whole machine because it makes it easy to control. If I ever get a limb wrapped around the blade I can use the hand remote to reverse the motor to unwrap it.

"To increase capacity of the tractor's hydraulic system, I added an auxiliary pump to supply the main pump. Since the rear hydraulic pump on Deere 20 Series tractors stops pumping oil when you clutch the tractor, I needed a way to avoid that. What I did was to take a reel drive pump off a 7700 Deere combine and mount it to the front pto with a belt. Its oil is fed from a nipple end on the cross screen of the transmission and its pressure is sent back through the filter housing. It doesn't pump a lot of oil but is enough to keep your steering and brakes working as well as the motor on the blade. The only disadvantage of this arrangement is that the pto needs to run to make the pump work, but it's not a problem.

"What's great about this saw with the extension cylinder is that you can cut all the way up and down the tree without moving the tractor. The blade needs to be sharpened frequently. You can sure tell the difference between sharp and dull with this cutter.

"I am putting a heavy expanded metal cage around the operator's platform. I've heard stories about buzz saw blades breaking up, so be sure to use good blades and be careful."

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The 29-in. buzz saw blade is offset to side of loader which makes it easy to trim fence rows.



A 3 by 8-in. cylinder mounts on side of bucket to move buzz saw up and down. Altogether, about five different hydraulic movements can be made to change saw position.