

## Rock Rake Made From Old Pipe And Baler Parts

When Robert Geer, Jr., got an old New Holland Super 66 baler from a neighbor to use for parts for his own Super 66, he realized he would have a lot of parts left over, like the gearbox and wheels.

When he looked at the remains of the baler and a pile of old pipe he'd purchased from a friend, he got the idea for a rock rake.

Geer started with a 10-ft. length of 4-in. pipe. "Most of the pipe was lighter, but this had a 3/8-in. wall heavy enough so I could weld teeth on to make the rake," he explains.

The teeth for his auger-shaped rake are cut from 2 by 3/4-in. bar stock, cut 6 in. long. He spaced these around the 4 in. pipe so they would pick up and windrow most rocks from the smallest to those that are 10 to 12 in. in size. "If they're bigger than that, we pick them up with a stone fork on a front end loader," he says.

He made caps for the end of the pipe and welded those in place. The ends run in spherical roller bearings that he salvaged from the garbage dump. "I found several of them there one day, brand new still in boxes. The guy who managed the place said they should be used for something, so I took them home," he says.

On the drive side, he welded a short shaft and put a sprocket on it.

To power the rock rake, he used the gearbox from the Super 66 baler. "I had to turn the shaft down so I could use sprockets with the same shaft size on both the gearbox and the rake."

The gearbox turns the auger with a no. 100 roller chain. A chain tightener helps keep it at the right tension. The entire drive is safety shielded.

The wheels, tires and spindles are from the Super 66 baler. He made the axles, frame, lift and tongue from the 4-in. fire pipe.

While he wanted to power the rake with the tractor's pto, he didn't want the hassle of a long pto shaft. So he mounted a short shaft about 3 ft. from the front of the tongue. One end already had no. 6 splines, so he machined splines into the other end. This way, he was able to borrow shorter pto drive shafts from a couple of other implements to drive the rock rake.

A hydraulic cylinder with an 8-in. stroke and 4-in. bore lifts the rake. "It doesn't take a lot of hydraulic capacity to raise it," he says. "And it doesn't take much horsepower to run it, either."

We've used it behind our Massey Ferguson 263 and also with our old Ford Super Dexta. The Super Dexta has about 30 hp."

The rake auger itself turns at about 200 rpm's. Geer says if you run in low gear, it not only windrows the rocks, but also leaves the field surface looking like it's been hand raked.

"I built it last year. It's been used on a couple of our smaller fields. We windrow the rocks and then pick them up with a rock picker. It goes faster that way. In smaller fields, we can windrow from the center to the edges, moving the rocks and windrowing



Geer built this rock rake using parts from an old New Holland Super 66 baler.



Teeth for the auger-shaped rake are spaced around a 4-in. pipe. They pick up and windrow rocks up to 10 to 12 in. in size.

toward the edge with each pass."

Geer says nearly everything he used to build it was from old parts he had around the farm. "I had to buy the two drive sprockets, the chain, hydraulic hose and the lift cylinder," he says. "Total cost was \$700."

Contact: FARM SHOW Followup, Robert Geer, Jr., 63 Thomas Road, Ledyard, Connecticut 06339 (ph 860 464-1167; fax 860 464-0167).



The 20-ft. wide "roller blader" is equipped with a pair of 10-ft. "swing blades" that can be angled forward or backward. Gauge wheels on front and back keep blades level.



A Valmar air applicator mounts on top of machine, distributing seed between blades and roller on back. A 4-ft. dia. steel roller follows behind blades to press seeds into soil.

## Ground-Leveling "Roller Blader" Doubles As Seeder

You've never seen anything like this new "roller blader" that's designed to level gopher mounds in standing alfalfa and can also be used to plant shallow-seeded crops such as flax, canola, alfalfa and other grasses.

The 20-ft. wide, hydraulic-powered machine is equipped with a pair of 10-ft. steel "swing blades" that can be angled forward or backward. A big 4-ft. dia., 11/16-in. thick steel roller weighing 6,200 lbs. follows behind the blades to press seeds and/or small rocks into the soil. A Valmar air applicator mounts on top of the machine, distributing seed between the blades and the roller. Seed is blown through tubes onto a deflector shield and falls onto the ground just ahead of the roller.

The rig has four gauge wheels on front and four on back to keep the blades level at all times. Two hydraulic cylinders per blade are used to change the blade angle, and two more cylinders per blade are used to raise and lower the blades.

"It's a blader, packer, and seeder all in one. It's unbelievable how many jobs you can do with this rig," says inventor Alvin Almer, Tuttle, N. Dak. "I've used my machine to seed 1,500 acres of canola, 1,500 acres of alfalfa, and 20 acres of flax. I recently used it to break up 150 acres of rocky pasture ground in which I intend to plant crops. I got the idea for it three years ago when I wanted to break up my CRP ground so I could farm it. The field was badly infested with pocket gopher mounds, and I needed a machine that could level them off so I wouldn't damage other equipment."

"We also use the machine in the spring to level off gopher mounds before there's much new growth. I run the blades about 1/4 in. off the ground so that they scrape across the top of the alfalfa without tearing it up. At haying time the mower's cutterbar will be able to cut all the hay in the field, instead of having to go up over the mounds and miss some. In field tests we've found that this

machine can increase hay production by up to 18 percent.

"The machine can also be used to plant any shallow-seeded crop into chisel plowed ground. The blades do a great job of leveling off the ridges, and the roller consistently keeps the seed in the top half inch of soil. It often works better than a grain drill because it distributes seed more uniformly and at a more consistent depth."

"The blades are the same ones used on Caterpillar and Deere road graders and are operated by rephasing hydraulic cylinders specifically designed for this machine. The blades are positioned at a forward angle when leveling off gopher mounds and seeding. They can be set at a backward angle to move rocks off to both sides into windrows. The rocks can later be removed by a rock picker."

"The blades can also be set to run straight across for building roads and doing landscaping work. In fact, we think this machine will be ideal for road ditch reconstruction because

it's able to seed grass at the same time and also push rocks into the ground. I recently used the machine to recondition a landing runway for a local aerial crop sprayer. The blades stay perfectly level so it really made a nice, smooth runway. We think it'll also work great for constructing golf courses."

"We recommend using a 150 hp tractor to pull it. The machine is built heavy. We've hit large rocks at 5 mph that stopped our Deere 4450 150 hp tractor without damaging anything," notes Almer.

The standard 20-ft. model sells for about \$45,000. A 10-ft. model is also available that sells for about \$30,000. The company also plans to build a 32-ft. model.

The machine is making its debut this fall at farm shows.

Contact: FARM SHOW Followup, Alvin Almer, 940 Hwy 2, Tuttle, N. Dak. 58488 (ph 701 867-2747, cell phone 701 220-6411) or Gregg Boyer, 4360 Hwy. 1806 Byp., Mandan, N. Dak. 58554 (ph 701 226-0847).