Made It Myself

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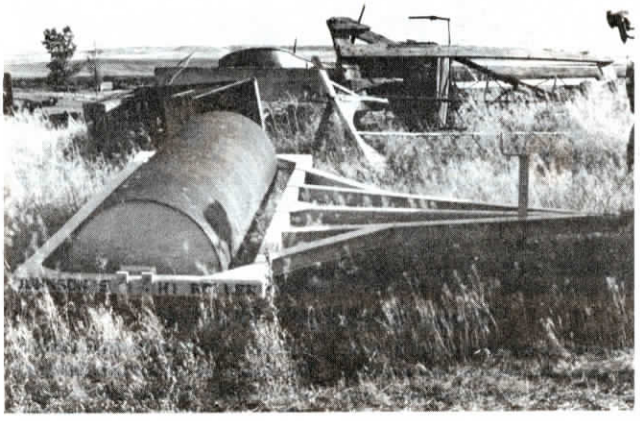


Cement-Filled Roller Buries Rocks, Smooths Hay Fields

"We used to replace sickle sections or guards twice a day while swathing but since we started rolling fields we replace only a few sections a season," says Pete Johnson, Ballantine, Mont., who built a cement-filled roller to push rocks underground in hay fields and to break up dirt chunks in plowed fields.

Johnson first bought a 3-ft. dia. steel pipe, 12-ft. long with 3/8-in. thickness. "We centered a 2 1/4-in. shaft through the center using 3/4-in. rebar. We made two 5/16-in. flat plate ends and welded one of the ends into place. Then we set the pipe up on end and filled it with about 3 yards of concrete using a special funnel I attached to a tractor front-end loader. When the concrete had almost set I scraped off about 5/16-in. of concrete, enough so that I could set the end in the pipe up tight against the concrete.

"After the concrete set for three days we lowered the roller to the ground and cut off the ends of the shaft sticking out each end of the roller to the right length to accommodate a 2 1/4-in. flange block bearing for each end. I cut and drilled a 1-in. thick steel plate, bolted the bearings to it, and fastened the assembly to the roller with shaft and eccentric lock collars on the bearings. The 4 in. sq. tubing used to frame the roller is then bolted to the bearing assemblies.

"All corners on the main frame were gusseted with 1/4-in. plate and front corners were gusseted top and bottom. I built the tongue out of 4-in. square tubing that was braced with 4-in. flat bar made into an I-beam and skip welded. The tongue was braced twice to withstand the strain of the 9-ton roller on turns. I made the hitch so that it would pivot up and down and also to twist, which was a project in itself.

"It works better than we thought it would to push rocks under and break up hay crowns. And if you catch soil moisture just right it does the best job of breaking up soil chunks in plowed fields that I've ever seen. Unlike tractor tires, it doesn't compact the field because weight is so evenly distributed.

"We originally considered filling the roller with water but it wouldn't have had nearly enough weight. After using this concrete-filled roller for 6 years and pulling it with everything from an 820 Deere to a 4-WD White tractor, I don't think a water-filled roller would have done the job."

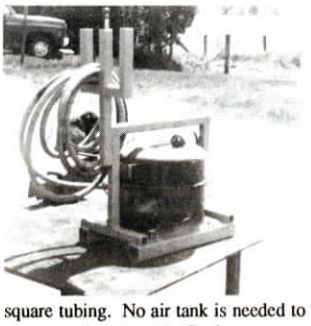
Contact: FARM SHOW Followup, Pete Johnson, Rt. 1, Ballantine, Mont. 59006 (ph 406 967-6204).

Do-It-Yourself Air Compressor

"I make them for myself and as gifts for friends. They work great," says Ian MacCuaig, Dalhousie Station, Quebec, about the home-built air compressors he makes out of old refrigerator compressor pumps.

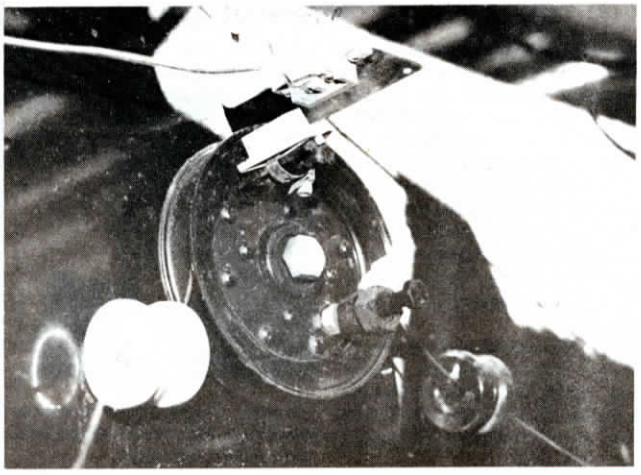
"We've been using them on the farm for the past 15 years to pump up tires. They're not real fast but they get the job done and they're cheap. Maximum air pressure is about 160 lbs.," says MacCuaig.

He simply removes the compressor from a junked refrigerator and cuts off the freon lines leading into and out of the compressor. Then he clamps an air hose to the output line and mounts the compressor - which measures less than a foot across - on a small frame made with



square tubing. No air tank is needed to pump up tires but MacCuaig says you could easily rig one up if desired.

Contact: FARM SHOW Followup, Ian MacCuaig, Dalhousie Station, Quebec, Canada J0P 1G0 (ph 514 764-3464).



Round Baler Twine Monitor

Custom baler Laurie Brownlee, Unity, Saskatchewan, designed a twine monitor so he knows that twine is feeding out as it should during the tying process on his two New Holland 855 round balers.

"I got tired of always having to make sure both twines were feeding into my double tie balers during the tying process. Often the twine wouldn't feed around the bale. Or, the twine wouldn't get cut, so that after the bale is dropped, the twine keeps feeding out and is wasted. The light on this monitor blinks whenever twine is feeding properly. It prevents the sore neck I used to get by the end of the day from looking back," says Brownlee.

To install the monitor, Brownlee mounted deep grooved pulleys near the top of each baler, next to two twine eyelets. He placed a stationary magnet, removed from a shaft monitor which he bought at a local farm supply store, above each pulley. He put another magnet on the pulley, clamping it to a bolt. To balance the weight of the magnet, he put a bolt and two nuts on the opposite side of the pulley. Then he hooked wires up to the stationary magnet and connected them to a monitor in the tractor cab. "The twine goes through the eyelets and over the pulley, causing it to turn," says Brownlee. "As the magnet on the pulley passes the stationary magnet, it creates a circuit, making the monitor light blink."

Brownlee spent $25 for the pulley and $112 for the shaft monitor, available from Ne-Dee Systems Ltd., Box 153, Riverhurst, Sask., Canada SOH 3PO (ph 306 353-2181) or Burnt Creek Farm Sales, 1317 Northview Lane, Bismarck, N. Dak. 58501 (ph 701 255-3429). The modification would work on virtually any round baler model, he says.

Contact: FARM SHOW Followup, Laurie Brownlee, Box 1172, Unity, Saskatchewan, Canada SOK 4LO (ph 306 228-2971).

He Custom Spreads Manure With Traveling Irrigation Gun

Dennis Hefel, Dubuque, Iowa, provides an unusual custom service for farmers living within a 60-mile radius of his farm - he custom spreads liquid manure from their lagoons and pits, using a Farmstar traveling gun.

Hefel's equipment includes a lagoon agitator and primer, irrigation pump, 4,000 ft. of hose that runs from the pump to the field, a traveling irrigation gun and its 660 ft. of hose, and a 1,400 ft. cable attached to the traveler. Each customer supplies four tractors to run the equipment - two for the agitator and primer, one to run the irrigation pump, and one to keep the traveler's cable taut.

Hefel got into the business two years ago after buying out another operator. His customers are mostly dairy and swine operators. "Farmers like my service because it saves them time and the cost of purchasing and maintaining their own manure handling equipment," he says. "Most farmers have chores to do, so using tanks and tractors they can haul only 15 to 20 loads a day. It can take them up to two weeks to finish a job, and all the while they're burning up a lot of fuel hauling loads and running a tractor to agitate manure. In contrast, I can finish most jobs in about a day. And, my traveling gun won't pack soil tractors do."

Hefel pumps 500,000 to 1 million gallons of liquid manure for each of his 60 customers. Most customers have the job done once a year, either in the fall or spring. His irrigation pump, which requires a 160 hp tractor, drains manure at 700 to 1,000 gal. per min. Counting "down" time, it takes Hefel 25 to 26 hours to pump out and spread 750,000 gallons of liquid manure. He usually completes each job in one day, working around the clock if necessary.

The traveler is a 4-wheel cart with a "gun" that spews out manure on top of the ground. A 5-hp motor turns a winch, which pulls the "gun" along the 1,400 ft. cable, moving a few feet per minute. The "gun" turns 360°, shooting manure out about 200 ft. One pass covers an area 350 ft. wide and 1,300 ft. long. It takes the traveler three passes to cover 40 acres. Hefel shuts the system down to lay out each pass, moving the traveler's hose and the tractor that holds the cable.

Hefel charges about half a cent per gallon, which comes out to about $2,500 for a 500,000 gal. job.

Contact: FARM SHOW Followup, Dennis Hefel, 12364 Circle Ridge, Dubuque, Iowa 52001 (ph 319 552-1576).