

canvas but found it unsatisfactory. My home-built cab has a 4-in. wide gutter around the top to keep rain off the side windows. There are four recessed quartz lights on front.

The loader arms are off a Deere 950 2-WD tractor and are equipped with homemade, quick-tach brackets for my snowblower. The snowblower was originally mounted on a frame that bolted to the underside of the tractor. However, I got tired of having to put the frame on and take it off every winter so I welded quick-tach brackets on back of it. I installed a hydraulic cylinder on the blower chute which allows me to adjust the snow throwing distance from the cab.

Because the loader was designed for a 2-WD tractor, I had to rebuild the loader frame in order to get the proper clearance.

The last project was to mount a home-made blade on back of the tractor. The blade is made from 1/4-in. thick steel. I can extend or retract a hydraulic cylinder to change the blade angle right from the cab. **(Donald Campbell, Box 132, Gaylord, Mich. 49734 ph 517 732-3946; E-mail: koli@voyager.net; Website: www.minimachine.tripod.com)**

I made my own backhoe by shortening up an old street sweeper and mounting



a Ford backhoe on back of it. The sweeper's hydraulic pump is used to operate the backhoe.

I made my own articulated round bale "forklift" using an old 2-ton truck frame and the front and rear axles off a Chevrolet 3/4-ton pickup. Power is pro-



vided by a 6.2-liter diesel engine, which is hooked to two transmissions - a 3-speed and a 4-speed - and a transfer case. The rig has a total of 16 forward speeds and 8 reverse. The 3-speed transmission and the transfer case are off a 1968 Chevy 4-WD pickup while the 4-speed transmission is off a 1979 Chevy 3/4-ton pickup. The brake pedals and steering system are off the Chevy pickup.

The machine has two 3/4-ton rear ends, both off a 1978 pickup. I turned one of the rear ends upside down so that it goes forward. When both transmissions are in low gear, the machine will go so slow that I can hardly see it move. I use a 3-spool hydraulic valve to operate the loader. I can use it with a post hole digger and a hydraulically-angled blade. I plan to mount a hitch on front of the machine so I can tow the rig behind my 1-ton truck.

The articulation point was made from heavy bushings and a pair of 1 1/2-in. dia. steel pins. The single arm boom is made from 8-in. dia. oil well pipe that's braced by heavy 4-in. sq. tubing. The machine has two hydraulic cylinders - one for lifting and one for dumping. One of the cylinders is off an old oil field rig

and the other off a street sweeper. My only expense was \$200 for a new hydraulic valve. **(John Jones, 1009 Revielle Rd., Magazine, Ark. 72943 ph 501 963-6710)**

I use my home-built, 3-pt. mounted 'carryall' to move a 14-ft. flat bottom boat from pond to pond on my ranch. It also serves as a utility box to haul firewood out of my woods, and I use it to haul rocks and dirt.



It consists of a 5-ft. wide, 3-ft. high, three-sided wooden enclosure made from 1 1/2 by 3/16-in. angle iron and walnut wood. It mounts on my Iseki 16 hp tractor.

To load the boat, I lower the carryall to the ground, then slide one end of the boat inside the enclosure. Then I attach a nylon rope to the other end of the boat and to the tractor's rollbar. When I arrive at the pond I simply back the boat down into the water and slide it out. The boat always stays level so I can leave all my stuff in it and it won't fall out. **(Larry Zenz, HC 60, Box 154, Parks, Ark. 72950)**

I use a skid-mounted buzz saw to cut firewood. It's equipped with a big cast iron flywheel. Originally the flywheel was driven by a wide, flat belt off a pulley on



a tractor. However, hooking the belt up was a hassle. Every time we moved the saw to a different location we had to brace it to the ground to keep it from moving when we pulled the tractor forward to tighten the belt. Another problem was that the belt tended to come off the flywheel.

To solve those problems, I switched to using a tractor and a pto-driven 13-in. car tire to drive it. The tire rubs directly



against the flywheel. A 1-in. dia. steel shaft hooks up to the pto shaft and runs through a hub adapter on the tire. The shaft is kept in line by a couple of pillow block bearings bolted onto a board that rests on wooden blocks. I made a shear pin by drilling a hole through the shaft and inserting a 3/8-in. dia. bolt through the shaft and also through the yoke.

This setup is much easier and faster than hooking up to a belt - all I have to do is hook up the pto shaft. If the tire ever starts to slip I just put more air in it. My only cost was for the bearings. **(Fred Halliday, 610J Cold Brook Rd., Homer, N.Y. 13077 ph 607 749-2561)**

I had been using a 65 hp 2-WD loader tractor to feed round bales to my cattle. This worked well during the winter, but

during the spring and fall, when the ground was soft, the bale's weight pushed the front steering wheels into the



mud, causing ruts and a lot of frustration. Mounting a bale on the tractor's 3-pt. hitch helped, but not a lot. The best cure for this problem would have been to use a front wheel assist tractor, but I couldn't justify the cost.

To solve the problem, I converted my 1970 Cockshutt 555 combine into a bale



loader. I removed the threshing parts, leaving the engine, cab, transmission, and running gear intact. The sides of the combine were cut down 2 ft. at the back to improve rearward visibility. Then I bought an older Dual 324 front-end loader and mounted it on front of the combine. I moved the entire engine and cab compartment backward 18 in. so the loader would clear the cab as the bucket is raised. The engine and cab were also lowered 4 in. to allow use of the existing traction belts. The brake rods, hydraulic control, and belt tensioners had to be modified to accommodate this change.

To mount the loader, the lower loader mounts were bolted to the combine's front axle while the upper mounts were bolted to a horizontal square tube located just below the cab. Two large struts originally ran from the square tube to the main frame rails at the back of the combine, so that loads created by pushing with the loader are transferred to the combine structure. The combine's existing hydraulic pump is still used to operate the loader. However, at low engine speeds the loader moves slowly so I plan to replace it with a larger one.

To add weight on back, I mounted a large steel box over the combine's rear wheels and filled it with 10 cubic feet of rocks. The extra weight allows the machine to lift 1,200-lb. bales without the steering wheels coming off the ground.

The walker housing was modified to cover the back of the machine, and a two-piece shroud was fabricated to completely enclose the engine.

The combine's original 318 cu. in. Chrysler LA industrial engine started having problems so I replaced it with a 318 cu. in. automotive engine off a 1978 Dodge 1/2-ton pickup. I also extended the exhaust and installed a new muffler to make the machine more quiet. The rig's

big tires allow it to wallow through greasy mud and deep snow that my tractor could never handle. The cab has a lot of lights on it, which makes it a joy to feed bales at night. The hydrostatic transmission works well with the constant direction changes encountered in handling bales. The loader has such a long reach that I can load hay trailers from one side and also throw bales way over fences. I haven't used the rig to pull my 11-bale trailer yet, but I don't think it'll have any problems.

I paid \$750 for the loader, \$100 for the engine, and \$100 for the muffler so my out-of-pocket cost was under \$2,000 (Canadian). My conventional feeding tractor hasn't moved in several months, which is evidence of how well this machine works. **(Andy Bailey, Box 13, Libau, Manitoba, Canada R0E 1C0 ph 204 766-2262)**

I got tired of climbing up my grain bins every time it looked like rain, just to cover the bin opening. So I found a way to cover



the opening from the ground. I strapped a plastic hopper - the type designed to be used at the bottom of an auger - upside down on the upper end of the auger and ran wire through holes already in the hopper. I simply let the auger down enough so that the hopper covers the opening. The hopper is free to swivel in the direction the wind blows, so even a side-driving rain can't get into the opening.

These hoppers are lightweight and cost only about \$25. A lot of farmers probably



have an extra one lying around that they could use. Most grain bins have a 2 1/2-ft. dia. opening so the idea will work on any size bin.

Here's another idea; whenever I unloaded grain from my truck I had problems with the grain bouncing off the mesh screen inside the auger's bottom hopper and falling onto the ground. I solved the problem by cutting the bead off a 15-in. tire and turning the tire inside out, then simply laying the tire inside the hopper. The sides of the tire "capture" any bouncing grain so that it falls back into the auger. **(Robert Kuehl, 5820 Forest Grove Dr., Davenport, Iowa 52807 ph 319 355-7897)**

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