



Modified concrete mixer mounts on skid loader and is used to pack concrete into a big culvert used as a roller. Chutes on both sides allow concrete to be dumped in either direction.



McLaen used 6-in. wide, 1/4-in. channel iron to build a frame for the 6-ft. long, 24-in. dia. roller.

## How To Make A Concrete-Filled Culvert Roller

Filling a 6-ft. long, 24-in. dia. culvert with concrete is an easy way to make an effective roller/packer. The problem? How do you pack concrete into the culvert?

Dale McLaen solved the problem by mounting a concrete mixer on a skid loader. "We use the roller to compact fresh gravel, squeeze down ruts, and pack fill material when pouring a concrete slab," says McLaen.

He made the loader-mounted mixer by removing the wheels and installing a base he can lift with a pair of forklift forks.

"I added chutes on both sides so I can dump concrete in either direction, depending on which way I pick up the mixer and which side the dump handle is on," says McLaen.

"Sometimes when dumping cement next to a wall or obstruction, the drum tilt handle needs to be on the opposite side. The chutes make filling buckets or holes easier."

The chutes came in handy when filling the culvert. McLaen fabricated 24-in. dia., 1/4-in. steel plates with center holes for a 1 5/8-in. steel shaft. Anchor bolts in the steel plates set in the concrete help retain the plates.

"I set the culvert on its end on blocks with the shaft seated in one plate," says McLaen. "I lifted the mixer up and poured concrete into the open end. While it was still wet, I could wiggle the shaft around in the concrete and center it for the second steel plate. The plates fit tight enough that I had to tap them

in with a hammer. They center the shaft and also help keep the ends of the roller from getting beat up."

The frame for the roller is made from 6-in. wide, 1/4-in. channel iron. McLaen reports it was salvaged from the side rails of a scrapped-out WD45 Allis Chalmers tractor. The shaft is held in place by a 4-bolt, flanged bearing at each end.

"The flange sits nicely inside the channel irons, which are slotted. I can slide the roller out of the frame if the bearings need to be serviced," he says.

McLaen used 4 by 4-in., 1/4-in. steel tubing as angled bracing from the sides to the front frame and also for the tongue. A jack stand

makes hooking the roller up to a tractor easy. McLaen also added a lanyard to secure the hitch pin.

"Years ago I got tired of looking for the right pin for hooking up an implement or other equipment," he says. "I started attaching the correct pin to every hitch using 1/8-in. cable and crimps. Now when I back up to hook onto something, I know the pin is there."

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## Hub Adapters Attach Low-Cost Truck Wheels To Skid Steers

You can replace standard skid steer hubs with adapters that let you use much cheaper truck tires. The adapters match truck wheels that were standard in most brands until the past 10 to 14 years.

"Companies started changing hub designs from the standard 8-bolt pattern in 2004, but there are still lots of the old pattern wheels to be found," says Steven OBrien, Federal Military Parts. "They all but give them away at auctions. People used to ask me if they could be used on skid steers, so I worked with a machinist to make the hub adapters."

Once the hub adapters are installed, old truck tires or even run-flat military surplus Humvee tires can be mounted. OBrien points out that truck tires unsafe to run down the road at 70 mph can run safely for years on a slow speed skid steer.

"The truck tires are larger than standard skid steer tires," notes OBrien. "Operators can drive 30 percent faster, thanks to the greater circumference."

If used truck tires are a good value, used Humvee tires are even better. "The government often replaces the tires and rims on Humvees when they have very little wear," says OBrien. "The surplus wheels come with the run-flat inserts. They can be mounted to older trucks with the 8-bolt hub pattern or to a skid steer with our hub adapters."

OBrien's Federal Military Parts sells a set of 4 hub adapters for \$495. A new, single, military Humvee wheel with rim, tire and insert sells for more than \$1,000. OBrien has more than 200 used Humvee wheels in stock and prices a set of 4 at \$400.

"Customers doing snow plowing, landscaping or other custom work understand that time is money," says OBrien. "With the inserts, an operator can finish the job instead of having to stop and get a tire fixed."



Adapters bolt onto standard skid loader hubs, allowing the use of low-cost truck tires. They're larger than skid loader tires so operators can drive 30 percent faster.



Contact: FARM SHOW Followup, Federal Military Parts, 34064 Hwy. 47 NW, Cambridge, Minn. 55008 (ph 612 440-8877; info@federalmilitaryparts.com; www.federalmilitaryparts.com).



Compacted rubber bales measure 5 by 5 by 2 1/2 ft. and weigh one ton. They work great for everything from windbreaks and snow fences to storage bins.



## Baled Tires Handy For Many Uses

An ad for tire bales for \$25 caught our attention recently. We figured FARM SHOW readers could come up with plenty of uses for the 1-ton, 5 by 5 by 2 1/2-ft. compacted rubber bales.

Rick Welle, founder of Front Range Tire in Colorado, continues to be amazed with ways customers use them, including building beautiful homes or farm buildings. He started his business in 1985 shredding tires into 2-in. chips for fuel and aggregate markets for civil engineering, and bought a tire baler in the mid-90s. Front Range Tire sells chips, bales and rubber mulch to customers in Colorado and surrounding states.

"We sell a lot of bales for windbreaks and snow fences up in northern Colorado, Wyoming and Nebraska where the winds are so terrible," Welle says. Stacked like bricks 3 rows high, the bales create a 7 1/2-ft. tall wall to protect livestock in harsh weather and during calving.

Other rural customers use them for storage bins or fencing around feed bins. Five 9-ga. wires hold the bales together and are stacked so the wires aren't exposed. Each bale is made up of 89 to 110 passenger and light truck tires.

"They can last basically forever, because rubber never deteriorates," Welle says.

The bales and other products Front Range Tire sells take something that would be wasted and make it useful, taking advantage of the engineering that has gone into making the durable material.

They're environmentally friendly with no odor and very strong. They can support 300,000 lb. equipment and are often used to create a loading dock or earth retaining walls. Water penetrates through them, so they are used as inside filler for dams as well as berms to minimize erosion and stabilize soil. They also make great backdrops at gun ranges.

Besides ag and industry applications, Welle has been impressed with homes he has seen built with the bales [www.hagartirebales.com](http://www.hagartirebales.com) and other uses that can be found by searching "tire bales" in the internet.

Bales typically sell for \$65, but Front Range Tire has them on sale for \$25 through the end of September 2019.

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