



To build side-mount tiller, Houska stripped an old tiller down to the tines and fitted it with a belt-driven hydraulic motor. It connects to two hydraulic cylinders on tractor.

## Home-Built Side-Mount Tiller

Tom Houska wasn't satisfied with renting equipment a couple times a year to till his garden and around newly planted trees. So he built his own hydraulic unit to mount his shop-made attachments.

He stripped an old tiller down to the tines and mounted a belt-driven hydraulic motor that connects to two hydraulic cylinders on his tractor. The belt-driven motor is important, he notes, as it can slip and protect the tiller's chain.

One cylinder moves the tiller in and away from the tractor up to 3 ft. The other cylinder tilts the tiller sideways.

"I turn it 90 degrees for doing little vegetables, so the dirt won't cover the plants," Houska says. "When the plants get bigger, I turn the tiller at a 45-degree angle and run it at a faster speed to hill the potatoes or cover the weeds in the corn row."

He starts in the center of the garden and works his way out so he doesn't leave any tire tracks. Houska notes that even in narrow rows he has good control with his side tiller and can get close to the plants.

To remove the tiller, he pulls a pin, unhooks the hoses, and is then ready to mount another tool. He made a weed eater that has four



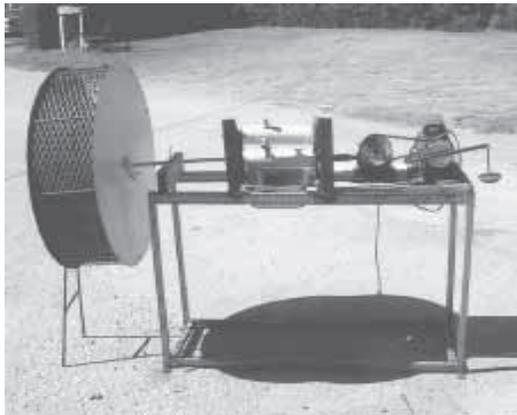
One cylinder moves tiller in and out; the other tilts the tiller sideways.

Deere disc mower knives and four 1/2-in. cables that are 2 in. longer that come in handy for cutting weeds around his buildings. He also made a wire brush out of four 3/4-in. cables that move vertically to clean sidewalks and concrete areas around his home.

With the attachments, Houska has found plenty of uses to keep his shop-built version of a Weed Badger busy - all from the comfort of his tractor seat.

Contact: FARM SHOW Followup, Tom Houska, 2068 210<sup>th</sup> Ave., Mahanomen, Minn. 56557.

Walnut cracker is powered by an electric motor that drives a pair of rollers which gently crack the walnuts, with the meat falling into a tray. An expanded metal drum serves as a walnut huller.



## Walnut "Cracker-Huller"

Allen Riggs, Hill City, Kansas, built this powered walnut cracker and huller mostly from scrap material.

The machine mounts on a piece of shelving. It's powered by a 150 rpm electric motor that belt-drives a 50:1 gear reduction drive. It drives a pair of rollers, cut from a truck driveshaft, at 3 rpm's. Each roller has four cracking stages and is equipped with bolts that can be adjusted according to the size of the walnuts. The speed of the rollers is synchronized by two matching timing gears from cars.

Because the rollers rotate at only 3 rpm's, they slowly and gently crack the walnuts, with the meat falling into a stain-

less steel tray salvaged from a restaurant buffet line.

A large expanded metal drum serves as a walnut huller. As the walnuts tumble inside the drum, the hulls fall through the expanded metal to the ground while the walnuts remain inside.

"I put two 5-gal. buckets of walnuts in the drum, and add a block of wood about the size of a 1-gal. bucket that rolls and tumbles with the walnuts. While I'm cracking one batch of walnuts, another batch is being hulled," says Riggs.

Contact: FARM SHOW Followup, Allen L. Riggs, 222 S. East St., Hill City, Kansas 67642.



Trailer's wheels are designed to float up and down over changes in terrain, to the point they'll actually flop one wheel over the other, if necessary.

## Tandem Axle, All Terrain Trailer For ATV's

"Our new tandem axle, all terrain trailer for ATV's has a lot of capacity and rides on walking tandem axles, allowing it to clear just about any obstacle without hanging up. It also rides close to the ground so it's far less likely to tip over," says Tim Mumm, Mountain Goat Trailers, Chester, Neb.

The heavy duty trailer measures 6 ft. long by 3 ft. 8 in. wide. It has a 1,000-lb. load capacity, with fully independent walking tandem axles on both sides of the trailer. The trailer has a low center of gravity, made possible by a height-adjustable gooseneck tongue that attaches high on front of the trailer and is adjustable to the ATV hitch.

"It's built tough for farm and ranch work," says Mumm. "The wheels are designed to float up and down over changes in the terrain to the point that they'll actually flop, or walk, one wheel over the other, instead of hanging up on an obstacle that's larger or deeper than the wheel itself. As a result, the trailer always stays nearly level. The bottom of the trailer is only nine inches off the ground, yet because of the tandem axle design the trailer can clear almost any obstacle.

"The trailer follows in the same track as

the ATV even when you're turning, so if you have to squeeze between obstacles you don't have to look back to see if the trailer is going to make it through."

Mumm says a boatload of options are available. They include an extension rack that slips into the four corners of the trailer, dump box, calf transporting cage, wire roller, tool rack, 32-ft. wide boomless sprayer, and even a big game retrieval package. It consists of a winch and an end gate that are used to load large game onto the trailer's bed.

"My brother Scott uses the trailer to repair center pivot irrigation systems right in the field. He hauls a gearbox, air compressor, and air tools in the trailer and can change a gearbox or center pivot tire all by himself in just 15 minutes. He shoves an air shock under the center pivot and uses the compressor to pump it up. It eliminates the need for a jack."

The All Terrain Trailer sells for \$829 plus S&H. A bigger trailer is also available.

Contact: FARM SHOW Followup, S & T Mfg., 6294 Hwy. 8, Chester, Neb. 68327 (ph 888 768-6263 or 402 324-5210 or 402 239-1042; info@mountaingoattrailers.com; www.mountaingoattrailers.com).

## Remote-Controlled Adjustable Shock Absorbers

You don't even have to get out of the truck to control these new remote-controlled shock absorbers.

"They're ideal for towing and hauling and for the daily driver with a work truck," says Jason DeNardo, product manager for Rancho, which is a division of Tenneco, Inc. The controller comes with four presets: Highway, Sport, Tow/Haul and Off-Road.

"When you're towing, you want a more controlled ride. The firmer ride option reduces pitching and swaying," DeNardo says. "When unloaded and not towing, you want a softer ride."

The Rancho MyRide system includes a quiet-running air compressor, solenoid switching manifold, air lines, and necessary fittings. With easy-to-follow directions it can be installed by consumers with average mechanical skills in about two hours. No programming required. The water-resistant wireless controller operates on AAA batteries, has a power-save mode, and can be mounted anywhere in the vehicle. It reaches up to 50 ft. to control front and rear shocks.

In addition to more towing and hauling control, off-road enthusiasts appreciate MyRide's convenience. The Rancho product earned "Best New Product" award in the Off-Road/4-Wheel



Remote-controller activates an air compressor that lets you select the firmness of the ride.

Drive category at the 2007 Specialty Equipment Market Association (SEMA) Show.

The MyRide Tuning System and Wireless Controller costs \$270 (shocks are additional) and is available at Rancho's website and through its dealer network.

Contact: FARM SHOW Followup, Rancho Suspension, 6925 Atlantic Ave., Long Beach, Calif. 90805 (ph 734 384-7804; www.goranchocom).