



Front wheel kit turns any mid-size tractor into a 3-wheeled floatation sprayer.

Kit Turns Tractor Into A 3-Wheeled Floatation Sprayer

You can turn any mid-size tractor into a 3-wheeled floatation sprayer with this new front wheel kit from Agriweld, Inc., Monmouth, Oregon.

The idea is to greatly reduce soil compaction, especially on wet ground, without spending the money for a self-propelled sprayer.

The tractor's rear wheels are replaced by 66-in. high, 44-in. wide floatation wheels. The front axle is replaced by a front fork assembly and a single floatation wheel of the same size. The front axle is attached to a steel subframe that bolts onto the tractor's main frame. A 3-pt. mounted 60-ft. boom mounts on back of the tractor.

"It offers better floatation than any commercial sprayer," says Craig Pope. "A Deere 6410 tractor equipped with 500-gal. saddle tanks weighs about 19,000 lbs. loaded, which comes out to only about 6 psi of ground pressure. You can get down to 4 lbs. per square inch of ground pressure by mounting 50-in. wide Firestone tires on back.

"We came up with the idea because there aren't many small, high floatation sprayers on the market any more. Most manufacturers have gone to large 20,000 lb. net weight sprayers and beyond. Rather than build a new sprayer with a complete drive train, we decided to focus on attachment components that are priced for the average grower. He can choose the tractor model he wants.

"We designed it for use in the grass seed industry here in Oregon, but it will work on any crop that requires low tire compaction including rice and other crops."

Farmers can save a lot of money, he says. "Equipped with 500-gal. saddle tanks, our kit sells for about \$20,000. A new comparable capacity self-propelled sprayer starts at about \$150,000. Even if you buy a new mid-size tractor and install our kit you'll likely spend less than \$100,000."

The package includes a suspension style swing arm fork with twin air springs, one on either side of the front wheel, that can handle up to 8,000 lbs. The air springs are adjust-



Tractor's front axle is replaced by a front fork assembly and a large single floatation wheel.

able for different loads and offer smooth riding in rough field conditions, says the company. An open front allows easy access for changes to different applications or repairs.

A hydraulic rotary actuator provides all the support for the load as well as hydraulic power steering. Some minor modifications to the tractor steering circuit are required to accommodate the increased hydraulic flow to the actuator.

According to Pope, kit frames can be designed to fit several different brands of tractors. "But it works best on Deere tractors because of their cab and chassis design, and because they have a heavy duty main frame that does a better job of supporting the load. Also, their transmission is appropriate for sprayers."

A variety of different tank sizes are available, and some can be 3-pt. mounted. Either 50 or 60 ft. suspension booms are available from the company, and all are "quick hitch" adaptable. The boom sections are controlled by electric solenoid valves (supplied). A hydraulic-driven, 1,500 to 3,000-lb. capacity 3-point mounted dry fertilizer spreader with dual spinners and conveyor feed system is also available.

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Tractor's rear wheels are replaced by 66-in. high, 44-in. wide floatation wheels.

Oil Spinner Creates Clean Fuel

"I built this centrifuge to clean waste vegetable oil to use in my diesel car and pickup," says Bud Pitts, Morton, Wash.

"A friend of mine suggested the idea," he says. "It takes out anything heavier than the oil, and that includes water."

Pitts built a unit that operates at 3,400 rpm's. He first runs dirty oil through a kitchen screen to take out the large particles. Oil feeds very slowly into a spinning arm inside the centrifuge drum. Heavier materials move to the outside. The clean oil collects in the center and drains into a container.

"It takes about 2 1/2 hours to get five gallons of really clean oil. When you're done running a batch, it takes about 10 to 15 seconds to clean out the water and residue," says Pitts. "If you run it through a second time, the oil is just about as clean as when it comes off the store shelf."

Pitts has had spun oil tested at a certified lab. While he hasn't used the system for used petroleum based oils, he is confident it would work fine with that, too.

"If you use it with other oils, have them tested by a qualified lab before using in a vehicle," he warns.

Pitts built the centrifuge to provide vegetable oil for his converted Datsun diesel pickup. He has driven about 15,000 miles on vegetable oil with no problems. Although numerous biodiesel kits are available, he designed and built his own with engine heat warming both the biofuel and the filter.

"It's really a separate fuel system with its own tank and filter," he says. "I start my truck on regular diesel and run it until the vegetable oil has warmed up to 180 degrees. Then I switch over. The exhaust always smells like whatever was cooked in the vegetable oil."

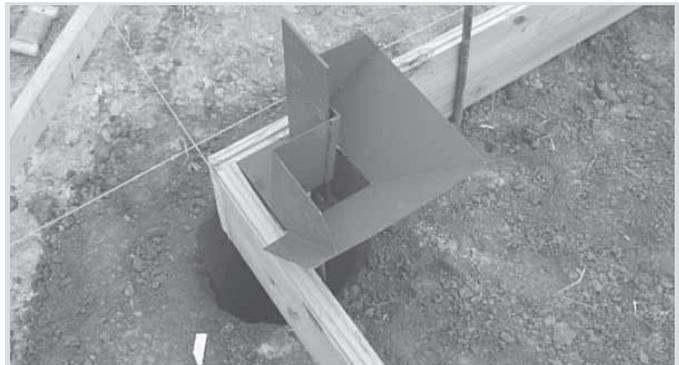


Bud Pitts built this centrifuge to clean waste vegetable oil to use in his converted Datsun diesel pickup.

A set of plans with photos of Pitts' centrifuge is available. Pitts says he will answer any questions he can for those who request plans.

"I built mine out of stuff I had mostly laying around in my shop," he says. "Most people who see the plans are amazed how simple it is and that most of the materials are in their 'stuff' pile."

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Metal bracket screws onto building's splash board.

Bracket Extends Life Of Pole Frame Posts

"Our new patent pending bracket keeps poles out of the ground on pole barns," says Jack Cutforth, Mexico, Mo.

The two-sided metal bracket is designed to be screwed onto a building's splash board, with the bottom of the bracket flush with the top of the splash board. The bracket measures 12 in. high by 4 1/2 in. wide and has room for three 2 by 6's or 2 by 8's. A pair of short rods are welded onto the bottom of the brackets. You fill the post hole with concrete and set the bracket in it. The concrete will adhere to the rods, providing a solid footing.

"This system will extend the life of your building," says Cutforth. "Cost compares with treated columns. There's a labor savings in preassembling of the frame work on the ground. The end trusses, door headers, track and cover can be installed and save all the ladder work. We've had reports of up to 40 percent labor savings using this system."

The brackets sell for about \$36 apiece.



Bracket has room for three 2 by 6's or 2 by 8's.

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