

# Loader And Backhoe Built For Deere 318 Garden Tractor

Jake Tolstedt says he located and saved various parts for his home-built loader and mini backhoe for years before he finally started building his self-designed rig. "I found a used Johnson loader that had been on a Montgomery Ward's lawn tractor and fit it onto my Deere 318 tractor," Tolstedt says. "About that time I saw lawn tractor backhoe plans from PF Engineering in FARM SHOW, so I ordered them and went to work."

Tolstedt then decided to make his backhoe and loader setup into a smaller version of a Deere industrial backhoe. He's familiar with those designs through his work as a diesel technician for Murphy Tractor, a Deere industrial dealer in North Platte, Neb. Using that background knowledge he configured a custom sub frame made of 2-in. square tubing for his tractor. It's bolted to the bottom of the axle and the frame to equalize the weight of the tools. The loader and backhoe add about 1,100 lbs. to the weight of his tractor, but the reinforced frame provides ample support. He says the added weight of the backhoe makes the loader a lot more useful.

Tolstedt built a reinforced loader frame with 2-in. square tubing. The loader can lift up to 600 lbs. about 56 in. high. He has a 48-in. bucket and a 36-in. pallet fork that are easy to change with the quick coupler mounting that he built.

The backhoe boom is made from 3 1/2-in. square by 1/4-in. thick wall tubing. The arm is made from 3-in. tubing with a 3/16-in. wall. He bought 2 backhoe buckets with large digging teeth from Deere to fit the quick coupler he made for the boom arm. One is 10 in. and the other 16 in. wide. He also made a manually adjustable thumb that helps to pick up brush and other rough material. The backhoe raises and lowers with a 2 1/2-in. cylinder. The bucket and outriggers operate with 2-in. cylinders. The boom arm reaches 8 ft., digs 5 1/2 ft. deep and can lift about 200 lbs. 8 1/2 ft. high. The pivot pin for the backhoe is from a large loader bucket link.

Tolstedt built a custom hydraulic system to run both tools. It includes an auxiliary pump driven off the front of the engine by the same belt that used to drive the belly lawn mower on the 318. The pump feeds the backhoe valve first and then the loader valve, then returns to the reservoir under the back of the tractor. He used the salvaged 318 valve on the loader so the boom had float for back dragging.

Tolstedt says "One of the most difficult parts of the whole project was the seat swivel. I had a hard time finding a mechanism that looked right and worked in the tight space. The seat swivel I ended up using is from a utility tractor that had a mounted backhoe."



**Jake Tolstedt's garden tractor loader and backhoe looks factory made, but he built it himself over a 3-year period.**

Tolstedt says the project took him much longer to complete than he originally planned. "Initially I was aiming for 12 to 16 months, but it ended up taking closer to 3 years. For the sake of maintaining my marriage, I won't guess at the cost, but it's still way less than buying a new rig like this. A lot of the parts I made, and some came from friends or junk piles. Most of them I got for little or nothing."

The shiny industrial yellow and construction charcoal paint job gives the completed equipment a "factory made" appearance.

Tolstedt says the loader and backhoe are real handy around his yard. He's used the

machine to move brush, transplant trees and dig drainage ditches. He plans to put in about 300 ft. of water line and electrical cable and says it shouldn't have any trouble with that project. His 9-yr.-old son Bill is very adept at working the backhoe controls. "He saw me work on this for a long time and even helped me build on it toward the end, so it's great to have him take an interest in using it."

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## "Trackporter" Hauls Dead Hogs Away Fast

"Our new Action Trackporter lets you move through narrow aisles in hog barns and turn on a dime. It's specially designed to remove dead hogs from confined areas, but can also be used for other jobs," says Alan Macht, Action Manufacturing Inc., Marshall, Minn.

The machine rides on 6 1/2-in. wide rubber tracks and comes with a stand-on platform on back. It operates on two 12-volt wheelchair batteries and two 24-volt DC motors. A joystick control is used to control the steering as well as forward and reverse.

The unit comes with a 2,500-lb. electric winch on a 6 1/2-ft. high steel pole and 50 ft. of 1/4-in. dia. synthetic cable. The cable end is hooked onto the hog's hind legs or neck, and the animal is then lifted to rest against an angled metal platform. A low-mounted snatch block pull ring can be used to extract animals from tight quarters.

"It has a zero turn radius and lets you move hogs through doorways, over rough terrain and directly to the pickup pile," says Macht. "The joystick control has 5 forward and reverse speeds for optimal maneuvering through tight spaces. The machine uses the same track system and power unit as our off-road stand-up "Action Trackchair", which lets you go places where conventional wheelchairs can't go (Vol. 34, No. 4).

"Its big advantages are speed, safety, versatility and durability. It's hard for 2 or 3 people to move a 400 to 600-lb. sow out of a building by hand, and back injuries can easily happen. With the Action Trackporter you can go anywhere from a slow crawl - to navigate down aisles and into farrowing or gestation crates - or a faster speed if you want to travel to the other end of a long building."

The Action Trackporter's two 12-volt batteries produce 200 amp hours of electric power, "so you can go a long time before you have to recharge the batteries," says Macht.

The company also offers 2 carrying platforms that can be used to move heavy



**Action Trackporter is designed to remove dead hogs from confined areas. It rides on rubber tracks and comes with a stand-on platform on back.**

objects in and around hog barns. "The platforms are quickly installed into a universal mounting system and are sized to carry either two or four 5-gal. pails for moving smaller items, as well as liquids or granular materials," says Macht.

The Action Trackporter is available in 24 and 30-in. widths. Both models sell for \$5,900 plus S&H.

You can check out a video on YouTube by typing in Action Trackporter.

Contact: FARM SHOW Followup, Action Manufacturing Inc., 1105 Lake Road, Marshall, Minn. 56258 (ph 507 532-5940; alan@actiontrackchair.com; www.actiontrackporter.com).



**Kevin Ranette sells a 3-pt. hitch and front-mounted brush guard for Deere garden tractors. By removing a pin you can flip guard forward to access tractor's engine.**

## 3-Pt. Hitch, Brush Guard

"It's built strong and will stand up to anything your tractor can handle. Works great to move trailers and other small Cat. I attachments," says custom fabricator Kevin Ranette of Moyie Springs, Idaho, about the 3-pt. hitch he builds for Deere garden tractors.

The Cat. I 3-pt. hitch is designed for Deere 120, 140 and 316, and 317 garden tractors. It comes with bolt-on quick-tach mounts and an integrated drawbar that are welded to a 3/8-in. thick flat steel plate, which bolts to a plate on back of the tractor. The top link attaches to a hydraulic-operated lift bar already on the tractor.

"The 3-pt. hitch has swivel ball ends on the lower links and attaches quickly with just 2 bolts and a pin," says Ranette, who notes that he's willing to custom build implements such as landscape rakes to fit the 3-pt. hitch.

The hitch comes ready to mount with all nuts, bolts and pins. It sells for \$350 plus S&H.

Ranette also builds a front-mounted brush guard for the same tractor models. By removing a pin you can flip the guard forward to access the tractor's engine. The guard comes with a bar and shackle that can be used to tow the tractor.

"It's built strong, so if you accidentally crash into something you won't mash up the whole front end of the tractor," says Ranette.

The brush guard sells for \$120 plus S&H. A heavy duty model is also available that sells for \$175 plus S&H.

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