



Matthew Steffen used a pair of new Sears pull-type dethatchers to build a front-mount dethatcher for his Grasshopper zero turn riding mower.

Zero-Turn Mower Fitted With Front-Mount Dethatcher

"After searching high and low I couldn't find an affordable dethatcher for my Grasshopper zero-turn riding mower, so I built my own," says Matthew Steffen, Kalispell, Mont.

He started with two new Sears 40-in. wide, pull-type dethatchers that he bought on sale. He cut one dethatcher in half and welded it to the other one to make a 56-in. wide unit. "I wanted the dethatcher to be narrower than

the 61-in. mower deck on my Grasshopper. That way the deck can vacuum up all the dethatched material when I go around corners," says Steffen.

He used 2-in. sq. tubing to build a frame that supports the dethatcher. The frame is welded to a pair of hinged metal arms that pivot on brackets bolted to the mower deck, allowing Steffen to lift the dethatcher back



Hinged metal arms on dethatcher frame pivot on brackets bolted to mower deck, allowing Steffen to lift dethatcher for transport.

out of the way for transport.

"The caster wheels cause the dethatcher to follow the ground contour without digging into the ground. The entire dethatcher can be removed by pulling two bolts," says Steffen.

He also built spindles for the caster wheels and clevises to hold them in place.

"I paid \$69.99 apiece for the dethatchers, \$40 for 12 ft. of 2-in. sq. tubing, and \$9 apiece

for the caster wheels. The least expensive factory-made unit I could find cost more than \$700, and mine works just as good," notes Steffen.

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Dave Odom's homemade dirt scoop works just like big rigs you see on road crews. It mounts to a Cat. I or II tractor quick hitch.

Mini Earthmover Pulled By Small Tractor

When you first see Dave Odom's two-yard pull-type scraper, you'd think it just came out of a Deere factory. In fact, it's a patented invention that Odom designed and had built by a local machine shop. "I designed the scraper so it easily hooks up to a Category 1 or 2 quick hitch," Odom says. "I pull it with my 50 hp 4-WD Kubota and it works just like a big scraper on a road crew."

Odom has used his custom-designed rig for nearly 300 hrs. moving dirt and gravel around his hobby farm. He says it can scrape as little as 1 in. of dirt or cut as deep as the tractor can pull. The machine frame is nearly 11 ft. long and 5 ft. wide, so it's easy to maintain a constant cutting depth and produce a smooth finished surface.

"I've had a Kubota tractor and loader for quite a few years and looked all over for a dirt moving attachment," Odom says. "I found bigger ones, but not one my tractor could pull. That's when I decided to build one myself."

Odom's dirt and gravel scraper is built to handle tough conditions. The box frame that supports the scoop is made of 1/4-in. by 2-in. by 6-in. tubing. The welded corner butt joints are reinforced with 3/8-in. plate steel. Diagonal steel tubing provides extra support to the hitch pole, which connects to Odom's tractor quick hitch through a swivel with a large 2-in. draw pin.

"I designed the hitch so it connects solid to the tractor and it's easy to hook up," Odom

says. "The pin swivel between the hitch bar and the hitch pole takes stress off the scraper frame when I'm turning."

The scraper rides on two 8-ply tires mounted on 2,500-lb. agricultural equipment axles. A steel support between the wheels contributes to a strong frame that doesn't twist and turn when the scraper is working. Two dual-acting 1-in. cylinders have 2,500-lb. lift capacity to lower, raise and dump the scoop. They mount on reinforced eyes welded to the top of the main frame and the sides of the scoop. Hydraulic hoses run through a tunnel across the top of the frame to protect them as the scraper digs, fills and unloads.

The machine has an adjustable buster bar with 2-in. teeth to loosen soil in front of the scoop. The leading edge of the scoop has a straight edge so Odom can use it for grading a smooth surface.

"This prototype scraper has worked exactly like I hoped it would," Odom says. "I'd like to find a manufacturer to produce it in 1, 2 and 3-yard sizes because there's nothing out there like it in the marketplace." Odom says he has engineering drawings available and welcomes a prospective manufacturer to contact him.

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"We use it to maintain a 1/4-mile stretch of road in a high traffic area. It works like a little land leveler," says Marlin Galde, who built this 8-ft. wide, 3-pt. mounted box scraper.

Box Scraper Built For Under \$300

Marlin Galde couldn't justify the cost of a new box scraper to maintain the gravel road that runs in front of his place. So the Wahpeton, N. Dak., rural resident built his own 8-ft. wide, 3-pt. mounted box scraper for less than \$300.

"We use it to maintain a 1/4-mile stretch of road in a high traffic area. It works like a little land leveler," says Galde. "I use my 20 hp Ford 1210 diesel tractor to pull it. Two of my neighbors also use it and pull it behind their Ford New Holland Boomer tractors."

The box scraper is 8 ft. wide and rides on 15-in. rear flotation tires that extend 3 ft. back from the blade. The body is made from 3/16-in. steel plate that Galde had rolled by a local fabrication shop, and the welded-on ends are made from 1/4-in. plate. The wear bar is an old grader blade that he got in 5-ft. sections. He cut the sections to length and then bolted them on side by side.

The tongue attaches to the 3-pt. lower lift

arms and is made from tube steel. Angled braces welded to it are made from 1 1/2-in. pipe. A 6-ft. length of railroad iron is bolted on top of the scraper for added weight. Galde used tube steel to make an axle for the tires, which are off an old trailer.

"It does a great job of leveling and is built simple without any hydraulics, which makes it easy to operate," says Galde. "A lot of people compliment us on how good our road looks. I built the body mostly from scrap material that I already had. After I was done building it I painted it Ford blue to compliment my Ford tractor. I also jazzed the scraper up by painting an angled white line on each side, which gives it a sense of motion."

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