

Pull-Behind Lawn Mower **Cuts Level On Uneven Ground**

"It cuts mowing time almost in half and mows level even on uneven terrain," says Gary Moffett, Connersville, Ind., who mounted the deck from an old Snapper riding lawn mower to the side and rear of his International Cub Cadet riding lawn mower, allowing him to cut a 66-in, wide swath at a time.

Moffett removed the deck from a Snapper Comet 30 mower and bolted an angle iron frame and motor mounting plate on top of it. He mounted a pair of caster wheels behind the deck, welding them to the original lift arm brackets. The deck is supported at the rear of the frame by chains and in front by a pin that's free to slide up and down inside the angle iron frame, allowing the mower to float over uneven ground. The deck is also fitted with a roller in front, a pair of gauge wheels in back, and angle iron skids on both sides to keep it from scalping.

The add-on deck hitches to the tractor via a tow arm (made from 2-in, sq. tubing) that extends to the left side of the tractor from a wheeled hitch behind the tractor. The rear hitch also floats up and down.

"It works great and cost only \$20 to build," says Moffett. "My wife and I had been using two Cub Cadets and when both of us mowed it took 2 1/2 hours to cut our 3-acre lawn. Our pull-behind mower shaves 45 minutes off that time. The front mower cuts 38 in. wide and the rear mower cuts 30 in, wide. They overlap 2 in. It really mows level which is important because there's not a level place on our lawn. I used the rear axle from an old Sears riding mower to support the rearmounted caster wheels. It steers much like a semi mount plow. The floating hitch arm behind the tractor lets me mow on level ground with the front mower and on a side hill with the rear mower. The mower trails so well it never leaves strips no matter which way I turn.'

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Rotating Intake Screens "Never Plug Up"

Any farmer or rancher who draws water out of a river or stream will be able to relate to the problem Paul Searle had pumping irrigation water out of a canal that flows through his farm.

The problem was that trash and debris floating in the canal would plug up intake screens leading to his pump. He finally came up with innovative self-cleaning intake screens powered by the flow of water in the canal.

Searle, who farms near Shelley, Idaho, used shafts and sprockets from an old potato harvester and two 50-gal, drums to make the water wheel and intake screens. The only non-salvaged part was the screening used over the drums.

He cut large holes in the sides of the drums and mounted them on bearinged shafts. They're positioned over intake pipes leading to a large irrigation pump. Above the barrels a series of sprockets, pulleys and driveshafts leads to the water wheel which he made out of steel tubing

and sheet metal. The flow of water drives a long rubber belt that wraps around both screened barrels, slowly rotating them to wash away debris as it accumulates on the screens

"It turns them fast enough to keep them free from debris. They never plug up," says Searle, adding that similar units are made commercially but they use a small electric motor to turn the screens. "They cost about \$700 plus the power to run them."

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60-ft. Spray Boom

"It didn't take long to pay for it since we're saving the \$3 per acre we used to pay for custom application," says Robert Koehn, Jr., who, along with his father, built a 60-ft. wide 3-pt. spray boom.

The men use the sprayer to apply Banvel to corn and to spray CRP acres. "Now we can do the work at the best time, not when the custom applicator gets around to it. The sprayer is easy to hook up since we usually have a front-mount tank and pump on our tractor during the growing season. It saved the cost of an expensive tank spray rig and we can use one pump system for both planting and spraying. It's much easier to just keep one system in working order.

"The sprayer works great in the field with little up and down movement of the booms due to the rear gauge wheels.

"We used 2 by 2-in. tubing on the middle section and on the main boom and 1 1/4-in. tubing on the boom support mast. If we did it again we'd make the middle section heavier because when the booms are folded forward, the weight bends the top of middle frame forward.

"We have only around \$800 in this sprayer, using all new iron, hydraulics, spray nozzles, hoses and valves. I used 3 hand valves to turn each boom section on and off when needed, saving the cost of three electric valves which we wouldn't use often, anyway. An electric cut-off switch in the cab shuts off the system."

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Labor-Saving Portable Saw

"I'm retired so we built this machine to make it easier to cut logs for splitting," says Cornelius L. Loewen, Arborg, Manitoba.

The portable splitter is powered by a Falcon car engine that drives the 24-in. blade with two V-belts. The saw arm moves up and down hydraulically. A flywheel, belt-driven from the saw mandrel, was fashioned from a car wheel with spindle and bearings. (Loewen says the addition of the flywheel lowered fuel consumption from 5 gal. per 8 cords of wood to 5 gal, per 20 cords of wood. The flywheel, not shown in the photo accompanying this story, is hinged to move with the saw blade.)

A key feature of the sawmill is the conveyor feeder table that's outfitted with rollers to make it easy to roll wood into the saw blade. A wood length gauge flips up into position as needed.

A tilting, upholstered seat lets the saw operator work in comfort. When temperatures get cold, a foot warmer helps keep him warm. An electric drive unit moves the splitter forward and back to keep close to logs as the wood pile shrinks.

"It's possible to saw a cord of wood in 10 min. if the men and wood are of the right type," says Loewen.

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