



Steering wheel desk has bolts that rest on top of the steering wheel to hold it in place for use while parked.

## Steering Wheel Desk Helps Capture Ideas

Jim Deardorff says he gets some of his best ideas on his way to work. With the help of his steering wheel desk, he captures them before he leaves his pickup cab. The long-time FARM SHOW contributor has often shared tips on painting systems for farm vehicles and equipment.

"When I pull in to work, I'll sit in my pickup, finish my first cup of coffee and jot down ideas while they are fresh," says Deardorff. "It's why I made a desk that slips over the steering wheel. I can rest a magazine on it, rough out an article I'm working on, or add to a book I'm doing on paint."

The desk is as simple as can be. He started with a lap desk, but any piece of thin plywood or Masonite would work. The only requirement is that the length equals the outside diameter of the steering wheel.

Deardorff drilled holes about an inch in from each corner of the board. He inserted 3-in. bolts in the holes on the top end and snubbed them in place with nuts and washers. "They hold the desk in place," says Deardorff. "They self-center over the top of the wheel."

He used the bottom holes to mount a 1 by 2-in. length of wood to serve as a shelf for magazines or papers.

"I keep a spring clip on the desk to hold paper when I'm writing or to hold the latest issue of FARM SHOW," says Deardorff.

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JOZ barn floor manure cleaning robot can cover an unlimited number of routes and use multiple dump stations.



## Robotic Sweeper Keeps Barns Clean

The newly introduced Barn-E barn cleaning robot from JOZ gets the job done quietly and efficiently on solid floors. The rotating in-feed sweeps manure solids, straw and sawdust into its onboard container. Once the container is full, the Barn-E scrapes additional solids ahead of it as it returns to the dumping station where it also recharges.

"The Barn-E, with its mechanical drive system, is quieter than a vacuum system, which benefits cow comfort," says Jesse Vierstra, JOZ. "It moves at only 21 ft. per min., giving cows plenty of time to move out of the way."

The Barn-E is available in 61 and 72-in. widths. The standard holds a little more than 12 cu. ft., while the extra-wide holds about 17 1/2 cu. ft. Its rounded corners prevent cows from getting hurt and makes moving through the barn easier. At less than 27 in. high, it can fit under most gates.

The two 12-volt batteries connected in a series give the Barn-E a running time of about 18 hrs. However, systems are normally set up so each unit runs for two hrs. and recharges for two hrs. The company recommends that solid floors be cleaned every two hrs. for optimum cow hoof health.

Units can cover an unlimited number of routes based on the floor plan of the barn, with multiple dump station locations. Routes and timing can be changed using the smart device app and route management software.

"We are confident the Barn-E will have a longer life span and require less maintenance than competitive autonomous manure cleaners," says Vierstra. "It also requires fewer units for a similar size barn."

The price of a system is dependent on the number of units, including drop stations, needed for the size and layout of a given barn. However, Vierstra suggests that a system for an 1,850-sq. ft. area would likely run just over \$41,000.

JOZ makes a similar unit, the JOZ-Tech JT200, for use on slatted floors. JOZ has been in the North American market for more than 20 years, primarily in Canada. The Dutch company has been in the manure scraping business for more than 70 years. It also makes the Moov 2.0 robotic feed pusher, as well as other manure handling equipment.

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## Power Chair Modifications Make Moving Inside Home Easier

FARM SHOW contributor Tony Bunniss faced a conundrum a few years back when his wife underwent foot surgery that left her temporarily incapable of walking.

A used Power Chair improved her mobility, but unexpected design limitations led to frustration and damage. They found that the chair worked perfectly when moving forward but was challenging to navigate in reverse. As a result, the home's woodwork and door trim started to take a beating from unintended collisions.

The problem was in the chair's design. "The rear axle was wider than the rest of it, and when you backed up, the casters would reverse, and the axles in the wheels were just long bolts that stuck out," says Bunniss. "In forward, they both faced inward, but in reverse, when you can't see too well anyway, they both stuck out and tore the door trim up."

Bunniss' solution was to build a new, narrower rear axle that wouldn't stick out in either direction. This made it more manageable to maneuver the chair without harming his woodwork.

"The axle is made of a scrap piece of 2-in. square by 1/4-in. wall tubing," he explains. "It didn't need to be that heavy, but that was what was sticking out of my scrap pile."

The chair's caster mounts came from another piece of scrap tubing, and the caps on the top were made from a solid bar of nylon. Bunniss further modified the chair by removing the armrests to give it a smaller



Bunniss modified a power chair's rear axle to make it narrower to fit inside spaces better when backing up.

profile.

"I also bought some cheap carpet floor mats for cars, cut them up, and wrapped the housings on the casters," he explains. "I just glued them on with rubber cement. Now, even if the casters do hit something, they do no damage."

This simple fix made it possible for his wife to easily move around their home without concern about causing damage.

Those interested in learning more to replicate the design at home can contact Bunniss directly for further details.

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BOSS Products Drag Pro rear-mounted snowplow has independent cylinders so wings can be turned in either direction.

## Rear-Mount Push or Pull Snowplow

You can push or pull snow with the Drag Pro 180Z from BOSS Products. The rear-mounted, 8-ft. blade has two additional 4-ft. wings that can independently pivot 180 degrees. Mounted to a 3/4 or 1-ton truck equipped with a front blade, the Drag Pro can boost productivity and cut time on the job by 50 percent.

"You can retain snow going forward with the wings turned to the front or push it back with the wings turned to the rear," says Mike Mindok, BOSS Products.

Equipped with independent cylinders, one wing can be turned to the rear while the other can be turned to the front. Either one can be set at a 45 or 90-degree angle.

Mindok points to the placement of the hydraulic cylinders between the blade and the truck's bumper. "You can back up right to the garage door," he says.

The 24-in. high moldboard is fabricated from 7-ga. steel and features a 1 1/4-in. by 6-in. cutting edge. With wings folded, the rear blade has a 100-in. width. Fully extended, it measures 16 ft.

The blade weighs in at 1,450 lbs. with the hitch assembly. It's equipped with LED work lights.

The Drag Pro 180Z has UHMW poly cutting blades that will last longer and not chip concrete like steel blades can. Blade edging protects the blade from the curb.

The quick hitch attaching system is unique to BOSS Products. It uses both a 5th wheel and a service hitch attachment for greater stability. The hitch has an on/off lever and an electrical switch to raise and lower the blade as needed for easier attaching and detaching.

If a wing hits an obstacle, no shear pins will break. The hydraulic relief feature kicks in to protect the blade.

BOSS Product distributors and dealers can be found on the company website. Check with local dealers for pricing. Online dealer Crysteel Truck posted a price of \$8,930 (not assembled).

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