"The design saves the back and the knees," says Kuhl. "The weight centered on the wheels also eliminates stress on the arm and side."



## Handy Cart Lightens The Load

Larry Kuhl's Happy Hawler makes carrying a 5-gal. bucket of water easy, with no water sloshing on pants legs. The two-wheeler, with extra-long handles, reduces the load by 75 percent. Brackets are designed to snatch up a bucket or bale or carry a muck bucket. Slip on the dolly base plate and carry a bale in front and a bucket to the rear.

"I was carrying buckets of water to my miniature donkey when I figured there had to be a better way to do it," says Kuhl.

He put on his thinking cap and fine-tuned his ideas with the help of NLOC Metal Craft, a local fabricator. He based the design on the conventional two-wheel appliance mover but with handle extensions. The handles provide increased leverage that distributes the weight, cantilevering most of it to the wheels.

"The design saves the back and the knees," says Kuhl. "The weight centered on the wheels also eliminates stress on the arm and side."

A bracket centered on the back side of the frame accepts multiple adapters (included with purchase), making it easy to grab a bucket handle or bale twines and hold them securely. S-hooks on brackets to either side of the frame catch and hold muck buckets for cleaning up the stable or garden. "The bracket and adapters make it easy for even a young teen to pick up a bucket of water without touching it," says Kuhl. "Because the bucket hangs freely instead of swinging against the leg, there's less splashing and loss of water. It's as handy in the yard or garden as in the stable and is great for moving a 5-gal. bucket of paint or other liquids."

When not in use, the long handles easily detach and slip into storage tubes on the frame. The compact design makes it easy to carry along in a truck or horse trailer or set in the corner of a stable.

The Happy Hawler is available in two models, the Ranch Hand and the Stable Hand. The Ranch Hand has 10-in. wheels and is priced at \$329 in a galvanized finish or \$349 powder-coated. It doesn't have removable handles. The Stable Hand has 13-in. wheels and slightly longer handles for larger loads. It's priced at \$379 galvanized and \$399 powder-coated. The dolly fits both models and is priced at \$49 in either galvanized or powder-coated finishes.

Contact: FARM SHOW Followup, Happy Hawler, NLOC Metalcraft, 1935 Truax Blvd., Eau Claire, Wis. 54703 (ph 715-713-4295; nloc@nlocmetalcraft.com; www. nlocmetalcraft.com).



Gunn filled the tires with water for smooth grading. He added more weight by filling the space in the chassis between the bridge and the back end with concrete.

## Scratch-Built, Pull-Type Grader

Dale Gunn started with a dirt blade and turned it into a pull-type grader with multiple angles and variable pitch. The clevis hitch rotates 360 degrees for unrestricted movement in all directions. Raising and lowering the utility bar on the tractor hydraulic arms adjusts the blade's cutting depth.

The design is simple, as are the components. It would appear to be a well-planned project, but it wasn't.

"My builds are all off the cuff," admits Gunn. "I have no plans, just a 'that looks right' style. However, my projects usually end up 98% functional, so why change a good process?"

Gunn used 13/64-in. steel throughout the project, including the 2 by 4-in. rectangular tubing for the chassis and plate where used. His first step was reinforcing the blade by welding a 4 1/2-in. by 4 1/2-in. square bar to

the top, with gusset plates from it to the back of the blade. He also welded a rectangular rub bar to the back side of the beam to help carry the stress. A solid steel center pin was welded to the back of the lower blade and up through the blade bar to hang the blade to the bridge on the grader's chassis.

"Mounting the bar to the blade this way made it effectively part of the blade front edge," says Gunn. "Should the cutting edge become too worn, I can cut it straight and weld on a grouser plate for a new edge."

He added a 1-ft. wide steel grate between the sides of the A-frame chassis and 2 ft. back from the hitch. It reinforces the chassis and reduces operator risk.

"Stepping between chassis sides is a good leg breaker," says Gunn. "The grate encourages stepping over."

the by The A-frame chassis stretches 9 ft. 4 in. added from the eye of the hitch to the ends of the need

## **Drill-Powered Lift Has Many Uses**

Attach a 1/2-in. power drill to ReechCraft lift products and raise yourself or materials up to 200 ft. The company offers its unique PowerTrak drives in various products, including single-mast freestanding and tied or freestanding tri-mast and quad-mast configurations.

"Our first lift product was the PowerPole, developed for the siding and gutter contractor market," says Gregg Swinford, ReechCraft. "We introduced the PowerMast some years later and the PowerLift about 10 to 12 years ago. The PowerLift has all kinds of uses and lots of different configurations. The modular design starts with a base unit, and you add what you want depending on your needs."

The base units vary by product line. For the PowerPole, it's a 10 by 10-in. platform with holes for pinning to the ground or a larger sill plate and an outrigger base. The outrigger base connects to the pole with two-wheeled sides that enable easy repositioning of the PowerPole. Each side also has a stabilizer with up to 8 in. of movement to level the system.

The PowerPole PowerTrak drive system uses a 1/2-in. 8-amp drill to lift up to 650 lbs. with a single pole and 1,300 lbs. in a twin pole configuration. It has a maximum freestanding height of 24 ft. with 5 ft. outriggers and a 40 ft. height with outriggers and a tie to a nearby structure. With ties every 16 ft., the PowerPole can reach a maximum working height of 75 ft.

The modular design uses tool-free couplers for quick assembly and an integrated overspeed brake for safety. The single pole can be used with a single-person platform that attaches to the climbing unit via PowerLatch. A dual configuration enables work platforms between the poles.

The PowerMast single mast can access buildings or other structures up to 200 ft. in height when tied to the structure at 10 ft. spacing. A freestanding, tri-mast configuration offers working heights of up to 52 ft. indoors or 33 ft. outdoors. The freestanding quad-mast can reach heights of up to 80 ft. PowerMast lifts have a maximum capacity of up to 1,500 lbs. and a climbing speed of 20 to 40 ft./min. The modular system sets up in as little as 15 min. with tools-free assembly. It can be equipped with custom baskets as small as 36 by 26 in., a 30-in. modular deck, a railed walk board in single pole use, or work platforms with multiple

## 4-ft. wide rear axle. The distance from the eye of the hitch to the center pin is 62 in.

"The distance between the hitch eye and the center pin lets me make sharp turns with the grader," says Gunn.

The center pin mounts in a bearing in the boss atop the bridge. "To make the bridge, I welded two braces across the chassis and three short ones between them, ending at a solid steel collar to house the pin," says Gunn. "I covered both sides of the bridge with plates of 13/64-in. steel. Once I had the pin mounted through the collar and the bearing in the boss, I cut off the excess length."

With the blade suspended from the bridge, Gunn set it in a straight-across position, as well as at left and right angles. As he did so, he welded corresponding 4-in. long pieces of steel tubing to sides of the chassis and the blade bar. He fabricated pull pins to slip through the matching pipes for a given angle.

With the blade mounted to the chassis, Gunn moved to the rear end. He cut an old trailer axle in half, shortened it and reinforced it. He then pinned the two halves together at the center of the chassis rear end to create a pivot point. He enclosed the pivot point and added a short hitch plate for future towing needs.



PowerPole PowerTrak drive system uses a 1/2-in. 8-amp drill to lift up to 650 lbs. with a single pole and 1,300 lbs. in a twin pole configuration.

pole configurations. The 106 by 80-in. base has four swiveling outriggers with casters for easy positioning.

The PowerLift is a versatile, free-standing system with heights of 4, 8 and 12 ft. Its platform capacity is 350 lbs. Multiple base options are available to fit different locations. These include a swivel/lockable base with 8-in. caster wheels. The system automatically stabilizes when the platform is raised.

"Our most important features are light weights, easy assembly and breakdown, and our PowerTrak drive using 1/2-in. drills," says Swinford. "Our systems are a fraction of the weight of competitive systems, and we have no electric motors, pulleys or cable systems. Ours are purely mechanical. You can break them down and store them without concerns about corrosion or batteries."

Swinford suggests checking with local rental firms to see if they carry the lift systems. If interested in purchasing a ReechCraft system, check the company website for your nearest dealer. Prices vary by product line and configuration.

Contact: FARM SHOW Followup, ReechCraft, 845 34th St. N., Fargo, N.D. 58102 (ph 888-600-6160; customer.service@ reechcraft.com; www.reechcraft.com).

"I mounted a vertical arm at each rear corner of the chassis," says Gunn. "I set hydraulic jacks between each of them and the axle halves. Raising and lowering opposing jack posts changes the blade pitch as the chassis pivots against the axle."

He cut guard mounts for the wheels from old truck wheel rims to reinforce fenders fabricated from diamond plate steel.

Gunn filled the tires with water for smooth grading. He added more weight by filling the space in the chassis between the bridge and the back end with concrete. Gunn finished the project by setting a wooden storage bin on the concrete deck and partially filling it with more concrete.

Once completed, Gunn gave the grader a good paint job and put it to use leveling surfaces. When needed, he can hook his mini-excavator trailer to it.

"Construction time is a bit of a mystery, but I'm guessing it took a couple of weeks," says Gunn. "Cost is also a mystery as a lot of parts were donated or I already had. However, I likely spent around \$1,500."

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