Teen Has Been Building Projects For Years

High school senior Isaac Voeller isn't like most boys who spend all their time on sports, video games, or just hanging out with buddies. Instead, he's an inventor, a builder, and a youth with a wildly creative mind. Voeller's "Plum Crazy" garden tractor was featured in Vol. 46, No. 4.

"As a four and five-year-old he always liked to hang around my shop when I was working and help in any way he could," says his father, Jamie. When he was six, we built a fire truck bed together and that jump-started him into realizing he could build anything he thought of."

Isaac was involved in all aspects of the bed construction, from sketching the plans, choosing the 2 by 4's, cutting plywood panels, and figuring out how he'd get in and out of it. He designed hubs for the wheels and, having learned how to solder from his dad a few months earlier, wired and soldered the lighting. He expanded on that idea once it was in his room by installing a 12-volt siren system just for kicks. He finished the gem by applying four coats of bright red paint.

"I didn't want any ordinary bed," Isaac says today, more than 12 years later, "so I just came up with the plans, and we put it together."

Voeller says his son slept in the bed for nearly 10 years until he outgrew it and decided to sell it to a friend. "He and I delivered the bed, set it up, and it's still in use today. On the same trip, he used money from the sale to buy a dragster go-kart that we



As a 6-year-old, Isaac Voeller helped his dad, Jamie, build a flaming fire truck bed.



Isaac Voeller's "Sinister", a pedal vehicle that he drives or tows behind his custom lawn tractor in local parades.

hauled home." Voeller says that after a few modifications, the cart is now a crazy parade item that attracts a lot of attention.

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Ultra-Strong Mega Mower "Devours" Brush

"We've been building strong and dependable skid steer mowers for more than 20 years, but the new Mega Mower X takes strength and dependability to a new level," says Cory Putnam, product specialist at Quick Attach.

Brute strength for the three Mega Mower X sizes starts at the mounting plate, which utilizes Grade 50 1/2-in. plate steel on the wedge bar, side plates and bottom flange. These components are welded to the back plate of the mower, which runs the full width of the deck. The back plate also reinforces the top of the deck by supporting the 1/4 in. vertical ribs. Putnam says the Mega Mower

X series, available in 66, 72 and 78-in. cutting widths, is built for extreme cutting, mulching and brush grinding conditions and, depending on hydraulic mower power options, can cut trees up to 10 in. in diameter. Decks are reinforced horizontally with 2 by 4-in. tube steel and vertically by 1/4-in. plate steel. Mounted steps on both top rear corners allow safe operator access to the skid steer. Rounded skid plates on the bottom edges and tapered rear corners prevent trash from collecting when the machine is moved backward. Laser-cut teeth on the front corners allow the mower to shear small tree branches as the unit moves forward in heavy brush.

Putnam says the cutting plate on Mega Mowers is square for added strength rather than round as on many competitive mowers. "It's made of 3/4-in. thick Grade 50 steel with 1/2-in. thick reinforcements on the center hub and blade mounting points. Wedge lock washers lock the bolts into the threaded plate. The blade carrier is driven by a fully forged single-piece shaft that's machined to the size



Cutting plate made of 3/4-in. thick Grade 50 steel with reinforcements on the blade mounts and center hub add strength to the skid steer-mounted Mega Mower X.

of the mower. Blades are made of 1/2-in. thick by 5 in. wide AR 400 steel. Blades are mounted to the carrier with forged and heattreated bolts. Carbide teeth near the center of the blade carrier, the same teeth as those used on the company's stump grinders, aid in tearing apart brush as the blades rotate."

A 2-in. by 4-in. by 3/16-in. thick push bar on the front of the mower is mounted at a 15-degree angle to provide maximum force when the mower blades, which protrude 5 in. in front of the deck, encounter standing trees.

"Another key feature is a wire catcher, located above the blade carrier, to prevent stray wire from wrapping around the drive shaft. Several hydraulic motors are available to complement different skid steer flow ranges, including high-flow piston motor options. Pricing varies depending on motor options and sizes, contact the company for a quote.

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Self-Propelled Stump Grinder

William Rawls can drive his stump grinder on and off its trailer and to the stump and back. While the 13-hp. Harbor Freight engine powers the grinding wheel, two small electric motors propel the grinder into place.

"I added the motors after using the grinder a few times," says Rawls. "It tends to wallow down in the hole as it grinds, and it can be hard to get out."

Moving it wasn't easy either. The homemade stump grinder is heavy and awkward. Rawls built it around a frame his dad had used for oxyacetylene tanks.

"He built it heavy," says Rawls. "I used a set of military wheels, narrowed the axle and welded it onto the frame."

He added 3-in. channel iron for a frame and steel plate as a deck for the engine and grinding wheel. He mounted the engine behind the wheels to balance out the cutter wheel ahead of them. A centrifugal clutch on the motor drives a dual set of V belts to the drive axle of the grinding plate.

Rawls cut the 14-in. grinding wheel out of 3/8-in. steel and mounted carbide teeth on it. "I used horseshoe-style teeth," says Rawls. "Next time, I will go with the round type that can be remounted when the leading side gets worn down."

To make the stump grinder self-propelled, Rawls first mounted an alternator on the engine. It provides power to electric motors above each wheel and a 12-volt battery mounted on the deck. The battery powers the wheels if the engine isn't running.

He connected the motors to large drive gears he welded to the wheels. "I got the motors at a military surplus chain," explains Rawls. "They were designed to open and close tarps on big 10-wheelers. I put relays on them for reversing, and I turn it by running the motor on just the opposite wheel."

He mounted sprockets on pivoting arms to either side of the drive chains. They're connected by a spring.

"When one wheel is turning, the drive chain can get loose on the other," says Rawls. "The springs maintain tension on them."

Rawls has a ball mount hitch that he can attach to the stump grinder for towing. For more distant transit or road travel, he built a two-wheel trailer. It's designed so he can drive the grinder up into place, chain it down and go.



Rawls built a two-wheel trailer for his stump grinder.



Stump grinder has a 13-hp. Harbor Freight engine and two electric motors on a 12-volt battery for driving and steering.

"I built it from scratch using trailer wheels with bearings built into the hubs and stubs for mounting to an axle," says Rawls.

He used 1 by 2-in. channel iron for the frame and 2 by 2-in. square tubing for the tongue. The axle is 2 by 3-in. steel tubing with risers at the end where the wheel stubs mount.

"I welded short lengths of 2 by 8-in. channel iron to the axles for the wheels of the stump grinder to sit," says Rawls. "I welded a third piece of channel iron to the joint of the frame and the tongue as a rest for the cutter wheel."

Rawls has used the stump grinder for about 3 years. "It works great and not just for stumps," he says. When I get roots growing out of the ground or around a stump I've ground out, it slices right through them."

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Scent Away deodorizers can eliminate odors in barns, stalls and coops.

Deodorizer Reduces Livestock Smells

Smaller-scale farmers who have livestock that might offend neighbors can now clear the air, so to speak, with Scent Away.

Scent Away Products has expanded its odor-masking products beyond cat and dog litter boxes to include chickens, pigs and horses.

Three new products are Scent Away Chicken Coop Deodorizer, Swine Stall Deodorizer and Horse Stall Deodorizer. They're all available in 25-lb. pails.

All Scent Away animal/pet deodorizers are made from natural zeolite and active carbon. Their active carbon is biochar made from agricultural waste. Natural zeolite is a common animal litter ingredient and is a safe, all-natural mineral. The company's precise blend of these two ingredients is "designed to absorb moisture and maximize odor elimination. The active carbon provided up to a 10X increase in odor elimination compared to zeolite alone," a company spokesman says.

Application is done by sprinkling 10 to 12 cups of Scent Away on top of stall bedding, concentrating in areas where moisture is anticipated.

The 25-lb. pails of the chicken, swine and horse deodorizers are \$59.99 each.

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