

Custom Tractor Cab Looks Factory Made

Barry Golley drew on his 45 years of experience in auto body repair, including 30 years owning his own business, to design and build a custom cab for his Deere 2320 utility tractor.

"Anyone who sees it thinks it's made by Deere," he says. "But the decal 'Body by Golley' proves otherwise."

Golley says he had a vision of what the cab should look like before he started building it, but didn't draw up any specific plans.

"I wanted the cab to be very sturdy, so I made it out of 1-in. square tubing with gussets at every corner for added strength. To follow the radius along the fenders, I cut the top of the tubing and bent it to the curve I needed, then welded the openings to keep it at the shape of the fender."

The cab mounts to the tractor at four points. Golley removed the ROPS bar from the tractor and bolted the frame base to the ROPS mounting brackets on the chassis.

"If I was doing this again, I'd put rubber bushings under the mounting points to help reduce sound inside the cab," he says.

The front of the cab is supported by 2-in. by 2-in. square tubing that rests on and con-

nects to the tractor's belly mower mounting points. Angle braces on both sides bolt to the tube and the cab to stabilize it. Door openings on both sides of the cab have hinges bolted to the vertical frame. A small piece of flat steel forms the door jamb. The sturdy doors can be easily removed for summertime ventilation by removing four bolts. Old-style metal barn door latches keep the doors closed.

"When I slam them shut, it sounds like I locked myself in a vault," Golley says.

He made the walls, roof and door sheeting from 20-ga. steel. He primed and painted them all before installing them on the frame. Sidewalls are secured to the frame with metal rivets. Epoxy applied in the holes makes the mounting weatherproof, including over the rivet heads, which have a smooth, waterproof finish.

"The roof has small ribs to prevent the 'oil can effect' and make it a little stronger than flat steel. I also installed rubber insulation on the inside and covered it with a headliner," says Golley.

He sealed the openings around the cab, making them snug against the tractor body, with pieces of flexible rubber. He says the

material is typically used on the roofs of camping trailers.

"It's strong, doesn't tear, and it's waterproof, which is ideal for this application," Golley says.

Rounding out the build, he installed glass windows from old school buses on all sides. Windows near the front footwells, so he can easily see the front wheels, are made of plexiglas. Dense, grooved rubber weatherstripping holds all of them in place. Both the rear and front windows tilt open for ventilation on warmer days. A windshield wiper on the front window operates with a hand crank inside.

Amber safety lights are mounted at the top corners of the cab, and bright worklights are mounted at the front and rear. Mirrors on both sides provide plenty of visibility in all conditions.

Golley says he's had people ask why he didn't install a heater or ventilation. He tells them that when the tractor warms up, there's plenty of heat inside the cab, even on the coldest days when he's clearing snow.

"Without my labor, I have about \$1,400 in materials to build the cab, which is far less than an \$8,000 factory model," Golley



Windows are from old school buses and are secured with dense rubber weatherstripping. Front and rear windows tilt open, and side doors can be removed for ventilation.

says. "If I had to build this again, I'd probably make it out of aluminum because this is heavier than it needs to be, but I know it's sturdy and stable, and it's going to last a long time."

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Old Anhydrous Tank Converted To Fuel Trailer

Manuel Sanders says the diesel-fuel trailer he and his dad built from an old 1,000-gal. anhydrous ammonia tender worked well on their farm during spring planting and harvest. Sanders says they paid around \$500 several years ago for the old tank and trailer, and another \$500 for parts and paint for the conversion, considerably less than buying a factory-built trailer that size.

Sanders says that when they bought the old, rusty anhydrous trailer, it was a sight for sore eyes. The tires were worn out, and it didn't trail well on the road. They repaired the hitch and steering apparatus, then removed the wheels and replaced the old tires with good used ones. The rims were sandblasted clean and painted white.

To retrofit the tank, they removed the

anhydrous fill and withdrawal valves, the pressure gauge, the vapor return valve, and the pressure relief valves. Even though the tank had been cleaned, they washed and rinsed it again, then let it dry completely. When the tank was dry, they capped the openings, sandblasted the tank and trailer, and primed and painted it industrial gray.

Sanders says they installed an electric Fill-Rite pump with a diesel fuel filter. A new 20-ft., 2-in. hose with a shut-off nozzle would quickly fill their tractors or combine in the field.

"The trailer was really handy and saved us a lot of trips. The custom fuel tender made an ideal fuel caddy for the farm," Sanders says.

Contact: FARM SHOW Followup, Manuel Sanders, Amboy, Minn.



Custom diesel-fuel tender retrofitted from an old anhydrous ammonia tank made an ideal fuel caddy for the Sanders farm near Amboy, Minn.



"I have half my battery storage available for the tiller," says Bayer. "I can till with it for about an hour if I start out with a full battery."

Single E-Motor Powers Multiple Implements

Bill Bayer has a slick way to drive powered implements with his battery-powered garden tractors. He uses a single Motenergy ME0708 permanent magnet motor, rotating it between implements as needed. So far, he's used his single-motor system on a wood chipper, a front-mounted brush hog, a trailing 48-in. deck mower, and a pressure washer. Recently, he added a tiller to his collection of converted implements.

"I use a receiver hitch system to easily attach and remove the motor," explains Bayer. "I mount receiver hitches on the implements and a shank that matches them on the motor. I attach a pulley on the motor

for the belt-drive implements and direct-drive the pressure washer with a Lovejoy coupler."

The ME0708 is a brush-type, permanent magnet DC motor that can pull 100 amps at 48 volts. It's capable of 4.8 kW continuous power or up to 15 kW for 1 min.

"Motenergy used to be part of Briggs & Stratton, and in the 1970s, their motors were made for little tractor conversions," explains Bayer. "They spun at 3,600 rpm, the same output as the old Briggs & Stratton engines. They didn't even require a controller. Just turn them on and use them. The ME0708 is a descendant of those early motors."

Powering the motor is no problem for

Bayer. When converting his garden tractors, he equipped them with substantial batteries and high-voltage cables front and back (Vol. 49, No. 1).

When using the motor with a belt-driven implement, Bayer relies on a built-in tensioner.

"I have a threaded tab on the motor's shank and a tab on the receiver hitch," he says. "After attaching the belt to the pulleys, I insert a bolt in the threaded tab until it pushes against the tab welded to the receiver."

Once the belt is tight, Bayer tightens two bolts in threaded holes in the receiver hitch. These bolts act like set screws to lock the motor down.

When Bayer set out to convert a belt-style PTO tiller to electric drive, he used the same mobile motor system.

The tiller was designed to mount to the back of a small Allis-Chalmers garden tractor. Bayer adapted it for "Artie," his 4-WD articulated Cub.

"I had to make a rigid support bracket to mount the tiller to the tractor instead of 3-pt. lower links," says Bayer. "I used my boom pole attachment with its electric actuator to raise and lower the tiller. I could have down pressure with the boom pole, but instead of a rigid connection, I used a short length of chain to hang the tiller. For more depth, I just add a link to the chain."

Bayer used a 10:1 gear ratio to reduce the rpm from 1,750 on the drive pulley motor to 170 on the tiller blades. He notes that the motor requires a lot of energy to drive the tiller.

"I have half my battery storage available for the tiller," says Bayer. "I can till with it for about an hour if I start out with a full battery."

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Bayer can use both front and rear mount attachments. Front-mount brush hog shown.