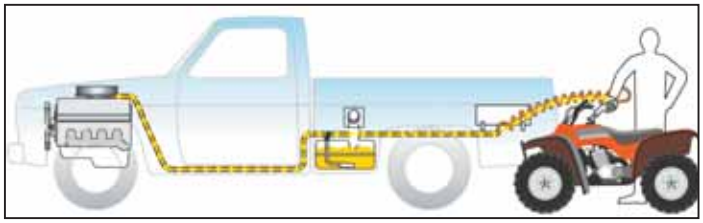
Mobile Fuel System Taps Into Pickup's Gas Tank



Fuel transfer system turns your pickup's fuel tank into a mobile gas station. A flexible hose and nozzle reach 5 ft. beyond pickup and are protected in an aluminum container when not in use.

Here's a first-of-its-kind tool to turn a pickup's fuel tank into a mobile gas station. That means instead of using gas cans to fuel up ATV's, lawnmowers, generators and other small engines, you can fill up with an easy-to-use nozzle with gas you know is fresh. It's a simple idea that has several advantages, says Mike McAvey, who invented the Fuel-Tool because of his personal dislike of fuel cans – specifically the spouts.

Environmental regulations have resulted in gas can nozzles that either don't work or are frustrating to use. That prompted McAvey to spend the last 4 years working on the Fuel-Tool.

Thanks to quick-connect fittings for fuel lines, installing the $299 system only takes about 30 min. Besides tapping into fuel lines, you drill a 1/2-in. dia. hole in the bed behind the back wheel. A flexible hose and nozzle reaches 5 ft. beyond the open tailgate. When not in use, the hose and nozzle are protected in an enclosed cast aluminum nozzle holder with a cap.

"It's sized (about 4 by 14-in.) to tuck in the back corner to leave the bed open," McAvey says, noting that it takes up a lot less room than fuel cans.

To fuel up, start the vehicle engine to activate pressure to pump fuel through the line. Flip the switch on the unit's main valve and operate the nozzle the same way you tap a beer keg. Fuel flows at a rate of about 1 gal./per minute.

Besides providing convenience, the gas is fresh and filtered. The cap on the nozzle holder includes a grounding wire to eliminate electrostatic discharge. Fuel-Tool passed rigorous DOT crash and rollover testing and strict California emissions standards. There's no fumes or emissions in an enclosed commercial van or covered pickup bed.

During his years of research and development, meeting regulations and applying for a patent, McAvey first designed and sold a portable fuel transfer system for motorcycles. It allows motorcyclists to share gas when they are on long rides between gas stations.

Fuel-Tool PT500 will be available around June 1 through McAvey's website. Eventually he plans to set up a distribution network.

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He Built His Own Loader Tools

Ross Wilkinson built a full line of equipment for his Deere loader tractor, including a flexible blade (above left), log forks that fit inside a conventional bucket (above right), an extra-wide pallet fork (lower left), and 3-pt. mounted box.

"I salvage scrap metal, steel, old parts and other stuff and make it into all sorts of useful tools," says Montana handyman Ross "Wilky" Wilkinson. "I started building stuff when I was a kid and learned a lot more during my job with a power company, so it's an ongoing process," Wilky says.

Wilky has built heavy-duty log forks for a loader bucket, made an extra-wide pallet fork, designed and built a flexible blade and created a quick-tach device to mount those tools on a loader. He's also made special log forks that fit inside a conventional dirt bucket and built a heavy-duty box that mounts on the 3-pt. hitch of his loader tractor. Building that full line of equipment followed his time constructing his own shop, installing a 70-year-old car hoist, refurbishing several old cars, re-building a dozen 50-year-old Deere crawlers and still finding time to harvest logs from his property. All that, and yes he even works full-time.

"I've always had a lot of ideas," Wilky says, "and a lot of them have turned into things that I really use." One of his first projects was buying a 955 Deere loader tractor and modifying the quick hitch to accept a backhoe. He welded brackets inside the conventional gravel bucket to accept two large curved teeth made from scrap railroad steel. The 5-ft. long forks were great for moving brush and loading logs.

After trading up to a larger Deere tractor with a bigger loader, Wilky designed and built his own quick-tach setup to accept a homemade blade and pallet fork. The quick-tach frame is made of scrap steel and mounts to the loader lift arms and tilt cylinders. His 6-ft. wide gravel blade, salvaged from a scrapped Ditch Witch, mounts on the quick-tach frame with a flexible connection made from the springs off a 1984 Camaro. "The springs are strong enough to keep the blade straight for plowing snow or moving a small amount of gravel," Wilky says. "At the same time it flexes the blade and cushions the impact if I hit something solid." Wilky said he built the blade with a manual pin system to adjust cutting angles and plans to convert that into a hydraulic system so he can make adjustments from the tractor seat.

Wilky also built a heavy-duty pallet fork that he uses to load logs and brush. The 4-ft. long forks are made from recycled railroad iron and steel from an old dam. The forks mount to the frame with a sleeve that slides on a solid 2-in. shaft. That makes them adjustable from 2 to 6 ft. wide. "The mounting system lets the forks flex up as the loader goes down, and holds them tight to the frame when its lifting," Wilky says.

His handiwork also includes a 4-ft. square utility box that mounts on a quick hitch at the back of his tractor. He uses that for hauling rocks, tools or split firewood. "Tractors and loaders are made to work, and I just enjoy building equipment that helps them work better around my property," Wilky says.

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Vibrator Speeds Truck Unloading

You can eliminate the need to hammer the sides of feed trucks and trailers to keep materials moving while unloading. The Turbomite CVT-80 Bolt Bite Vibrator keeps bridged material moving. Nick Chestnut, operations manager, Cattle Empire, LLC, puts the vibrator to the test on one of the largest cattle feeding operations in the U.S. He oversees the arrival and unloading of 50 to 60 semi trailers every day, with each delivering 50,000 lbs. of feedstock.

"With trucks that can withstand an industrial vibrator, and where we have a trucker's approval to attach the Turbomite, we have cut freight unloading and associated manpower time by more than 75 percent, down to an average 30 min. unload time per truck," says Chestnut. "When I first saw the CVT-80, I thought it wouldn't do anything because it's fairly lightweight, but this is a powerful product that handles the toughest materials with ease and efficiency. Plus, it only takes 30 sec. to attach and detach the unit."

The CVT-80 weighs only 2.5 lbs. It stands 3 1/2 in. tall and 5 1/2 in. wide. It has an adjustable mounting bracket and can attach to run at any angle. Enclosed moving parts require no lubrication.

The vibrator is air-powered. At 80 psi, it produces approximately 579.4 lbs. of force at a frequency of 10,255 vibrations per min. using 5.2 cfm of air.

The Turbomite CVT-80 Bolt Bite Vibrator clamping mount has a 3/4-in. mouth with two, 3/4-in. #10 bolts that "bite" down in 30 sec. or less. Equipped with the CVT-80, it is priced at $495.

Contact: FARM SHOW Followup, Cleveland Vibrator Co., 2828 Clinton Ave., Cleveland, Ohio 44113 (ph 800 221-3298; www.clevelandvibrator.com).

Air-powered Turbomite Vibrator comes with an adjustable mounting bracket and keeps bridged material moving when unloading trucks.