

Grapple Fork “Just Right For Small Tractors”

After he couldn't find what he wanted on the market, Mel Pralle, Greenleaf, Kansas, built a grapple fork for his New Holland TC 35 tractor using the frame off an old field cultivator.

“I use it in my tree trimming business. It's big enough to pick up large quantities of brush and wood, yet is lightweight enough for my 35 hp tractor,” says Pralle.

The quick-tach grapple fork measures 64 in. wide and is equipped with 42-in. long tines. The upper tines pivot up or down on a homemade rockshaft equipped with stub arms. A 10-in. stroke hydraulic cylinder is used to raise and lower the shanks.

The grapple fork's frame and most of the tines were made by cutting down the cultivator frame. The bottom tines measure 2

by 1 1/2 in., and the top tines are 1 1/4 in. sq. The two outside tines at the bottom are made from heavy gauge 3 by 2, 1/4-in. thick tubing.

A quick-tach plate is welded on back of the frame, and a solid metal plate is welded on front of the frame to protect the quick tach brackets and hydraulic hoses from tree limbs. An opening on each side of the frame allows Pralle to see the outside tines and keep them from damaging lawns.

“It works great,” says Pralle. “I needed a grapple fork with long bottom tines that I can slide under large piles of tree limbs and pick them up. However, the bottom tines on most factory-built grapple forks are only about 2 ft. long. They work good for picking up logs, but when you clamp down on a



Mel Pralle built this grapple fork using the frame off an old field cultivator. “It's big enough to pick up large quantities of brush and wood, yet is lightweight enough for my New Holland 35 hp tractor,” he says.

pile of brush you don't get very much.

“Commercial manufacturers have to limit the size of their grapple forks for liability reasons. But you just have to use common sense and not take too big a load so you don't tear up equipment.”

Pralle says his total cost was less than

\$350. “I paid \$60 for the cultivator, \$55 for the hydraulic cylinder, \$88 for the hoses, and \$129 for the skid plate,” he notes.

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How To Transplant Big Trees By Hand

Imagine digging up a 12-ft. tall hemlock tree with a 38-in. dia. root ball - and doing it all by hand. With a Tripple Brook Farm root cutter and tree lifter, you can do it with ease and in as little as 15 min. Stephen Breyer, inventor, has moved tree balls nearly a ton in size with the system.

“When I bought a hydraulic tree spade, I thought it would be all we would ever need at our tree nursery,” says Breyer. “But I found that too often it damaged the landscape and the tree. Ever since I designed our own digging system, the hydraulic tree spade sits unused.”

Breyer uses a standard spade to begin the cut. Once he has made a slice around the tree or shrub to be moved, he shifts to the TBF root cutter. It's a triangular-shaped spade with a rod extending down from the point of the triangle to a smaller triangular-shaped cutting blade. This blade is the reverse of the upper blade. It features a straight face that cuts the deeper roots and defines the root ball. Conventional spades often tear and shred roots, opening them up to disease.

“The big thing about digging out a tree or shrub is getting the root ball cut,” says Breyer, explaining that the most important part of the root system to preserve is within 12 to 15 in. or less of the ground surface.

Equally important is to vary the size of the root ball to match the shape of the root system. Unlike conventional tree movers, the TBF root cutter adapts to the tree.

To lift out the tree, you slide up to four root ball grappling forks under the root ball. The flat forks are attached to the TBF tree lifter. The lifter consists of four steel posts around a rectangular base that comes to a point. Once the trunk is strapped to the front posts and the tree forks have been attached, the tree is ready to lift. A rocker design at the base of the rear posts makes tipping the tree even easier. A rope tied to the tip of the lifter is pulled to leverage the tree out of the ground. Anchoring the rope to another tree and pulling on the free end makes even larger root balls easy to pull free.

Once the root ball has been cut free and wrapped, it can be moved by loader, hand truck or even on a sliding tarp.

Suggested retail price for the full system is \$1,295 plus shipping. Components also can be ordered separately. Breyer is looking for dealers.

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Tree lifter consists of four steel posts attached to a rectangular base.



Root cutter (above and right) reaches under the tree to slice the roots and shape the lower portion of the root ball where a normal spade can't reach.



To lift out the tree, the operator attaches up to four root ball grappling forks to the tree lifter, sliding them under the root ball.



C.S. Bell Co. has been making hammer mills since 1858. People are now using them for small scale ethanol and biodiesel production as well as for many other uses, says the company.



New Uses Found For Old-Style Hammer Mills

Hammer mills are as useful today as they were in 1858, when the C.S. Bell Co. started manufacturing them. But the early owners could never have imagined all the uses people have for them today.

“People are using them for small scale ethanol production,” says Daniel White, who has been principal owner of C.S. Bell since 1989 and active in the business since 1973. “Hammer mills are also being used for biodiesel production and in labs and research facilities for a variety of projects.”

The current models of hammer mills are made of cast iron and carbon steel. Other than a concrete block or bowling ball, they can grind just about anything, including soft rocks such as limestone, White notes.

The most common use remains as it was in the beginning - grinding grains for livestock and human consumption.

“There's been a movement lately in slow food and organic cooking among people wanting to go back to Old World grains like buckwheat and amaranth,” White says. Other

uses use it to grind flax seed, which must be cracked to release the healthful oils inside.

Since there is more nutritional value in freshly ground feed, many livestock producers prefer to grind grains daily or weekly to create their own feed mixes.

“We have a mixed clientele, from families who share equipment to large farm-based businesses,” White says. About 40 percent of the company's market is overseas, and models range from 3-ft., 110-volt models to large 3-phase electric models.

Hammer mills, which use free-swinging hammers to grind almost anything, start at \$2,500. Gristmills, which mainly grind grains, use wear resistant alloy grinding burrs and start at \$1,400. All models break down easily for cleaning.

Made in the U.S., White notes that the company carries parts for old models that have been handed down for generations.

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Rolling Bulk Tank Thwarts Gas Thieves

With gas thievery at an all time high across farm country, here's an idea that might help reduce thefts.

Rex Gogerty mounted his 300-gal. fuel tank on a sturdy wood stand that's bolted to a running gear. This lets him easily move it around the farm, parking it near the house to discourage fuel thieves. And if he's out of town, he can roll it right into a locked barn.

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Mounting his 300-gal. fuel tank on wheels lets Rex Gogerty park it near his house to discourage fuel thieves.