Modified Cub Cadet Makes Right Size Loader/Backhoe

Ken Esposito's Cub Cadet loader/backhoe does everything his big Case 580 does, just in smaller bites. The Cub 1772 Super with its 3-cylinder diesel can get some good-sized jobs done.

"It amazes me every time I use it," says Esposito. "I can pick up 1,000 lbs. with the 12-cu. ft. bucket and use forks to handle pallets. When I want to use the backhoe, I just flip the seat around and go to work."

Like all post IH Cubs, it has an aluminum transaxle housing. It is known for a problem where bolts that loosen due to vibration create play between the transmission and the frame, causing the trans mounts to break off. Esposito found an older cast iron housing and swapped out his aluminum one.

"The cases were only a few thousanths of an inch different, so it just took shimming to replace the gears, differential and axle in the cast iron case," recalls Esposito.

He got a Kwik Way loader from a neighbor who had it on a Cub 782. Esposito modified the mounting brackets and fabricated a new 5 1/2 cu. ft. bucket for it. He used 1/8-in. steel with 1/4-in. where he needed reinforcement. He also made quick-tach brackets for the bucket and a forklift attachment, which he also fabricated.

"The forklift frame is 1/8-in., 1 3/4-in. steel tubing with 1/4-in. steel for the quick-tach brackets," says Esposito. "I used cutting edges from dozer blades for the forks. The hardened steel will flex, but it won't bend and always returns to the original position."

The backhoe, which he ordered from a distributor in Oregon, was designed for Cat. I, 3-pt. hitches. It came with its own operator's seat, hydraulic pump and reservoir.

Esposito cut away the operator's seat, pump and reservoir and modified the Cub's seat to raise and swivel to the rear. He devised a quick-tach system with a receiver plate on back of the Cub.

The receiver plate consists of 3/4-in. steel upper arms that are bolted to the Cub frame and a lower yoke that consists of 2 J-hooks. The yoke is welded to a frame that extends forward to the subframe of the loader. The 2 frames are bolted in place to make a single unit.

"I replaced the 3-pt. on the backhoe with a frame for a pipe that slips into the yoke and clevis-type receivers that pin to the arms," says Esposito. "I back up to the backhoe, connect the hydraulics, and it lifts itself into place for pinning. "

Esposito modified the Cub seat to lift and rotate. He pinned four 6-in. lengths of 3/4-in. sq. steel tubing between angle iron brackets bolted to the Cub. The other ends of the tubing are pinned to the bottom of a swivel plate from an old office chair. He attached the Cub seat to the swivel plate. Pins on a retraction spring lock the seat in place either forward or back.

"I designed the seat to match my height," says Esposito. "When I raise it up, it brings me close to the backhoe controls with the right space to the footrests."

Esposito also changed out the Deere-type control valves for CAT controls. He replaced a faulty relief valve and added a second boom swing cylinder.

"With the one cylinder, I could stop the boom with my hand," says Esposito. "I did a mirror image connection on the other side, and now it swings with some force."

"It amazes me every time I use it," says Ken Esposito about the loader/backhoe he built out of a Cub Cadet garden tractor. "I can pick up 1,000 lbs. with the bucket and use forks to handle pallets."

When he dismounts the backhoe, Esposito slips on a 3-pt. hitch he fabricated for the quick attach unit. He also designed a ripper using a carbide tipped tooth from an asphalt-milling machine, 1/4-in. steel plate and schedule 80 pipe to fit the yoke on the 3-pt. hitch.

"I doubt it will wear out in my lifetime," says Esposito.

Esposito is so satisfied with his Cub loader/backhoe rig that he is transferring some of the ideas to his Case 580 backhoe. He also added some new ones, like a Bobcat grapple fork modified for quick-tach plates.

"It belonged to my grandfather, who also was a heavy equipment operator," says Esposito. "I made the quick-tach units for it using 1/2-in. steel with some 2-in. for reinforcement. I made 2-in. thick, 5-in. side forks for it using 1/4-in., 3 by 3-in. and 2 by 6-in. carbon steel tubing. The bar that supports the forks is solid 2-in. steel.

When Esposito wants to use the backhoe, he just flips the seat around and goes to work.

"It's some serious steel," he says. "Like with the Cub loader/backhoe, everything is bolted in place to the tractors. If I want, I can put everything back the way it was."

There's a video showing how the backhoe connects at www. farmshow.com.

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"It doesn't have a top or back, but it makes a big difference when we have a really cold wind," says Tom Miller about the 3-sided plexiglass cab he installed on his ATV.

Clear "Cab" Keeps ATV Operator Warm

Tom Miller likes his ATV, except when a cold wind is blowing. His 3-sided, plexiglass cab keeps the wind out, yet tips out of the way easily for him to dismount.

"It's very light, only about 25 lbs., so it's easy to lift up and tilt forward," says Miller. "I use a light strap to keep it from tilting too far forward."

Miller used 3/4-in. aluminum angles to frame and attach the 3 sheets of plexiglass, securing them with pop rivets. The frames rest on the front and back racks. Trapezoid shaped sheets of aluminum extend down from the plexiglass frame to the footrests. Framing for them extends upwards to tie in to both the top and bottom of the plexiglass frames. Doing so, they also provide support to the frames. Miller also attached framing without the plexiglass to the rear of the cab with additional cross framing for increased rigidity.

"It doesn't have a top or back, but it makes a big difference when we have a really cold wind," says Miller, noting that he can remove the cab quickly when not needed.

Cab tilts forward out of the way, making it easy to get on and off the ATV.

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Steve Nichols built this "new and improved" mini loader that's designed to fit Deere's 425, 445 and 455 garden tractors.

Redesigned "Mini Loader" For Deere Garden Tractors

"About a year ago I built a mini loader for my Deere 318 garden tractor that was featured in FARM SHOW (Vol. 39, No. 3). It's designed mainly to move snow and lift heavy objects up into my pickup. The response I got – and am still getting – from readers has been incredible," says Steve Nichols, Galesburg, Ill.

"I've enjoyed helping FARM SHOW readers who want to build their own loaders. I have now made an even better loader for my Deere 445. It's designed to fit Deere's 425, 445, and 455 garden tractors and is based on an entirely different design. I call it my ACME Iron Werx Loader. Anyone with good fabricating skills can easily build it. I don't have any plans or blueprints for it, but I'll be happy to answer questions for anyone who's interested.

"My new loader has what I call 'girder' style arms, which are less expensive to build than the boomerang-style arms on my previous loader. It lifts 54 in. high, which should allow dumping over the side of a pickup or into a utility trailer. The bucket is 48 inches wide. The loader operates off the tractor's standard onboard hydraulic system and doesn't interfere with the tractor's belly-mounted mower deck or the ability to open the tractor's hood.

"I would be happy to help anyone who wants to try his hand at making a loader like mine. Also, I'm willing to sell this loader as I'm already working on yet another design. I intend to make plans available for my next design."

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