

A pair of electric hoists mounted on overhead tracks are connected by cable and chains to a wooden platform that supports the mower (right). A portable workbench under the lift can be used to remove and work on the mower deck.

## **Home-Built "Mower Lift" Makes Repair Work Easier**

"At 74 years old I didn't like the idea of treated wooden posts. A pair of electric hoists, laying down on the floor to service my riding mower, so I built a wooden mower lift that lets me work from a standing position, without having to bend over at all. I can't believe how much easier it is to work on the mower," says Garry Kilby, Marion, N.C.

Kilby has 46 years of experience as a machinist, and says he was careful to build the lift so that it's strong and safe to use. He designed it for his Troy-Bilt riding mower equipped with a 42-in. deck.

The lift measures 6 ft. long, 4 ft. wide and 10 ft. high and stands on four 4 by 4 pressure

mounted on overhead tracks, are connected by cable and chain to a wooden platform that supports the mower. The platform is open in the middle and consists of two 2 by 12 pressure treated boards bolted onto a pair of 4 by 4's with 1/4-in. thick angle iron supports. A heavy duty chain is attached to both ends of each support, with cable running from the middle of the chain through a double pulley system and up to the hoist. Removable wooden "stops" on the boards keep the mower's wheels in place.

Kilby drives the mower up onto the boards

and uses carriage bolts to secure the stops. Then he uses a pair of remote controls to raise the mower, high enough to let him slide long steel support pipes through pairs of heavy duty eye bolts attached to the corner posts. The eye bolts are spaced about 1 ft. apart, allowing him to work on the mower at 2 different heights.

"I wanted the pipes to support the mower, because I didn't want to take a chance that the hoists would ever fail," says Kilby. "The upper height support works great to sharpen or replace the blades on the deck. I use the lower height to grease the mower or replace the drive belts.'

If Kilby wants, he can remove the pipes and lower the mower onto a 3-ft, tall portable workbench that's designed to fit under the lift. "With the workbench I can unbolt the deck and roll it away into another part of the shop," he says. "The workbench also comes in handy to work on other projects in my shop."

The hoists ride on tracks made from 1 1/2 by 3/16-in. thick square tubing. To help keep the mower level as it's being raised, Kilby bolted vertical angle irons onto both ends of the angle iron supports and then bolted pairs of small caster wheels to them. "The wheels are located about 1/4 in. away from the corner posts. If the platform starts to tilt as it's raised or lowered, the wheels will contact the posts and roll up or down to level the platform," explains Kilby.

"I installed the eye bolts securely by drilling holes through the corner posts and then adding big washers and nuts on the outside. I used threaded bolts with hex heads and big washers to secure the platform to the 2 by 12's."

Kilby's total cost was less than \$1,000. "I



Support pipes slide through pairs of eye bolts attached to lift's corner posts, allowing Kilby to work on mower at 2 different heights (above). Vertical angle irons fitted with small caster wheels keep mower level as it's being raised.



bought the hoists, which are rated at 440 lbs., at Harbor Freight for \$100 apiece. I paid \$10 apiece for the chains, which are each rated at 2,500 lbs.3

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Mike Braun put two 2-WD, 125 Cub Cadets together to build this mini IH 4586 4-WD articulated tractor.



Half-scale Deere A "runs and drives like the real thing," says Eli Franker.

## Half-Scale Deere "A" Is A Crowd Pleaser

Eli Franker has been interested in old John Deere tractors ever since he was a kid. "My great grandfather farmed with a Deere B," he says.

So 3 years ago when an unfinished 1/2-scale, 1936 John Deere A came up for sale at an auction, he bought it and then finished building it with help from his 8-year-old son

"The owner, Dick Schallau, had taken measurements off a real Deere A. so it looks very much like a smaller version of the real tractor. It also runs and drives like the real thing," says Franker. "I bought the tractor for Jeffrey to drive. It was a fun project for us to work on together."

The engine was old and the transmission wasn't hooked up, so Franker ended up replacing the engine with a 1 hp., 1-cyl. engine out of an old REO push mower. It belt-drives the transmission off a Deere 60 lawn tractor. "The engine sounds somewhat similar to the 'putt putt' sound made by old Deere tractors," says Franker. "It took a lot of trial and error to get the tractor to run at the right speed, using different pulleys and belts."

The tractor's spoked rear wheels are off an old Deere 2-row planter, while the ribbed front wheels were made by cutting and welding 2 different wheels together. "The radiator is homemade but looks original." says Franker. "Schallau used angle iron for the tractor's frame and sheet metal to make the hood. We had the decals on the hood custom made by a local company.'

Franker plans to display the tractor at the Clay County Fair this fall in his home town. Contact: FARM SHOW Followup, Eli Franker, 2155 310 St., Spencer, Iowa 51301 (ph 712 260-8841; elifranker@hotmail.com).

## Cub Cadet 4586 4-WD

Mike Braun put two 2-WD, 125 Cub Cadets together and made a 4-WD, articulated Cub. While the Cub looks massively modified, most of the work involved simply cutting away what wasn't needed. The end result was a mini International 4586, 4-WD articulated tractor.

"I built it without a plan," admits Braun. "I cut away the front axle off the first Cub and everything ahead of the axle on the second Cub. With the remains up on stands, I figured out what I needed to do.'

Sometimes he walked away from the project in frustration.

"I would wake at 2:00 in the morning with a solution," he says. "The next day I would head for the shop and work it out.

One of the solutions was to build a subframe under the Cub frames to mount the axles to. This gave him the height he needed for the look of a 4586 with the clearance needed for some of the modifications.

Another solution was to extend the frame of the lead Cub by about 2 ft. behind what was originally the rear axle. This allowed him to move the seat and operator controls back, so the seat and steering wheel post were now behind the axle.

Getting power to the rear axle required another solution. Braun set up a jackshaft with pillow block bearings on the left side

of the frame. He powered it with a Diamond brand timing chain from the hydrostat on the front gearbox.

"I used a Diamond chain and gears from a 318 Dodge pickup," recalls Braun. "I needed something that would handle the stress."

The jackshaft ended ahead of the seat. A second salvaged chain and gears transferred power to a driveshaft ending in a universal joint. A matching driveshaft brought power directly to the rear axle's gearbox. Braun simply bypassed the rear hydrostat.

Braun pinned extensions from the 2 sections together allowing them to pivot, but not flex. He says that this was never a problem when using the articulated tractor around the farmyard.

Steering on the original 125s was mechanical. To steer the articulated Cub, he reversed the direction of the steering rod at the gear from front to back. He connected it to an arm on one side of the rear axle's frame. This gave him a push/pull steering control of the rear axle.

He enclosed the battery mounted above the rear axle with its own hood before giving everything the IH Red color with 4586 detailing.

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