A chain running from the ground parallel tongue offers a straight pull of the log, reducing stress on the arch.

Logging Arch Maneuvers Easy

Norm Sieting built a straight pull logging arch. The 8-ft. long tongue runs parallel to the ground for 2 ft. before angling up to join the arch. When a log has been lifted into place, Sieting runs a chain forward from the log tongs to a hook on the parallel portion of the tongue.

"The chain does the pulling and takes a lot of strain off the arch," says Sieting. "I can pull a poplar log down the road to my neighbor at 20 mph."

Automobile stub axles mounted on the ends of the arch legs give him a road speed of 50 mph when not carrying a log. To mount the wheels to the arch, he put a length of angle iron in V-blocks.

"I set the arch legs on top and welded the studs in place," says Sieting.

Sieting designed the arch to be light as well. It's easy to maneuver and carries the weight of the log with very little weight shifted to the ATV hitch.

"A lot of log arches are heavy," says Sieting. "I built this light enough that if I need to, I can just drag it 6 in. to the side. If I can't back the arch into place, I just unhook it and push it where I want it and then back the ATV in and hook it back up."

Sieting used 3-in. pipe for the legs and the tongue with 2 3/4-in. elbows for the shoulder of the arch. He used 3/4-in. conduit for bracing between the tongue and the legs. Needing shims for the joint of the two different-sized pipes, he took two short lengths of the 3-in. pipe and turned them down on his lathe. He milled down one side of a V-belt pulley to fit in the pipe and used it as a live center on the lathe.

"The pulley is tapered so it centered nicely in the pipe," says Sieting. "Once I milled the pieces down, I split them. I used a pipe clamp to tighten them down on the 2 3/4-in. elbows, so they fit the 3-in. pipes."

A 2,500-lb. winch is mounted to the tongue just ahead of the arch. The cable passes through a roller guide before dropping to lifting tongs. A hook mounted to the underside of the arch lets Sieting hook a chain from it to the tongs below the winch hook.

"I can release the winch and take the pressure off it when hauling heavy logs," he says.

The arch also comes in handy for hauling brush. Sieting slips a loop chain around the brush and uses the winch to bundle the brush and pull the ends in between the arch legs.

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"The length of the arm and the cylinder moving left and right provide a lot of steering," says Grovom.

Skid Steer Arm Hitch Moves Equipment Easily

Harlen Grovom packs away equipment the easy way with his hydraulic arm-equipped skid steer. He even uses it to start troublesome tractors.

"It's easy to push tractors, trailers, and even 4-wheel wagons into place," says Grovom.

Grovom used a 5-ft. length of 2 by 4-in. steel tubing for the arm. One end pivots at the lower edge of a quick attach plate on his skid steer. A hydraulic cylinder also is based at the bottom of the plate. Its 8-in. rod attaches to the arm about 2 ft. from the plate.

"The length of the arm and the cylinder moving left and right provide a lot of steering," says Grovom. "They allow me to easily direct the drawbar of a wagon when backing up the wagon or other trailing equipment."

A 3-ft. length of steel strap is attached at a pivot point at the top of the plate. It extends down to the arm to keep it perpendicular to the plate and adds stability. "If I tilt the plate more than I should, it can bend the arm," says Grovom. "The strap stiffens up the connections."

Grovom has used the quick attach plate and arm on a tractor loader as well. "It works, but not as well as on the skid steer," he says. "I put all types of equipment away with it, including drills, balers, and planters. I just hook it up and drive, pushing the equipment ahead of me."

Grovom says the hitch comes in handy at tractor shows and pushing tractors at home. "I made a bumper on the end of the arm to push tractors to start them," he says. "It's safer than pulling with a chain or cable. I just push them, and they take off and drive away."

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"The XeBee system can be adapted to any type or brand of sprayer," says Pinar.

Add-On System Offers Precision Application

Spot spray herbicides, nutrients, or fungicides at targeted plants and targeted rates with the XeBee terminal and camera. The aftermarket system was developed in France as a collaboration between OPTIMA Concept and Carbon Bee.

"Our main focus has been France and Europe, but we hope to install some systems in the U.S. and Australia in 2024," says Seref Pinar, Carbon Bee. "We installed two systems in Europe in 2023 and plan to install more than 10 in 2024. We also have a lot of interest from Eastern Europe."

XeBee systems include an in-cab terminal designed for multifunction spray regulation in field crops. The color touchscreen and tablet menu are designed to control up to 256 electric nozzles. Features include smart regulated pressure (SRP), variable rates, section cut-off by GPS, guidance bar, joystick controls, drawbar, steering axle and electronic gauge control, plot recognition, automated boom height, or automated boom ground tracking.

SRP makes it possible to maintain optimal pressure for any flow to modulate the rate and/or manage the size of the drop to control drift and reduce the risk of nozzle clogging. Data collected by the system provides treatment traceability when transferred to the AgroSystem Desktop Application software.

The XeBee camera provides the eyes for the smart system. One is installed every 10 ft. on the boom. It can detect plants, discern them, locate them, and control the spray system to target them. The brain behind the camera is an artificial intelligence (AI) vision engine. It learns weeds, disease, stress, etc. with only a small amount of data. It's Carbon Bee's hyperspectral sensor that captures a precise color signature in visible and near-infrared that the AI vision engine uses to discern weeds, estimate biomass, or detect leaf symptoms of stress or disease.

In the case of nitrogen, the combination of technologies can not only map needs but also apply N accordingly in real-time.

"The XeBee system can be adapted to any type or brand of sprayer," says Pinar. "Initially, we require the use of the Optima Concept monitor, but we hope to be able to integrate the XeBee system with OEM monitors in the near future."

The current cost of the XeBee system is around $2,800 per boom meter.

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Don Miske takes Deere 110 garden tractors and converts them to scratch-built 4020s. It takes two 110s to make one miniature masterpiece.

Deere 4020 Mini Built For A Good Cause

By Cindy Ladage

At the 2023 Greater Peoria Farm Show, Don Miske of Allenton, Wis., displayed a miniature John Deere 4020 tractor he built that will make a difference for the nonprofit group Fellowship of Christian Farmers. The group shares on their website they're an "organization at the intersection of faith and farming. Through their dedicated mission trips to Romania and Mexico, they plant the seeds of hope and faith within farming communities worldwide."

Miske says the 4020 model holds a special place for him because his dad bought a new Deere 4020 in 1965. Miske was inspired to create his miniature when he saw one at a Mecum auction. That's also where he purchased the 1965 Deere 110 used to make the mini 4020.

This miniature Deere 4020 is the third he's made. He takes Deere 110 garden tractors and converts them to scratch-built 4020s. It takes two 110s to make one miniature masterpiece.

On the front of the miniature 4020, Miske placed a logo saying "In God We Trust" with the patriotic and religious logo of the Fellowship of Christian Farmers. The little tractor is painted to a high gloss sheen and is ready for its new home.