



“It lets me haul whole logs home, instead of having to cut them up in the woods,” says Jack Hockenberry about the trailer-mounted log loader he built from scratch.



Logs are loaded onto trailer by a grapple, which is supported by a boom that rotates on front of trailer. Boom can reach out 13 ft. and swing about 185 degrees.

Trailer-Mounted Log Loader Built From Scratch

Getting logs out of the woods is an easy job for Jack Hockenberry of Orrstown, Penn., who built a tandem axle walking beam, self-loading log trailer.

The trailer measures 8 ft. long by 5 ft. wide and has 4-ft. high steel sides. Logs are loaded onto the trailer by the grapple, which is supported by a boom that rotates on front of the trailer. The boom can reach out 13 ft. and swing about 185 degrees.

“It’s built somewhat similar to big commercial self-loading log trailers for professional loggers, but on a smaller scale. It can handle logs up to 10 ft. long,” says Hockenberry.

“I built it from a photo I saw in a logger’s magazine. I use my Ford 3000 tractor to pull it and use the tractor’s hydraulics to operate the grapple. The grapple opens up to 20 in. and closes to 6 in. so it can handle a lot of

different size logs. I stand on the ground and use valves on a control box on front of the trailer to operate everything.

“It makes handling wood so much easier because I can haul whole logs home, instead of having to cut them up in the woods. The tandem axle design results in a smooth ride with very little bouncing.”

He started with an old Bobcat skid loader and used the tires and wheels and a gearbox, then put a bushing in the middle of the gearbox to make an axle. He cut each of the skid loader’s trunions in half and cut a hole through each one, then inserted a stub axle, installed a bushing, and welded the gearbox back together.

He used a 14-ft. length of 6-in. sq. tubing for the main frame and 3-in. angle iron for the cross members and front bumper stop. He bought new steel to build the grapple, boom

and outriggers.

The grapple is built from 1/2-in. thick steel and is equipped with 2 points on each side, which are opened and closed by a pair of small hydraulic cylinders. To design the grapple, Hockenberry used cardboard to cut out 2 templates. Then he used nails to attach the templates to a piece of plywood, cut them out of the plywood, and closed them by hand to see how they meshed with each other.

Once he got the plywood points to bypass each other when closing, he laid the points on top of a steel plate, cut the plate out, and drilled holes accordingly. The grapple’s head has a hydraulic motor mounted on it, which allows the grapple to rotate 325 degrees to place the logs on the trailer.

The boom rotates on a 2-in. dia. shaft that goes up through vertical length of 4-in. sq. 1/2-in. thick steel tubing. A chain runs on

sprockets welded onto movable steel plates at the top and bottom of the mast. A pair of hydraulic cylinders push and pull on the steel plates to swing the boom from side to side. Two more cylinders are used to set the trailer’s outriggers in place when loading logs, and another pair of cylinders are used to retract or extend the boom.

“I spent less than \$3,000 to build it, which is a fraction of what it’d cost to buy a new commercial grapple-equipped log trailer,” says Hockenberry. “I bought new valves and hydraulic hoses and steel for the boom. Everything else I either had or found at a salvage yard.”

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Oliver Campbell added this boom to his log splitter, making it easy to lift big chunks into place.



Forrest Robinson made this press brake to fit his log splitter. “I can use 3 different V-shaped brackets with it, depending on the thickness of the metal I want to bend,” he says.

Boom Makes Splitting Wood Easy

Oliver Campbell’s splitter boom makes it easy to lift big chunks of log into place. It’s especially handy for heavy oak.

“I had the splitter for years without a boom, but when you get to a certain age, it’s hard to get the big chunks in place,” says Campbell. “I looked at a motor hoist and how it worked and decided to try something like it for the splitter.”

The boom is simple and straightforward. It operates on the same plane as the splitter. Designing one that swiveled would have required outriggers, or lifting a heavy chunk of wood could have flipped the splitter over.

Campbell fabricated the steel tubing by welding together lengths of angle iron. The boom lift riser or vertical leg is made from 3-in. steel tubing. A base of two lengths of angle iron welded to the end of the riser, are bolted to the splitter frame. Angle iron base plates welded to the end of the boom must rest to the top of the riser for a pivot point.

The mast consists of 2 lengths of telescoping steel tubing, the lower end being 2 1/2

in. and the upper end 3 in. A length of rebar welded to either end of the upper mast and over a spreader tab, reinforces it.

“I had a 4-in. hydraulic cylinder from an outrigger on an old line truck and mounted it between the riser and the upper mast,” says Campbell. “I mounted pieces of angle iron to either side of the mast to mount the hydraulic ram. Multiple holes in the angle iron let me adjust the cylinder to get the right lift for the boom.”

He also drilled multiple holes in the lower mast, making it easy to adjust as needed.

When Campbell first hooked up the boom cylinder, he ran it off the same valve as the splitter cylinder. An 8 hp Briggs and Stratton powered a big hydraulic pump mounted over the splitter axle.

“The 3,000 to 4,000 lbs. of pressure was too much, and it tore the boom and cylinder apart,” he recalls. “I only needed a couple hundred psi. I put it back together with the addition of a pressure gauge and throttle valve. It works beautifully.”

Log Splitter Converted To “Brake” Steel

“I made a press brake to fit my log splitter that lets me bend metal without the need for another expensive machine,” says Forrest Robinson, Westmoreland, N.H.

“I can use 3 different V-shaped brackets with it, depending on the thickness of the metal I want to bend. The biggest of them can bend 1/4-in. thick, 16-ga. steel,” says Robinson.

Each V-shaped piece is welded to a 1-in. thick steel plate that rests against the splitter’s push plate. The welded-together blocks are

held in place on both sides by a pair of big set screws. To convert back to splitting wood, Robinson loosens the set screws and then pulls the press brake off the push plate.

“I’ve used it to bend steel up to 5 in. wide and 1/4 in. thick, and to bend 1/2-in. round stock to form handles for my wood burning stove. The splitter’s 5 hp electric motor has plenty of power,” says Robinson.

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Campbell made the splitter years before. While someone else had assembled the axle and wheels, he added the 8-in. I-beam for a frame and log rest. He also mounted a 6-in. cylinder with a 42-in. ram to push chunks of wood into the splitting wedge.

“The wedge is a 12-in. tall piece of 1-in. thick flat iron with 2 pieces of channel

iron ground down on one side and welded to sandwich the flat iron,” says Campbell. “Combined with the hydraulic cylinder, it can split anything, even sweet gum.”

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