Nifty Chainsaw Tractor Mounts

Nylon block chainsaw holders keep Dale Freeman's chainsaws safe and secure. Modified receiver hitches mounted to the subframe of his tractor-mounted backhoe make chainsaws easy to access whenever needed. One hitch even serves double duty, holding a box for log chains and a cordless chainsaw.

"The receiver hitch mounts make it easy to remove the chainsaw holders and the log chain storage if I want," says Freeman. "I often have one or the other, if not both, of my chainsaws with me, but the log chain box is always there. The holders keep them secure and out of the way when operating the backhoe, while the nylon blocks prevent damage to the chains or bars."

Freeman's first chainsaw holder was designed for a gas/oil chainsaw with a 20-in. bar. It had 1/4-in. thick steel plates faced with self-adhesive step rubber from Harbor Freight. One plate was welded to 2 by 2-in. square tubing. Nuts welded over holes in one plate allowed clamp-down knobbed studs to secure it to the other plate. Lock nuts on the exposed studs prevented them from vibrating out.

Freeman secured the bar cover to the plate on the tubing with two small button-head bolts.

"When I slid the chainsaw bar into the cover, I was always concerned that the nearly flat bolt heads would scratch the bar or dull the chain," says Freeman. "Plus, with the 20-in. bar, I really had to stretch to get it into the sleeve."

To avoid the potential problem, Freeman decided to fabricate a new chainsaw holder. Having a 55-gal. barrel filled with nylon block scraps from the company where he spent his career, he decided to use them instead of self-adhesive rubber.

"Whenever I build something, I check the scraps and often build it based on what I find," says Freeman. "The nylon blocks are easy to slip in a vise and cut to size or mill to the desired shape. When bolting them to a surface, I recess the hole so the bolt head is below the surface."

Freeman bolted a block of nylon to a steel plate welded to a spacer section of 2-in. tubing, then bolted it to a longer leg of tubing. The spacer prevented the chainsaw bar from rubbing against the receiver hitch for the leg.

He cut out space in the block for the bar's plastic sleeve and epoxied it in place. He bolted a thinner section of nylon to a second plate facing the first. Again, he used knobbed studs installed through both plates to secure the sleeve and chainsaw when inserted.

Freeman mounted a 2 1/2-in. steel tube to the backhoe's subframe as a receiver hitch for the vertical part of the chainsaw holder. Instead of using a standard receiver hitch pin, he drilled holes in each side of the receiver hitch and welded heavy-wall nuts over the holes.

"The wall nuts are larger in diameter and easier to weld in place than regular nuts without messing up the threads," says Freeman. "Jam bolts threaded through the welded nuts eliminate vibration and noise."

Freeman welded a short length of Schedule 40 pipe to a corner of the vertical leg to hold a chainsaw tool. He also welded a half-circle to the leg for padlocking the chainsaw in place.

"After undergoing open-heart surgery, I was unsure if I could start the gas/oil chainsaw with its pull rope, so I bought a 10-lb. battery-powered chainsaw with a 12-in. bar," says Freeman. "I fabricated a slightly different holder for it."

While using a similar receiver hitch design, he used more nylon blocks and made the receiver hitch serve two purposes. He started with a piece of scrap angle iron from an old electric panel. It serves as a base for a nylon plate with a slot for the chainsaw bar sleeve. The base is welded to a short length of 1 1/4-in. square tube that slips into a 1 1/2-in. tube and is secured with two D-pins. Two repurposed drawer pulls, bolted to the vertical face of the base plate, hold the bar sleeve in place.

"I bolted a piece of 1 1/2-in. tube to the subframe of the backhoe and slipped a piece of 2 by 2-in. tubing over it," says Freeman. "The 1 1/2-in. tube from the chainsaw holder is bolted to it. The 2 by 2-in. tube serves double duty, as the base for the log chain storage box is welded to it as well."

Freeman bent angle iron to make a frame for the heavy-duty poly battery box and used 1/4-in. thick steel plate to form a trough for the box to sit in.

"Once I had the log chain storage and the chainsaw base plate in place, I realized the cordless chainsaw was top-heavy and needed to be secured to the holder," says Freeman. "I welded pieces of scrap metal to build up two sides of the base plate and covered them with pieces of nylon."

"Using the receiver hitch concept for the chainsaw holders makes it easy to duplicate on other pieces of equipment where a chainsaw, log chains or other tools can come in handy," says Freeman.

He also added a 2-in. wide aluminum strip to the back side, with two strap loops attached.

"I can strap the motor in place," says Freeman. "This eliminates any potential vibration and noise, and I can remove the chainsaw and holder in about a minute."

Since he found the pull rope on his gas chainsaw wasn't a problem, he rarely has the cordless one mounted. However, he reports keeping the log chain box on continuously.

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Handy Work Lift Platforms

Dale Freeman's work platforms are compatible with front-end loader forks. He built one with a safety rail on one side and another with a safety rail all the way around. Both are on solid-floor pallets.

"I used 4 by 4-in. lumber for the sides of the pallet on the single-rail platform, but 4 by 6-in. lumber on the four-rail platform," says Freeman. "I wanted the extra height so I could run in easier with tractor forks."

The uprights on the single-rail platform are 2 by 2-in. square steel tubing, with 2 by 2-in. angle-iron cross rails and 3/4-in. Schedule 40 steel pipe bracing the safety rail at 45-degree angles. Hooks at both ends of the top rail provide handy holders for tools or pails.

"I can lift the pallet up from one edge and have a work platform with a safety rail," notes Freeman. "If I pick it up from the opposite edge, I have an adjustable-height workbench with open sides."

Freeman used industrial storage racking to fill in the scrap-steel frame and hangs a chain across the gate for security.

When he designed his four-rail work platform, he added an extra 5 ft. of height with a 3-ft. high railing. He used salvaged steel, including 8-ft. long, 1 1/2-in. steel tubing for the support frame and ladder uprights at one corner. He topped out each railing with 1 1/2-in. steel pipe.

"I used 3/4-in. Schedule 40 pipe for the ladder cross bars," says Freeman. "The ladder and frame uprights are bolted to the pallet. I also used lots of gussets to stabilize and strengthen the frame. The only thing I bought new was the 5/4 decking for the raised floor."

Freeman used industrial storage racking to fill in the scrap steel frame and hangs a chain across the gate for security. He can lift his loader arms to their full height and work safely behind the guard rails of either platform.

"With the raised floor, the four-rail work platform puts my feet 13 ft. above the ground," Freeman says.

Freeman has used the work platforms for various tasks, including insulating the trusses in his shop, trimming tree limbs, and mounting a trail camera on the side of his barn.

"If my wife is around, I have her lift the stand with me on it," says Freeman. "If not, I throw a step ladder across the pallet for climbing in. We live on a dusty road, and she really likes it for cleaning windows. I can lift her up with the platform instead of having to balance on a ladder and reach across a window."

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Table features a self-contained system that draws in dirty air from the work surface, filters it, and releases it as clean air below.

Welding Tables Clean Shop Air

Welding in enclosed shops can create smoky, unhealthy air. Traditional welding benches and work areas often worsen this problem, and installing ductwork to remove smoky air can be costly.

Collector Systems Industries (CSI), an offshoot of Tigworx, has developed a downdraft welding table that purifies air for welders and surrounding workers without requiring external ductwork modifications.

The CSI welding table features a self-contained system that draws in dirty air from the work surface, filters it, and releases it as clean air below. Its electric motor, equipped with a variable frequency drive (VFD), provides adjustable suction for various tasks. The built-in filter is periodically cleaned by a pulse of pressurized air from an internal tank, ensuring consistent performance and minimal maintenance.

The table operates on 220 single-phase or 240/480 three-phase power, making it compatible with different shop setups.

CSI's table sizes are flexible. Standard configurations range from 4 ft. by 5 ft. to 4 ft. by 10 ft.

"We've even built custom units up to 4 ft. by 17 ft.," says CSI Shop Foreman Melvin King.

For shops with space constraints, the welding tables can be as narrow as 40 in.

"Our downdraft tables stand out for their tough, self-contained design, tailored specifically for welding with fixture availability on top or on the sides," King says. "They're built to last and are a smart investment in cleaner air and safer working conditions without any extra ducts."

Manufactured in Honeybrook, Pa., the tables are available nationwide, with prices starting at $12,000 for the 4-ft. by 5-ft. model.

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