Brown's 3-pt. hitch backhoe attachment fits his Case-IH 235 18 hp diesel tractor.

Home-Built Backhoe Looks Factory-Made

When Brian Brown's daughter asked him to remove a 60-ft. row of old lilac hedge he had to get creative to get the job done.

"We couldn't get in with a big machine, so we priced a commercial backhoe attachment. At $8,500 for a new unit, we decided to build our own," he says. "The material cost worked out to about $1,000 and it took between 80 and 100 hours to build it."

Brown's 3-pt. hitch backhoe attachment fits his Case-IH 235 18 hp diesel tractor. He purchased a six-spool hydraulic valve, which was the most expensive part, and the three hydraulic cylinders, from Princess Auto. A neighbor donated two cylinders, and he built the two swing cylinders (for swinging the boom from side to side) in his shop because they worked out to be an uncommon size. All of the cylinders are either 1.5 or 2 in. in diameter, with one 10 in. long, and the rest 8 in. in length.

He positions and parks the tractor, flips the tractor seat ahead, flips the backhoe seat down, then sits in it (facing the rear of the tractor) while operating the backhoe's hydraulic levers. Stabilizer feet on either side of the hoe help to brace the unit. A blade on front of the tractor helps anchor it.

"The backhoe worked great for removing the lilac hedge, and we've also used it to trench water lines, underground electrical lines and underground water hydrants for irrigating potatoes. It digs an 8-in. wide trench up to 4.5 ft. deep. It's a handy little thing that will go into places where the bigger ones just won't," he says.

Brown says the unit is now a popular commodity with wives around the neighborhood who have shrubs that need moving from one place to another.

He adds that the attachment takes only two or three minutes to put on or take off. Other attachments he has built for the tractor include a three-row field cultivator, a brush cutter and a weed sprayer with a 25-gallon tank.

"I don't know if some of the things I do are always cost effective - I just like doing them. I've found that you'll try almost anything when you don't know what your limitations are," says Brown.

He plans to build a front-end loader this winter to stabilize the tractor better when digging with the hoe.

"The challenge won't be quite the same though, as we built a loader for a friend a few years ago," he remarks.

Contact: FARM SHOW Followup, Brian Brown, Box 552, Carberry, Manitoba, Canada R0K 0H0 (ph 204 834-2079).

Elephant Brush Puller Pulls Trees By The Roots

Question: What's strong enough to pull a tree out by the roots and barely disturb the soil? Answer: The Elephant Brush Puller.

Inventor Burt Leonard designed the brush puller to uproot scrub trees without a lot of dirt attached. It mounts on front-end loaders with a 3000-lb. lift capability or a tractor 3-pt. hitch. It requires three hydraulic outlets. The Elephant Brush-Puller has successfully uprooted an 8-in. Cedar tree 25 ft. tall.

There are six hydraulic cylinders on the brush puller. Two operate the arms that close around the outside of the tree, two operate chains that compress bushy trees, and two operate rams that lift the brush from the ground with an upward lift of 60,000 lbs.

The machine will not only remove the tree or shrub effectively, but by pulling up all of the root section, it will prevent regrowth. A smaller version of the Brush-Puller is in development. The company hopes that the smaller version will work on tractors with around 45 horse power.

Contact: FARM SHOW Followup, Atlas Implement, 1015 N. Hwy. 6, Navasota, Texas 77868 (ph 800 598-7137).

Brush puller mounts on front-end loaders with a 3,000-lb. lift capability, or a tractor 3-pt. hitch. It can uproot an 8-in. Cedar tree 25 ft. tall.

Sullivan mounted a Farmhand F-11 loader on back of a 1974 Ford 3/4-ton 2-WD pickup.

Home-Built Pickup Loader

"It lets us retrieve and load round bales in far less time than we could with a conventional loader tractor and it cost very little to build," says Dan Sullivan, McIntosh, Minn., who mounted a Farmhand F-11 loader on the back of a 1974 Ford 3/4-ton 2-WD pickup.

His sons Dan and Dave helped him do the job.

He first removed the cab and box from the pickup. The original steering wheel is still in place. To operate the loader, Sullivan sits on a seat next to the steering wheel that faces backward, and runs the transmission in reverse. To drive on the highway he drives forward and sits on a "jump seat" behind the steering wheel.

To support the loader, Sullivan welded a pair of heavy channel irons onto the pickup frame just above the rear axle and welded a 5-in. sq., 1/2-in. thick steel tube across the top of the frame. The vertical posts at the back of the loader bolt to steel brackets that clamp onto the tube.

He removed the pickup's original power steering pump and replaced it with a larger hydraulic pump off a Massey Ferguson 510 combine. The pump operates the loader hydraulics as well as the power steering. To make an accelerator pedal for loader work he mounted a big barn door hinge on the floor in front of the rear-facing seat. A cable runs from the top of the hinge under the frame to the pickup's original accelerator. To provide brakes for loader work he mounted a pair of brake foot pedals next to the add-on accelerator, then connected the master brake cylinders off the Massey combine to the rear axle. The pickup still has its original brake and accelerator pedals for driving on the highway.

"It turned out even better than I thought it would," says Sullivan. "I use it mainly to haul bales to the edge of the field where I can later load them onto trailers. I travel up to 35 mph in the field with no problem. I paid $100 for the pickup which was in relatively good condition. I already had the loader. My total cost was only about $750.

To operate the loader, he sits on a seat next to the steering wheel that faces backward, and runs the transmission in reverse.

"I can go at 60 mph on the highway which is important because I have some fields that are up to 12 miles away. It rides better than it did before the conversion because it's better balanced with the loader on back. The pickup's original rear suspension springs are still in place over the rear axle. I steer the loader by reaching down with one hand and grabbing the steering wheel knob. I can stack bales up to four high. To help support the weight of the bale I replaced the pickup's original rear wheels with 10.00 by 16.5 skid steer tires. I also bolted a length of angle iron at an angle onto each side of the frame, between the rear driving axle and the top of the loader arms."

For more information, contact: FARM SHOW Followup, Dan Sullivan, Sullivan Farms, Box 99, McIntosh, Minn. 56556 (ph 218 687-3238).

To help support weight of bale, Sullivan replaced pickup's original rear wheels with 10.00 by 16.5 skid steer tires. He can stack bales up to four high.