

Hydraulic-powered hedge trimmer uses three sicklebars to cut hedges on all sides of hedge at once.



Machine trims hedges from $6\ 1/2$ to $3\ 1/2$ ft. high. Draper canvas behind top sicklebar carries trimmings off to side.

One-Pass Self-Propelled Hedge Trimmer

By Bill Gergen, Senior Editor

Ivan Work got tired of trimming hedges by hand. One day he happened to look at a high clearance sprayer and decided a similar machine could be built for use as a hedge trimmer. So he went to work and ended up with a self-propelled, articulated hedge trimmer built entirely out of scrap metal and old machinery parts.

The hydraulic-operated, 2-WD machine straddles a hedge and is equipped with three sicklebar sections that let him trim the sides and top all in one pass. A 42-in. wide length of draper canvas off a Versatile swather delivers top trimmings to the side and onto the ground. The rig's four legs are each equipped with a hydraulic cylinder, allowing the entire machine to be raised or lowered up to 9

in. Another pair of cylinders can be used to independently raise or lower the sicklebars 9 in. If he's working on hillsides, he can hydraulically raise just one side of the machine, or just one side of the sicklebar unit.

"It cuts nice and square and can trim a hedge from 6 1/2 to 3 1/2 ft. high," says Work, of Marquis, Saw. "It's built from a little bit of everything. I tried to use as many old parts as I could without having to buy new and spent less than \$4,000 to build it."

He started with the frame and wheels off an old rod weeder. The sicklebars are off a Versatile swather and are driven by pitman drives off old horse-drawn mowers. Power is supplied by a Wisconsin 4-cyl. gas engine that belt-drives a pair of hydraulic pumps. Steering, as well as all other operations, are lever-controlled. The seat came out of a Toyota.

"I finished building it last winter and have used it to trim 300 ft. of hedges around my yard," says Work. "I built it for my own use, but already I've had requests to do custom work for others. It goes only about 1 mph, so I'd need a trailer to haul it around. It can trim hedges up to 4 1/2 ft. wide. If I want I can loosen a pair of set screws and move the knives in about 6 in on both sides, allowing me to trim the hedge to a 3 1/2-ft. width."

A 2 1/2-in. dia. steel pin serves as a hinge point for the articulated steering system. "It turns short and almost has a zero turning radius," notes Work.



Rigs four legs are each equipped with a hydraulic cylinder, allowing entire machine to be raised or lowered up to 8 in.

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Concrete Cattle Handling Facility

Concrete is a cattleman's friend when it comes to handling the animals in the most efficient and least stressful way, according to producers in Canada who've set up concrete sorting tubs.

Highland Feeders Ltd. of Vegreville, Alberta, has two of the concrete tubs (and three metal ones) at its 36,000-head operation. Owners Mike and Bern Kotelko say they much prefer the concrete tubs to the metal ones.

Besides being strong, safe, and maintenance free, the concrete handling facility is quiet... no loud clanging, creaking, and hollow echoing that is standard when working with metal gates, alleys and pens.

"This type of handling facility minimizes stress on both the cattle and the people working with them. The solid walls limit the animals' view, and that encourages them to move forward without hesitation," Mike Kotelko says. "The smooth, solid surfaces greatly reduce injuries because there are no openings or cracks for their feet or heads to get through. Handling and loading goes quicker and easier, and we've found that the truckers and our staff all really appreciate it."

Highland Feeders uses one of their concrete tubs for a loading/unloading facility

outdoors, while the other one is housed inside separate "animal health unit" barns scattered throughout the feedlot. This is where stock is vaccinated and health problems are treated. Both concrete tubs are the same size.

The outdoor tub is anchored down to a 30 by 30-ft. concrete pad and there is an 80 by 12-ft. concrete alley leading up to the 28-ft. diameter pre-cast tub.

Instead of using concrete walls in alleyways leading up to the tub, they are closed in by hanging rubber belting from each rail of the pipe fence, giving cattle the illusion of a solid wall. The used rubber belting came from a potash plant, according to Kotelko.

The whole pad is elevated to truck deck level thanks to a retaining wall, but the way the pens behind it lay, the cattle don't have to walk up or down any steep inclines.

Kotelko says the precast sections of curved concrete were made by D&M Concrete Products Ltd. in Lacombe, Alberta, and they were set in place with a crane during installation of the tubs.

The walls of the tubs are about 5 1/2-ft. tall and have a steel rail along the top. This is a safety precaution, according to Kotelko. The rail serves as something to grab hold of in case anyone was ever inside and needed



Walls on concrete tub are about 5 1/2 ft. tall and limit the view of animals inside. A steel rail along top is safety precaution, giving workers something to grab onto.

to pull themselves out quickly.

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Concrete facility is strong, safe, maintenance-free and quiet.

Simple, Dozer-Mounted Tree Puller

"I use it to rip out wild cedar trees in my pasture. It's the poor man's version of a tree saw," says Curtis Ernst, Mankato, Kan., who used part of an old road grader blade to make a dozer-mounted, wedge-shaped "tree spade".

The tree spade consists of two 4-ft. long sections of grader blade bolted together at one end to form a "V". Vertical supports welded onto the blades are bolted onto brackets attached to one end of the dozer blade on his tractor.

To rip out a tree, Ernst lowers the spade and drives it into the tree, then raises the dozer to jerk the tree out of the ground. When he backs up the tree falls to the ground.

"It's simple but it works. We've used it to clear a lot of trees," says Ernst. "It's a lot easier to use than hooking a log chain onto a tree, which I had been doing. And I didn't want to spend thousands of dollars on a tree cutting machine.

"It pulls cedar trees right out because they

have a shallow root system. I've used it to pull up to 4 or 5-in. dia. trees. Of course, it works better on smaller trees and when the ground is somewhat moist."

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Tree puller mounts on end of dozer blade. To rip out a tree, Ernst drives it into the tree, then raises the dozer to jerk tree out of the ground.

