



Alan Heilman used scrap metal to build this field roller for his brother-in-law. It's about 15 ft. wide and just over 20 ft. long.

Home-Built Roller Smooths Fields

Washington handyman Alan "Hoss" Heilman used scrap metal from his junk pile, two asphalt roller drums, a couple of truck axles, and 6 months of spare time to build a dandy homemade field roller for his brother-in-law. Heilman says he looked at several manufactured rollers to see how they were made and figured he could build one himself for a lot less than the cost of buying one.

"I started with two scrapped and gutted drums that came from a DD110 self-propelled asphalt roller," Heilman says. "The drums were 7 ft. long and about 4 ft. in diameter. I cut one end out of each of the drums, used a backhoe to stand one piece on end, then set the other one on top and welded them together. I knew the weight of the drum was probably enough to smooth most fields, but to make sure, I put in a 4-in. cam lock coupler on one end of the drum so it can be filled with

water."

To pull and transport the roller Heilman built a metal frame out of channel iron. The frame is connected to each end of the drum on a center hub that Heilman made from parts of an old truck axle. He extended the framework about 12 to 13 ft. in front of the roller into a V for the hitch. The frame also extends behind the roller, where it mounts to a second old truck axle whose wheels carry the roller when it's not on the ground. Support beams go from the axle up and over the roller and connect to a hinged lift. That device raises and lowers the roller with two 4-in. hydraulic cylinders.

"The finished roller is about 15 ft. wide and just over 20 ft. long," Heilman says. "I made the straight part of the hitch long enough so the pulling tractor can turn without its rear wheels hitting the angled part of the hitch



He started with 2 scrapped and gutted drums that came from a self-propelled asphalt roller. They were 7 ft. long and about 4 ft. in dia.



Roller's channel iron frame is connected to each end of the drum on a center hub, which Heilman made from an old truck axle.

frame." Heilman doesn't know how much the roller weighs, but he tested it on a field near his place and it easily pushed softball-sized rocks into the ground. "I think it'll work out real well to take care of dirt clods and small rocks," Heilman says. "If he needs

more weight he can always add water to the drum."

Contact: FARM SHOW Followup, Alan Heilman, P.O. Box 446, Ephrata, Wash. 98823 (ph 509 246-9210).

Roller Makes Center Pivot Roadways

Terry Jacob has converted a road packer into a field roller that turns center pivot fields from messy to neat. Pulled behind a levee-terracing plow, the roller with its hydraulic hitch makes flat paths in fields for pivot wheels.

"The levee plow pulls the dirt up in a crown with the roller to pack the track down," says Jacob. "The hydraulic hitch keeps the roller tracking the plow even as I get into the inner and tighter turning circles. Without the swing hitch, the roller would be trailing to the side and off the crown."

Jacob uses the plow and roller to maintain access roads to the pivot itself. He points out that getting to the pivot for servicing becomes more and more of a problem as the season wears on.

"During the irrigation season, fuel suppliers or diesel or electric mechanics, depending on the pivot, can get back to the center and get out even when the field is being watered," says Jacob. "Before I made packed service roads, I had to pull the fuel truck out many times. That's no longer a problem."

Jacob does ditch and road maintenance for several local townships as well as for his own farm and others. He uses the levee plow to pull gravel and sand back toward the center of roads where it can be smoothed out by his grader in a second pass.

He also uses the roller with the plow for fields that don't have center pivots. He sets the plow shallow to pull up enough dirt for a road just wide enough for a semi.



Terry Jacob converted a road packer into a field roller that he pulls behind a levee-terracing plow. It makes flat paths in fields for pivot wheels.

"Field roads like the service road to a pivot are great at harvest," says Jacob. "They are an ideal place to park semis for load-out. It gets them off township or state roads and into the field where they can be easily loaded by the

grain cart or combine."

Contact: FARM SHOW Followup, TDJ MagAttach, Terry Jacob, 9317 S.W. 72nd, Sedgwick, Kan. 67135 (ph 316 393-7731; ruth1110@kanokla.net).

Belly Blade Makes Great Grader

Allen Kimball's belly-mounted blade grades driveways smoothly without the washboarding common to rear or front-mounted blades. His customized mounting system lets him hydraulically adjust the blade for angle, tilt and even offset it to the left or right. The International Harvester 284 is attached to has 5 speeds with hi-lo shifting, letting him slow to a crawl for grading in tight spots.

"I bought the 284 to use for large-acre finish mowing, but there wasn't enough demand," says Kimball. "As a contractor moving dirt, I saw a need for a very small grader. I changed the turf tires to tractor lugs and modified an old snow blade to grade dirt."

Adding a belly blade, even a small one, required a longer wheelbase. Kimball extended the frame with 1/4-in. thick, 5-in. channel iron. He moved the front axle forward 3 ft. This required also extending the steering rod.

Two lengths of 2-in. square steel tubing welded to the bottom of the channel iron reinforce it and create a base to attach a framework for the blade housing. The framework includes 3-in. angle iron uprights that extend up and over the hood of the tractor, as well as 2-in. sq. tubing underneath the tractor frame.

He cut down the 8-ft. snow blade, retaining the original swiveling turntable, and mounted it to the housing. Kimball reinforced the top edge with 2-in. angle iron and added a hardened cutting edge to the bottom. Supports for the blade housing extend back to the rear axle of the tractor.

The blade housing hangs by hydraulic cylinders from the fabricated framework. One cylinder attached to one side of the framework extends to the opposite end of the blade. Extending or retracting it moves the entire blade housing left or right. Cylinders attached to the uprights tilt the blade ends up



Allen Kimball built this belly-mounted blade for his IH 284 tractor. "It grades driveways smooth without washboarding," he says.

or down, while two small cylinders attached to the blade turntable change the angle of blade.

"I fabricated the anchor points on the uprights with double and perpendicular U-joints to allow the cylinders to move freely as the blade housing shifts," explains Kimball. "A ball and socket connection would do the same thing."

A steel plate installed underneath the oil pan protects it from the blade housing accidentally rising too high. The plate is attached to the underside of the extended tractor frame with angle iron.

Contact: FARM SHOW Followup, Allen Kimball, 236 Linker Mountain Rd., Dover, Ark. 72837 (ph 479 968-1236; kim2rc3gwr@centurytel.net).