



60-Ft. "Streaker" Pickup Sprayer

Dick Minnaert, Madison, S. Dak., stripped down a 1974 Ford 1-ton pickup to build a 60-ft. "streaker" sprayer that covers acres fast.

Minnaert cut away the cab and bed and overhauled the 6-cylinder engine, 4-speed transmission, and 4:10 rear axle. He cut apart the twin I-beam axles and raised them, then installed large 9.00 by 20 rear tires and 7.50 by 16 front tires. A belt driven by the engine's crankshaft powers the sprayer pump. A 500-gal. polyethylene tank is mounted over the rear axle just ahead of the 60-ft. Blumhardt boom.

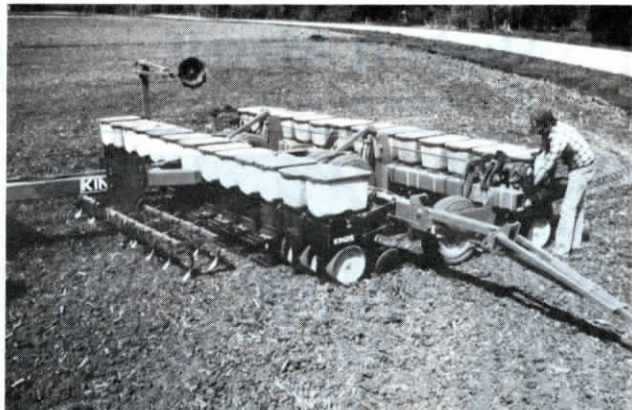
"I built it because I wanted a sprayer that could go fast but still spray accurately," says Minnaert, who has built seven of the sprayers over the past 20 years. All but one, a modified 1938 International 1 1/2-ton pickup, are still in service. "I never liked pull-type sprayers because the boom bounces too much and because it takes too long to drive home and refill the tank with water. I call my rigs 'Streakers' because they're stripped down and go fast. I can go 7 to 8 mph in first gear at heavier application rates and 12 to 15 mph in second gear at lighter rates. At an

application rate of three gallons per acre I can cover a quarter section in about two hours. My 'Streakers' are also fuel efficient. I can spray all day long on 20 gallons of fuel. The 140 hp engine has plenty of power to go right through mud, and the large rear tires provide plenty of traction. The wheels are narrow enough to easily fit between my 30-in. rows.

"I use Ford pickups because they have twin I-beam suspension which lets me raise the axles to provide 17 inches of clearance. Chevrolet and Dodge pickups don't have twin I-beam suspension so you can't increase the clearance unless you install extremely large tires which would prevent short turns. My sprayer weighs about a ton which is much less than some commercial sprayers, and it cost only \$11,000 to build compared to about \$20,000 for a comparable-size commercial sprayer."

The sprayer is equipped with a Raven monitor to set herbicide application rates and speed.

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They Plant Wheat With Row Crop Planter

Three Illinois farmers mounted Kinze and Deere planter units on the same toolbar and came up with drive components of their own design to get 8 1/2 in. spacing that lets them use the planter for wheat and soybeans.

Jon, John and Jay Goldenstein, Gilman, Ill., say their "row crop drill", which they've used for several seasons, does a great job on both crops. They built it because they were unhappy with the irregular seed placement of their conventional drill. Their home-built rig gives them the accuracy of a corn planter for planting beans and wheat.

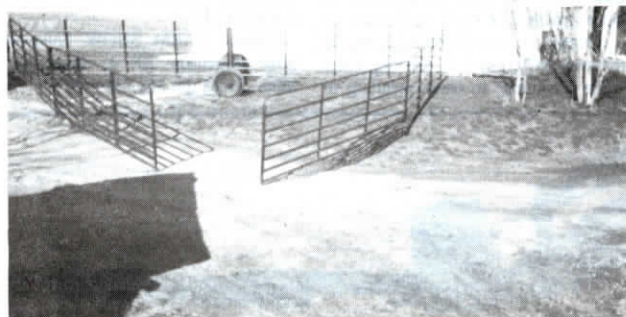
They started with a Kinze double bar carrier, mounting Deere Max-Emerge units on the back bar and Kinze push-type units on the front bar. All row units are spaced 17 in. apart but front and rear units are staggered so row spacing is 8 1/2 in. The conversion required a lot of engi-

neering. Since they are running more than three times as many units as the original Kinze planter was designed for - 27 rows versus 8 - they had to reduce the rate of seed drop when planting beans. At either end of the rear bar they installed a reduction drive of their own design that reduces drop by 50%. Half the rear units are operated by each of the two gear units.

As another part of the gearing down process for beans, they had to use an extended rate drive sprocket that fits over the original sprocket. When planting wheat, this sprocket is put on the drive sprocket on the ground wheel in order to speed up the metering shaft.

For planting beans they use a standard bean cup, but for wheat they go to a medium rate sorghum cup.

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Portable Fold-Up Fence

Kansas beef and dairy farmer George Wessel used to set up lines of tractors and other machinery to serve as a make-shift fence across an opening between his barn and shed, but he always hated doing it. Now he just unfolds a half dozen hinged gates mounted on an old hay loader axle that he pulls behind his tractor or 3-wheeler ATV.

The portable fold-up fence consists of two 16-ft. long gates permanently mounted lengthwise over the axle and four 14-ft. hinged gates connected to them. The 16-ft. gates are bolted to a 6-ft. high vertical pipe that's welded to the center of the axle. Cable extends from the ends of both 16-ft. gates to an old car jack that Wessel welded onto the top of the vertical pipe. The cable holds the ends of the gate up. Wessel can turn a handle on the jack

to tighten the cable and raise the gates.

In transport position the four 14-ft. gates are folded together and chained to the stationary gate.

"I built it because I sometimes need to run cattle back and forth between the buildings, but I can't build a permanent fence there because it would be in the way of a milk truck. I had been using tractors and implements to form a temporary fence, but it took too long to set up. All I do now is drive in and unfold the gates. When the gates are completely unfolded they're 88 ft. long. The right combination of gates could also be used to form a square pen."

Wessel spent about \$300 to build the portable fence.

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"Beefed Up" IH Tractor Used For Heavy Lifts

A rebuilt IH 706 tractor fitted with a Deere 5020 front end and a White cab does a lot of heavy lifting for custom trailer builder John Gerritsen, Rock Rapids, Iowa.

"I liked the 706 the way it was but I needed to lift more weight than it could handle," says Gerritsen.

He fitted the tractor with a modified Westendorf front-end loader. He shortened up the loader arms 18 in. so that the front tires or interchangeable quick-tach bucket just barely clear the front of the tractor. Then he replaced the 1,800 psi relief valve on the hydraulic pump with a 2,500 psi valve, and removed the quick couplers in the hydraulic lines between the loader and tractor to boost capacity even further. He says the check valves in the couplers slow up hydraulic flow and since he leaves the loader on all the time, he didn't need them. One drawback is that the loader drops down a lot faster when it's lowered.

To make the tractor more stable, Gerritsen replaced the narrow front end with a wide front from a Deere 5020 tractor. To make the conversion, he built a subframe that bolts to the underside of the tractor. If he ever wanted to convert back to the original narrow front, he could simply unbolt the frame.

"The Deere front end has two cylinders instead of one and requires more hydrau-



lic pressure than the IH. After pulling all the hair out of our heads thinking about it, we finally drilled out the power steering relief valve on the IH 706 from a pinhole size to 3/16-in. dia. It worked great, increasing pressure from about 1,200 to 1,800 psi," says Gerritsen.

Once he had completed the conversion, he says he couldn't believe what the tractor would lift. "We custom-build cattle haulers, flatbeds, gooseneck grain wagons, and many other types of grain wagons and trucks. We use the loader to put truck and trailer beds in place. It can lift a 50-ft. cattle trailer body by lifting one end and putting dollies under the other end."

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