

Twine-Tying Modifications For Deere's 530 Round Baler

"With these two modifications, I think it's the best big round baler on the market," says Kansas farmer Paul Miller, of Partridge, who equipped his 530 Deere with a double twine-stringing device that cut tying time in half, and a tying starter device that lets him trip a stubborn tie starter with ease from the tractor seat.

Miller, who custom bales for about 40 area farmers in the summer when he's not teaching high school, says he built both devices for less than \$100 total cost.

1. Double Tying Device: Modifications Miller made in front of the baler allow the twine needle to move twice its normal speed. "I'm able to wrap the bale with two twines at a time, which cuts tying time in half — from 30 to 15 seconds per bale. Two balls are always in position to feed twine onto the bale."

The Deere 530's twine box is designed to hold three balls of twine. To make double tying possible, Miller added a 4-ball twine box, mounting it on two angle iron brackets on front of the baler.

"The extra twine box allows me to feed from two balls, with two backup balls,"

The bale-tying trip rope on the Deere 530 moves through two friction-causing corners and is difficult to pull. Miller solved the problem with this 2:1 leverage boosting device. After mounting a small pipe onto the chain hook for the Tucker wheel, a bolt with 2 nuts (m) makes a secure axle device for pulling with increased leverage. Original rope was replaced with light metal cable for the linkage between the tripping lever and the leverage device (n).

Double twine device for moving the needle twice as fast features addition of a second pipe (a) 5 1/2 in. ahead of the original needle. A short pipe (b) welded onto the needle makes the first turn. Angle iron (c) protects twine from high stubble. Twine travels last through 3 in. long pipe (a) mounted so its radius is the same as the original needle's top. Small pipe (d) is welded on just ahead of original needle. Needle stop (e) is turned up (rotated 180°) and is made adjustable by using a threaded 1/2 in. bolt with a nut on each side (f). Short stud (g) is welded to front side of needle.

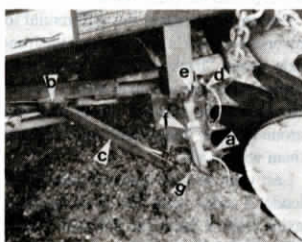
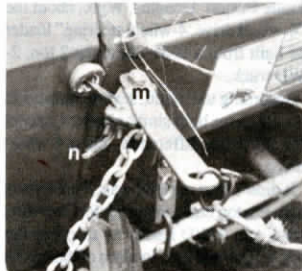
explains Miller. Two twine tension devices are fastened onto the box. By opening a hydraulic valve mounted on the baler's side, Miller can double the needle's speed so that the twines are spaced no farther than 5 1/2 in. apart.

2. Tying Starter Device: The 530's original bale tying mechanical trip rope mechanism was difficult to trip from the tractor seat, says Miller. "The problem was that the rope passes through two friction-causing corners, making it difficult to pull."

To solve the problem, Miller installed a device in front of the baler which provides increased pulling leverage. A bolt with two nuts extends through two plates which control tension on the trip rope. By loosening the nut, Miller can reposition the rope and change the angle from which he pulls it from the tractor seat.

A brochure illustrating and explaining Miller's add-on devices in detail is available for \$3 to cover postage and handling.

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Caddy Carries Ridger, Planter

An oversized caddy lets Paul Pierce, Sullivan, Ill., carry his 3 pt. mounted, 12 row Deere 7100 planter, plus a 500 gal. tank and Hiniker ridging tool.

"It gives me all the advantages of a pull-type planter at the lower cost of a 3 pt. mounted planter. It also lets me use a lighter, cheaper tractor," says Pierce, who pulls the 12-row rig with a Deere 4240.

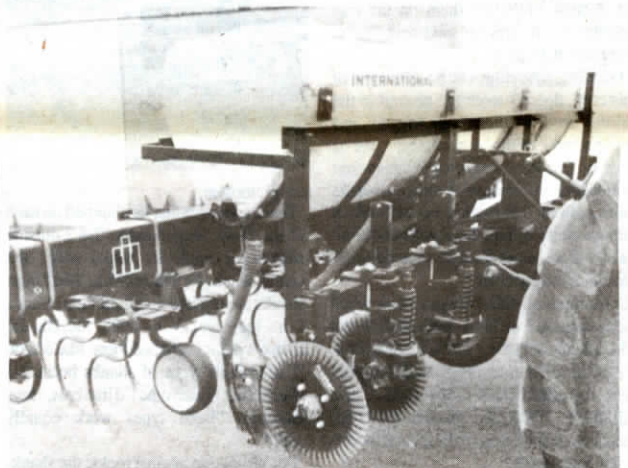
The caddy features a bridge hitch, made of 8 by 8 in. tubing, and a frame, made of 6 by 6 in. tubing, nestled between four 18.4 by 26 in. diamond tread tires. The two inside tires are on 60 in. centers; the 2 outside ones on 120 in. centers.

Pierce mounted two 3 pt. hitches onto

the caddy's rear frame—one in front and one in back. The front 3 pt. hitch carries the 12 row ridging tool; the rear 3 pt. the planter. A heavy threaded shaft on the front 3 pt. acts as a top link to adjust pitch of the ridge opener units.

The 500 gal. tank is supported by a frame above the caddy. A hydraulic motor, positioned underneath the tank, drives the spray pump. Pierce can either band or broadcast herbicides. Solenoid switches allow him to change spray patterns.

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Side Dress Applicator For Corn

Pennsylvania farmer William Stahl of Loysville built a side dress applicator that lets him apply fertilizer to standing corn when it's between 8 and 12 in. tall. The applicator is unique because it lets him side dress with and without a row crop cultivator that mounts on a 3-pt. at the back of the applicator.

Stahl needed an applicator that would let him detach the cultivator because he raises both no-till and conventionally-tilled corn. He detaches the cultivator in no-till ground to improve trash clearance.

The 6-row applicator is fitted with swiveling Yetter coulters with dry applicator tubes on back. Also mounted on the toolbar are fiberglass hoppers, each holding about 700 lbs. of either Urea nitrogen or a mix of 30-10-10. Stahl designed the unit for dry fertilizer be-

cause it's the most economical but he says it could easily be equipped for liquid. A single drive wheel ground-drives the two units.

"I knife in fertilizer 2 in. deep and 6 to 8 in. from the row. Because the applicator's ground-driven, you drive as slowly as necessary and it'll still be accurate," says Stahl, noting that he feels the 8 to 12-in. growth stage is the most efficient time to side dress. "By then most of the starter fertilizer has been used up or released into the air."

The 3-pt. hitch at the rear of the applicator can accommodate any 3-pt. cultivator.

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