22 AND 122 ONE-ROW COTTON PICKERS EFFECTIVE SERIAL NOS. 22L-4000 AND 22H-1600 NO. 122L-600

JOHN DEERE

OPERATORS MANUAL

22 AND 122 ONE-ROW COTTON PICKERS
EFFECTIVE SERIAL NOS. 22L-4000 AND
22H-1600 NO. 122L-600

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To the purchaser

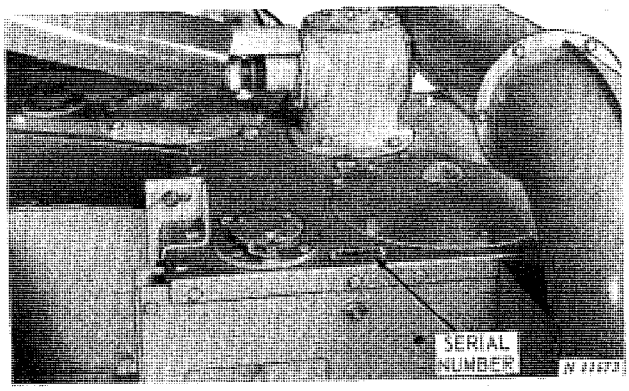
Your new cotton picker was built to rigid manufacturing standards. Material and workmanship are the best. However, the machine will serve you in only direct proportion to the care you give it. How long it will last and continue its good work is a matter entirely in your hands.

The way you operate your cotton picker and the care you give it have much to do with the service and satisfaction you will get from it. This manual has been carefully prepared and illustrated to show you what to do and when to do it. It explains the adjustments that are built into the machine and gives instructions on when and how to make these adjustments. The information given in this manual will afford a clear understanding of the fundamentals of cotton picker harvesting. The best use of these fundamentals to suit the conditions in which the machine is operating is a responsibility that is completely up to the operator.

If you find you need information not covered in this manual or if your cotton picker requires special servicing, take advantage of the facilities offered by your John Deere dealer. He has trained mechanics, who are kept informed on the best methods of servicing and can give you prompt, "know-how" service in the field or in his shop.

Location References. "Right" and "Left," "Front" and "Rear" refer to the operator's "Right" or "Left" and "Front" or "Rear" when facing the same direction the cotton picker is operated.

Serial number

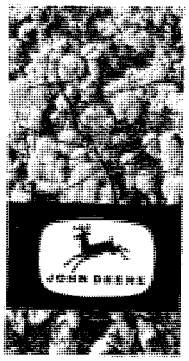


You will find the serial number of your cotton picker stamped on a plate located on the right-hand side of the picking unit. Write this serial number in the place provided below for handy reference later.

PICKER SERIAL No. 22 . . . . . .

No. 122 . . . . . .

Date Purchased . . . . .19 . . . .



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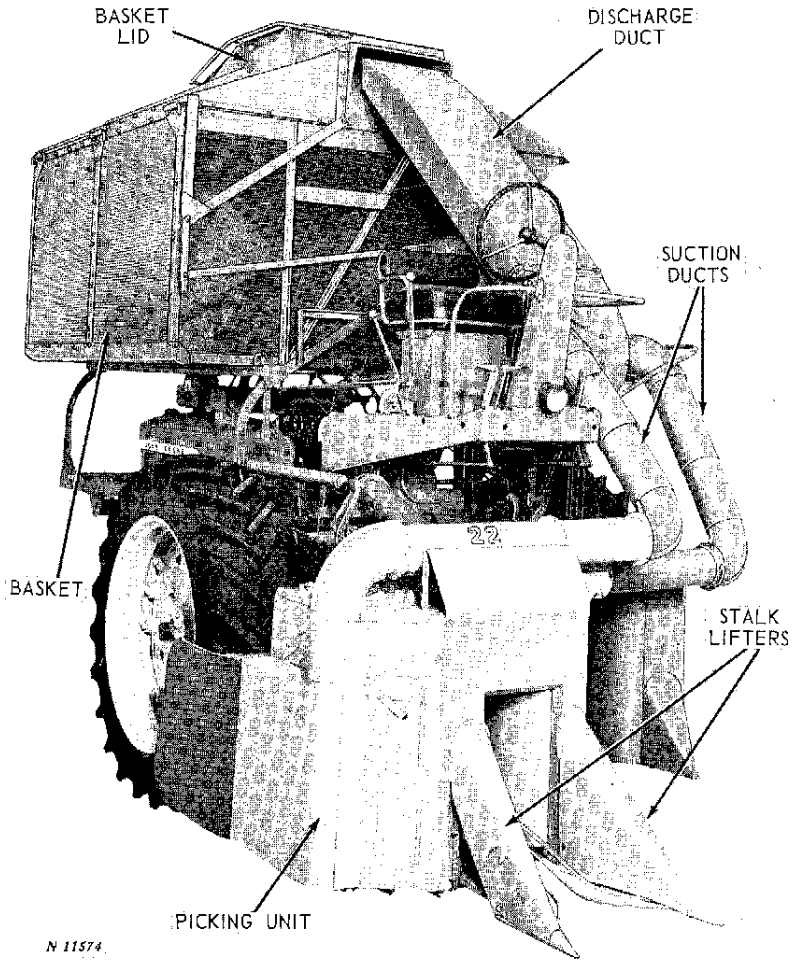
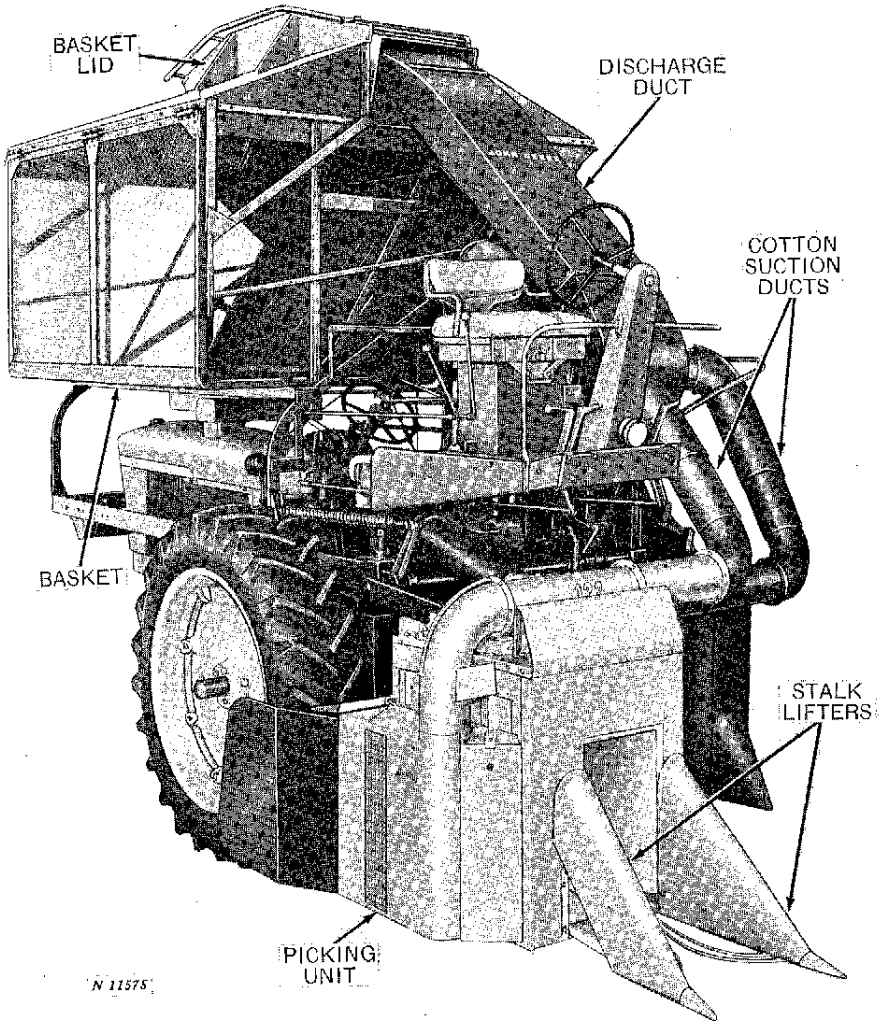
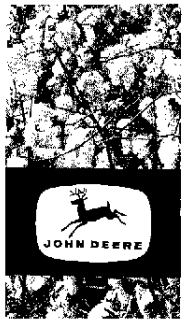


John Deere 22 Cotton Picker and 3020 Tractor



John Deere 122 Cotton Picker and 3010 Tractor



specifications

22 Picking Unit (Low and high drum)

No. of Picker Drums	2
No. of Picker Bars:	
Front Drum	16
Rear Drum	12
No. of Spindles:	
Low-Drum:	
Per Picker Bar	14
Total	392
High-Drum:	
Per Picker Bar	20
Total	560

122 Picking Unit (Low drum only)

No. of Picker Drums	2
No. of Picker Bars:	
Front Drum	12
Rear Drum	12
No. of Spindles:	
Per Picker Bar	14
Total	336

Performance

Will Pick . . . 36-, 38-, 40-, or 42-Inch Rows

Ground Speeds

Picking Speed	2-1/2 mph
Transport Speed	9 to 12 mph
Reverse Speed	1-1/2 to 2 mph

Capacities

Cotton Basket	271 Cu. Ft.—approximately 1,200 Lbs. Seed Cotton*
Water Supply Tank	40 U.S. Gallons

Shipping Weight

22 Low-Drum, Picker Alone, Approx.	4,330 Lbs.
22 High-Drum, Picker Alone, Approx.	4,970 Lbs.
122 Picker Alone, (Approx)	4,135 Lbs.

**These figures are based on approximately five pounds of seed cotton per cubic foot. The weight of seed cotton varies depending upon area and crop conditions.*

Dimensions

Length, Over-All	18 Ft., 8 In.
Width, Over-All	9 Ft., 7 In.

Height:

22 Low-Drum and 122:	
Basket Lowered	13 Ft., 10 In.
Basket Raised	17 Ft., 7 In.
22 High-Drum:	
Basket Lowered	14 Ft., 10 In.
Basket Raised	18 Ft., 7 In.

Speeds (Approx.)

Front Drum--22	86 rpm
Front Drum-122	115 rpm
Rear Drum (22 and 122)	115 rpm
Spindles (22 and 122)	2980 rpm

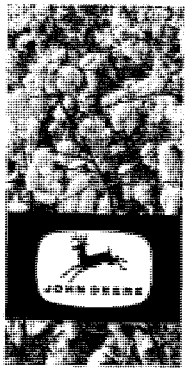
Tractors

John Deere 2010 Tractor with single or dual hydraulic system, single remote cylinder control with breakaway coupling, single or dual front wheels, Power Take-off and Power Steering. Tire sizes as recommended on page 20. The 2010 Tractor must also be equipped with heat treated rear axles.

John Deere 3020, 3010, 4020 and 4010 Tractors with rear rockshaft, single or dual remote cylinder control valve with breakaway coupling. Single or dual front wheels and Power Take-off. Tire sizes as recommended on page 20.

John Deere 530, 630, 730, 520, 620, 720, 50, 60, 70, A, and G Tractors with rear rockshaft, single or dual remote cylinder control, single or dual front wheels, 540 or 1000 rpm transmission driven or engine driven Power Take-off. Tire sizes as recommended on pages 20-21. External speed changer cannot be used on PTO.

(Specifications and design subject to change without notice.)



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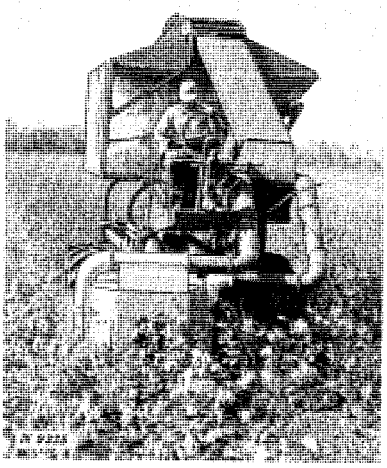


Your new picker is a practical one-row cotton picker. The operating costs are low. It is easy to handle and transports fast. Attaching and detaching can be done quickly—without costly tractor conversion.

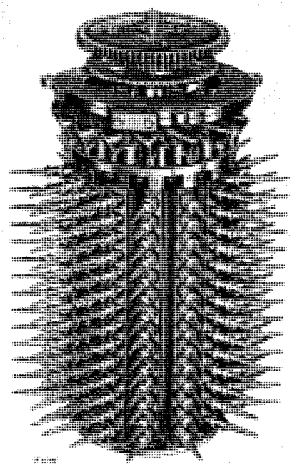
The picker consists of three basic elements.

1. One-Row Picking Unit
2. Platform and Controls
3. Fan Delivery System and Basket

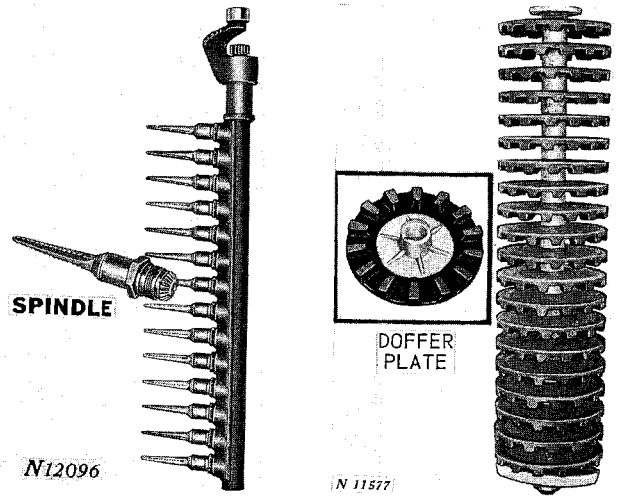
These three basic componets are mounted in such a way that the tractor operates in reverse gear during the picking operation. For transporting, the picker is driven from the tractor seat, using the regular tractor forward speeds. However, on 2010, 3010, or 4010 Tractor, the picker may be transported from the operator's platform at transport speeds.

Picking unit

The heart of the picker is the highly efficient spindle-type picking unit. There are two drums of spindles. On the 22 Picker, the front drum consists of 16 cam-controlled spindle columns with 14 spindles on each column of the low-drum and 20 spindles on each column of the high-drum.



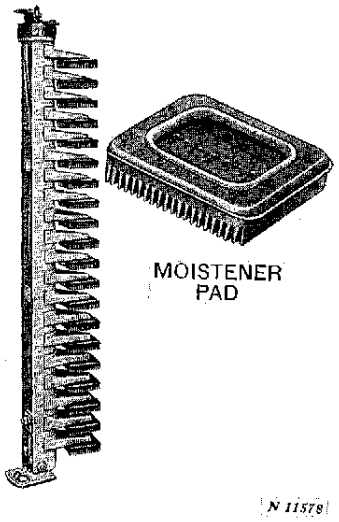
Low-drum front picking drum



Spindle column *Doffer*

On the 122 Picker, each drum consists of 12 cam-controlled spindle columns with 14 spindles on each column.

There is a doffer assembly for each spindle drum to unwind the cotton from the spindles and deliver it to a chute in the side door. Each assembly consists of a shaft with a series of aluminum alloy doffer plates that have rubber doffers molded to the plates. The low-drum unit has 14 doffers per shaft; the high-drum unit has 20.



Moistener

There is also a spindle moistener column for each spindle drum. The moistener pads wipe each spindle with water to keep it clean, for a better job of picking cotton.

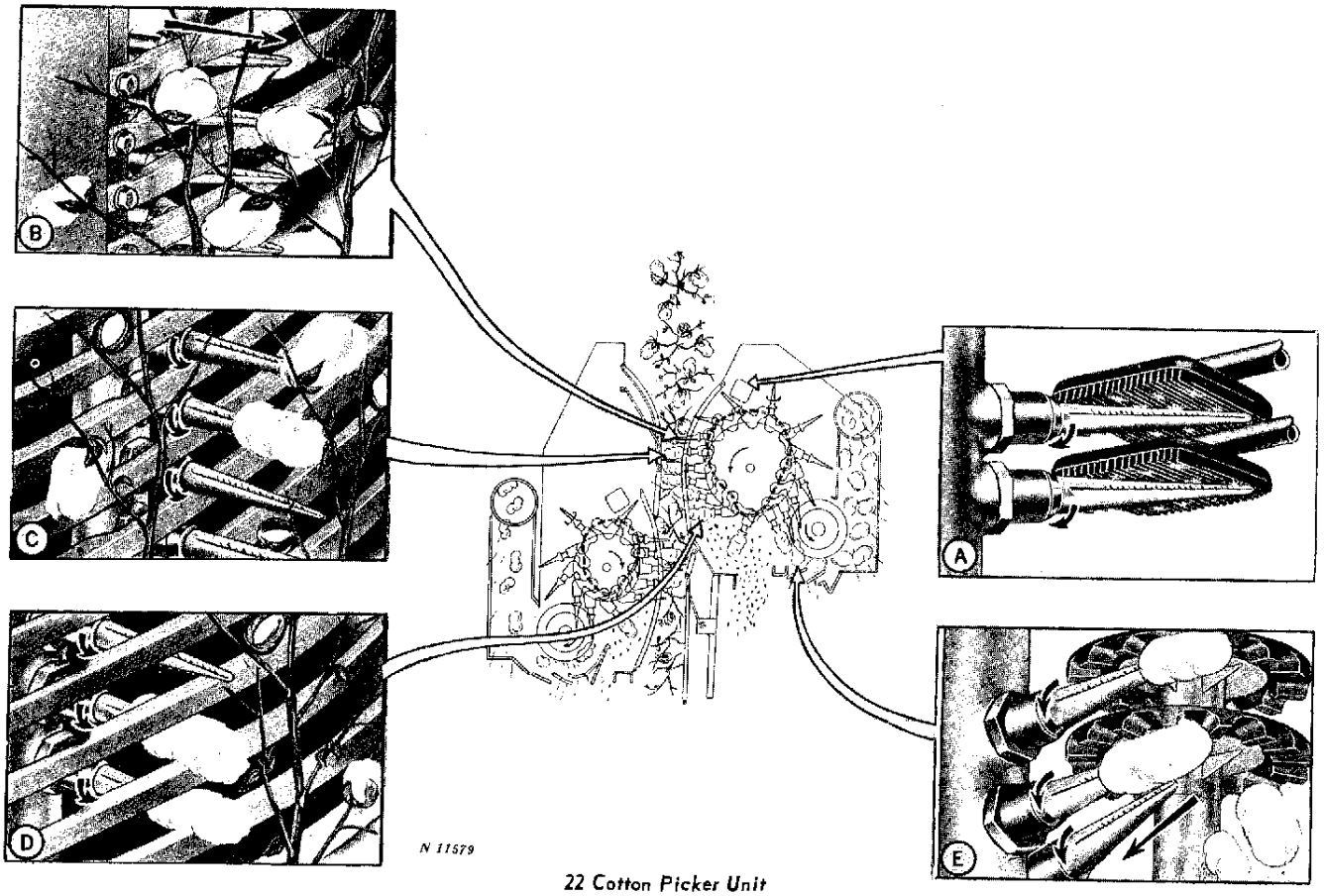
The stalk lifters guide the cotton plant into the picking zone of the unit where the grid bars and pressure plates take over to hold the plant in position for picking.

How the picking unit works

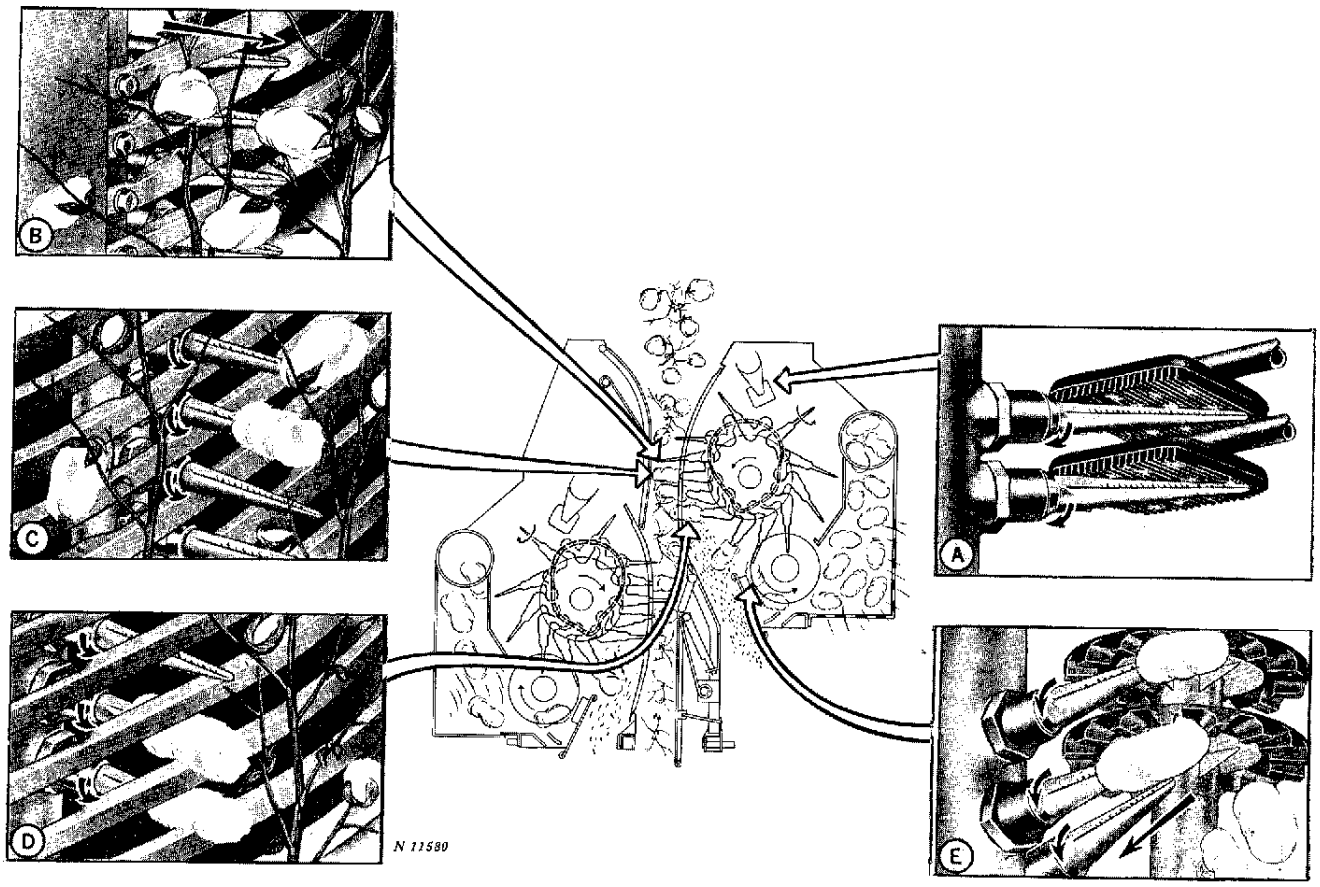
Knowing what is going on inside the picking unit will be a great help to you. It will give you a better understanding of the capabilities and limitations of a mechanical cotton picker. You will also know why certain adjustments are necessary and when to make the adjustments.

The illustration below shows what happens during the picking cycle. At "A" the spindles go under the moisteners and are cleaned of lint, plant sap and stain by a film of water.

Next the cleaned spindles start through the grid bars at "B." The speed of the spindle drums is synchronized with the picking speed of the tractor (2-1/2 miles per hour) so the spindles have no forward or backward motion in relation to the cotton plant. The rotating spindles simply poke straight into the cotton plant and then pull straight back. Because of this, the spindles can brush past unopened bolls and the stalks, leaving them undamaged.



22 Cotton Picker Unit



122 Cotton Picker Unit

At "C" the spindles are all the way out and wrap the cotton fibre onto the spindle barbs. Then the spindles move back through the grid bars, pulling the cotton out of the open bolls and through the grid bars as shown at "D."

At "E" the cotton is being removed from the spindles by the doffer. The spindles move backwards under the doffer plates so the doffer pads can unwind the cotton from the spindles.

Thank you so much for reading.

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