

# **122 One-Row Cotton Picker (Effective Serial No. 122L 101)**



## **OPERATORS MANUAL**

**122 One-Row Cotton Picker (Effective  
Serial No. 122L 101)**

OMN97594 (01JAN62) English

**OMN97594 (01JAN62)**

LITHO IN U.S.A.  
ENGLISH



# 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 machine is headed or traveling.

## Serial number



You will find the serial number of your cotton picker stamped on a plate located on the picking unit just in front of water control valves. Write this serial number in the place provided below for handy reference later.

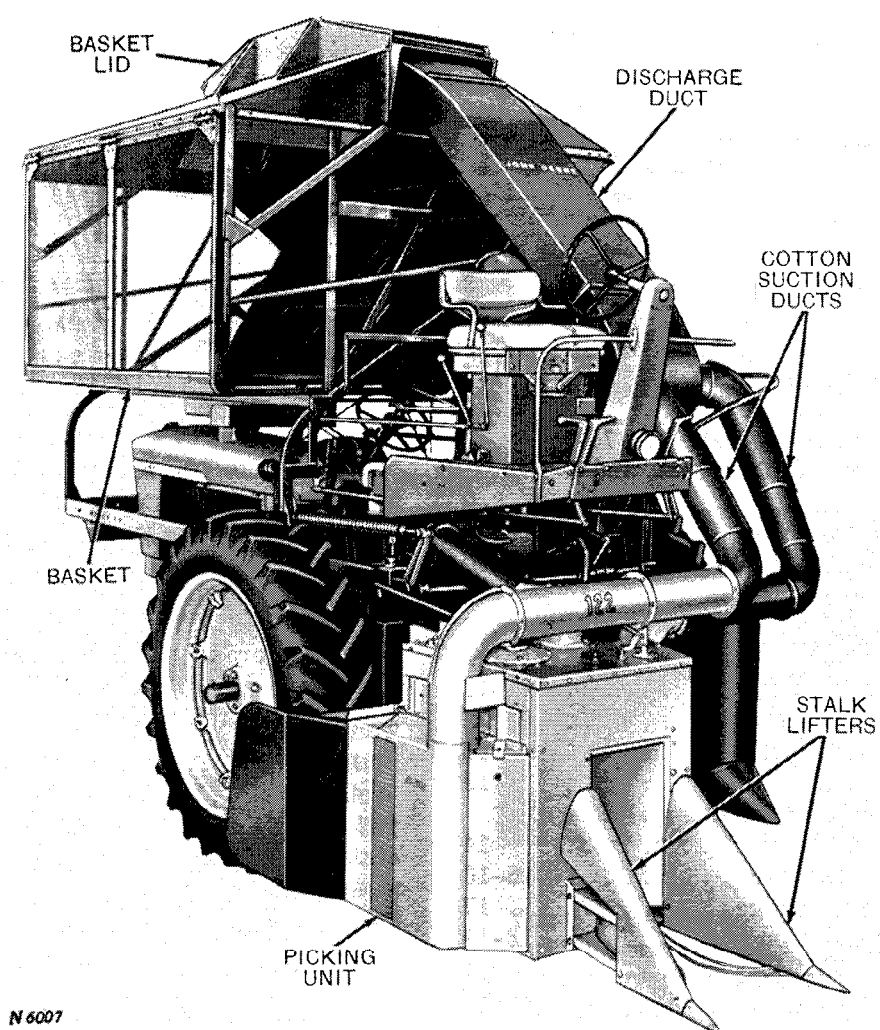
PICKER SERIAL No. ....

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



# contents

	Page		Page
SPECIFICATIONS . . . . .	3	Picking unit lift lever linkage on	
DESCRIPTION . . . . .	4-6	530, 630, 730, 520, 620, and 720	
OPERATION . . . . .	7-19	Tractors . . . . .	35
Controls on John Deere 2010, 3010, and		Picking unit lift lever linkage on 50,	
4010 Tractors . . . . .	7-8	60, 70, A, and G Tractors . . . . .	35
Controls on John Deere 530, 630, 730,		Hydraulic circuit valve selector on	
520, 620, 720, 50, 60, 70, A, and G		50, 60, 70, A, and G Tractors . . .	36
Tractors . . . . .	8-9	Throttle linkage and throttle stop on	
Know your cotton picker . . . . .	10	2010, 3010, and 4010 Tractors . .	36
Running-in the new cotton picker . . .	10	Water control linkage . . . . .	36-37
Before-after operation checks and ad-		Foot clutch linkage on 2010, 3010,	
justments . . . . .	10	and 4010 Tractors . . . . .	37
Starting the picker . . . . .	11	Foot brake linkages on 2010, 3010,	
Transporting . . . . .	11-12	and 4010 Tractors . . . . .	37
Dumping the basket . . . . .	12	Main clutch linkage on 530, 630, 730,	
Cold weather operation . . . . .	13	520, 620, 720, 50, 60, 70, A, and	
Safety suggestions . . . . .	13	G Tractors . . . . .	37-38
The fundamentals of mechanical cot-		PTO clutch lever linkage on 2010,	
ton picking . . . . .	14	3010, and 4010 Tractors . . . . .	38
Using picker in the field . . . . .	15-16	PTO clutch lever linkage on 530,	
Before and after storage . . . . .	17	630, 730, 520, 620, 720, 50, 60, 70,	
Tire size and inflation . . . . .	18-19	A, and G Tractors . . . . .	38
OPERATING ADJUSTMENTS . . . . .	20-41	Gearshift linkage on 2010, 3010, and	
PICKING UNIT . . . . .	20-27	4010 Tractors . . . . .	39
Stalk lifters . . . . .	20	Gearshift linkage on 530, 630, 730,	
Spring fingers and grid bars . . . . .	21	520, 620, 720, 50, 60, 70, A, and	
Pressure plates . . . . .	21-22	G Tractors . . . . .	39
Picking unit pressure trip clutch . .	22-24	Brake pedal linkage on 530, 630, 730,	
Spindles and picker bars . . . . .	25	520, 620, 720, 50, 60, 70, A, and	
Doffer . . . . .	26-27	G Tractors . . . . .	39
Spindle moisteners . . . . .	27-28	Steering mechanism . . . . .	40
WATER SYSTEM . . . . .	29-30	DRIVES . . . . .	40-41
Selective moisture control . . . . .	29-30	Picking unit slip clutch . . . . .	40
PICKING UNIT CONTROLS . . . . .	30-33	Picking unit and fan drive belts . .	41
Speed of picking unit drop . . . . .	31	TRACTOR ENGINE SPEEDS . . . . .	41-42
Picking unit stop screw . . . . .	32	LUBRICATION AND PERIODIC SERV-	
Height of lift adjustment . . . . .	32	ICE . . . . .	43-52
Picking unit balance spring . . . . .	33	TROUBLE SHOOTING . . . . .	53-61
Picking unit stabilizers . . . . .	33	REMOVING AND ATTACHING PICKER	62-94
CONTROLS AND LINKAGES . . . . .	34-40	SERVICE . . . . .	95
Picking unit lift linkage on 2010,		Spindles and picker bars . . . . .	95-97
3010, and 4010 Tractors . . . . .	34	Doffers . . . . .	97-98
Basket lift lever linkage on 2010,		Moisteners . . . . .	98
3010, and 4010 Tractors . . . . .	34	ATTACHMENTS . . . . .	99-100



*John Deere 122 Cotton Picker and 3010 Tractor*



# specifications

## 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 . . . . . 1,200 Lbs. Seed Cotton

Water Supply Tank . . . . . 40 U.S. Gallons

## SHIPPING WEIGHT

Picker Alone, Approx. . . . . 4,135 Lbs.

## DIMENSIONS

Length, Over-All . . . . . 18 Ft., 8 In.

Width, Over-All . . . . . 9 Ft., 7 In.

## HEIGHT

Basket Lowered . . . . . 13 Ft., 10 In.

Basket Raised . . . . . 17 Ft., 7 In.

## PICKING UNIT

No. of Picker Drums . . . . . 2

No. of Picker Bars:

Right-Hand Drum . . . . . 12

Left-Hand Drum . . . . . 12

No. of Spindles:

Per Picker Bar . . . . . 14

Total . . . . . 336

## SPEEDS (APPROX.)

Picker Drums . . . . . 112 rpm

Spindles . . . . . 2883 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 18.

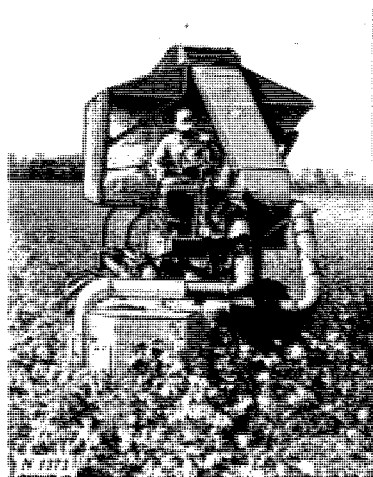
John Deere 3010 and 4010 Tractors with rear rockshaft, single or dual remote cylinder control valve with breakaway coupling. Single or dual front wheels and Power Take-off. Tire sizes as recommended on page 18.

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 page 18. External speed changer cannot be used on PTO.

*(Specifications and design subject to change without notice.)*



# description



The No. 22 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.

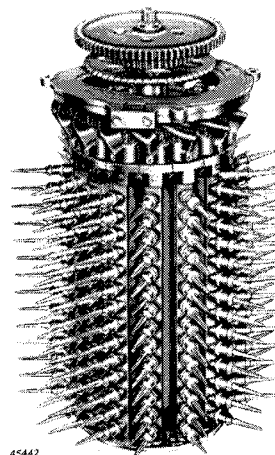
The picker consists of three basic elements.

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

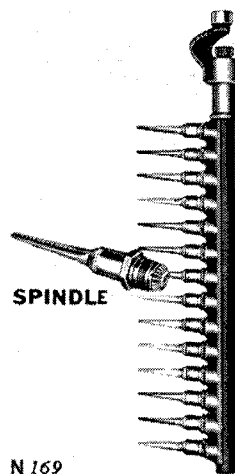
These three basic components are mounted in such a way that the tractor operates in reverse gear during the picking operation. For transporting, the picker is driven from the tractor seat, using the regular tractor forward speeds. However, on 2010, 3010, or 4010 Tractor, the picker may be transported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

## Picking unit

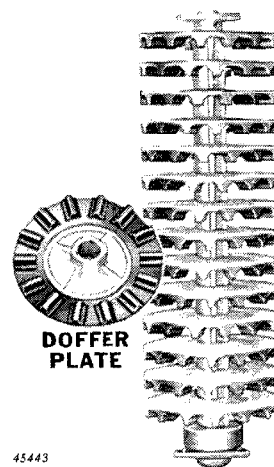
The heart of the picker is the highly efficient spindle-type picking unit. There are two drums of spindles. Each drum consists of 12 cam-controlled spindle columns with 14 spindles on each column.



*Picking Drum*

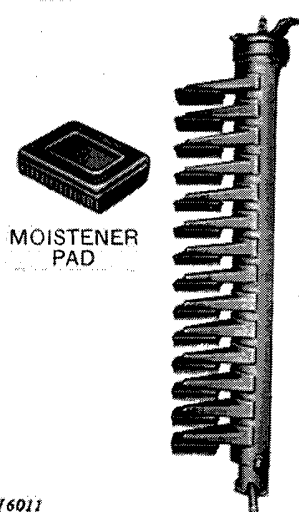


*Spindle column*



*Doffer*

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 14 aluminum alloy doffer plates that have rubber doffers molded to the plates.



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.

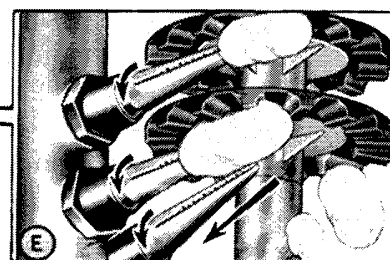
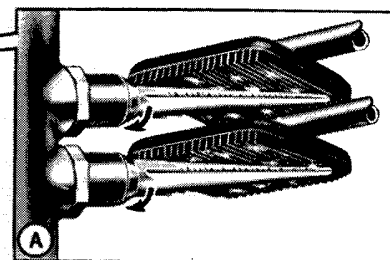
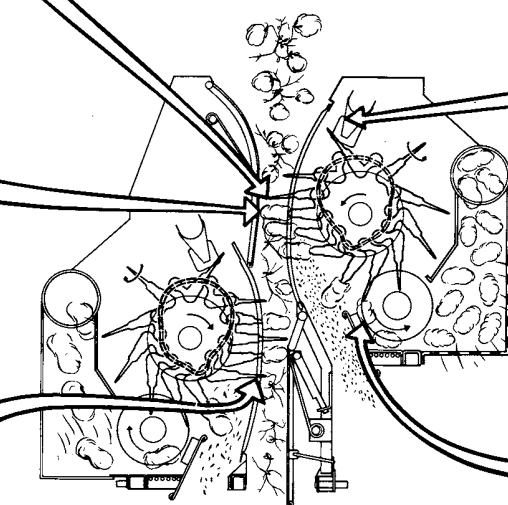
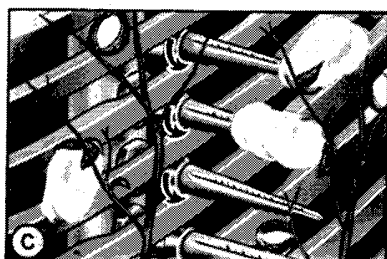
The stalk lifters guide the cotton plant into the picking zone of the unit where the grid bars and pressure plates take over to hold the plant in position for picking.

## 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.

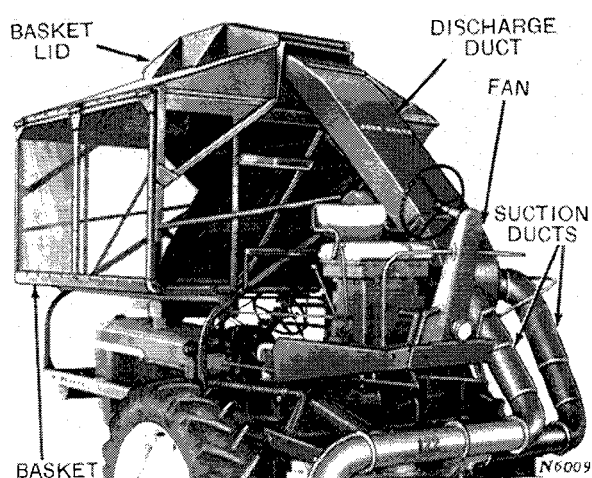


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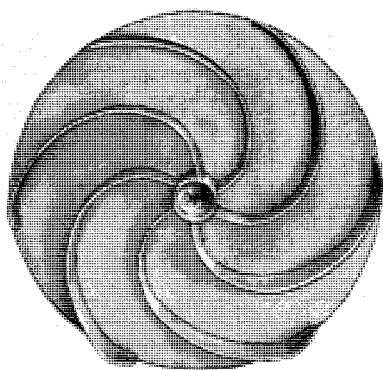
At "C" the spindles are all the way out and wrap the cotton fibre onto the spindle barbs. Then the spindles move back through the grid bars, pulling the cotton out of the open bolls and through the grid bars as shown at "D."

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.

## Fan delivery system and basket



A powerful double-rotor fan provides individual suction for each picking drum. The cotton is sucked out of the picking unit through suction ducts to the fan and then is blown into the basket.

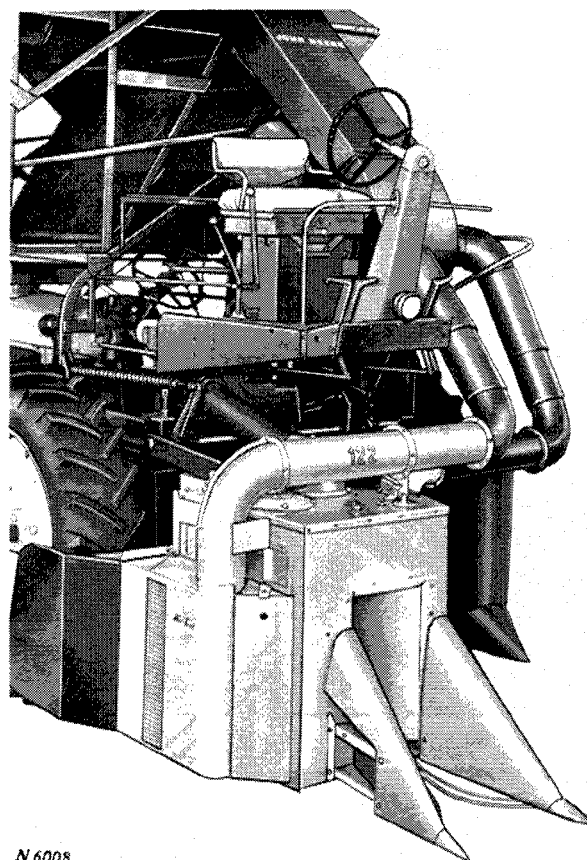


*Fan rotor*

The fan has spiral-shaped blades so the cotton is handled with the least amount of damage to the seed.

The big-capacity basket will hold 1,200 pounds of seed cotton so you will have to dump it fewer times during a day. Two powerful double-acting hydraulic cylinders raise and lower the basket for dumping. The lid opens and closes automatically as the basket is raised and lowered.

## Platform and controls



You are right on top of the picking operation when at the controls of the 122 Cotton Picker. You are up high out of the dust and dirt and have maximum visibility of everything that is going on.

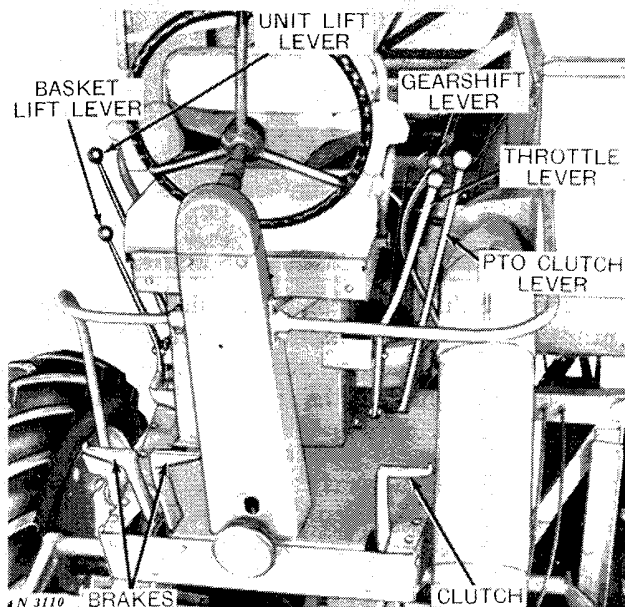
All controls are within easy reach. Just make a couple of trips up and down a field and you will be perfectly at home on this cotton picker.





# operation

## Controls on John Deere 2010, 3010, and 4010 tractors



The regular tractor controls are used for starting the tractor engine. These controls are described in your tractor operator's manual. The controls that are peculiar to the operation of the 122 Cotton Picker are described here.

The controls for operating the cotton picker in the field are located on the operator's platform, within easy reach of the operator. The high, roomy platform provides a good view of the picking unit and the cotton row.

### Throttle lever

The throttle lever is located to the left of the operator's seat. Pushing the lever forward increases the engine speed, and pulling it back decreases the engine speed.

A throttle stop immediately behind the lever determines the maximum engine speed. When operating in the field this stop must be set so the tractor engine is operating at the proper speed. See pages 41 and 42 for setting engine speed.

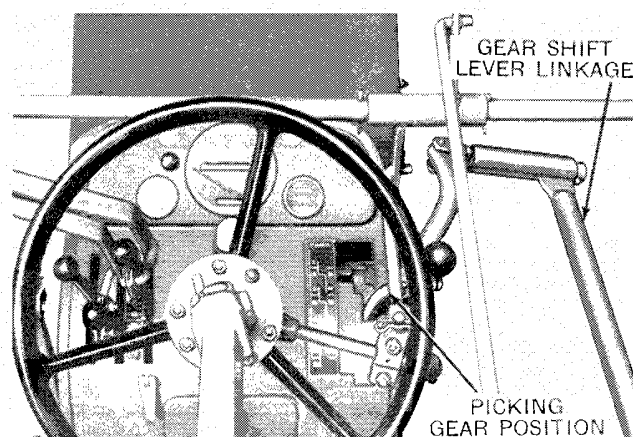
### Brakes

Individual foot-operated brakes make possible short turns either to the right or left. If the cotton picker is transported from the operator's platform, apply the brakes evenly to avoid pulling the picker to one side.

### Gearshift lever

The gearshift lever is located at the left-rear of the operator's seat. It is connected directly to the tractor gearshift lever and is designed so that all tractor gears can be obtained from the platform. The gear position for picking, reversing and transporting are as follows:

Tractor	Tractor Gear Used		
	Picking	Reversing	Transporting
2010	2 R - Low Reverse	1st or 2nd Gear	4 R - Middle Reverse or 6 R - High Reverse
3010 or 4010	3 R - Low Reverse	1st or 3rd Gear	5 R - Middle Reverse or 7 R - High Reverse



*Illustrated on 3010 Tractor*

If desired the picker may be transported from the tractor seat using the tractor regular forward gears.

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