

11, 12, 22, 99, AND 122 COTTON PICKERS



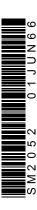
SERVICE MANUAL 11, 12, 22, 99, AND

122 COTTON PICKERS

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SERVICE MANUAL

JOHN DEERE

11, 12, 22, 99 and 122

COTTON PICKERS

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TO THE JOHN DEERE SERVICEMAN

This service manual contains service information for John Deere 11, 12, 22, 99, and 122 Cotton Pickers. Included are complete instructions for removal, inspection, repair, assembly, and installation of the major components and assemblies of the cotton pickers.

This manual also contains brief description of the more complicated systems of the picker and tells how they operate. Dimensions of many new parts are given as an aid in determining when parts replacement is necessary. Tests and adjustments required to keep the picker operating efficiently are explained in detail.

This manual was planned and written for the service department; its place is in the shop. Use the manual whenever in doubt about correct maintenance procedures. Use it as a test book for training service department personnel, who are unfamiliar with John Deere Cotton Pickers.

Daily use of the Service Manual as a guide will reduce error and costly delay to a minimum and assure you the best in finished service work. In many instances your customer will have more confidence in your work when he sees you using the Service Manual. He will know you are following approved maintenance procedures and making the proper adjustments.

For complete service information for the 99 Cotton Picker the service manuals listed below are also required.

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SM-2026	John Deere 92, 145, and 217 Pow-
	er Units
GRE 0059	Tahm Danner 115 105 and 040 Dane
SM-2053	John Deere 115, 165, and 248 Pow-
	er Units
SM-2029	John Deere Electrical Systems
SM-2025	John Deere 720 Tractor
SM-2050	Power Steering for John Deere 2~
	Cylinder Tractors

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Section 10 DESCRIPTION AND SPECIFICATIONS

Group 5 11 COTTON PICKER

DESCRIPTION

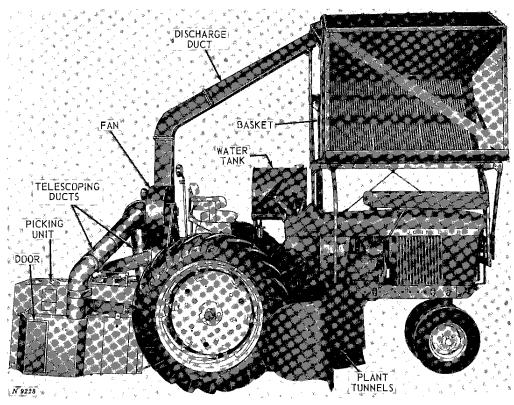


Fig. 10-5-1-11 Cotton Picker on 3010 Tractor

The 11 Cotton Picker is a one-row mounted machine designed for low acreage cotton growers. The picker mounts on the tractor so that the tractor's normal forward gears are used for picking operation.

The attaching and detaching of the picker can be done easily and quickly without any tractor conversions.

The picker consists of two basic elements:

- 1. One-row picking unit.
- 2. Fan delivery system and cotton basket.

PICKING UNIT

The picking unit is a ten-spindle-high picking unit with two 12-picker-bar drums, one for each side of the cotton row. The picker bars are cam controlled to position the spindles in the proper relationship to the cotton row and to the components in the picking unit.

The picking unit is gear-driven in such a manner that the speed of the picker drums is synchronized with the speed of picker forward travel. In other words the spindles have no forward or backward motion in relation to the cotton plant.

The unit contains two doffer assemblies to remove cotton from the spindles and two moistener column assemblies for cleaning the spindles prior to the spindle entry into the cotton row.

The picking unit is raised and lowered by the tractor rockshaft.

FAN DELIVERY SYSTEM AND BASKET

A powerful fan provides individual suction from each picker drum. The cotton is sucked out of the suction doors through pipes to the fan. Then the cotton is blown against cleaning grates in the basket.

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

The basket holds 600 pounds of seed cotton. A double-acting hydraulic cylinder raises and lowers the basket for dumping. The lid opens and closes automatically as the basket is raised and lowered.

SPECIFICATIONS

PICKING UNIT

No. of Picker Drums	2
No. of Picker Bars:	
Front Drum (R.H.)	12
Rear Drum (L.H.)	12
No. of Spindles:	
Per Picker Bar	10
Total (Unit)	240

PICKING UNIT SPEEDS

Speeds given for 530 tractor equipped with 12.4-38 tires at 2.25 mph. Speeds for other tractors vary slightly.

Picker Drums	103 rpm
Doffers	1193 rpm
Spindles	
Fan	

GROUND SPEEDS

2010, 3010, and 4010 Tractors	2.5	mph
430, and 420 Tractors	2.0	mph
530, 630, 730, 520, 620, and 720		
Tractors	2.25	mph.
50 and 60 Tractors	2.25	mph

TRACTOR MOUNTINGS

For John Deere 2010, 3010, 4010, 430, 530, 630, 730, 420, 520, 620, 720, 50, and 60 Tractors equipped for remote hydraulic cylinder operation and with rear rockshaft and either single or dual front wheels, 540 or 1000 rpm PTO. External speed changer cannot be used on PTO.

CONTROLS

Picking Unit Lift	Tractor Rockshaft
Basket Lift	One double acting Hy-
	draulic Cylinder op-
	erated by Tractor Re-
	mote Cylinder Control
	Lover

CAPACITIES

Cotton Basket	600	lbs.	of Seed	Cotton
Water Supply Tank		25 o	r 40 U.S	. gals.

DIMENSIONS (As mounted on 530 Tractor)

Over-all	Length						16 ft.
Over-all	Width .						9 ft. 2 in.

HEIGHT

Basket	Lowered											. 13	2 ft.	4	in.
Basket	Raised .											10	6 ft.	4	in.
Basket	Dumping	P	iv	70	t	Η	e	ig	h	١,		9	ft.	11	in.

WEIGHT

Cotton Picker only (Does not include tractor) 3100 lbs. approx.

Group 10 12 COTTON PICKER

DESCRIPTION

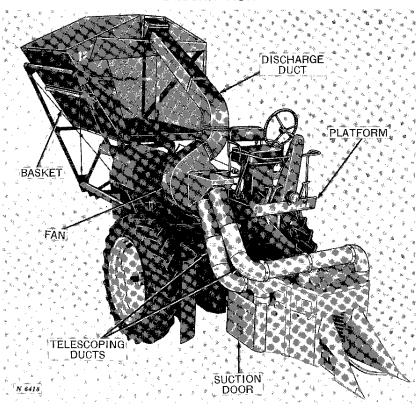


Fig. 10-10-1-12 Cotton Picker on 2010 Tractor

The 12 Cotton Picker is a one-row tractor mounted machine designed for low acreage cotton growers. The picker mounts on John Deere Tractors so that the tractor operates in reverse gear during picking operation. Transporting the picker can be done from either the tractor seat or operator's platform seat.

The cotton picker consists of three basic elements:

- 1. One-row picking unit.
- 2. Fan delivery system and basket.
- 3. Operator's platform and controls.

PICKING UNIT

The picking unit is a ten-spindle-high picking unit with two, 12-picker-bar drums, one for each side of the cotton row. The picker bars are cam controlled to position the spindles in the proper relation to the cotton row and to the components in the picking unit.

The picking unit is gear driven (power is transmitted from tractor PTO) in such a manner that the speed of the picker drums is synchronized with the speed of picker forward travel. In other words, the spindles have no forward or backward motion in relation to the cotton plant.

The picking unit is gear-driven in such a manner that the speed of the picker drums is synchronized with the speed of picker forward travel. In other words the spindles have no forward or backward motion in relation to the cotton plant.

The unit contains two doffer assemblies to remove cotton from the spindles and two moistener column assemblies for cleaning the spindles prior to the spindle entry into the cotton row.

The picking unit is raised and lowered by the tractor rockshaft.

FAN DELIVERY SYSTEM AND BASKET

A powerful fan provides individual suction from each picker drum. The cotton is sucked out of the suction doors through pipes to the fan. Then the cotton is blown against cleaning grates in the basket.

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

The basket holds 600 pounds of seed cotton. A double-acting hydraulic cylinder raises and lowers the basket for dumping. The lid opens and closes automatically as the basket is raised and lowered.

SPECIFICATIONS

PICKING UNIT

No. of Picker Drums	2
No. of Picker Bars:	
Front Drum (R.H.)	12
Rear Drum (L.H.)	12
No. of Spindles:	
Per Picker Bar	10
Total (Unit)	240

PICKING UNIT SPEEDS

Speeds given for 530 tractor equipped with 12.4-38 tires at 2.25 mph. Speeds for other tractors vary slightly.

Picker Drums	103 rpm
Doffers	1193 rpm
Spindles	2334 rpm
Fan	

GROUND SPEEDS

2010, 3010, and 4010 Tractors	2.5 mph
430, and 420 Tractors	2.0 mph
530, 630, 730, 520, 620, and 720	
Tractors	2.25 mph
50 and 60 Tractors	2.25 mph

TRACTOR MOUNTINGS

For John Deere 2010, 3010, 4010, 430, 530, 630, 730, 420, 520, 620, 720, 50, and 60 Tractors equipped for remote hydraulic cylinder operation and with rear rockshaft and either single or dual front wheels, 540 or 1000 rpm PTO. External speed changer cannot be used on PTO.

CONTROLS

Picking Unit Lift	Tractor Rockshaft
Basket Lift	One double acting Hy-
	draulic Cylinder op-
	erated by Tractor Re-
	mote Cylinder Control
	Lever.

CAPACITIES

Cotton Basket	600	lbs. of Seed Cotton
Water Supply Tank		25 or 40 U.S. gals.

DIMENSIONS (As mounted on 530 Tractor)

Over-all	Length							16 ft.
Over-all	Width .				_		_	9 ft. 2 in.

HEIGHT

Basket Lowered	12 ft. 4 in.
Basket Raised	16 ft. 4 in.
Basket Dumping Pivot Height	9 ft. 11 in.

WEIGHT

Cotton Picker only (Does not include tractor) 3100 lbs. approx.

Group 10 12 COTTON PICKER

DESCRIPTION

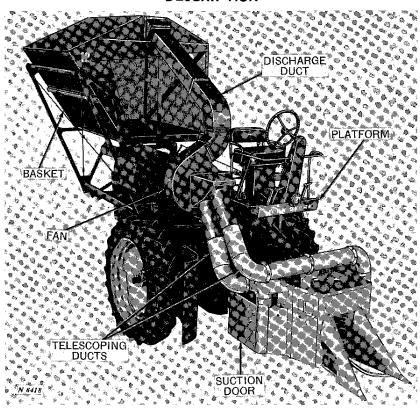


Fig. 10-10-1-12 Cotton Picker on 2010 Tractor

The 12 Cotton Picker is a one-row tractor mounted machine designed for low acreage cotton growers. The picker mounts on John Deere Tractors so that the tractor operates in reverse gear during picking operation. Transporting the picker can be done from either the tractor seat or operator's platform seat.

The cotton picker consists of three basic elements:

- 1. One-row picking unit.
- 2. Fan delivery system and basket.
- 3. Operator's platform and controls.

PICKING UNIT

The picking unit is a ten-spindle-high picking unit with two, 12-picker-bar drums, one for each side of the cotton row. The picker bars are cam controlled to position the spindles in the proper relation to the cotton row and to the components in the picking unit.

The picking unit is gear driven (power is transmitted from tractor PTO) in such a manner that the speed of the picker drums is synchronized with the speed of picker forward travel. In other words, the spindles have no forward or backward motion in relation to the cotton plant.

The unit contains two doffer assemblies to remove the cotton from spindles and two moistener column assemblies for cleaning the spindles prior to the spindle entry into the cotton row.

The picking unit is raised and lowered by the tractor rockshaft.

FAN DELIVERY SYSTEM AND BASKET

A powerful fan provides individual suction from each picker drum. The cotton is sucked out of the suction doors, through pipes to the fan. Then the cotton is blown against cleaning grates in the basket.

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

The basket holds 600 pounds of seed cotton. A double-acting hydraulic cylinder raises and lowers the basket for dumping. The lid opens and closes automatically as the basket is raised and lowered.

PLATFORM AND CONTROLS

The platform is located above the picking unit so the operator has maximum visibility of the picking operation.

All controls necessary for picking operation are located within easy reach from the operator's seat. The controls are connected by linkages to the tractor controls. The tractor engine is started and stopped from the tractor seat.

SPECIFICATIONS

PICKING UNIT	
No. of Picker Drums	2
No. of Picker Bars:	
Front Drum (R.H.)	12
Rear Drum (L.H.)	12
No. of Spindles:	
Per Picker Bar	10
Total (Unit)	240
Doffer Assemblies (Unit)	2
No. of Doffer Plates (per Assembly)	10
Moistener Column Assemblies (Unit)	2
No. of Moistener Pads (per Assembly).	10

PICKING UNIT SPEEDS

Speeds given for 2010 Tractor equipped with 12.4-36 tires at 2.23 mph. Speeds for other tractors vary slightly

Picker Drums	100 rpm
Doffers	1225 rpm
Spindles	2575 rpm
Fan	2443 rpm

GROUND SPEEDS (Based on 2010 Tractor)

Picking Speed	2.23 mph
Transport Speed	8.97 mph
Reverse Speed	2.00 mph

CAPACITIES

Cotton Basket	600 lbs.	of Seed Cotton
Water Supply Tank		. 40 U.S. Gal.

DIMENSIONS (Mounted on 2010 Tractor)

Length	17 ft. 4 in.
Width	9 ft. 4 in.
Height:	
Basket Lowered	12 ft. 0 in.
Basket Raised	16 ft. 0 in.
Basket Dumping Pivot Height	9 ft. 7 in.

WEIGHT

Cotton Picker only (Does Not Include Tractor) 3175 lbs. approx.

TRACTOR MOUNTINGS

2010, 430, and 420, tractor with single or dual hydraulic system, single remote cylinder control with breakaway coupler. Single or dual front wheels, and 540, or 1000 rpm PTO. External speed changers cannot be used on PTO. Tire sizes recommended are shown on page 10-10-3.

3010 and 4010 Tractors with rear rockshaft, single or dual remote cylinder control with breakaway coupler. Single or dual front wheels and power take-off. Tire sizes recommended are shown on page 10-10-3.

530, 630, 730, 520, 620, 720, 50, and 60 Tractors with rear rockshaft, single or dual remote cylinder control, single or dual front wheels, 540 or 1000 rpm transmission or engine driven power take-off. External speed changers cannot be used on PTO. Tire sizes recommended are shown on page 10-10-3.

TRACTOR TIRE SIZES

2010 Tracto	r	4010 Tra	ctor	630 and 620 T	ractors
Size	Ply Rating	Size	Ply Rating	Size	Ply Rating
6.00 x 14	4	6.00 x 16	6	6.00 x 16	4
6.00×14	6	7.50×15	6	6.00×16	6
6.50 x 16	8 .	7.50×16	10	7.50×15	6
9.00 x 10	8	11.00 x 12	12	7.50×16	8
12.4 x 36	6	13.6 x 38	6	9.00 x 10	8
13.9 x 36	6	15.5 x 38	6	11.00 x 12	12
13.9 x 36	4	15.5 x 38 C 8	& R 6	13.6 x 38	6
		13.00 x 38 C 8	&R 6	15.5 x 38	6
				12 x 38 C &	
•				11.00×42	6
				12.4×38	6
			:	11.00 x 38	6
3010 Tracto	r	430 and 420 T	ractors	50 Tract	or
6.00 x 14	6	5.00 x 15	4	5.50 x 16	4
6.00 x 16	6	6.00 x 16	4	6.50×16	6
7.50×15	6	6.00×16	6	6.50×16	8
6.50×16	8	7.50×10	6	9.00×10	8
7.50×16	10	10.00 x 34	4	11.00 x 38	6
9.00×10	8	12.00 x 28	4	11.00 x 38 C &	
11.00 x 12	12			11.00 x 42	6
13.9 x 36	6			10.00 x 38	4
13.6 x 38	6				
15.5 x 38	6				
13.6 x 38 C & R	6				
15.5 x 38 C & R	6		,		
13.9 x 36	4				
12.4 x 36	6				
530 and 520 Trac	ctors	730 and 720 ⁻	Tractors	60 Tract	tor
5.50 x 16	4	6.00 x 16	4	6.00 x 16	4
6.00×16	4	6.00 x 16	6	6.00 x 16	6
6.00×16	6	7.50×15	6	7.50 x 16	8
6.50×16	6	7.50 x 16	10	9.00 x 10	8
6.50×16	8	11.00 x 12	12	11.00 x 42	6
9.00 x 10	8	13.6 x 38	6	12.00 x 38 C &	
12.4 x 36	6	15.5 x 38	6	12.00 x 38	6
12.4 x 38	6	12 x 38 C 8		13.00 x 38	6
11.00 x 38 C & R		13 x 38 C	& R 6	11.00 x 42	6
13.9 x 36	4			11.00 x 38	6
9.00 x 42	6				

Group 15 22 COTTON PICKER

DESCRIPTION

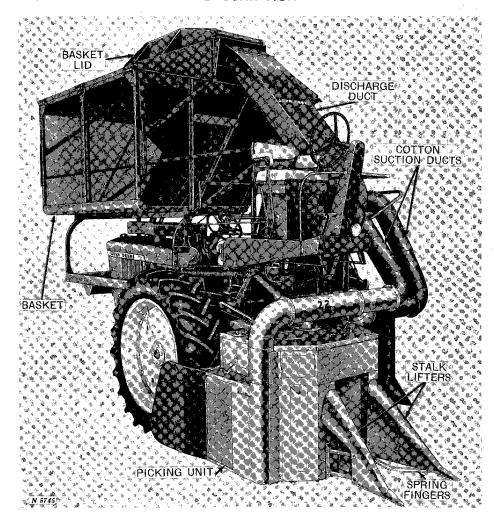


Fig. 10-15-1-22 Cotton Picker on 3010 Tractor

The 22 Cotton Picker is a one-row tractor-mounted machine. The picker is provided in two types of units; the low drum machine for short cotton and the high drum for tall cotton. The picker mounts on John Deere Tractors so that the tractor operates in reverse gear during picking operation. Transporting the picker can be done from either the tractor seat or operator's platform.

The cotton picker consists of three basic elements:

- 1. One-row picking unit.
- 2. Fan delivery system and basket.
- 3. Operator's platform and controls.

PICKING UNIT

The picking unit has two picker drums, one on each side of the cotton row. The front drum contains 16 picker bars and the rear drum contains 12 picker bars. On a low drum unit each picker bar has 14 spindles. On a high drum unit each picker bar has 20 spindles. The picker bars are cam-controlled to position the spindles in the proper relationship to the cotton row and to components in the picking unit.

The unit also contains two doffer assemblies to remove cotton from the spindles and two moistener column assemblies for cleaning the spindles prior to the spindle entry into the cotton row.

The picking unit is gear-driven (power is transmitted from tractor PTO) in such a manner that the speed of the picker drums is synchronized with the speed of picker forward travel. In other words, the spindles have no forward or backward motion in relation to the cotton plant. The picking unit is raised and lowered by the tractor rockshaft.

FAN DELIVERY SYSTEM AND BASKET

A powerful double fan provides individual suction from each picking drum. The cotton is sucked out of the suction doors and through pipes to the fan. Then the cotton is blown against cleaning grates in the basket.

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

The basket holds 1200 pounds of seed cotton. Two double-acting hydraulic cylinders raise and lower the basket for dumping. The lidopens and closes automatically as the basket is raised and lowered.

PLATFORM AND CONTROLS

The platform is located above the picking unit so that the operator has maximum visibility of the picking operation.

All controls necessary for picking operations are located within easy reach from the operator's seat. The controls are connected by linkages to the tractor controls. The tractor engine is started and stopped from the tractor seat.

SPECIFICATIONS

PICKING UNIT No. of Picker Drums	
No. of Picker Bars:	2
16-Bar Drum (Front)	16
12-Bar Drum (Rear)	12
No. of Spindles Per Picker Bar:	
High Drum	20
Low Drum	14
High Drum	560
Low Drum	392
Doffer Assemblies (Unit)	2
No. of Doffer Plates (per assembly) High Drum	20
Low Drum	14
Moistener Column Assemblies (Unit)	2
No. of Moistener Pads (per assembly)	
High Drum	20
Low Drum	14
PICKING UNIT SPEEDS	
Speeds given are for 3010 tractor at 2.5 α equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors.	
equipped with 13.9 x 36 tires. Speeds will v	
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums:	ary
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums:	vary
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums: 16-bar (Front)	rpm
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will v slightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will verslightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will visightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will vestightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm rpm rpm
equipped with 13.9 x 36 tires. Speeds will visightly for other tractors. Picker Drums: 16-bar (Front)	rpm rpm rpm rpm rpm rpm rpm

Water Supply Tank 40 U.S. Gal.

DIMENSIONS (Mounted on 3010 Tra	ctor)	**
Length	18 ft8	in.
Width	9 ft7	in.
Height:		
High Drum		
Basket Lowered	14 ft10	in.
Basket Raised	18 ft7	in.
Low Drum		
Basket Lowered	13 ft10	in.
Basket Raised	17 ft7	in.

TRACTOR MOUNTINGS

*2010 Tractor with single or dual hydraulic system, single remote cylinder control with breakaway couplings, single or dual front wheels, power take-off and power steering. Tire sizes recommended are shown on page 10-15-4.

2510, 3010, 3020, 4010 and 4020 Tractors with rear rockshaft, single or dual remote cylinder control valve with breakaway couplings. Single or dual front wheels and power take-off. Tire sizes recommended are shown on page 10-15-4.

*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 drive power take-off. Tire sizes recommended are shown on page 10-15-4.

*Tractors limited for use with low-drum pickers only.

HOLD BE AND THE SIZES OF THE SI

Size	Ply Rating	Size	Ply Rating	Şize	Ply Rating
2010 Tractor	1, 1	4020 Tracto	or	50 Tractor	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
6.00 14	·* ·4	6:0016	6	E EO 16	4
6.00 x 14 6.00 x 14	6	6.00 x 16 7.50 x 15		5.50 x 16 6.50 x 16	6
6.50 x 16	_	7.50 x 15 7.50 x 16	6 : 10	6.50×16	8
9.00 x 10	8 8	11.00 x 12	10 12	9.00 x 10	8
12.4 x 36	6	15.5×38	6	11 x 38	6
13.9 x 36	6	15.5 x 38 C & R	6	11 x 38 C & R	6
13.9 X 30	U .	16.9 x 34	6	11 x 42	6
2510 Tractor	1 .	18.4 x 34	6	11 7 44	,
2310 11 40101		18.4 x 34 C & R	6	60 Tractor	w and
6.00 x 16	6	10,4 2 04 0 06 10		GO TI GELOT	en e
7.50 x 16	10	530 and 520 Tr	nctors	6.00 x 16	4
9.00 x 10	8	500 and 520 m		6.00 x 16	6
13.6 x 38	6	5.50 x 16	4	7.50 x 16	8
13.6 x 38 C & R	6	6.00 x 16	4	9.00 x 10	8
10.0 X 00 C & 1t	U	6,00 x 16	6	11 x 42	6
3010 Tractor		6.50×16	6	12 x 38	6
3010 1140.01		6.50 x 16	8	12 x 38 C & R	6
6.00 x 14	6	9,00 x 10	8	13 x 38	6
6.00 x 16	6	12,4 x 36	6	10 % 03	J
7.50×15	6	12.4 x 38	6	70 Tractor	
6.50×16	8	11 x 38 C & R	6	io ir detai	
7.50×16	10	11 7 00 0 0 10	0	6.00 x 16	4
9.00 x 10	8	630 and 620 Tr	actore	6.00 x 16	6
11.00 x 12	12	030 und 020 11	uctor s	7.50 x 16	10
13.9 x 36	6	6.00 x 16	4	12 x 38	6
13.6 x 38	6	6.00 x 16	6	12 x 38 C & R	6
15.5 x 38	6	7,50 x 15	6	13 x 38	6
13.6 x 38 C & R	6	7.50 x 16	8	13 x 38 C & R	6
15.5 x 38 C & R	6	9.00 x 10	8	10 11 00 0 0 10	Ŭ
10.0 % 00 0 % 10	0	11.00 x 12	12	A Tractor	
3020 Tractor		13.6 x 38	6	ATTUCIO	
3020 114001		15.5 x 38	6	5.50 x 16	4
6.00 x 16	6	12 x 38 C & R	- 6	9.00 x 10	8
7.50 x 15	6	12 11 00 0 0 11	Ū	11 x 42	6
7.50 x 16	10	730 and 720 Tr	actore	12 x 38	6
11.00 x 12	12	730 UNA 720 11	uctor s	12 x 38 C & R	6
13.6 x 38	6	6.00 x 16	4		
15.5 x 38	6	6.00 x 16	6	G Tractor	
13.6 x 38 C & R	6	7.50 x 15	6	0 11 40.05	
15.5 x 38 C & R	6	7.50 x 16	10	6.00 x 16	4
16.9 x 38	6	11.00 x 12	12	6.00 x 16	6
20.0 11 00	•	13.6 x 38	6	6.00 x 16	8
4010 Tractor		15.5 x 38	6	7.50 x 16	8
-1010 1140101		12 x 38 C & R	6	12 x 38	6
6.00 x 16	6	13 x 38 C & R	6	12 x 38 C & R	6
7,50 x 15	6		•	13 x 38	6
7.50 x 16	10			13 x 38 C & R	6
11.00 x 12	12				
13.6 x 38	6				
15.5 x 38	6		-		
15.5 x 38 C & R	6				

SM-2052 (Jun-66) Litho in U.S.A.

Group 20 122 COTTON PICKER

DESCRIPTION

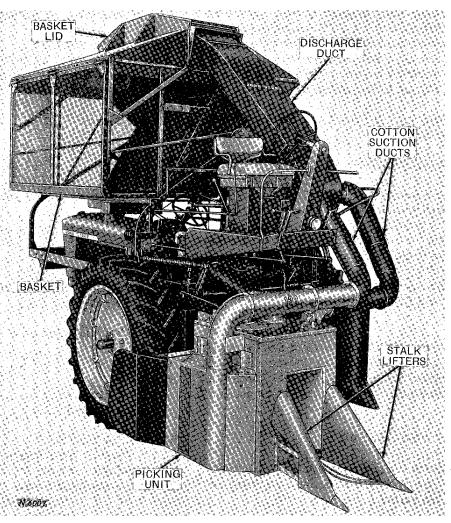


Fig. 10-20-1-122 Cotton Picker on 3010 Tractor

The 122 Cotton Picker is a one-row tractor-mounted machine. The picker mounts on John Deere Tractors so that the tractor operates in reverse gear during picking operation. Transporting the picker can be done from either the tractor seat or operator's platform seat.

The cotton picker consists of three basic elements:

- 1. One-row picking unit.
- 2. Fan delivery system and basket.
- 3. Operator's platform and controls.

PICKING UNIT

The picking unit is a fourteen spindle high unit with two 12-picker bar drums, one for each side of the cotton row. The picker bars are camcontrolled to position the spindles in the proper relationship to the cotton row and to the components of the picking unit.

The unit contains two doffer assemblies to remove cotton from the spindles and two moistener column assemblies for cleaning the spindles prior to the spindle entry into the cotton row.

The picking unit is gear driven (power is transmitted from tractor PTO) in such a manner that the speed of the picker drums is synchronized with the speed of picker forward travel. In other words, the spindles have no forward or backward motion in relation to the cotton plant.

The picking unit is raised and lowered by the tractor rockshaft.

FAN DELIVERY SYSTEM AND BASKET

A powerful double fan provides individual suction from each picking drum. The cotton is sucked out of the suction doors and through pipes to the fan. Then the cotton is blown against cleaning grates in the basket lid.

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

The basket holds 1200 pounds of seed cotton. Two 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

The platform is located above the picking unit so that the operator has maximum visibility of the picking operation.

All controls necessary for picking operations are located within easy reach from the operator's seat. The controls are connected by linkages to the tractor controls. The tractor engine is started and stopped from the tractor seat.

SPECIFICATIONS

PICKING UNIT	
No. of Picker Drums	. 2
No. of Picker Bars:	
Front Drum (R.H.)	12
Rear Drum (L.H.)	12

No. of Spindles	
Per Picker Bar	14
Total (Unit)	336
Doffer Assemblies (Unit)	2
No. of Doffer Plates (per assembly)	14
Moistener Column Assemblies	2
No. of Moistener Pads (per assembly).	14

PICKING UNIT SPEEDS

Speeds given for 3010 Tractor at 2.5 mph equipped with 13.9 x36 tires. Speeds vary slightly for other tractors.

Picker Drums	112 rpm
Spindles	2883 rpm
Doffers	1398 rpm
Fans	1840 rpm

GROUND SPEEDS (Based on 3010 Tractor)

Picking Speed	2.50	mph
Transport Speed		mph
Reverse Speed	2.0	mph

CAPACITIES

Cotton Basket	1200 lbs	. Seed Cotton
Water Supply Tank		40 U.S. Gal.

DIMENSIONS (Mounted on 3010 Tractor)

Length	18 ft. 8 in.
Width	9 ft. 7 in.
Height:	
Basket Lowered	13 ft. 10 in.
Basket Raised	17 ft. 7 in.

TRACTOR MOUNTINGS

2010 Tractor with single or dual hydraulic system, single remote cylinder control with breakaway couplings, single or dual front wheels, power take-off and power steering. Tire sizes recommended are shown on page 10-15-4.

2510, 3010, 3020, 4010, and 4020 Tractors with rear rockshaft, single or dual remote cylinder control valve with breakaway couplings. Single or dual front wheels and power take-off. Tire sizes recommended are on page 10-15-4.

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 drive power take-off. Tire sizes recommended are shown on page 10-15-4.