

# 23F AND 23R UNIT PLANTERS



## OPERATORS MANUAL 23F AND 23R UNIT PLANTERS

OMB25374 C7    English

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ENGLISH





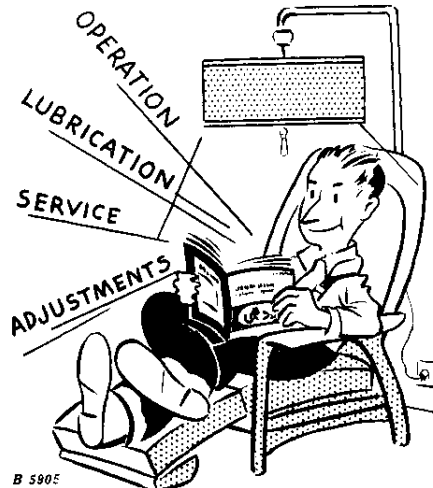
## TO THE PURCHASER

Your new unit planter is sturdy and dependable. It will give long and efficient service if given proper care and operation.

This operator's manual contains information on the proper operation, adjustment, maintenance, and lubrication of your new planter.

When in need of parts, see your John Deere dealer. He will furnish genuine John Deere Parts and prompt and efficient service in the field or in the shop.

Right-hand and left-hand reference is determined by standing at the rear of the planter and facing the direction of travel.



B 5905

Study this manual carefully. Keep it handy, in a safe place, for future reference.

### JOHN DEERE 23F AND 23R UNIT PLANTERS

Check off the attachments obtained, and record the date purchased.

Date purchased \_\_\_\_\_

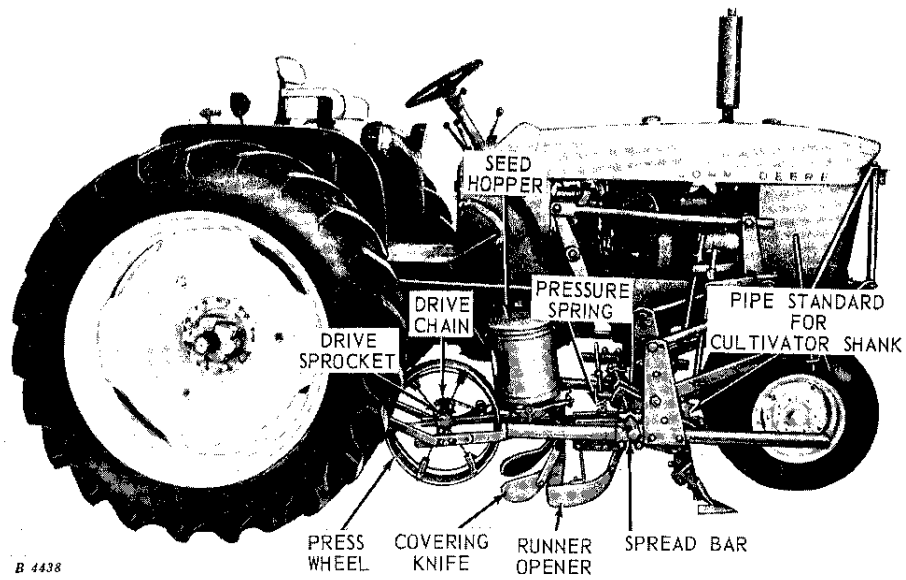
23F Unit Planter . . . . .	<input type="checkbox"/>
23R Unit Planter . . . . .	<input type="checkbox"/>
Semi-Pneumatic Rubber	
Press Wheel Tire . . . . .	<input type="checkbox"/>
Traction Tread Rubber	
Press Wheel Tire . . . . .	<input type="checkbox"/>
Press Wheel Band . . . . .	<input type="checkbox"/>
Narrow Gauge Shoe . . . . .	<input type="checkbox"/>
Wide Gauge Shoe . . . . .	<input type="checkbox"/>
Cultivator Push Rods . . . . .	<input type="checkbox"/>
Offset Lift Arm and Pipe . .	<input type="checkbox"/>
Fertilizer Runner and Shank	<input type="checkbox"/>
Fertilizer Runner . . . . .	<input type="checkbox"/>
Double Disk Seed Opener . .	<input type="checkbox"/>
Brush Cut-Off and Baffle	
Plate . . . . .	<input type="checkbox"/>

Fine Seed Attachment . . . . .	<input type="checkbox"/>
Seed Packer Wheel . . . . .	<input type="checkbox"/>
Lift Pipe . . . . .	<input type="checkbox"/>
Cole Hopper . . . . .	<input type="checkbox"/>
Drive Chain Shield . . . . .	<input type="checkbox"/>
Two-Row Marker . . . . .	<input type="checkbox"/>
Four-Row Marker . . . . .	<input type="checkbox"/>
Pea Attachment . . . . .	<input type="checkbox"/>
Rolling Coulter Attachment .	<input type="checkbox"/>
Unshelled Peanut	
Attachment . . . . .	<input type="checkbox"/>
Shelled Peanut Attachment .	<input type="checkbox"/>
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w/Aluminum Cut-off . . . . .	<input type="checkbox"/>
Stabilizer Bar Attachment . .	<input type="checkbox"/>
Insecticide Attachment . . . .	<input type="checkbox"/>

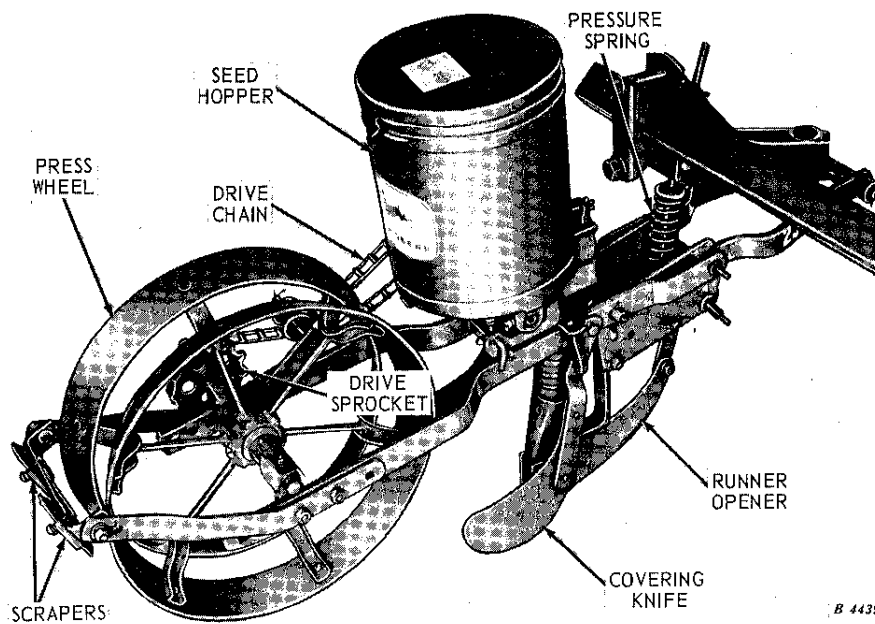


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*23F Unit Planter Mounted on a John Deere 2010 Series Tractor with Two-Row Cultivator*



*23R Unit Planter on a Rear-Mounted Tool Bar*



## SPECIFICATIONS

**TYPES** — The 23F Unit Planter is a two- or four-row, front-mounted, cotton and corn, drill planter. It can be attached to the front rig beams on John Deere Two-Row or Four-Row Cultivators.

The 23F Unit Planter can be used on most John Deere two- or four-row, front- or rear-mounted cultivators.

The 23R Unit Planter is a rear-mounted, cotton and corn, drill planter. It can be attached to any square 1-3/4 to 2-1/4-inch rear-mounted tool bar. One or more units may be mounted on the tool bar depending upon the length of the tool bar, desired row spacing, and the position of the tool bar attaching parts.

The 3020 or 4020 John Deere Tractor is recommended when the 23R Planter Unit is mounted on a four-row No. 52 Front-Mounted Culti-Carrier.

**ROW WIDTHS** — 23R Planter only—The minimum row spacing is 20 inches. 23F Planter only—36 to 42 inches. Maximum row widths are limited only by the length of the toolbar and the toolbar attaching parts.

**TYPE OF DRIVE** — Sprocket and chain from press wheel axle.

**SEED HOPPER CAPACITY** — Approximately 1/2 bushel.

**PRESS WHEEL** — 10-inch press wheel. Can be equipped with scrapers, and/or steel press wheel bands. Rubber press wheel tires are available.

**PRESS WHEEL BAND** — Used for a more compact seed bed. The band will close up the opening and make the press wheel solid.

**PLANTING DEPTH** — Controlled by the press wheel gauge shoe.

**FERTILIZER OPENERS** — When a side dresser is used with a unit planter, runner openers are available for side placement of the fertilizer level with, or below the seed.

**DOUBLE DISK OPENERS** — 11-inch double disk seed openers are available for use in trashy conditions and for better penetration in hard soil.

**17 LIFT ASSIST WHEEL** — Will permit a smaller tractor to handle four 23R planting units and attachments.

#### 4 Specifications

##### SPECIFICATIONS—Continued

**GAUGE SHOES** — Narrow or wide gauge shoes are available for maintaining accurate planting depth in loose soil conditions.

**SEED PACKER WHEEL** — Will press the seed against the moist soil in the bottom of the furrow. Recommended for use in dry soil. It is not recommended for loose soil such as peat, or wet sticky soils.

**MARKERS** — Two- or Four-Row Markers are available for use with the 23R Planter.

**COLE HOPPER ADAPTER** — Available for mounting a Cole Hopper on the planter.

**OFFSET LIFT ARM** — When the 23F Unit Planter is mounted on a 430 or 420 Row-Crop Utility Tractor, or 4240 Cultivator, it is necessary to use the offset lift arm for seed hopper clearance.

**OFFSET PUSH RODS** — When the 23F Unit Planter is mounted on a 40 Tricycle Tractor, use offset push rods for seed hopper clearance.

**OFFSET LIFT PIPE** — When the 23F Unit Planter is mounted on a 1010 Row-Crop Tractor and 21T Cultivator, use the offset lift pipe for seed hopper clearance.

**OFFSET HOPPER BRACKET** — When the 23F Unit Planter is mounted on a 2020 or 2510 Series Tractor, use the offset hopper bracket for seed hopper clearance.

**STABILIZER BAR** — Will prevent row width variations.

**ROLLING COULTER ATTACHMENT** — For 23R only—Used for stabilizing two or more planters in hilly conditions or when furrow planting cannot be used when row widths are less than 36 inches.

**FERTILIZER ATTACHMENT** — A fertilizer attachment is not available for the 23F or 23R Unit Planters. However, the 41, 41A, 41B, 42, 42A, 51, 51A, 442, or 442A Side Dressers, or the 445, 451, or 651 Tool Bar Fertilizer Units can be used with the 23R Unit Planter. The 42, 42A, 442 or 442A Side Dressers can be used with the 23F Unit Planter.

**BRUSH CUT-OFF AND BAFFLE PLATE** — Used for planting fragile seeds such as castor beans.

**FINE SEED ATTACHMENT** — Used for planting vegetables, grass and similar seeds.

**PEA AND BEAN ATTACHMENT** — Used for dropping corn and beans alternately in the row.

**UNSHELLED PEANUT ATTACHMENT** — Used for planting peanuts in the shell.

**SHELLED PEANUT ATTACHMENT** —Used for planting shelled peanuts.

**INSECTICIDE ATTACHMENT** — For 23R only. Will apply insecticide in the row with the seed at the time of planting.

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



# OPERATION

## PREPARING THE TRACTOR

### ALL TRACTORS

For complete tractor operating instructions, refer to the tractor operator's manual.

#### Rear Wheel Tread

If a single unit is being used, set the tractor wheel tread as nearly as possible the same width as the row width desired.

If two, four or six units are being used, set the tractor wheel tread as nearly as possible twice the distance of the row width. For example: For 40-inch row widths, set the tractor wheel tread at 80 inches.

#### Tire Pressure

Consult your tractor operator's manual for front and rear tire pressure.

#### Front End Weighting

Front end stability is necessary for efficient operation and safety. Therefore, it is important that weight be added to the front end of the tractor according to the following tables:

### 23F UNIT PLANTERS ONLY

Tractor	Implement			
	Cultivator			500D Tool Carrier with 445 Fertilizer Attachment (4-23F Units)
	RB2	RG2	RG4	
1020 RU HU	0	0	*	700
	0	0	*	550
2020 RU HU	0	0	600	450
	0	0	500	300
2510 Single Wheel	0	0	100	250
2510 Roll-O-Matic	0	0	100	250
2510 Adj. Tread	0	0	0	0

*NOTE: No additional front end weight is needed when using the above cultivators or 500D Tool Carrier and 445 Fertilizer Attachment with 3010, 3020, 4010, or 4020 Series Tractors.*

\*Not recommended for use with 1020 Series Tractors.

## 6 Operation

### Front End Weighting—Continued

#### 23R UNIT PLANTERS ONLY

Tractor	Attachment Combination	
	A	B
1020 RU	165 lbs.	*
1020 HU	0	*
1020 LU	0	*
2020 RU	0	970 lbs.
2020 HU	0	870 lbs.
2020 LU	0	970 lbs.

Attachment Combination "A" includes: four 23R Unit Planters with runner openers, 500D toolbar, insecticide attachment, shovel openers, knife coverers, rubber-tired press wheels, 4-row mechanical markers, Hyd'Row markers (optional).

Attachment Combination "B" includes: four 23R Unit Planters with runner openers, 500D toolbar, No. 17 lift assist wheel, 451 fertilizer attachment, insecticide attachment, fertilizer runner openers, rubber-tired press wheels.

Tractor	Carrier	Attachment Combination	
		C	D
2510 RC	5D	700 lbs.	*
Tri-cycle	9B	800 lbs.	*
2510 RC	5D	400 lbs.	*
Adj. tread	9B	510 lbs.	*
3020 U	5D	300 lbs.	*
Short Wheelbase	9B	400 lbs.	*
3020 RC	5D	600 lbs.	1000 lbs.
Tri-cycle	9B	700 lbs.	1100 lbs.
3020 RC	5D	200 lbs.	600 lbs.
Adj. tread	9B	400 lbs.	800 lbs.
3020 S	5D	300 lbs.	800 lbs.
Short Wheelbase	9B	400 lbs.	900 lbs.
4020 RC	5D	0 lbs.	500 lbs.
Tri-cycle	9B	0 lbs.	600 lbs.
4020 RC	5D	0 lbs.	200 lbs.
Adj. tread	9B	0 lbs.	300 lbs.
4020 S	5D	0 lbs.	200 lbs.
Short Wheelbase	9B	0 lbs.	300 lbs.

Attachment Combination "C" includes: 18-foot double toolbar, 5D or 9B tool carrier, quik-coupler (optional), No. 17 lift assist wheel, 451 or 651 fertilizer attachment, Hyd'Row marker, 4 or 6 - 23R unit planters.

Attachment Combination "D" includes: 18-foot double toolbar, 5D or 9B tool carrier, quik-coupler (optional), No. 17 lift assist wheel, 451 or 651 fertilizer attachment, insecticide attachment, and 4 or 6 - 23R unit planters.

\*Attachment combination not recommended.

NOTE: If the quik-coupler is not used, the front end weight requirement is 100 pounds less.

Tractor	500D Tool Carrier with 445 Fertilizer Attachment (4-23R Units)
1020 RU	*
1020 HU	*
2020 RU	400 lbs.
2020 HU	300 lbs.
2510 Single Wheel	250 lbs.
2510 Rollo-matic	250 lbs.
2510 Adj. Tread	0 lbs.

\*Not recommended for use with 1020 Series Tractors.

NOTE: No additional front end weighting is required when using the above cultivator or 5D tool carrier and 445 fertilizer attachment with 3010, 3020, 4010, or 4020 Series Tractors.

No additional front end weighting is required when two or four - 23R Unit Planters are used with the 9B tool carrier, single toolbar, and with or without dry fertilizer attachment.



40, 420, 430, OR 1010 SERIES  
TRACTORS - 23R PLANTER

*Rockshaft Lift Arms*

Adjust the tractor hydraulic system so integral cylinders are parallel and the lift arms operate together. See tractor operator's manual.

*Load-and-Depth Control System*

The planter is used with the Load-and-Depth Control action of the tractor locked out.

*Lift Links*

Attach the lift links to the inner holes on the rockshaft lift arms.

Set the length of the left-hand lift link as recommended in the tractor operator's manual.

The right-hand lift link provides adjustment for leveling the toolbar.

*Sway Chains*

Adjust the sway stop chains so all sway is eliminated when the implement is in transport position.

2010 OR 2020 SERIES TRACTORS -  
23R PLANTER

*Sway Blocks*

Sway blocks must be attached in the wide position to eliminate all side sway except for contour planting.

*Rockshaft Lift Arms (2010 Series  
Only)*

Adjust tractor hydraulic system so integral cylinders are parallel and the lift arms operate together. See tractor operator's manual.

*Lift Links*

Adjust the lift links for transport clearance and lateral float. See tractor operator's manual.

*Setting the Selector Lever*

Set the selector lever in the "D" position.

2510, 3010, 3020, 4010, OR 4020  
SERIES TRACTORS - 23R  
PLANTER

*Sway Blocks*

Install the sway blocks in wide position to eliminate all side sway except for contour planting.

*Lift Links*

Adjust the lift links for transport clearance and lateral float. See tractor operator's manual.

*Setting the Selector Lever*

Set the selector lever in the "D" position.

520, 530, 620, 630, 720 OR 730  
SERIES TRACTORS - 23R  
PLANTER

*Sway Locks*

Install the sway locks in the wide position on the outside of the draft link supports except for contour planting.

*Load Control Yoke*

Install the upper link in hole No. 3 of the load control yoke.

## 8 Operation

### PREPARING THE CULTIVATOR — 23F PLANTER

Remove the shanks and sweeps from the cultivator rig pipes. Also, remove the gauge wheels, if the cultivator is so equipped.

*NOTE: Refer to the cultivator operator's manual for instructions for setting the cultivator for different row widths, and attaching the cultivator to and detaching it from the tractor.*

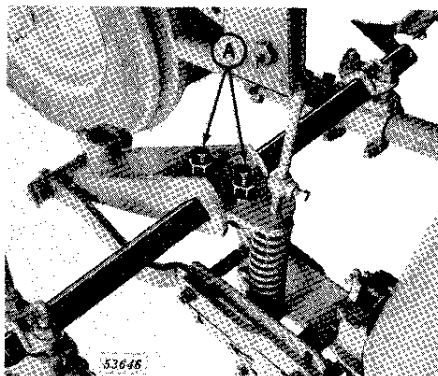
### ATTACHING TOOLBAR TO TRACTOR — 23R PLANTER

Attach the toolbar mounting brackets to the hitch draft links and secure each side with a quik-lock pin. Position the toolbar mast and secure it to the hitch center link.

*NOTE: The Quik-Coupler for the 2010, 2510, 3010, 3020, 4010, or 4020 Tractor may be used with the toolbar and planters. Consult your tractor operator's manual for this information.*

### ROW SPACING

#### 23F PLANTER



The position of the unit planter on the spread bar determines the row spacing. To change the row spacing, loosen nuts "A" and slide the entire unit toward the tractor to reduce row spacing, or away from the tractor to increase row spacing. Tighten nuts "A" after changing row spacing.

Row spacing from 36 or 38 inches to 42 inches can be obtained, depending on the clearance between the planter, cultivator, and tractor.

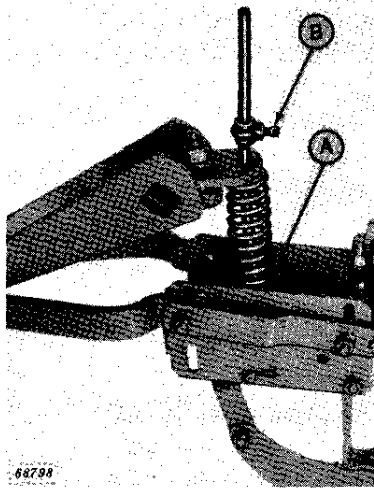
#### 23R PLANTER

Set the tractor wheel tread (center to center of tires) twice the planter row spacing.

If one 23R Unit Planter is used, place the planter in the center of the toolbar and, if possible, set the tractor wheel tread (center to center of tires) the same distance as the desired row spacing.

If two or more units are mounted on the same toolbar the maximum row spacing will be limited only by the length of the toolbar and the position of the toolbar attaching parts. The minimum row spacing is 20 inches.

## ADJUSTING SPRING PRESSURE

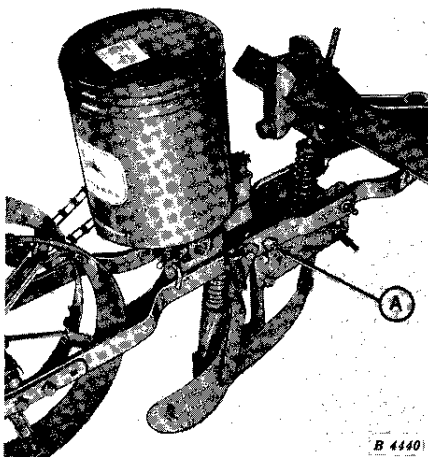


A spring applies down pressure on the planting unit.

The adjusting collar is located at the bottom of spring "A." To increase down pressure when planting, move the adjusting collar up and hold in place with set screw.

On both the 23F and 23R there should be a minimum space of 1 inch between the stop and collar "B" for proper operation of the planters in the field.

## DEPTH OF PLANTING



Depth of planting is controlled by the press wheel. To plant deeper, loosen nuts "A" and raise press wheel until desired planting depth is obtained. Lock wheel in position by tightening nuts. To decrease the planting depth, loosen nuts and lower press wheel.

When a gauge shoe is used, the press wheel should be allowed to float so that the depth of planting is determined by the gauge shoe. Loosen nuts "A," so press wheel will float.

## LEVELING PLANTER

The 23F is leveled by adjusting the front cultivator rig beams. Consult the cultivator operator's manual for this adjustment.

The 23R is leveled by adjusting the center link on the 3-point hitch of the tractor.

The toolbar must be parallel to the ground, and the seed hoppers on the planting units must be perpendicular to the ground when the toolbar is lowered to the operating position.

## RAISING OR LOWERING PLANTER

The planter is raised or lowered with the front-mounted cultivator or rear-mounted toolbar by the tractor hydraulic system.

## ADJUSTING SPEED OF ROCKSHAFT DROP — 23R PLANTER

Set the speed of the rockshaft drop on tractors on which the rockshaft and implement drop can be regulated. Adjust the throttle valve to give a smooth, slow drop of the planter.

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