

Bulldozer Attachment Model MC-100 and Rear Dozer Adapter Model DZ-100



JOHN DEERE

OPERATORS MANUAL

**Bulldozer Attachment Model MC-100 and
Rear Dozer Adapter Model DZ-100**

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TO THE PURCHASER

The purpose of this manual is to acquaint you with your new John Deere Model MC-100 Bulldozer, and Model DZ-100 Rear Dozer Adapter. In this manual you will find instructions and helpful suggestions for operating, hitching, adjusting, and setting-up your new Bulldozer. Also included is a complete parts list with helpful illustrations to aid in proper identification of parts if replacement becomes necessary.

Keep this manual in a convenient place for quick and easy reference. Use it as a guide whenever questions arise. You have purchased a dependable, sturdy implement, but only by proper care and operation can you expect to receive the service and long life designed and built into it.

If you need additional information or if your Bulldozer requires special servicing see your John Deere dealer. He will be glad to serve you.

Sometime in the future, your Bulldozer may need new parts or replacements. If so, your John Deere dealer will see that you get high-quality, genuine John Deere parts. When ordering, be sure to give him the correct part number and description of the part desired. This information can be obtained from the parts list section of this manual.

If, after much active work, your Bulldozer requires attention, go to your John Deere dealer for parts or special service as soon as possible. Give your Bulldozer proper attention during slack periods and it will always be ready for use when you need it.

The correct meaning of the terms "right-hand" and "left-hand" as used in this manual, can be determined by standing behind the tractor and facing forward.

JOHN DEERE MODEL MC-100 BULLDOZER

Date Purchased.....

JOHN DEERE MODEL DZ-100 REAR DOZER ADAPTER

Date Purchased.....

(To Be Filled in by Purchaser)

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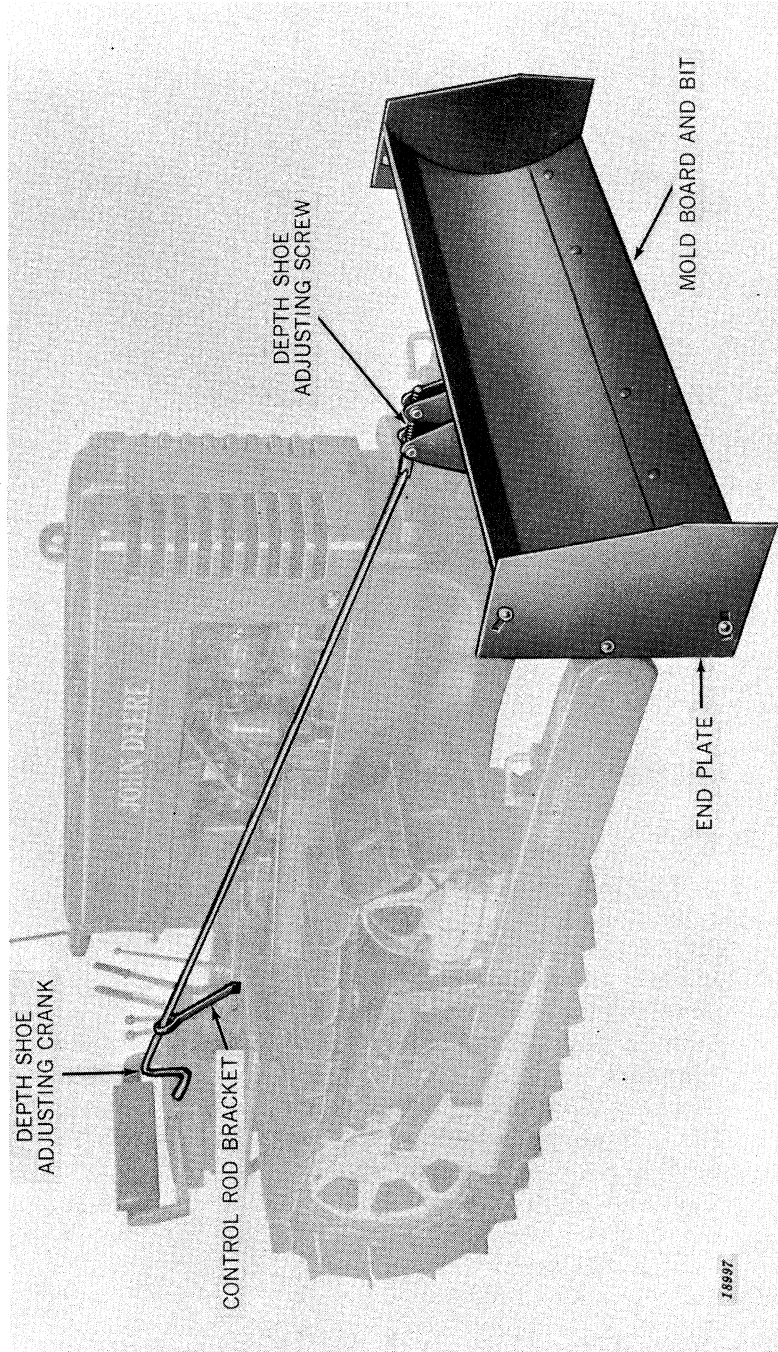


Figure 1—John Deere Model MC-100 Bulldozer Mounted on MC-1000 Integral Tool Carrier and "MC" Tractor

DESCRIPTION

The John Deere Model MC-100 Bulldozer is designed especially for use with the John Deere Model "MC" Tractor and MC-1000 Tool Carrier.

The Bulldozer can be hitched to or removed from the tool carrier quickly and easily, making the tractor and tool carrier available for other jobs when the Bulldozer is not being used.

By means of hydraulic power, the dozer blade can be raised 20-1/4 inches high, lowered 16-1/2 inches below ground level, or held at any intermediate position.

When necessary, down pressure can be applied to the blade to increase penetration.

The Bulldozer is equipped with an adjustable depth shoe to maintain a uniform depth of cut. The depth shoe is controlled by an adjusting crank located near the tractor seat.

Two adjusting cranks on the tool carrier make it possible to raise or lower either side of the dozer for leveling or for changing the tilt-back of the blade.

By using the DZ-100 rear dozer adapter and a square tool bar, the Bulldozer can be pulled behind the tractor and tool carrier for special jobs where it is desirable to have the implement at the rear (Figure 2).



Figure 2—MC-100 Bulldozer Converted to Rear Dozer

OPERATION

HYDRAULIC ACTION.

The MC-1000 Integral Tool Carrier, for which your new Bulldozer was especially designed, is raised, lowered, or held to the work by two built-in, double-acting hydraulic cylinders.

The cylinders are actuated by the hydraulic system of the "MC" Tractor. The hydraulic system is designed for three types of operation—two-way action, one-way action, and hydraulic floating action. However, the Bulldozer cannot be used on front if tractor's hydraulic control valve is set for hydraulic floating action. If floating action is desired, use the **mechanical float** as explained on page 8 of this manual. Before attaching the Bulldozer, be sure to read the Operator's Manual which explains the tractor's hydraulic system, and make the simple adjustments necessary to give the type of action you desire to use with your dozer.

HITCHING BULLDOZER TO TOOL CARRIER.

Install Bumper.

Install front bumper on tractor as shown in Figure 3. **CAUTION:** Never operate dozer until the bumper has been installed. Otherwise damage to the tractor may result.

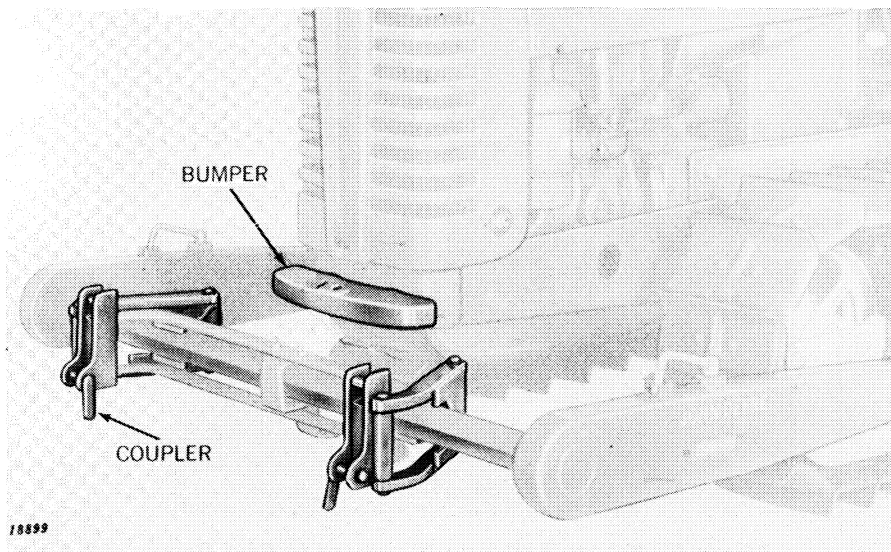


Figure 3—Bumper and Couplers

OPERATION

Tilt Couplers.

By means of the carrier's adjusting cranks, tilt couplers down slightly as shown in Figure 4. Turn both cranks clockwise.

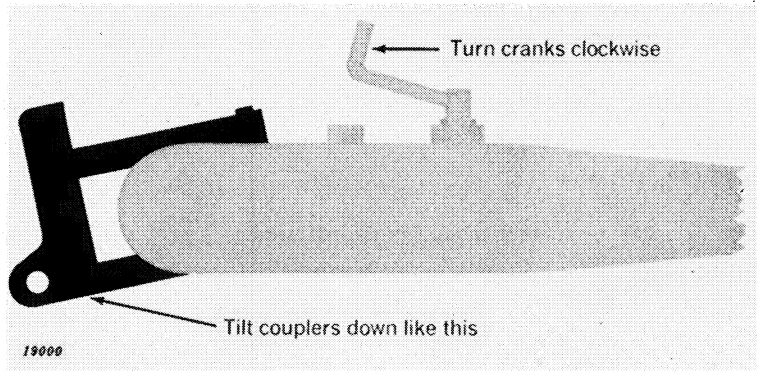


Figure 4—Coupler Tilted Down

Lock Sway Links.

Make sure sway links on carrier are locked by inserting pins or bolts in center holes of tie bar (Figure 5).

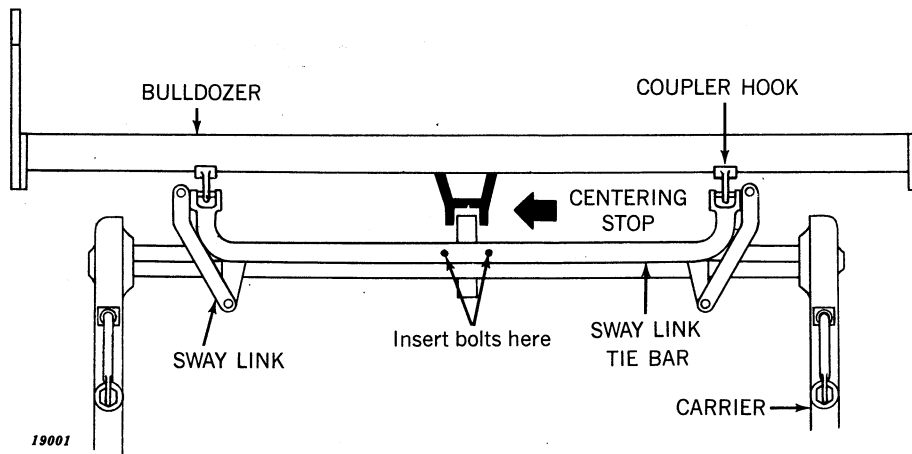


Figure 5—Sway Links Locked and Centering Stop Correctly Aligned

OPERATION

Attach Dozer to Carrier.

Place dozer blade on flat ground, drive tractor with tool carrier installed up to rear of blade (Figure 6).

Line up coupler hooks on dozer with couplers on tool carrier. Make sure centering stop bracket on blade fits over centering stop on tool carrier (Figure 5).

Remove coupler pins (Figure 6) from tool carrier fittings. By means of the hydraulic control lever on tractor, raise tool carrier to engage hooks and fittings (Figure 6).

Reinsert coupler pins with handles pointing up. Turn handles down to lock them in place.

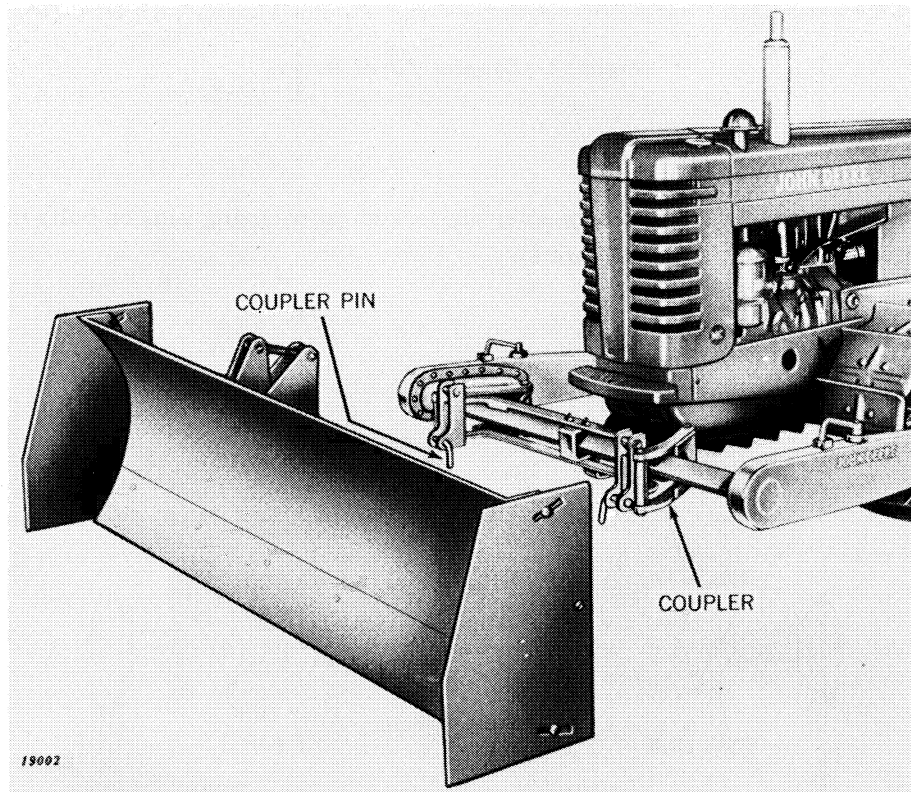


Figure 6—Hitching Bulldozer to Tool Carrier

OPERATION

Install Depth Shoe Adjusting Crank.

Insert adjusting crank control rod through hole in bracket near seat and into open end of universal joint of depth shoe adjusting screw (Figure 7). Line up lock pin holes and insert spring lock pin.

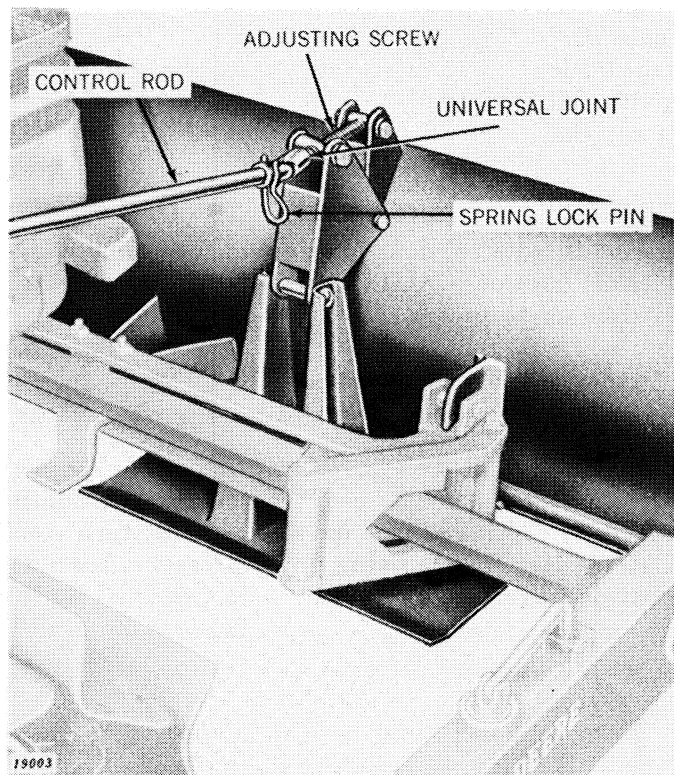


Figure 7—Depth Shoe Adjusting Crank Control Rod Installed

NOTE: The MC-100 Bulldozer can also be used in the rear position as a push dozer. To use it in this manner, install the tool carrier on rear of tractor and hitch bulldozer to carrier just as if it were on the front of tractor.

For information regarding the DZ-100 Rear Dozer Adapter, see page 10.

OPERATION

MECHANICAL FLOAT.

For most dozer work, the lift arms of the carrier must be in float position; that is, pin "A," Figure 8 must be in hole "B." This allows the blade to float, giving an even rate of cut and loading.

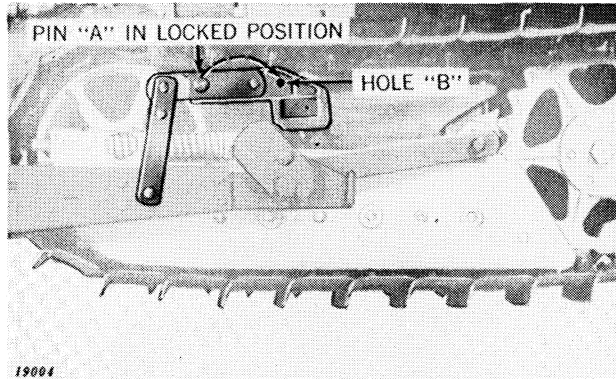


Figure 8—Mechanical Float Adjustment

If, in hard soil, more penetration is required, down pressure may be applied by returning pin "A" to locked position. **CAUTION: Before using down pressure, turn depth shoe up to prevent damage.**

USING DEPTH SHOE.

The purpose of the depth shoe on back of dozer is to give blade a smooth, uniform rate of penetration or cut.

To raise depth shoe for deeper cut, turn depth shoe adjusting crank *clockwise* (Figure 9). To lower shoe for shallow cuts, turn crank *counter-clockwise*. **CAUTION: Before using down pressure, turn depth shoe up to prevent damage.**

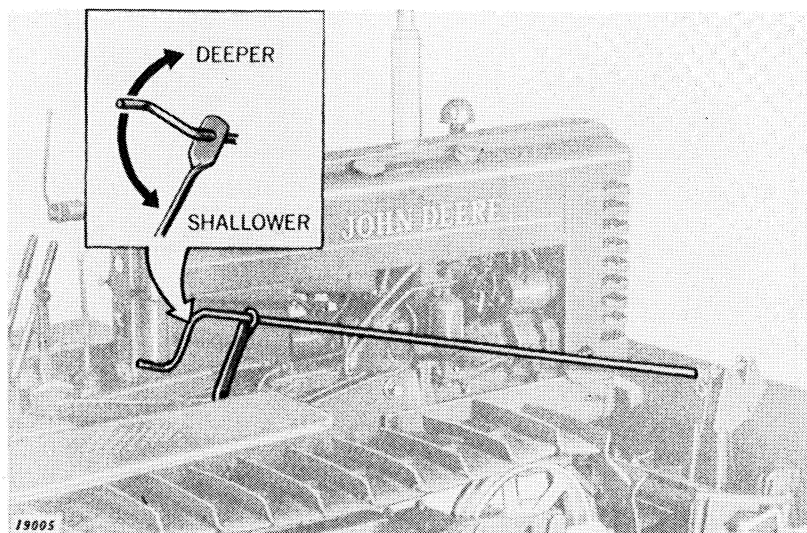


Figure 9—Depth Shoe Adjustment

ADJUSTMENTS

LEVELING ADJUSTMENT.

If one side of blade cuts deeper than the other, level it by use of the adjusting cranks on the carrier (Figure 10). Use only one crank (either side) to make this adjustment.

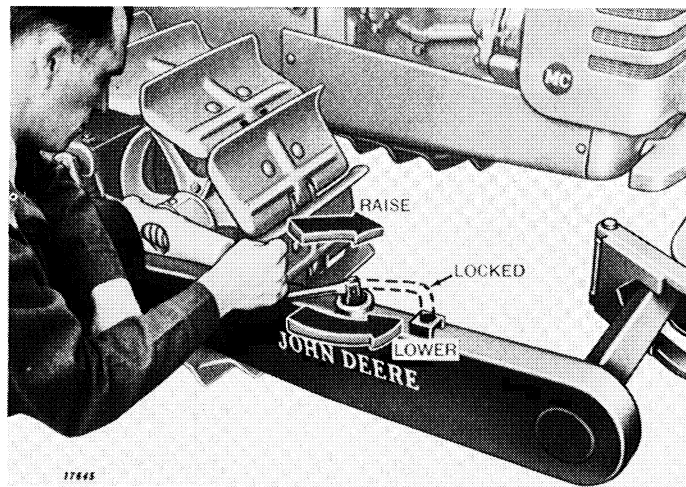


Figure 10—Leveling Adjustment

SUCTION ADJUSTMENT.

In digging or gouging work, requiring good penetration, the suction or tilt back of the blade can be changed by turning both carrier adjusting cranks the same number of turns. To *increase* suction, turn cranks *counter-clockwise*; to *decrease* suction, turn cranks *clockwise*.

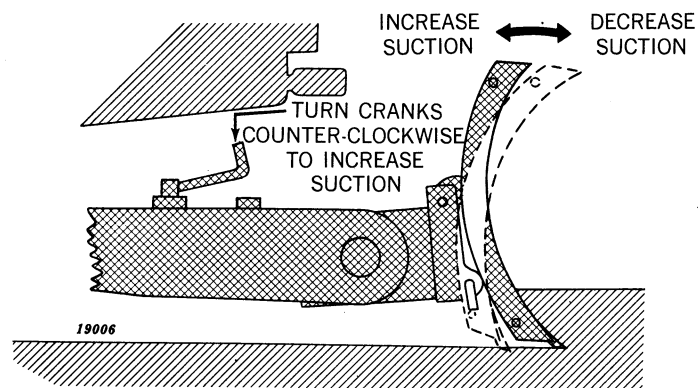


Figure 11—Suction Adjustment

ADJUSTMENTS

END PLATE ADJUSTMENT.

End plates (or skirts) on either end of blade are removable and also adjustable. The bottom of the plates should be flat on ground when blade is in working position.

To make adjustments, loosen three bolts which hold end plate to dozer blade (Figure 12) and rotate plate until it is level. Tighten bolts.

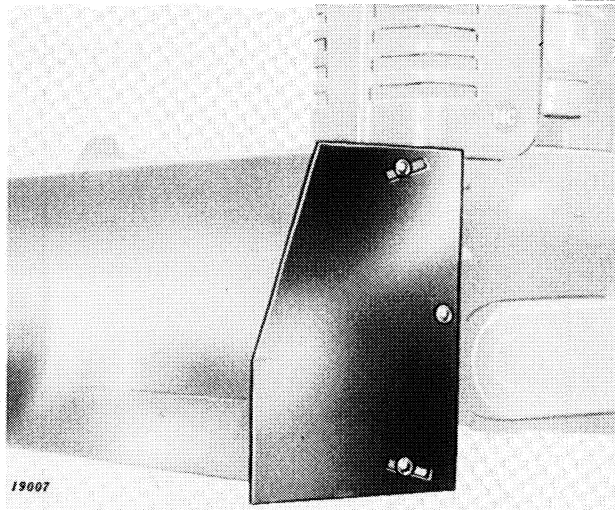


Figure 12—End Plate Adjustment

CONVERTING BULLDOZER TO REAR DOZER.

By using the DZ-100 Rear Dozer Adapter and a 2-inch or 2-1/4-inch "S" Series Tool Bar Assembly, the MC-100 Bulldozer can be converted to a rear dozer. The conversion is made as follows:

Remove end plates from Bulldozer and replace them with the adapter plates (Figure 13). Make sure that offset of plates is to the inside.



Figure 13—Rear Dozer Adapter Installed

ADJUSTMENTS

Place tool bar, with couplers installed 35-1/2 inches apart and equally spaced either side of center, into clamp openings in adapter plates (Figure 14).

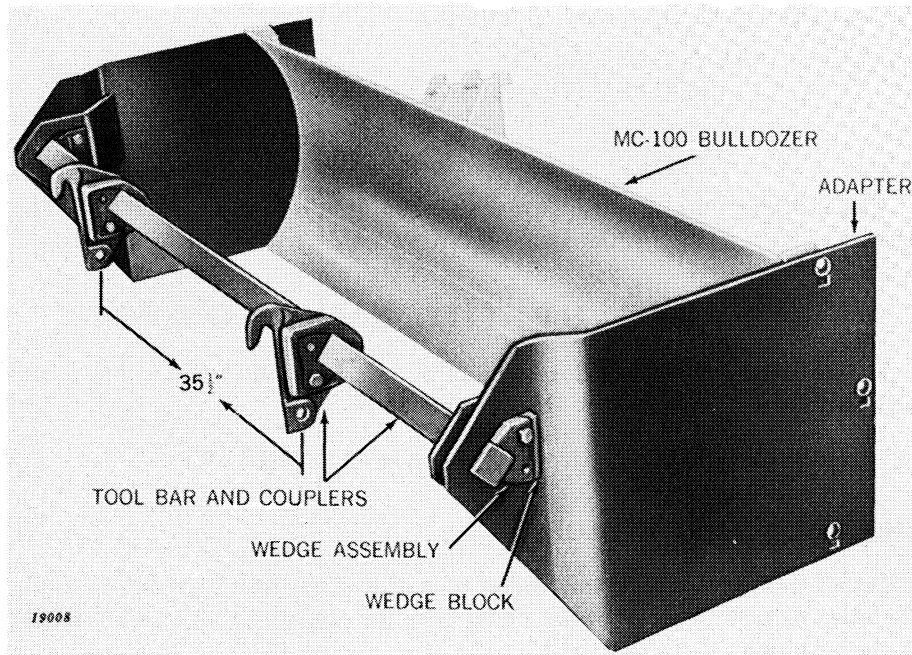


Figure 14—Rear Dozer Adapter and Tool Bar Installed

Place wedge blocks into clamp openings in adapter plates behind tool bar.
Install wedges and tighten them evenly and securely.
Remove depth shoe or turn it up to highest position.

Hitching Rear Dozer to Tool Carrier.

The rear dozer is attached to the tool carrier in the same manner as any rear-operated tool or implement.

Adjusting Rear Dozer.

Leveling and suction adjustments of the rear dozer are made in the same manner as for the Bulldozer except that in making the suction adjustment, cranks on carrier are turned *clockwise* to *increase* suction and *counter-clockwise* to *decrease* suction.

SETTING-UP INSTRUCTIONS

SHIPPING BUNDLES

For field installation the MC-100 Bulldozer is shipped in one bundle. The number of the bundle is ADZ3421Y.

The DZ-100 Rear Dozer Adapter is shipped in one regular bundle and one special bundle numbered as follows:

ADZ3109Y Adapter
AS3214Y Wedges for 2-inch Tool Bar

or

AS3215Y Wedges for 2-1/4-inch Tool Bar.

The adapter bundle must be used in conjunction with an S1106Y Tool Bar Assembly (2-inch square bar) or an S2106Y (2-1/4-inch square bar).

SETTING-UP THE BULLDOZER

Before installing the Bulldozer cut all bundle wires and remove depth shoe adjustment rod and bracket from back side of dozer.

Clean protective coating from depth shoe adjusting screw.

INSTALL ADJUSTING CRANK.

Install bracket (which was wired to depth shoe) on right side of frame member of tractor near brake pedal (Figure 15), using slotted holes and bolts provided.

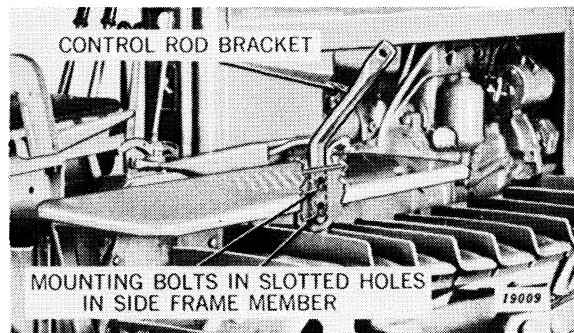


Figure 15—Control Rod Bracket Installed

If the Bulldozer (or rear dozer) is to be installed immediately on a tractor-mounted tool carrier, refer to "*Hitching Bulldozer to Tool Carrier*," page 4, for additional instructions.

PARTS LIST

USING THE PARTS LIST

KEY NUMBER.

Each part in the exploded views on the following pages has been given a key number which is used **only** to find the part number, description, and quantity used. **Do not use key number when ordering parts.**

QUANTITY.

If only one part is used, the quantity is not listed. If more than one part is used, the quantity is listed with the description.

WHEN PURCHASING PARTS.

When purchasing parts from your John Deere dealer direct, by telephone, or by mail, **be sure** to give him:

1. Model number of your Dozer—MC-100, or Rear Dozer Adapter—DZ-100.
2. Part numbers and descriptions of parts wanted.
3. Quantity desired for each part wanted.
4. Date tool was purchased—month and year.

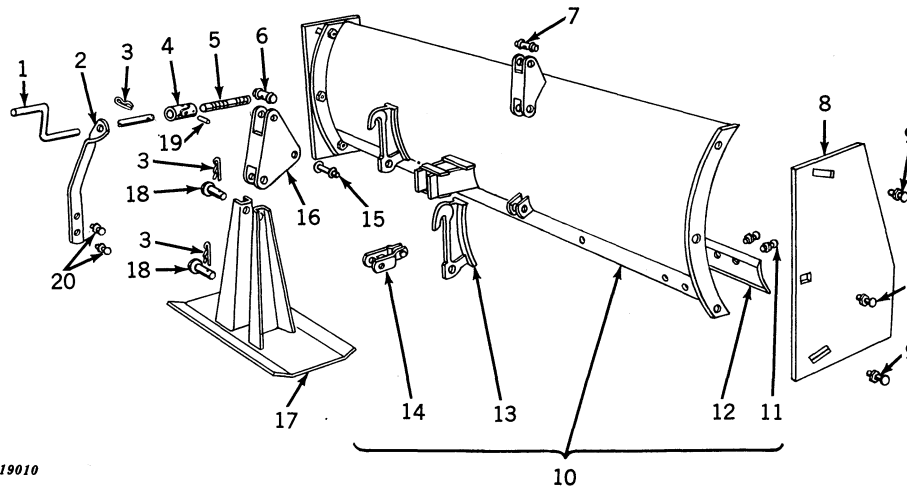
Be Careful



THE LIFE YOU SAVE MAY BE YOUR OWN...

NATIONAL SAFETY COUNCIL

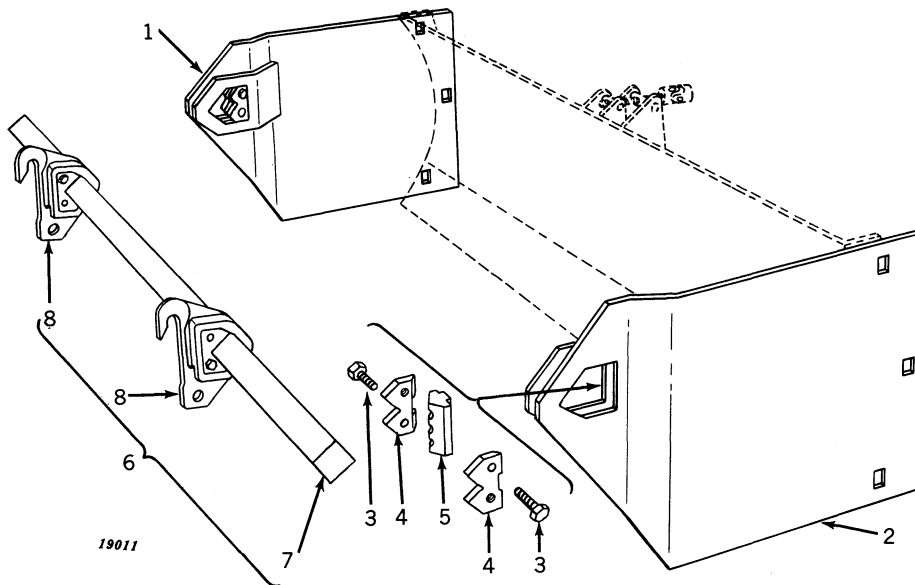
MC-100 BULLDOZER



19010

Key	Part No.	Description
1	DZ 425 Y	Crank, Depth Shoe Control
2	DZ 431 Y	Bracket, Depth Shoe Control Crank
3	S 410 Y	Pin, Spring Locking
4	ADZ 2132 Y	Joint, Universal (Includes DZ133Y Center Block; DZ151Y Center Pin, Small; DZ152Y Center Pin, Large; DZ131Y Hub Yoke for Small Center Pin; DZ132Y Hub Yoke for Large Center Pin; Two 22H546Y Set Screws)
5	(DZ 217 Y DZ 317 Y)	Screw, Depth Shoe Control, 5/8" Diameter Screw, Depth Shoe Control, 3/4" Diameter
6	(DZ 215 Y DZ 315 Y)	Trunnion, Depth Shoe, Rear, 1" Diameter (Used with DZ217Y Screw) Trunnion, Depth Shoe, Rear, 1-1/8" Diameter (Used with DZ317Y Screw)
7	(5789 Y 5791 Y DZ 213 Y DZ 313 Y 5789 Y 5791 Y)	Ring, Snap, Heavy, 1" Shaft Size (2 used) Ring, Snap, Heavy, 1-1/8" Shaft Size (2 used) Trunnion, Depth Shoe, Front, 1" Diameter (Used with DZ217Y Screw) Trunnion, Depth Shoe, Front, 1-1/8" Diameter (Used with DZ317Y Screw) Ring, Snap, Heavy, 1" Shaft Size (2 used) Ring, Snap, Heavy, 1-1/8" Shaft Size (2 used)
8	DZ 429 Y	Skirt, Dozer Blade (2 used)
9	(TE 24 Y 12H 15 R 14H 263 H)	Bolt, Special, 5/8" (Dozer Skirt) (6 used) Washer, Lock, 5/8" (6 used) Nut, Reg. Hex., 5/8" (6 used)
10	ADZ 2427 Y	Blade, Dozer
11	(9H 614 Y 14H 259 E)	Bolt, No. 3 Plow, 1/2" x 1-1/2" (8 used) Nut, Reg. Hex., 1/2" (8 used)
12	AK 2300 Y	Bit, Dozer Blade
13	DZ 421 Y	Coupler (Welded to back of Dozer) (2 used)
14	ADZ 2231 Y	Link, Lower
15	(DZ 401 Y 5785 Y)	Pin, Bell Crank Ring, Snap, Heavy, 3/4" Shaft Size (2 used)
16	ADZ 2225 Y	Crank, Bell
17	ADZ 2229 Y	Shoe, Depth
18	DZ 403 Y	Pin, Shoe Attachment (2 used)
19	25H 773 E	Pin, Groove, Type No. 5, 1/4" x 1-1/4"
20	(2H 481 H 14H 257 R 12H 12 R)	Bolt, Cge., 7/16" x 1-1/4" (2 used) Nut, Reg. Hex., 7/16" (2 used) Washer, Lock, 7/16" (2 used)

MC-100 REAR DOZER ADAPTER AND TOOL BARS (EXTRA EQUIPMENT)



Key	Part No.	Description
1	ADZ 2530 Y	Plate, R.H. (Wedges and Cap Screws shown are not included)
2	ADZ 2529 Y	Plate, L.H.
3	19H 109 Y	Screw, Cap, 5/8" x 2-1/4" (4 used)
4	(S 214 Y	Wedge for 2" Square Tool Bar (4 used)
	(S 215 Y	Wedge for 2-1/4" Square Tool Bar (4 used)
5	(S 335 Y	Block, Wedge (2 used)
6*	(S 1106 Y	Bar, Tool, and Coupler Assembly (2" Square Bar)
	(S 2106 Y	Bar, Tool, and Coupler Assembly (2-1/4" Square Bar)
7*	(S 172 Y	Bar, Tool, 2" Square
	(S 272 Y	Bar, Tool, 2-1/4" Square
8*	(AS 2199 Y	Coupler for 2" Square Bar (2 used)
	(AS 2299 Y	Coupler for 2-1/4" Square Bar (2 used)

*These are whole goods items and are listed in whole goods price lists.

NUMERICAL INDEX

Part No.	Page No.	Key	Part No.	Page No.	Key	Part No.	Page No.	Key
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9H 614 Y.....	14	11	AS 2199 Y.....	15	8	DZ 431 Y.....	14	2
12H 12 R.....	14	20		15	8	K		
12H 15 R.....	14	9				S		
14H 257 R.....	14	20	DZ			K 300 Y.....	14	12
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ADZ 2229 Y....	14	17	DZ 317 Y.....	14	5	TE		
ADZ 2231 Y....	14	14	DZ 401 Y.....	14	15	TE 24 Y.....	14	9
ADZ 2427 Y....	14	10	DZ 403 Y.....	14	18			
ADZ 2529 Y....	15	2	DZ 421 Y.....	14	13			
ADZ 2530 Y....	15	1	DZ 425 Y.....	14	1			



Farm Accidents Can Be Prevented *with Your Help*

NO accident prevention program can be successful without the whole-hearted cooperation of the person who is directly responsible for the operation of equipment.

To read accident reports from all over the Country is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the harvest field, or in the industrial plant, can be safer than the man who is at the controls. If farm accidents are to be prevented—and they can be prevented—it will be done by the operators who accept a full measure of their responsibility.

It is true that the designer, the manufacturer, the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that "*the best kind of a safety device is a careful operator.*" We ask you to be that kind of an operator.

NATIONAL SAFETY COUNCIL

