

John Deere

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MODEL:

555 & 555H

3 & 4 Bottom Plows

**OPERATOR'S
MANUAL**



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**555 AND 555H
THREE- AND FOUR-
BOTTOM DRAWN
MOLDBOARD PLOWS**

OPERATORS MANUAL

**555 AND 555H THREE- AND FOUR-
BOTTOM DRAWN MOLDBOARD
PLOWS**

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YOUR NEW PLOW

Behind your new plow is an organization that has specialized in designing and building plows for over one hundred and twenty years. This plow was built in the world's largest plow factory by experienced men, many who have worked in this large plant for from ten to forty-five years, thus assuring the utmost in good design, high-grade workmanship and thorough inspection, so essential to the production of good plows.

High quality materials, precision production methods, and accurately controlled heat-treating assure maximum strength and long life for every part.

This manual has been carefully prepared and illustrated, so that you may make the necessary adjustments for adapting your plow to work properly in practically all types of soil and field conditions. These adjustments, such as proper hitching and adjusting for width and depth of cut, are fully covered in this manual.

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



Occasionally your plow may need new parts, or require service not covered in this manual. If so, we suggest that you take advantage of the facilities offered by your John Deere dealer, which assure you of genuine JOHN DEERE Parts and prompt "know-how" service in the field or shop.

If you will furnish your dealer with the information which should be recorded at the bottom of this page, when the plow is delivered, he can give you prompt and efficient service.

**JOHN DEERE 555 AND 555H THREE- AND FOUR-BOTTOM
MOLDBOARD PLOWS**

Date Purchased 19

(To be filled in by Purchaser)

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NOTE: When terms "right" or "left" are used, it means from a position behind the plow and looking toward the front.

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OPERATING AND ADJUSTING INSTRUCTIONS

IMPORTANCE OF PROPER ADJUSTMENT

Your new plow is fully adjustable and, when properly adjusted to operate in the type of soil and field conditions on your farm, it will do a good job of plowing at a minimum of expense. A well-adjusted plow pulls lighter; its furrow slices are uniform

in width and depth; it covers trash; it leaves the soil in proper condition to be worked down into the best type seedbed.

Improper adjustment results in rapid wear and possible breakage of parts, and inefficient operation.

PREPARING THE PLOW

BOTTOMS AND COULTERS

The polished surfaces of the plow bottoms and coulters have been painted with protective black paint.

In most cases it is not necessary to remove the black paint because it will wear off quickly upon contact with the soil. In those soils where the black paint will not wear off, remove with gasoline, kerosene, or diesel fuel.

If the plow is not to be used immediately, protect the polished surfaces by applying a coat of cup or gun grease. If plow is to be put in storage for a considerable length of time, see pages 28 and 30.

TIRE INFLATION

Check plow tires to be sure they are inflated properly as shown below:

Wheel	Recommended New Implement or New Inflation or Used Auto Tires	Inflation Pressure
Furrow	5.90 x 15—4-Ply	28 Lbs.
Land	5.90 x 15—4-Ply	28 Lbs.
	6.40 x 15—4-Ply	24 Lbs.
Rear	4.00 x 12—4-Ply	36 Lbs.

LUBRICATION

Be sure plow has been properly lubricated. See Lubrication Chart on page 32.

BOLTS AND SET SCREWS

Before starting to work with a new plow or one which has been stored, check to see that all bolts and set screws are tight and all cotter pins spread to keep them from falling out. Check the bolts that hold the plow bottoms to see that they are drawn up very tight.



A good practice is to check for loose bolts, screws, or parts when lubricating the plow. Loose bolts are easily lost or cause excessive wear on parts, resulting in possible serious damage to the plow.

LUBRICATION

Be sure plow has been properly lubricated. See Lubrication Chart on page 29.

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PREPARING AND ADJUSTING TRACTOR

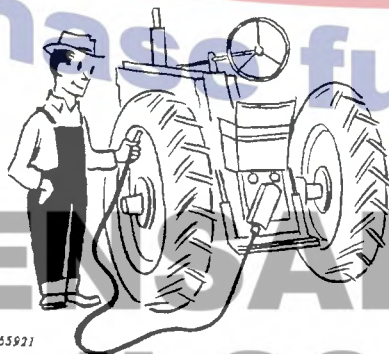
For complete tractor operating instructions, refer to your tractor Operator's Manual.

TIRE INFLATION

Inflate the tractor tires as recommended in the tractor Operator's Manual. For plowing, add 4 pounds more air in right rear tire than in left rear tire.

Proper air pressure is the most important factor in satisfactory performance and maintenance of tractor and implement tires. Underinflation will damage the cord body of the tire and cause a series of radial breaks in the sidewall fabric. This may occur on the inner sidewall of the furrow wheel tire. If the tire buckles or wrinkles, the air pressure should be increased to where the sidewalls remain smooth while operating.

If additional traction is required, add weight to the wheels. Reducing the recommended air pressure will make little difference in the traction and may ruin the tires.



Check air pressures every two or three weeks. Use a special low pressure gauge having 1-pound graduations.

REAR WHEEL WEIGHTING

In average conditions, rear wheel weights are not necessary. In those conditions where it becomes necessary to add weight to the rear wheels, see your tractor Operator's Manual for weighting instructions.

Power can be lost and tire life cut drastically by wheel slippage. Adding weight also serves to stabilize the tractor when plowing in rough or hillside fields.



TRACTOR DRAWBAR

On wheel-type tractors, set the tractor drawbar in the **short high position** and, except where off-hitching is required, bolt it exactly in the center of tractor, midway between rear wheels.

REAR WHEEL SETTING

Tractor rear wheel settings are determined by the location of the center line of draft in the plow. Therefore, it is necessary to first read "Hitching Plow to Tractor" on the following pages. Then adjust the wheels as explained on page 9.

FRONT WHEEL SETTINGS

On wide-front-end tractors, set front wheels to conform to rear wheel setting, center-to-center of tread.

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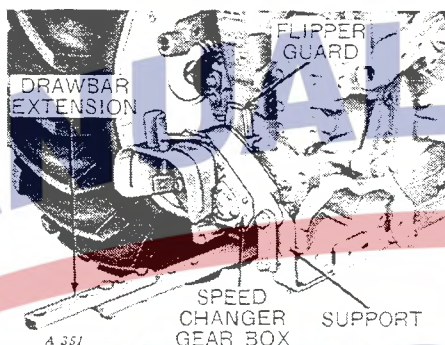
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OPERATING AND ADJUSTING

7

EXTERNAL POWERSHAFT SPEED CHANGER



*External Powershaft Speed Changer
Installed on "730" Tractor*

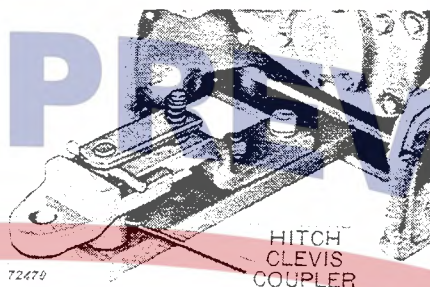
If a landing lever is to be used with the 555 Series Plows and the tractor has been equipped with an external powershaft speed changer, the speed changer, support, and drawbar extension must be removed. See instructions received with the speed changer.

If the plow is to be pulled by a "730" or "720" Series Tractor equipped with a clevis-type drawbar, the gear box and drawbar extension must be removed. However, the support may remain on the tractor.



Be sure the tractor powershaft is covered by the flipper guard before operating tractor.

HITCH CLEVIS COUPLER



Clevis Coupler

A hitch clevis coupler is available as special equipment for attaching these plows to the "730" and "720" Series Tractors which have the forked or clevis-type drawbar. This coupler will raise the hitching point to the recommended height.

BE CAREFUL

Take your time—Not your life.

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HITCHING PLOW TO TRACTOR

The ideal hitch is a straight line from the center point of pull on the tractor to the center point of resistance on the plow, both horizontally and vertically.

The center point of pull on the tractor is located approximately 3 inches ahead of the rear axle housing and midway between the rear wheels.

To find the center point of resistance on the plow, first find the center line of draft as explained below.

CENTER LINE OF DRAFT

The center line of draft is simply an imaginary line drawn from the point of pull on the tractor to the point of resistance on the plow.

The center line of draft of the plow can be located by using the following rule:

Rule: The center line of draft of a moldboard plow is located at a point one-fourth of the cutting width of one bottom measured to the left of the center of total cut of the plow. (This rule applies to all plows whether one-, two-, three-, four-, or five-bottom.)

Example: Finding center line of

draft of a three-bottom 14-inch plow:
Total cut of plow = 42 inches.

Center of cut or one-half of 42 inches
= 21 inches.

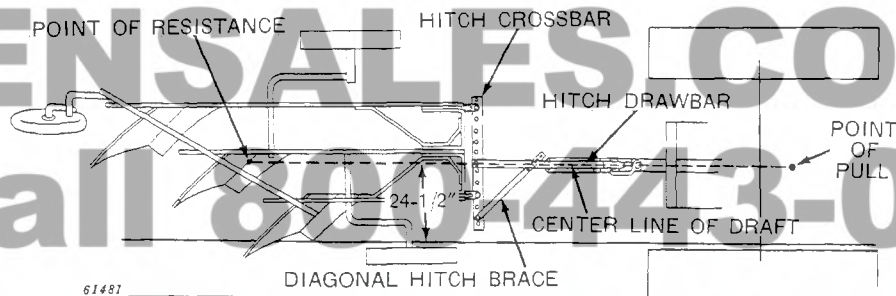
One-fourth the cutting width of one-bottom = $3\frac{1}{2}$ inches.

$3\frac{1}{2}$ inches added to center of cut, which is 21 inches = $24\frac{1}{2}$ inches.

Therefore, the center line of draft of a three-bottom 14-inch plow is $24\frac{1}{2}$ inches measured to the left and at right angles from the furrow wall. See illustration below.

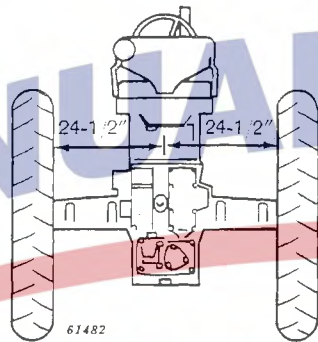
CENTER POINT OF RESISTANCE

The center point of resistance on a plow is located on the bottom intersected by the line of draft, at a point approximately one-half of the plowing depth from the bottom of the furrow. When plowing 6 inches deep, the point of resistance will be 3 inches up from the furrow bottom, or approximately at the junction of the share and moldboard. If plowing deeper than 6 inches, this point will be located farther up on the moldboard. If plowing shallower than 6 inches, the point of resistance will be farther down on the share.



Horizontal Hitch Adjustments on Three-Bottom, 14-Inch Plow

ADJUSTING TRACTOR WHEEL TREAD

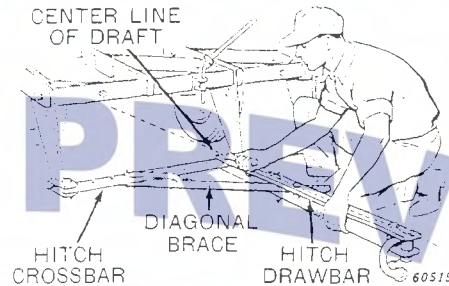


After the center line of draft and point of resistance of the plow have been located, set the tractor wheels (on adjustable tread tractors) to the proper position so the pulling force will be on a straight line from the point of pull on the tractor back through to the point of resistance on the plow. Since, in the example on page 8, the point of resistance is 24-1/2 inches from the furrow wall, set the tractor wheels so the center of the drawbar is 24-1/2 inches from the inside of each tire.

When plowing on steep hillsides, it is sometimes necessary, with adjustable tread tractors, to use a wider wheel spacing than recommended for stability reasons. Where a wider wheel spacing is necessary, always set the left rear tractor wheel at the recommended position and **move the right rear wheel out**. This will result in more nearly equalizing the weight on the two rear wheels of the tractor when plowing. Then center the tractor drawbar between the rear wheels.

HORIZONTAL HITCH ADJUSTMENTS

Adjust the plow hitch so it will be on the exact line of draft from the center point of pull on the tractor to the center point of resistance on the plow. A series of holes in the hitch crossbar allow the hitch to be bolted on the center line of draft. See illustration above right and on page 8.



Adjust the diagonal brace on the hitch so the plow hitch is parallel to the furrow wall. After the plow is in the field, further adjustment of the diagonal brace may be necessary to get the correct cut on the front bottom.

After the tractor wheels and plow hitch have been set correctly, attach the plow hitch to the tractor drawbar.

Off-Hitching

In some cases, such as with fixed-tread tractors, it is impossible to set the tractor wheels so the drawbar will fall on the center line of draft. In such cases, it is necessary to off-hitch the plow and to move the drawbar of the tractor away from the center point of pull to permit the plow hitch to be parallel to the furrow wall.

For example, when using a four-bottom 16-inch plow with a "720" Standard Tractor, the center line of draft is 36 inches from the furrow wall while the wheel tread on the tractor is 46 inches from inside to inside of tires or 23 inches from inside of tires to center of the drawbar when the drawbar is bolted in center of tractor. The difference between 36 inches and 23 inches, of course, is 13 inches. Since approximately one-half of the off-hitching should be taken on the plow and one-half on the tractor, move the plow 7 inches to the right of the line of draft and the tractor drawbar 6 inches to the left of the center of the

tractor. Both the tractor drawbar and the plow hitch will then be 29 inches from the furrow wall. The plow hitch will now run straight and be parallel to the furrow wall.

Hitching Chart

Following are examples of correct measurements for hitching a plow and tractor combination. We suggest that you work out the measurements listed below for any plow and tractor combination, using the instructions on pages 8-9, and then apply these same instructions to your plow and tractor combination.

A handy hitch calculator giving similar information can be obtained from your John Deere dealer.

Hitching Track-Type Tractors

When using a track-type tractor with these plows, run both tracks on the land and allow the tractor drawbar to swing free.

The plow hitch must be adjusted to conform to the position of the center of the tractor drawbar. To find this position, measure the distance from the outside of the right-hand track to the center of the tractor and add 3 or 4 inches to permit driving far enough from the furrow wall to prevent breaking it down. Then set the plow hitch on the hitch crossbar the same distance in from the furrow wall.

PLOW HITCHING CHART

John Deere "520," "530," "620," "630," "720," "730," "50," "60,"
or "70" Series

GENERAL-PURPOSE TRACTORS

Number of Bottoms	Size of Bottoms	Tractor Wheel Setting Inside to Inside of Tires	Line of Draft from Furrow Wall	Tractor Drawbar Position	Plow Hitch to Furrow Wall
3	14"	49"	24-1/2"	Center	24-1/2"
3	16"	56"	28"	Center	28"
4	14"	63"	31-1/2"	Center	31-1/2"
4	16"	72"	36"	Center	36"

John Deere "620," "630," "720," "730," "60," or "70" Series
Standard Tractors
(FIXED TREAD)

3	14"	46"	24-1/2"	Center	23"
3	16"	46"	28"	2" to Left	25"
4	14"	46"	31-1/2"	4" to Left	27"
4	16"	46"	36"	6" to Left	29"

John Deere "620," "630," "720," "730," "60," or "70" Series
Standard Tractors
(ADJUSTABLE TREAD)

3	14"	49"	24-1/2"	Center	24-1/2"
3	16"	56"	28"	Center	28"
4	14"	62"	31-1/2"	Center	31"
4	16"	62"	36"	2" to Left	33"

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