

JOHN DEERE R4-6BB BEET-BEAN-VEGETABLE CULTIVATOR



JOHN DEERE

OPERATORS MANUAL JOHN DEERE R4-6BB BEET-BEAN-VEGETABLE CULTIVATOR

OMN159311 H2 English

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ENGLISH





To the Purchaser

The cultivator was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or adjustments. Read the table of Contents to learn where each section is located.



This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

“Right-hand” and “left-hand” sides are determined by facing in the direction the cultivator will travel when used.

Record your cultivator serial number in the space provided on page 22. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your cultivator requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

The warranty on this cultivator appears on your copy of the purchase order which you should have received from your dealer when you purchased the cultivator.

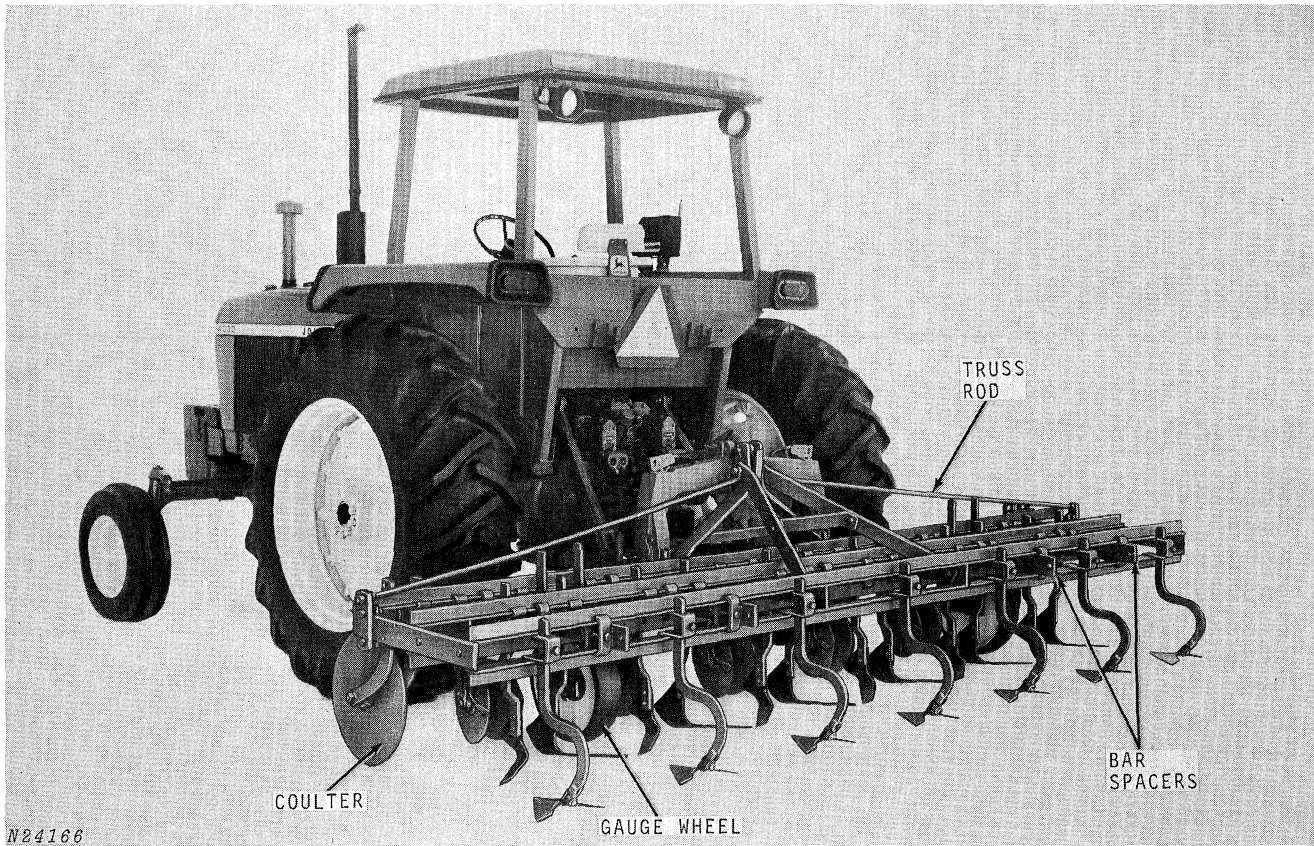


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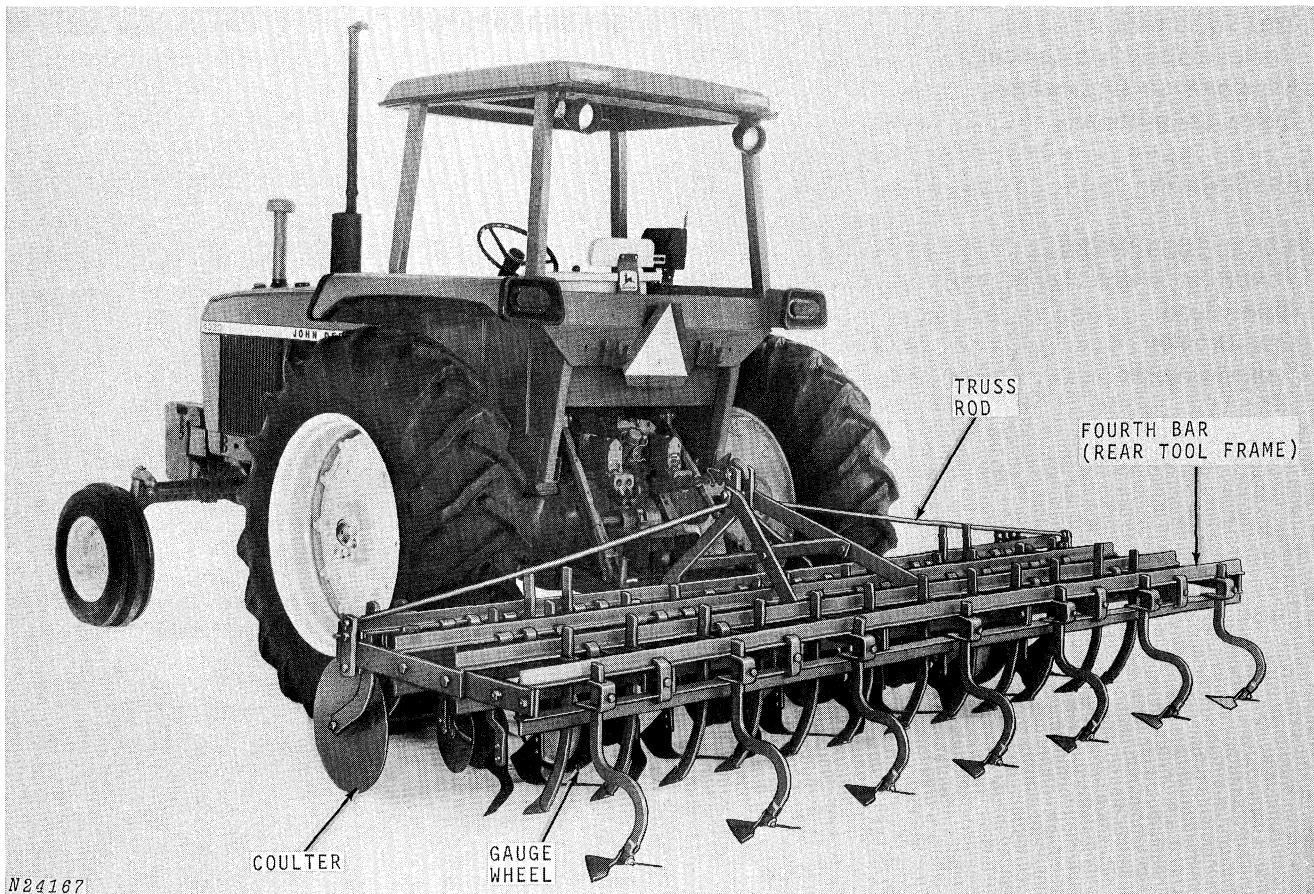


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John Deere R4-6BB Cultivator on John Deere 4030 Tractor

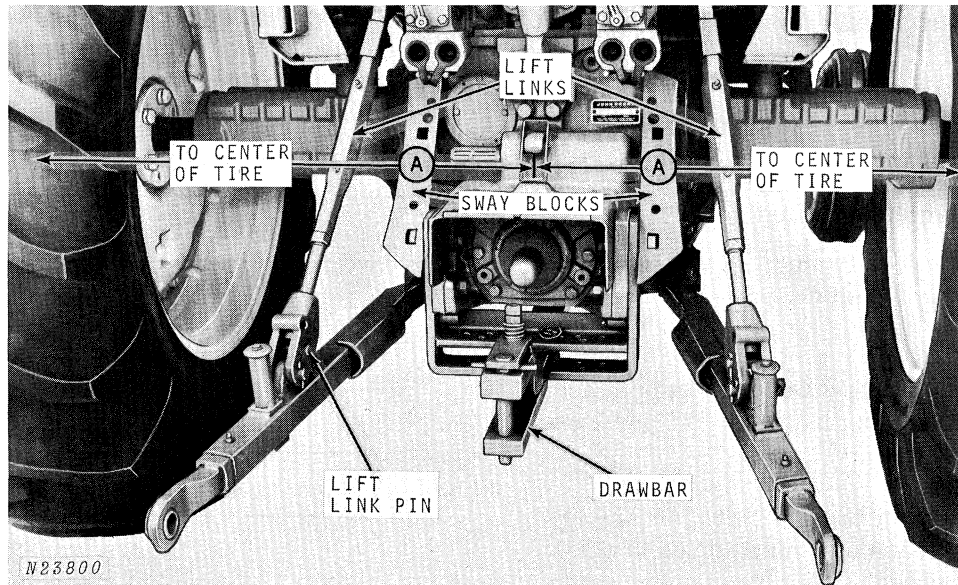


John Deere R4-6BB Cultivator Equipped with Fourth Bar on 4030 Tractor



Operation

PREPARING THE TRACTOR



Tractor with Category 3-Point Hitch

See your tractor operator's manual for complete tractor operating and adjusting instructions.

Wheel Spacing

Set the tractor wheels for the desired row spacing so the wheels are centered between the rows. The dimension "A" from the center of the tractor to the center of each tire should be the same.

See your tractor operator's manual for correct tire inflation pressures and instructions for wheel ballast where required.

Sway Blocks

Place the sway blocks in the upper, wide setting (as illustrated) to prevent cultivator side sway during transport. See your tractor operator's manual.

Drawbar Position

Place the drawbar in the short, center position to provide maximum clearance between rear of drawbar and cultivator.

Lift Links and Center Link

Adjust length of lift links and center link to minimum length, being sure to maintain adequate clearance between tractor tires and cultivator components. See your tractor operator's manual.

Lift Link Lateral Float Adjustment

If frame gauge wheels are used, adjust lift link pins to allow lateral float.

If frame gauge wheels are not used, adjust lift link pins to prevent lateral float, as illustrated above.

See your tractor operator's manual.

Rockshaft Selector Lever

Place rockshaft selector lever in the "zero" (depth control) position.

NOTE: On earlier model tractors, place lever in "D" (depth control) position.

PREPARING THE TRACTOR—Continued

Ballast Information

Tractor front end stability is necessary for safe and efficient operation. Therefore, it is important that the proper amount of weight be installed on the front of the tractor as recommended in your tractor operator's manual.

NOTE: Ballast recommendations provide for adequate transport stability at recommended speeds. Additional front ballast may be required for satisfactory field operation due to sudden or extreme forces on the tractor hitch, such as may occur when removing the cultivator from the ground and turning at row ends, or during field transport over very rough ground.

Instructions for Determining Ballast

Step 1-Find your cultivator model in the Implement Code Table. Enter its implement Code on Line 1 below.

Step 2-Enter an Implement Code for each attachment or option used on your cultivator, on Line 2 below.

Step 3-Add Implement Code of cultivator and Implement Code(s) for each attachment used to obtain the Total Implement Code.

Step 4-Refer to tractor operator's manual to determine required tractor front ballast.

IMPORTANT: Refer to tractor operator's manual:

1. If the total implement code exceeds the maximum implement code listed for a particular tractor model, the implement-attachment combination is not recommended for that tractor. 2. The total load on any tractor wheel due to the weight of the implement-attachment combination and tractor equipment, should not exceed the carrying capacity of the tractor tires.

IMPLEMENT CODE TABLE

Cultivator Model	Implement Code
R4-6BB - 3 Bar*	60
R4-6BB - 4 Bar*	91

Attachments or Options	Implement Code
Rear Tool Frame*	31

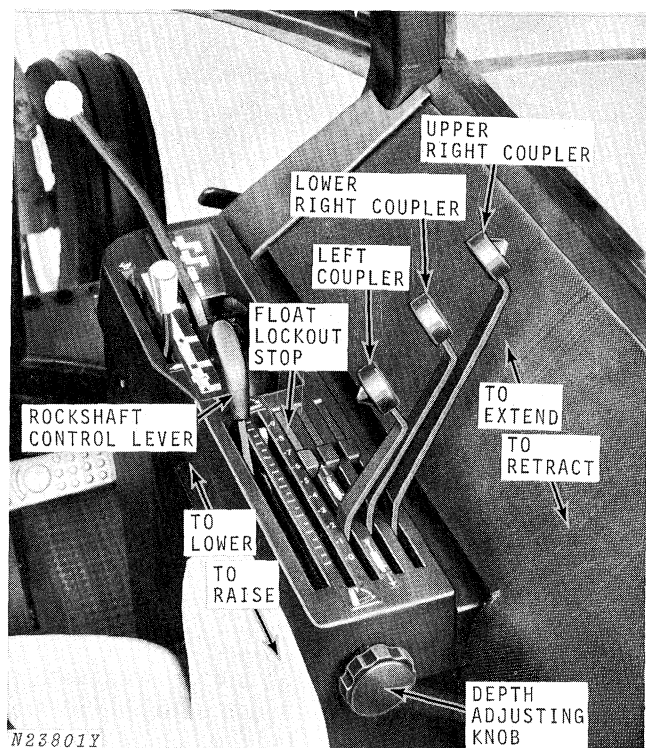
* These codes include representative tool equipment. Add additional front ballast as needed to compensate for additional tool equipment or attachments.

Line 1 _____

Line 2 _____

Total Implement Code

ROCKSHAFT CONTROL LEVER



Typical Console—4030 or Larger Tractor

Use the tractor rockshaft control lever to raise the cultivator for transport and lower the cultivator for operation.

To lower the cultivator further without resetting the depth stop, move rockshaft control lever to left-hand side of slot and forward past the stop.

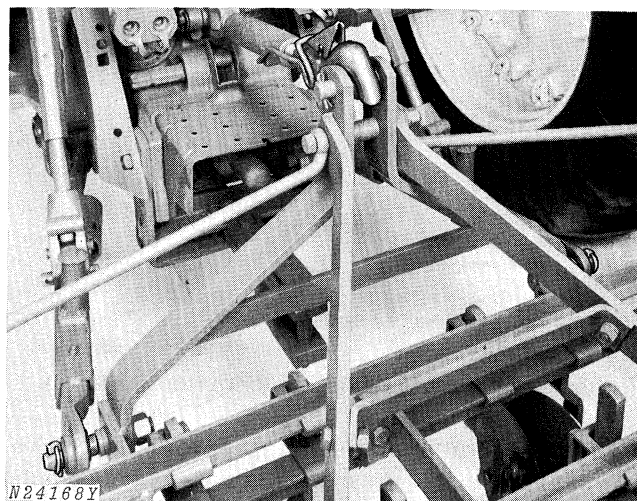
Depth of Operation

The depth of operation is controlled by the gauge wheels. When cultivating, place the rockshaft control lever in the "float" position to allow the cultivator to follow the contour of the ground. Do not use the depth stop.

However, in areas where soft spots in the field cause the gauge wheels to sink in deeper than desired, the cultivator may be raised slightly and carried by the rockshaft until the soft spot is passed.

ATTACHING CULTIVATOR TO TRACTOR

Tractor without Quik-Coupler



CAUTION: Before attaching cultivator to tractor, be sure hitch pins and spacers are completely assembled to match the hitch configuration of your tractor.

Back tractor and position draft links in front of and in line with hitch pins. Stop engine and set brakes.

Extend draft links and adjust length of lift links to enable installation of hitch pins. Install pins and secure with quik-lock pins.

Adjust length of center link, fasten to mast ball, and secure with latch lever.

Tractor with Quik-Coupler

Attach adapters (AR27093, available from your John Deere dealer) to hitch pins with spring pins.

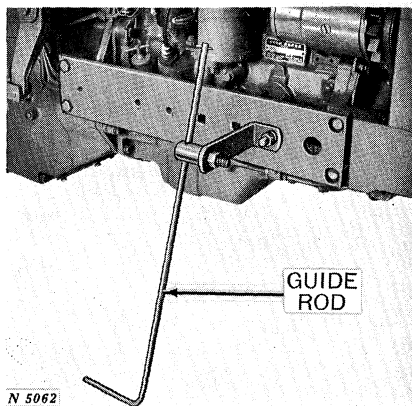
Lower coupler to allow jaws to pass under cultivator mast spacer and hitch pins. Back tractor, raise coupler to firmly seat coupler jaws, then lock latch levers. Be sure spring-loaded latches in lower coupler jaws are extended above hitch pins.

DETACHING CULTIVATOR FROM TRACTOR

Lower cultivator onto a level surface. Loosen center link as necessary to remove load from hitch.

Release center link latch lever and disconnect center link, remove hitch pins (without Quik-Coupler) or release Quik-Coupler latch levers, and detach tractor from cultivator.

GUIDE ROD



Attach guide rod and bracket to tractor as shown.

The guide rod enables the operator to keep the rear-mounted cultivator on the rows without constantly looking back at the cultivator.

Adjust the guide rod so the bottom of the rod runs over the center of the row next to the tractor. When the guide rod is adjusted properly, and the tractor driven with the rod over the center of the row, the cultivator will stay on the rows.

COULTERS

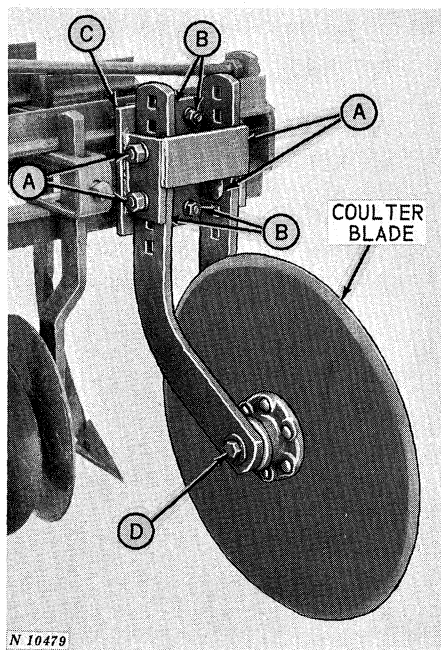
Coulters stabilize the cultivator so it will trail straight behind the tractor.

Coulters are normally mounted on the outer ends of the front of the cultivator as shown in the right hand column. If it is desired to mount the gauge wheels in this location, the coulters may be positioned on the rear of the cultivator.

Adjust the coulters from side-to-side along the tool bar by loosening the two nuts at "C" on the coulters attaching cap. The coulters should be centered between the rows.

If one coulters will stabilize the cultivator, attach it on the centerline of the cultivator, on either the front or rear tool bar.

In irrigated areas, after trenches are made, coulters may be removed if gauge wheels, positioned to run in the trenches, stabilize the cultivator sufficiently.



The rolling coulters should be positioned so it runs deep enough to prevent side sway. However, it should not run so deep that trash builds up at the hubs.

To raise or lower the coulters, remove the two bolts "A" on each standard, and raise or lower the coulters to the desired height. Replace and tighten bolts.

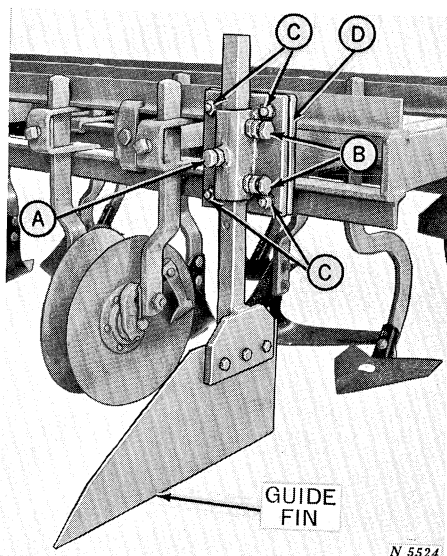
Align the coulters to operate parallel with the rows, so the cultivator trails properly, by adjusting the four bolts at "B."

If the coulters is not straight, loosen the bolts "B" on the side in which the front of the coulters is angled toward the row. Tighten the two bolts "B" on the opposite side until the coulters is straight. Tighten all four bolts equally after this adjustment has been made to secure the coulters in this position.

The upper and lower bolt at "B" on each side of the adjusting plate should be tightened an equal amount to allow the coulters shanks to operate in the vertical position.

NOTE: Hub bearings in anti-friction rolling coulters do not need adjustment, but hub bolts must be kept tight.

GUIDE FINS



Guide fins may be used in place of the coulters to stabilize cultivator. The fin should be set to run approximately three inches deep.

To adjust the depth of the fin, loosen the set screws located at "A" and "B" and raise or lower the fin to the desired setting. To secure the guide fin in place, tighten the set screw "A" slightly until the shank is back next to the plate. Then tighten the set screws "B" securely. Now tighten the set screw at "A" to firmly hold the fin in place. Tighten the lock nuts on the set screws.

The guide fin should always be pointing straight ahead in order for the cultivator to trail properly. The fin is kept in proper alignment by the four bolts at "C."

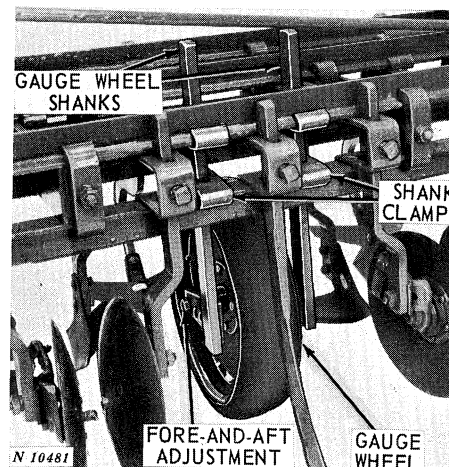
If the fin is not straight, loosen the bolts "C" on the same side in which the fin is pointing and tighten the bolts "C" on the opposite side until the fin is straight.

When the cultivator is level, the entire bottom of the fin should be resting on the floor or ground. If not, loosen the upper or lower set of bolts at "C" and adjust the opposite set of bolts until the guide fin is flat.

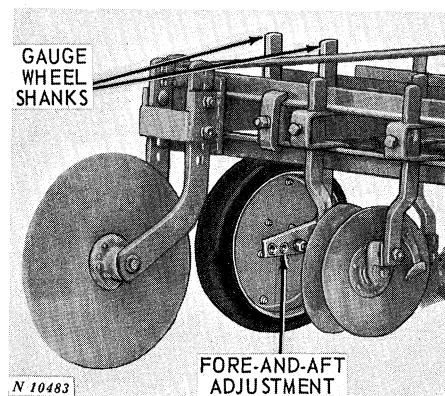
After adjusting the guide fin for the desired alignment, tighten the nuts at "C" firmly to keep the fin from turning during operation.

Adjust the fin along the tool bar by loosening the nuts at "D" on the rear of the fin plate. The fin should run down the center of the space between the rows.

GAUGE WHEELS



Gauge Wheel on Rear of Front Tool Bar



Gauge Wheel on Front of Second Tool Bar

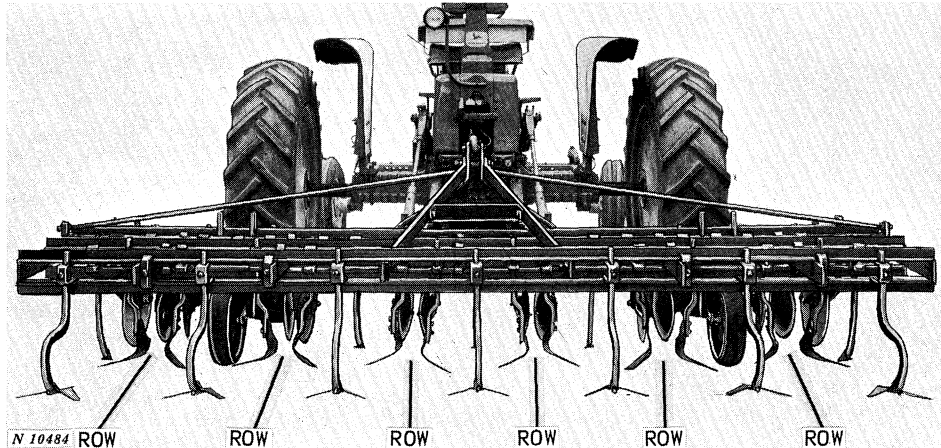
Gauge wheels determine the working depth of the cultivator. The wheels should be positioned on the first tool bar or in front of the second bar of the cultivator. Normally the gauge wheel will operate best when located behind the tractor wheel. The gauge wheels may be clamped to the front of the cultivator in place of the coulter if desired.

Three holes in the axle support allow fore-and-aft adjustment of the gauge wheel. The center hole will provide maximum clearance between the wheel and tool frame in deep cultivation. Place the axle in the front or rear hole if necessary to gain clearance between the wheel and tool equipment.

Adjust the height of the wheel by loosening the set screws on the shank clamps and raising or lowering the wheel to the desired position. Set both wheels to operate at the same depth.

A 4.00 - 12 gauge wheel may be used in lieu of the regular 4.00 - 16 gauge wheel. The smaller wheel provides greater vertical adjustment and gives more clearance for tool equipment.

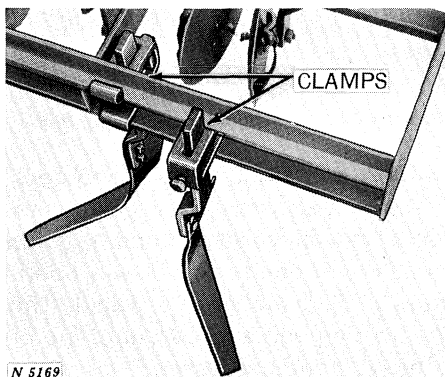
ROW SPACING



The tools can be spaced on the tool frame to cultivate four or six rows.

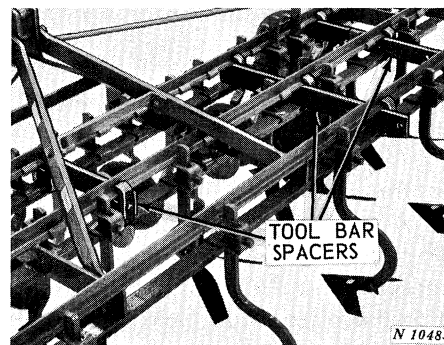
Four rows spaced 26 to 36 inches apart can be cultivated. Six rows spaced 20 to 24 inches apart can be cultivated.

The standards and tools on both sides of the hitch mast should be spaced exactly the same.



When cultivating in trashy soil or soil that has formed a hard crust around the young seedling, it is recommended that the position of the weeding knives be staggered. This is done by using one clamp on the front of the bar and one on the rear as shown.

Tool Bar Spacers



The tool bar spacers can be adjusted for different row spacings. The spacers are normally positioned over the row so they do not interfere with the standard clamps. The spacers are set at the factory for six 22-inch rows.

After adjusting the spacers for the desired row spacing, firmly tighten the bolts holding the spacers.

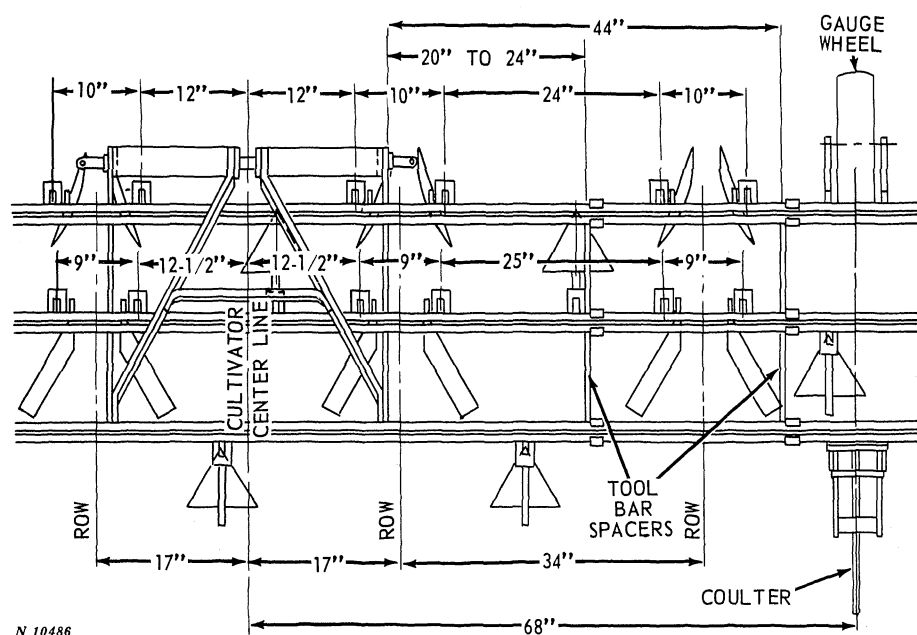
TOOL EQUIPMENT

Tools and their arrangement are dependent on specific needs.

In general, disk weeders, weeding knives, sweeps, and spear points are the tools used. Placement on the tool bars may vary, depending on the area and whether the machine is being used for the first or successive cultivations.

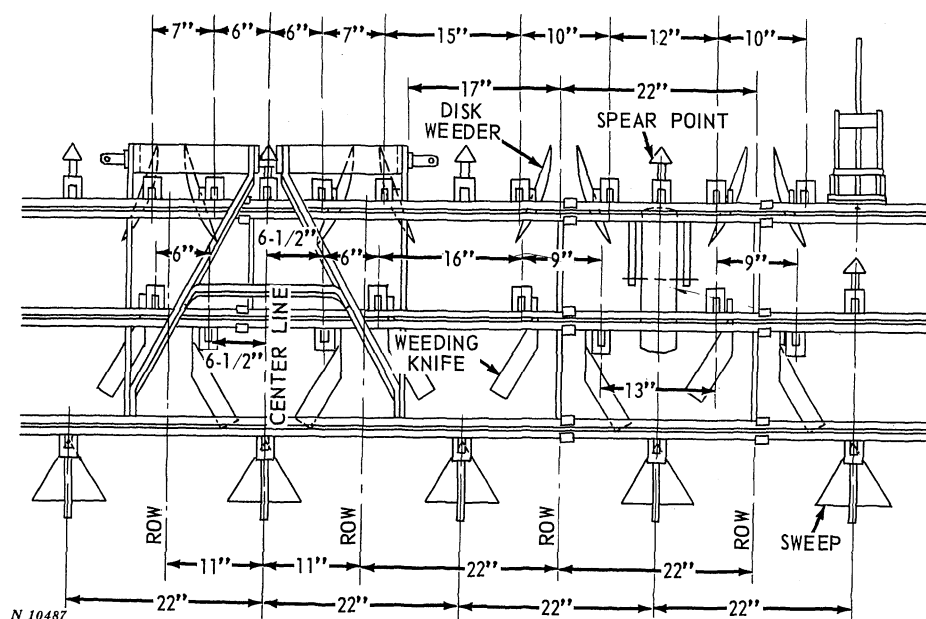
For example, after beets have been thinned, causing more trash in the rows, the disk weeders may be removed. One of the weeding knives next to the row will then be moved to the front bar to provide more trash clearance.

Where beets are irrigated, a pattern using a spear point on the front followed by a sweep and an irrigating shovel is common.



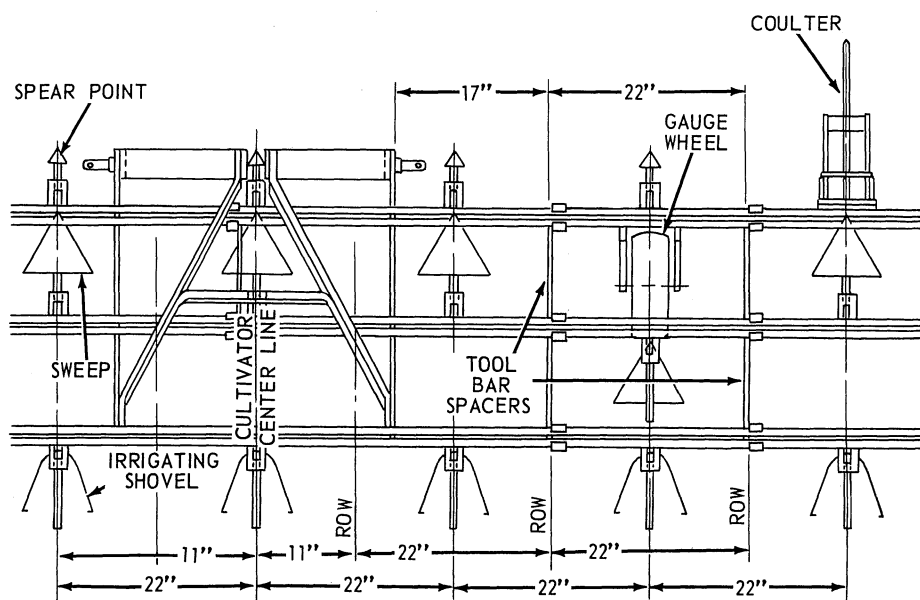
N 10486

Standards and Tool Spacing for Four 34-Inch Rows



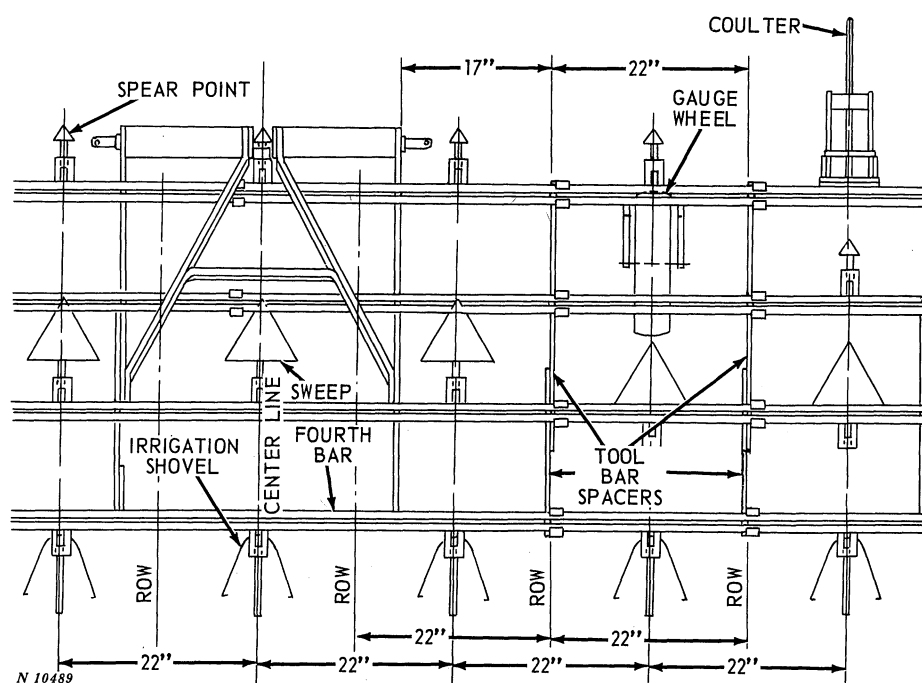
N 10487

Standards and Tool Spacing for Six 22-Inch Rows



N 10488

Standards and Tools Arranged on Three-Bar Cultivator for Irrigation of Six 22-Inch Rows



N 10489

Standards and Tools Arranged on Cultivator with Fourth Bar for Irrigation of Six 22-Inch Rows

MAINTENANCE SUGGESTIONS

Nuts and Bolts

To insure trouble-free service, it is important to keep all nuts and bolts tight. If they are allowed to become loose, they may bend, strip threads, or cause parts to be lost. Check all nuts and bolts daily before operation. See torque chart on page 22.

Shovels, Sweeps and Knives

The life of shovels, sweeps and knives can be increased and their work made more efficient by greasing the polished faces with a coat of multipurpose grease or heavy oil during the periods of intermittent use and between seasons.

They will also scour much easier if they are cleaned at the end of each cultivating day.

Sharpening Shovels, Sweeps and Knives

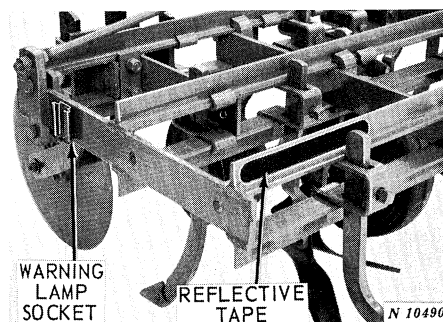
Dull or worn-out shovels, sweeps or knives will not destroy weeds, nor permit an even depth of cultivation. They are expensive to operate. Keep your shovels and sweeps sharp!

Between seasons or during periods of intermittent use, inspect your cultivator for worn or damaged parts. Failure to do this may cause an expensive delay when attempting to put your cultivator back in service.

Keep Your Cultivator a John Deere Cultivator

Genuine John Deere tools have more and better material in points and wearing surfaces. They fit better, stay sharp longer, and save you money. Buy your shovels, sweeps and knives from your John Deere dealer.

SAFETY SUGGESTIONS



When transporting the cultivator on a road or highway at night or during the day, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local governmental regulations. Various safety lights and devices are available from your John Deere dealer.

A socket for a warning lamp is available for the extreme left-hand side of the cultivator.

Make sure the protective cover has been removed from the reflective tape on the rear of the cultivator.

The rate of tractor travel on hillsides and curves should always be such that there is no danger of tipping.

Do not permit others to ride on any machine unless the person is on the seat or platform provided for the operator.

Always keep the tractor in gear when driving down steep grades.

Drive at speeds slow enough to insure your safety. Reduce speed before turning quickly or applying brakes. Drive slowly over rough ground.

**A Careful Operator
IS THE BEST INSURANCE
AGAINST AN ACCIDENT**

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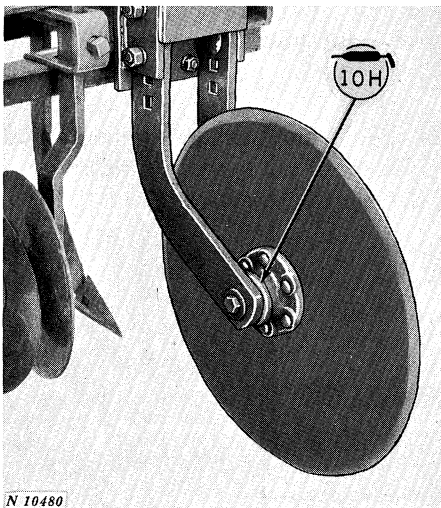
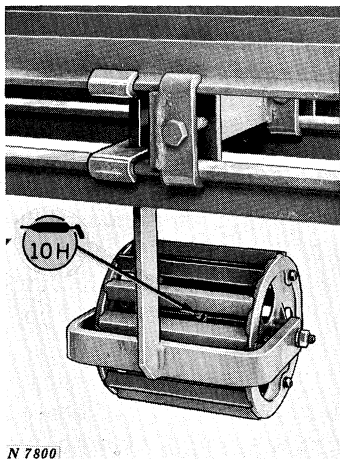


Lubrication

SYMBOL



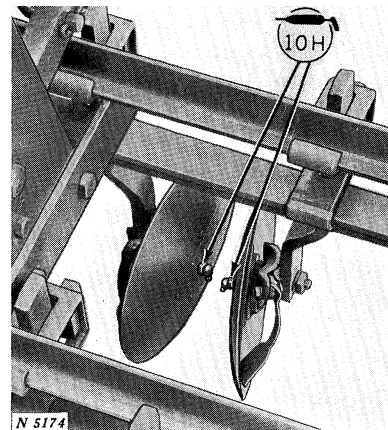
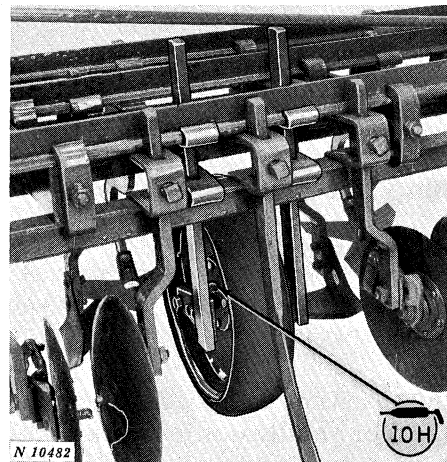
Lubricate with John Deere Multi-Purpose Lubricant or an equivalent SAE multipurpose-type grease at hourly intervals indicated on the symbols.



If cultivator is equipped with antifriction rolling coulters, lubricate coulters hub bearings once at the beginning of each season. Fill and flush bearings with lubricant at the end of each season to prevent moisture accumulation.



To avoid possible injury and to insure best results, always stop tractor operation and lower the cultivator before lubricating.

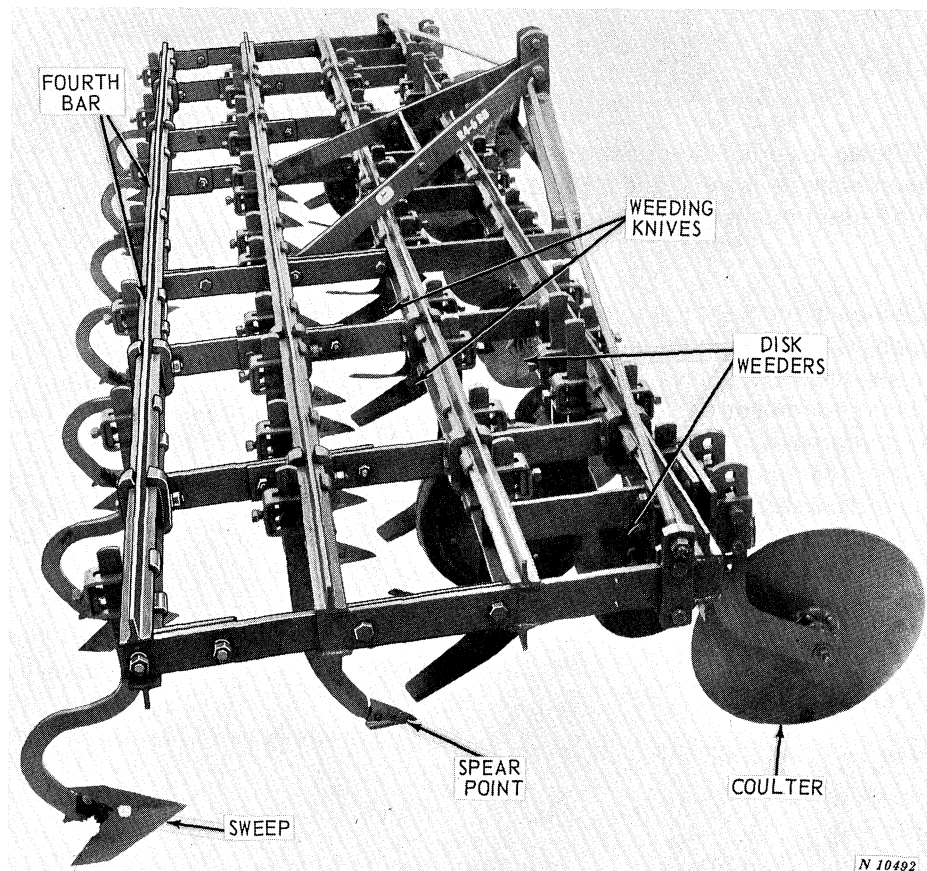


Disk weeders with anti-friction bearings require no lubrication.



Special Equipment

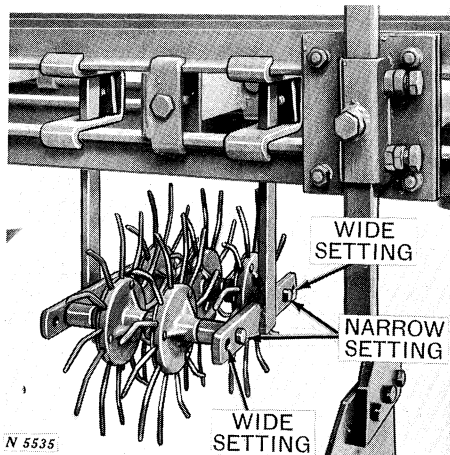
FOURTH BAR (Rear Tool Frame)



A fourth T-bar can be added to the cultivator. The extra bar makes it possible to attach more tool equipment to the cultivator, or to obtain greater trash clearance from front to rear.

Many variations of tool equipment arrangements can be obtained when using four bars. Arrange the tool equipment to suit your own particular needs.

ROTARY HOE

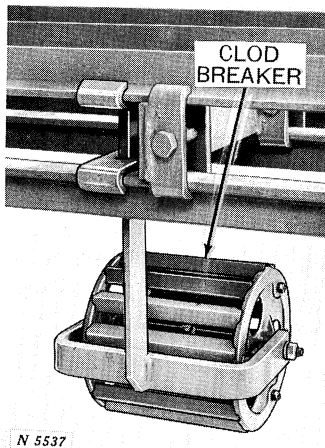


This attachment is ideal for breaking crusted soils and for early cultivation of beets, beans, and all other vegetables. It can be used alone or with the clod breaker shown below.

The rotary hoe attaches to the front frame bar with two MD312DN clamps. One attachment is required for each row. If less penetration and less digging are desired, the rotary hoe attachment can be reversed so the wheel tines point rearward.

The rotary hoe is normally used in its narrow setting as shown above. When operating in soils that contain a lot of trash or clods, the hoe sections can be moved to the wide setting to give more clearance between the wheel tines.

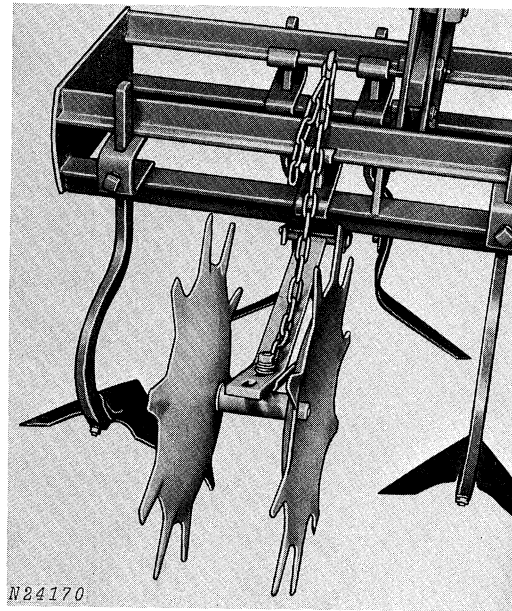
CLOD BREAKER



The clod breaker is the ideal companion tool for the rotary hoe. When used behind the rotary hoe it firms the ground and breaks up the clods. It can also be used alone for breaking crust when the crust is thin and easily broken.

It has a single standard which attaches to the rear of the tool frame with one MD312DN clamp. If used alone, the clod breaker roller should be attached to the front bar of the tool frame.

ROLLING SHIELDS

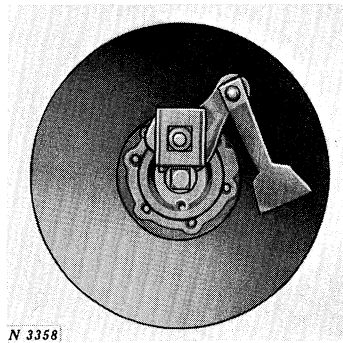


These rolling shields for the T-bar tool frame are especially useful for high-speed cultivation. They may be used in 20- to 40-inch rows. Attach BN130537 Rolling Shields with MD312DN clamps.



Tool Equipment For Beet, Bean, and Vegetable Cultivation

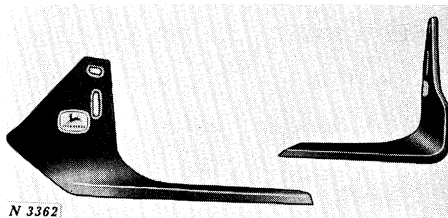
DISK WEEDERS



Disk weeders are available in 9- and 11-inch sizes, with adjustable scrapers and anti-friction or plain bearings.

WEEDING KNIVES

Round-Turn Knives



Round-turn weeding knives are shaped to prevent damage to shallow crop roots. Their upward pitch assures good work in crusted soils. Made of tough, high-carbon steel, round-turn knives are available in three (6 to 10-inch) sizes.

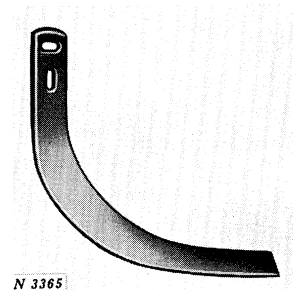
Low-Point Knives

6 and 8-inch low-point knives are made for very close work in young crops. The backward slope of the point lifts leaves up and out of the way to prevent plant damage.

Square-Turn Knives

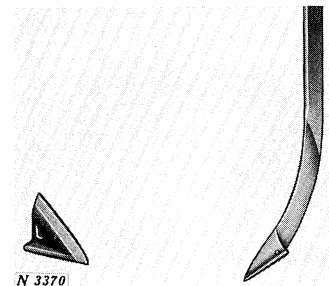
Square-turn knives cut readily through soils packed by rain or irrigation. Bolt slots permit extremely flat adjustment to prevent ridging. Available in 6-inch and 8-inch sizes.

Bed Knives



Bed knives quickly and easily destroy heavy weed growth. The 1/4-inch-thick knives have two attaching slots. Available in 6-inch size only.

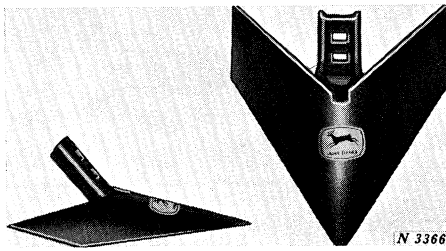
SPEAR POINTS



Spear points with standards are available for crust-breaking, deep cultivation, or deep hardpan-breaking. The front edge of the standard, just above the point, is beveled for better penetration and less soil resistance.

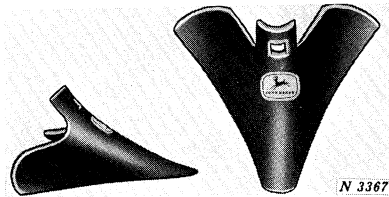
SWEEPS

Extra-Flat Duckfoot Sweeps



Extra-flat duckfoot sweeps are used for early cultivation of crops while plants are still in the seedling stage. Used for high-speed cultivation, these sweeps will cut weeds while hardly disturbing the soil. Available in 6- to 12-inch widths.

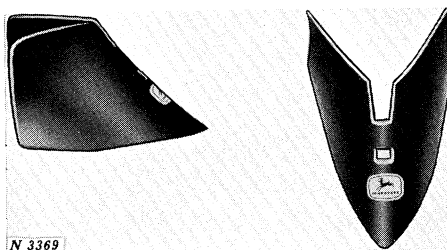
Flat Sweeps



After crops have passed the seedling stage, use flat sweeps for both close and general-purpose cultivation. Smooth finish aids scouring in difficult soil conditions. Available in 6- to 12-inch widths.

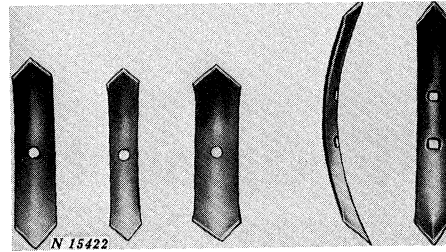
SHOVELS

Irrigating Shovels



Irrigating shovels are shaped for making small irrigation furrows between narrow-planted rows without throwing soil over small plants. They are highly polished for good scouring. Available in 6- and 7-inch sizes.

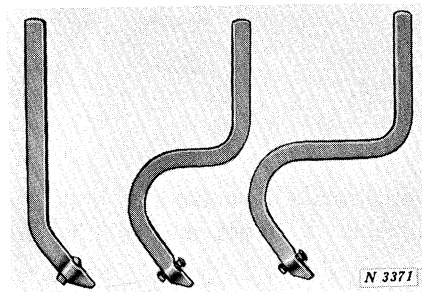
Double-Pointed Shovels



Double-Pointed Shovels are strong and sturdy to withstand the most severe cultivating conditions; they're ideal for use where it's necessary to cultivate deep to stir up more ground. These shovels are also used to loosen the soil compacted by tractor wheels.

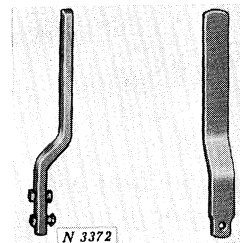
STANDARDS

Stiff Standards



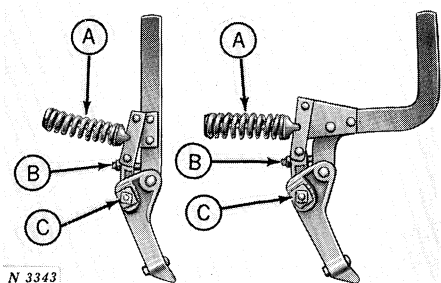
Stiff standards are available for use with sweeps, irrigating shovels and double point shovels.

Offset Standards



Use the offset standard at left with weeding knives or bed knives. Standard at right is used with disk weeder.

Spring-Trip Shanks



The spring-trip shanks with straight or curved standards are designed for high-speed tractor cultivation in soils where the ground working tools may frequently encounter obstructions.

When the ground-working tool strikes an obstruction, the spring-trip automatically releases, permitting the tool to swing back until the obstacle has been cleared. The tension spring then returns the ground tool to its working position.

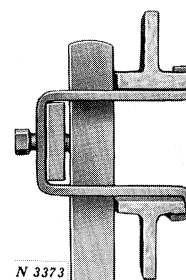
The spring tension (A), spring-trip pressure (B), and angle or suck of the tool (C), are easily and quickly adjusted to meet the soil conditions.

Adjust spring-trip shanks so they do not trip under ordinary cultivating conditions. Turn set screw (B) out to make trip hold tighter. Turn set screw in to make trip release easier.

IMPORTANT: Adjust tripping action of shank only at set screw (B). Do not set trip by adjusting nut on spring (A). Tighten spring nut only enough to keep spring slightly compressed.

Number	Description
MD 689 DN	Straight shank
MD 688 DN	Curved Shank

CLAMPS



All standards shown on this page and the preceding pages are quickly and easily fastened to the cultivator frames by the simple but positive clamp shown above.

The standards are held in place by a single, sturdy set screw.

Number	Description
MD 312 DN	Used on all 5/8" x 1-1/2" standards. Also use for rotary hoe and clod breaker.
MD 468 DN	Used for attaching 1-1/8" round shanks to the tool frame.



Assembly

SHIPPING BUNDLES

Regular Equipment

Bundle No.	Description
BN 60436 N	Main Frame
BN 130055	Coulter with Anti-Friction Bearing (Two used)
BN 60439 N	Gauge Wheel Shanks
CA 3309 N	Gauge Wheel (Two used)
OM N159311	Operator's Manual

Optional Equipment

BN 60440 N	Guide Fin (Optional in lieu of BN130055) (Two used)
CA 3311 N	Gauge Wheel, 4" x 12" (Optional in lieu CA3309N) (Two used)
BN 60438 N	Coulter with Plain Bearing (Optional in lieu of BN130055) (Two used)

Special Equipment

BN 60437 N	Rear Tool Frame (Fourth Bar)
BN 130134	Clod Breaker (One per row)
BN 130135	Rotary Hoe (One per row)
BN 130537	Rolling Shields
SC 686 N	Guide Rod

ASSEMBLY INSTRUCTIONS

Before assembling this cultivator, study all the illustrations and instructions carefully.

The illustrations and instructions on the following pages give the proper sequence for assembling the cultivator.

Unpack all parts and arrange them conveniently.

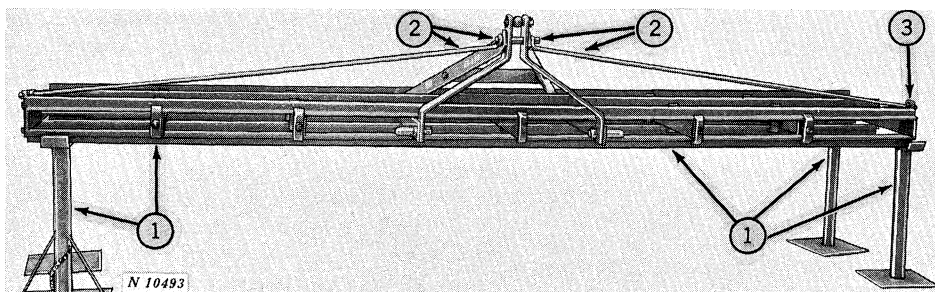
When attaching one part to another, put nuts on bolts loosely with lock washers under nuts; tighten nuts and spread cotter pins after parts have been completely assembled. This will make assembly much easier.

Lubricate freely. Clean grease fittings if clogged with paint. Remove the paint with kerosene, oil, or where necessary, by scraping paint off.

CAUTION: Be careful when cleaning with any of these fuels so that they do not ignite. Use only in a well ventilated area and away from any sparks or flames.

Check the cultivator over after it has been completely assembled and inspect it to be sure that it has been properly assembled and is in good working condition.

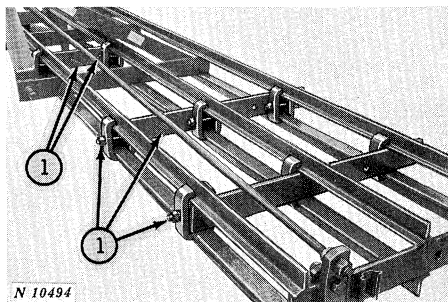
Main Frame and Truss Rods



1. Place the cultivator frame on support stands.
2. Remove the bolt from the hitch mast and attach the truss rods to the mast.

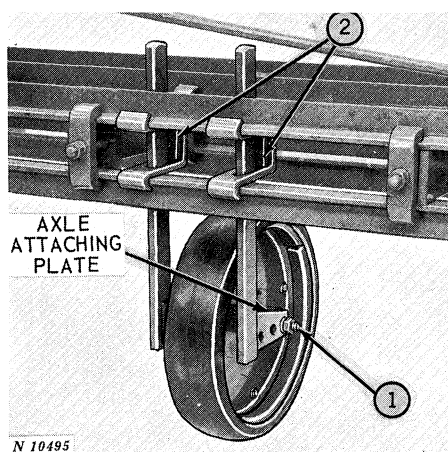
3. Tighten the nut on the outer ends of the truss rods until the cultivator frame is level. Tighten inner nut to lock in place.

Tool Bar Spacers



1. The tool bar spacers can be adjusted for different row spacings. The spacers are normally positioned over the row so they do not interfere with the standard clamps. The spacers are set at the factory for six 22-inch rows. Adjust the spacers for the desired spacing and tighten the spacer attaching bolts. See diagrams on pages 9 and 10.

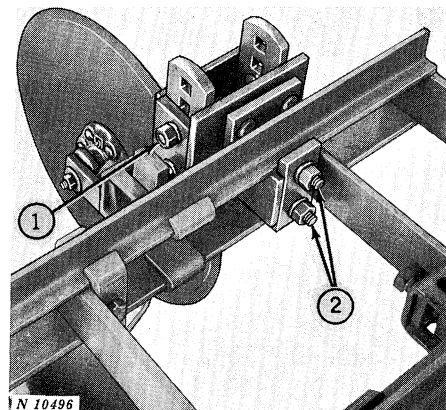
Gauge Wheels



1. Install the sleeve and dust caps on the gauge wheel. Bolt the wheel to the shanks in the hole shown, or in one of the other sets of holes if desired for additional tool clearance. The axle attaching plate should be on the side of the shank nearest the tire as shown.

2. Clamp the wheel and shanks to the first tool bar or to the front of the second tool bar. Position the gauge wheels behind the tractor wheels, or on the outer ends of the front bar. See diagrams on pages 9 and 10.

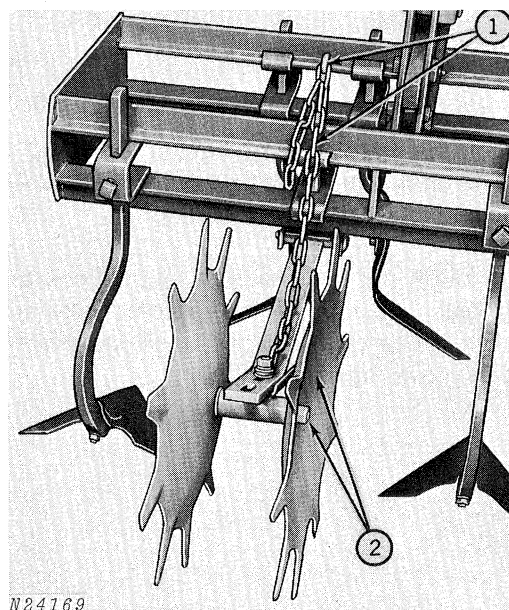
Coulters



1. Assemble the coulters in the attaching bracket so the curved part of the shank points away from the cultivator.

2. Clamp each coulters assembly to the outer end of the front tool bar with the two bolts through the stiffener cap. Place it on the bar so it runs in the center of the space between rows. If necessary, adjust the coulters as shown on page 6.

Rolling Shields

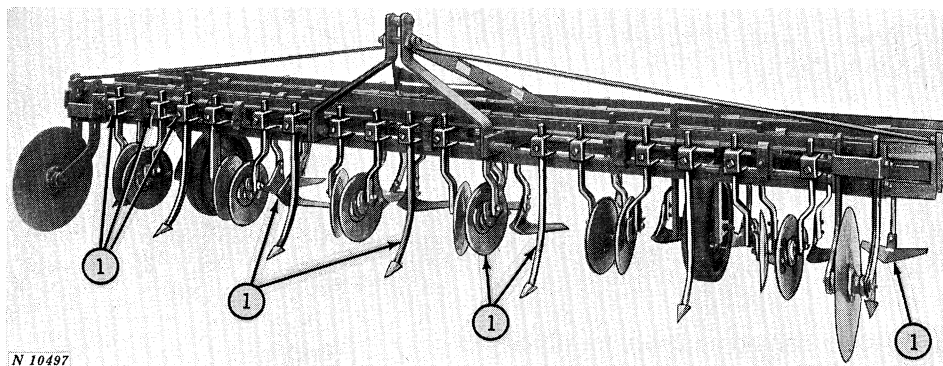


1. Bolt the shield bracket to the frame with U-bolt. Center the lower shield bracket over the row.

2. Bolt the rolling shields to the lower bracket with the flat washers to the outside of the shields.

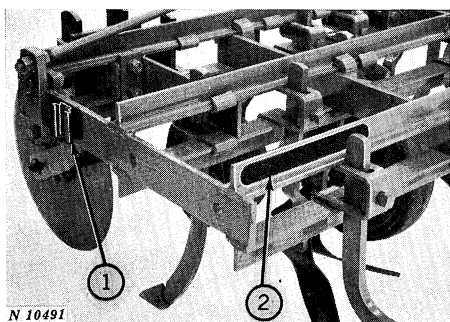
IMPORTANT: The teeth on the shields must be timed opposite one another as shown. Tighten the shield attaching bolt to 170 ft-lbs torque.

Tool Equipment



1. Attach the desired tool equipment to the cultivator. Refer to row spacing illustrations on pages 8 to 10.

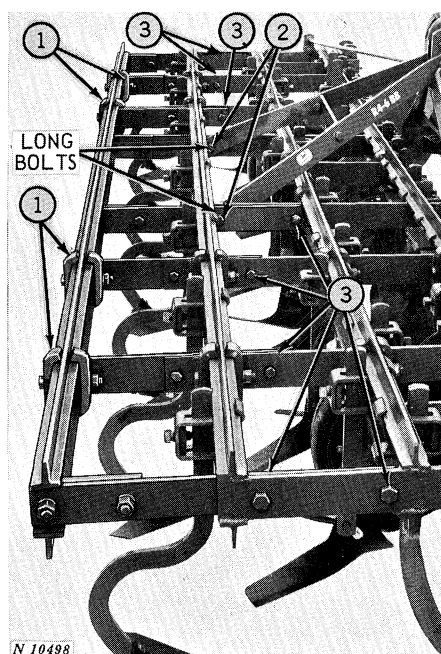
Warning Lamp Socket (Extra Equipment)



1. Bolt the warning lamp socket to the outside of the frame on the left-hand side of the cultivator. Position the socket with the wide end up.

2. If fourth bar is used, see instructions at right. Attach reflective tape to the extreme left-hand and right-hand sides of the third bar. Remove the black protective covering from the tape.

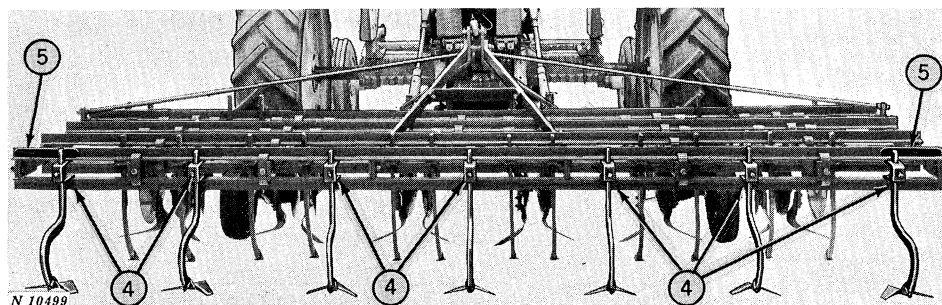
Fourth Bar (Rear Tool Frame)



1. Adjust the bar spacers on the fourth bar until they can be set in beside the bar spacers on the three bar machine.

2. Remove the rear two bolts in the hitch mast braces.

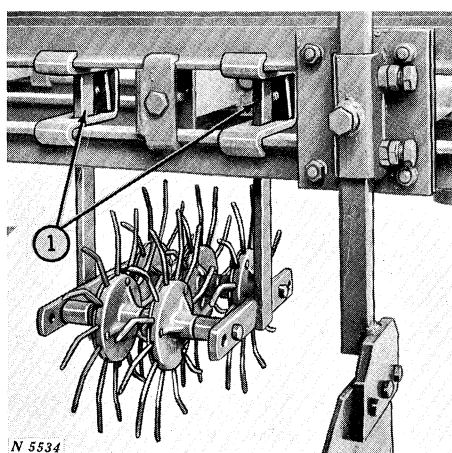
3. Bolt the fourth bar to the cultivator. Bolt the additional bar spacers on the opposite side of the weld on the spacers between the second and third bar. Use the long bolts furnished with the fourth bar when attaching the bar to the mast brace.



4. Attach the standards and tool equipment to the bar as desired. Shown above are disk weeder on the first bar, weeding knives on the second, spear points on the third, and sweeps on the fourth bar.

5. Attach reflective tape on the extreme right-hand and left-hand sides of the fourth bar. Remove the protective covering from the reflective tape.

Rotary Hoe Attachments

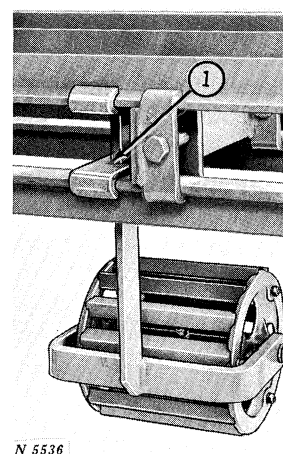


1. Clamp the rotary hoe to the front frame bar with the tool clamps provided. One attachment is required for each row.

The hoe is normally positioned so the wheel tines point forward as shown above.

For less penetration and digging, reverse the hoe attachment.

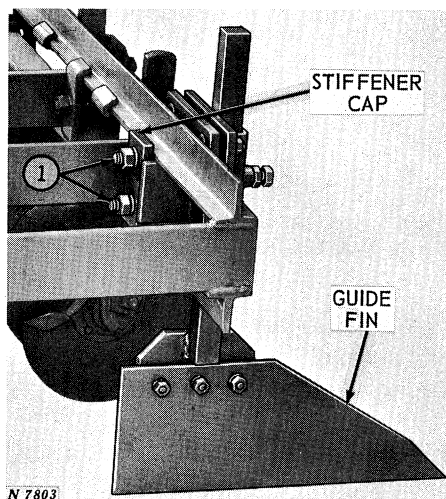
Clod Breaker Attachments



1. Clamp the clod breaker attachment to the front bar of the cultivator.

When used with the rotary hoe, attach the clod breaker attachment to the rear bar of the cultivator.

Guide Fin



1. If used in place of coulters, clamp each guide fin assembly to the front of the cultivator with the two bolts through the stiffener cap. Position the bolts between the upper and lower tool bars as shown. The point of the fin should face the front. If necessary, adjust the fin as described on page 7.



be careful.....
avoid accidents

X 1275

Bolt and Nut Torque Recommendations

Before starting to work with your new machine or one which has been stored, check to see that all nuts on bolts are tight. After the machine has been operated for a short period of time, check to be sure that bolts are tight.

Recommended Torque in Foot-Pounds Coarse and Fine Threads		
 		
Bolt Diameter	Three Radial Dashes	Six Radial Dashes
1/4	10	14
5/16	20	30
3/8	35	50
7/16	55	80
1/2	85	130
9/16	130	185
5/8	170	250
3/4	300	420
7/8	445	670
1	670	1000
N23203		

Torque Chart

Tighten all bolts to the torques specified in the chart above. It is important that bolts be kept tight at all times. Loose bolts can cause breakage of parts. Check the tightness of bolts periodically and keep them tightened to the torques specified above. "High strength" bolts are identified by the three radial dashes on the bolt head.



Specifications

MODELS

Three Bar Cultivator
Four Bar Cultivator

WEIGHTS

(Approximate weight without tool equipment)
Three bar cultivator - 770 pounds.
Four bar cultivator - 975 pounds.

HITCH REQUIREMENT

Tractors equipped with a category 2, three-point hitch may be used with the cultivator.

TRACTOR REQUIREMENTS

John Deere 2010, 2020, 2030, 2510, 2520, 3010, 3020, 4000, 4010, 4020 and 4030 Tractors.

ROW SPACING

When set for six rows—20 to 24-inch rows.
When set for four rows—26 to 36-inch rows.

STANDARDS

Straight or curved rigid and spring-trip or pin break, for sweeps and irrigating or double-point shovels. 1-1/2-inch offset for weeding knives, disk-weeders and bed knives.
Spear-point.

TOOL EQUIPMENT

Weeding Knives:
Round turn—6-, 8-, 10-, and 12-inch.
Square turn—6- and 8-
Low point—6- and 8-inch

Sweeps:
Extra flat duckfoot sweeps—6- and 7-inch.
Flat sweeps—4-, 5-, 6-, 8-, 10-, and 12-inch.

Shovels:

Irrigating shovels—6- and 7-inch.
Double point shovels.

Spear Points
Bed Knives
Disk Weeders
Shields
Guide Rod

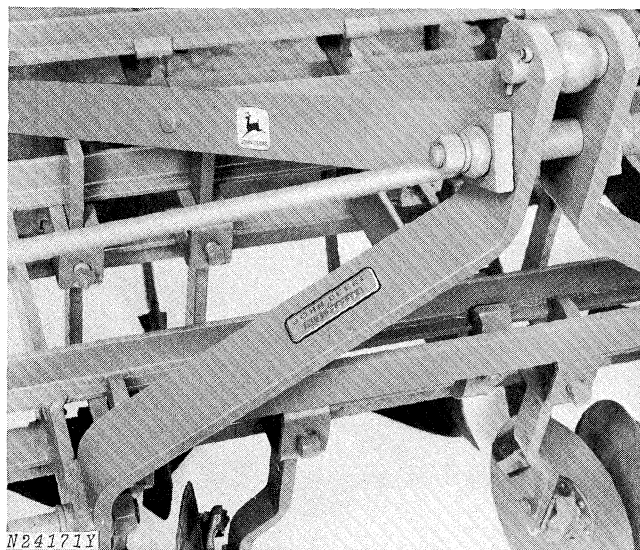
SPECIAL EQUIPMENT

Rotary hoe attachment
Clod breaker attachment
Rear tool frame
Rolling shields

(Specifications and design subject to change without notice.)

SERIAL NUMBER

When ordering parts or reporting any other information regarding your cultivator, always provide the model and serial number as given on the serial number plate. By doing so, you will assist your John Deere dealer in giving you prompt, efficient service.



Cultivator Serial No.
Date of Purchase 19....

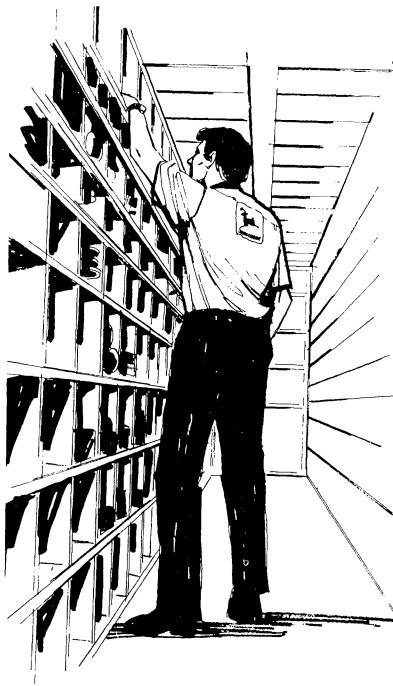
MEMORANDA

Service to keep you on the job

We, at your John Deere dealer's, pride ourselves in having what it takes to help keep you on the job... where the profits are

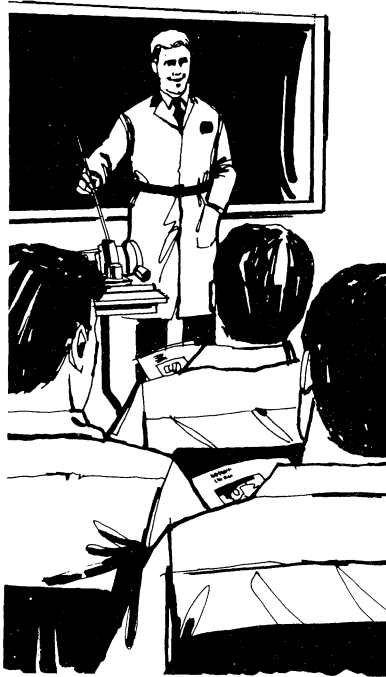
John Deere Parts.

We help minimize downtime by putting the right parts in your hands in a hurry. That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.



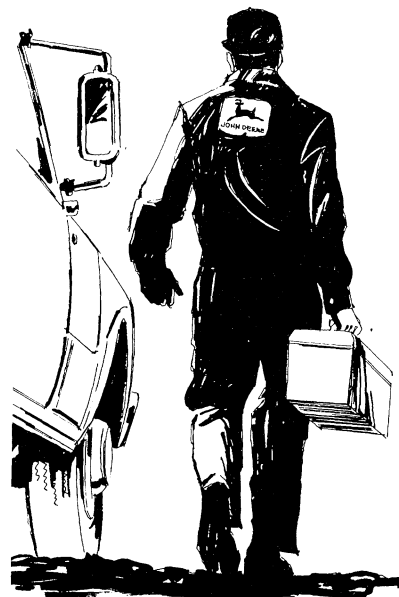
The right tools.

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly... to save you time and money.



Well-trained mechanics.

School is never out for John Deere servicemen. Training schools are held regularly to be sure our personnel know your equipment and how to maintain it. Result? Experience you can count on!



Prompt service.

Our goal is to provide prompt, efficient care when you want it and where you want it. We can make repairs at your place or at ours, depending on the circumstances. See us. Depend on us.

John Deere Service Superiority: We'll be around when you need us

