12 SERIES ROTARY HOE

JOHN DEERE

OPERATORS MANUAL

12 SERIES
ROTARY HOE

OMN73959 (01SEP59) English

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INTRODUCTION

The purpose of this manual is to acquaint you with the operation and servicing of your new John Deere Rotary Hoe.

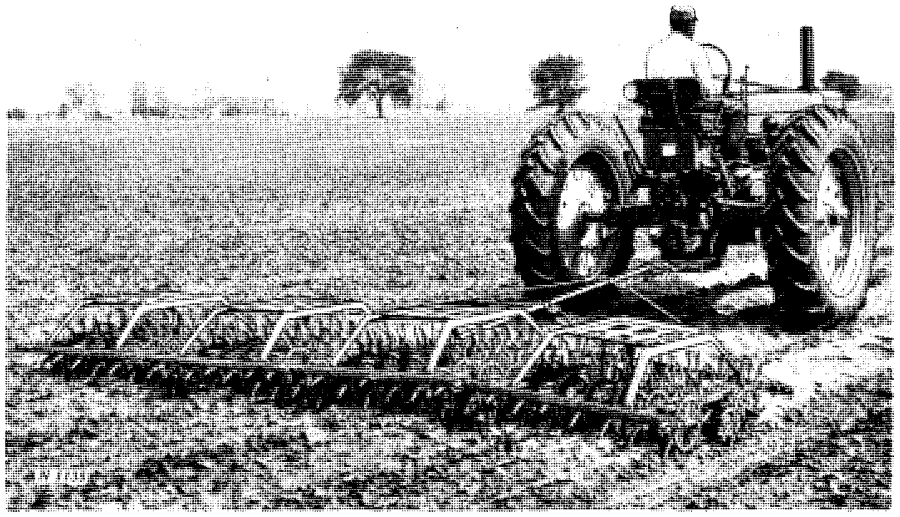
We know that you had definite reasons for buying the John Deere Rotary Hoe, and we like to think that among them was the fact that your rotary hoe was made by an organization that has always pioneered in the development of dependable, efficient farm machines, which have been fully proved in the field before they were offered to the farmer. The John Deere Rotary Hoes are no exception to this rule. The Rotary Hoe that you have just purchased is a fine piece of farm equipment and was designed by men who understand farming conditions and have the interest of the farmer at heart.

Many growers consider the rotary hoe an indispensable and unexcelled tool for the early cultivation of all kinds of row crops such as corn, beans, peas, cotton, tobacco, and sugar beets; also mint, clover, alfalfa, and other field crops. It is unequalled for maintaining proper tillage conditions in seedbeds from the time they are ready for seeding until the crop is large enough for safe cultivation with shovel cultivators.

When in need of parts, either to replace worn parts or to make emergency repairs, see your local John Deere dealer; he and the John Deere branch house behind him are equipped to provide high quality parts and service.

Date of Purchase.....**19**....

Model Number.....



John Deere 412 Rotary Hoe Being Used for Early Cultivation.

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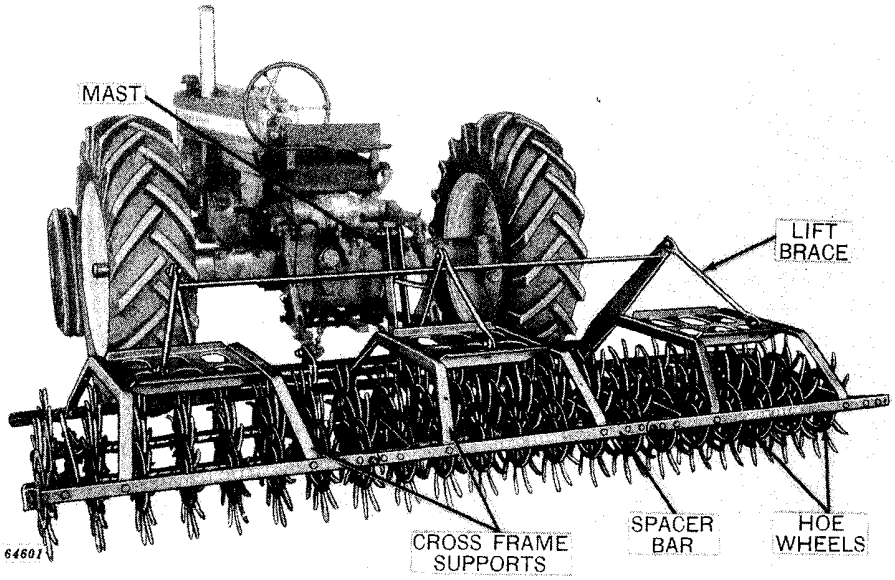
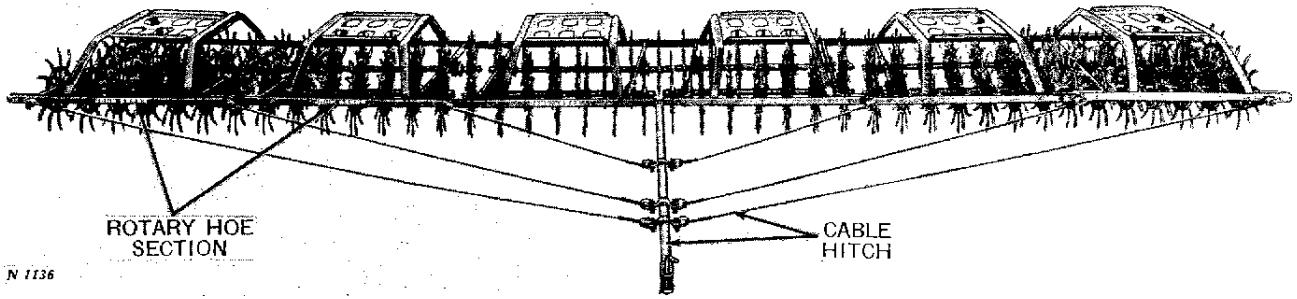
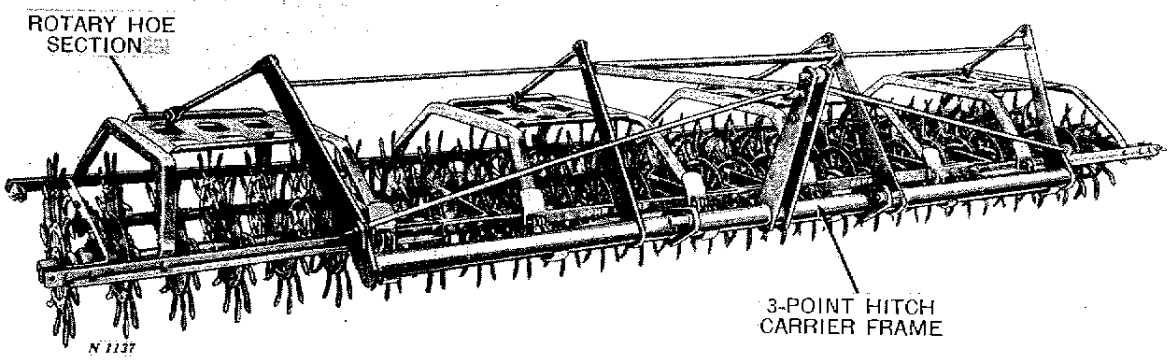


John Deere 312B Rotary Hoe



John Deere 612 Rotary Hoe



John Deere 412A Rotary Hoe

SPECIFICATIONS

Model	*Description*	*Width of Cut*
212	2 Section Drawn	7 Feet
312	3 Section Drawn	10-1/2 Feet
312A	3 Section with No. 2B Pickup Hitch	10-1/2 Feet
312B	3 Section with No. 2C Pickup Hitch	10-1/2 Feet
412	4 Section Drawn	14 Feet
412A	4 Section with No. 4 Pickup Hitch	14 Feet
612	6 Section Drawn	21 Feet
812	8 Section Drawn	28 Feet

Sections

Weight, 262 Pounds
Width of Cut, 3-1/2 Feet
Hoe Wheels—Fourteen
Bearings—White Iron

Hoe Wheels

12 Tines per Wheel
18″ Diameter

NOTE: Right-hand and left-hand sides referred to in this manual are determined from a position at the rear of the machine facing the direction of travel.

(Specification and design subject to change without notice.)

OPERATION AND ADJUSTMENT

The rotary hoe is designed to be used in the early cultivation of all kinds of row crops for the purpose of destroying weeds and conserving moisture. It should be operated at a minimum speed of 4-1/2 mph.

Operating with wheel tines pointed forward, the tines dig into the ground breaking the top surface and creating a mulch.

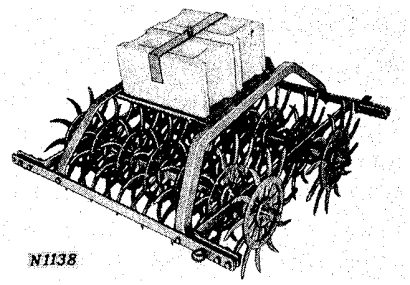
Operating with the wheel tines pointed rearward, a packing action is obtained. The packing of the soil around the seed gives much better germination and still leaves a mulch on the surface to help retain moisture and reduce erosion.

DEPTH OF PENETRATION

Speed of operation affects depth of penetration. Increasing speed decreases penetration and creates a floating action. Decreasing speed increases penetration and provides less agitation.

When working in extremely hard ground conditions the addition of weights to drawn hoes will help provide more penetration. Concrete blocks can be used effectively on drawn hoes for this purpose as shown below and, if desired, attaching brackets can be made similar to those shown. No weights or attaching brackets are furnished for use with these hoes.

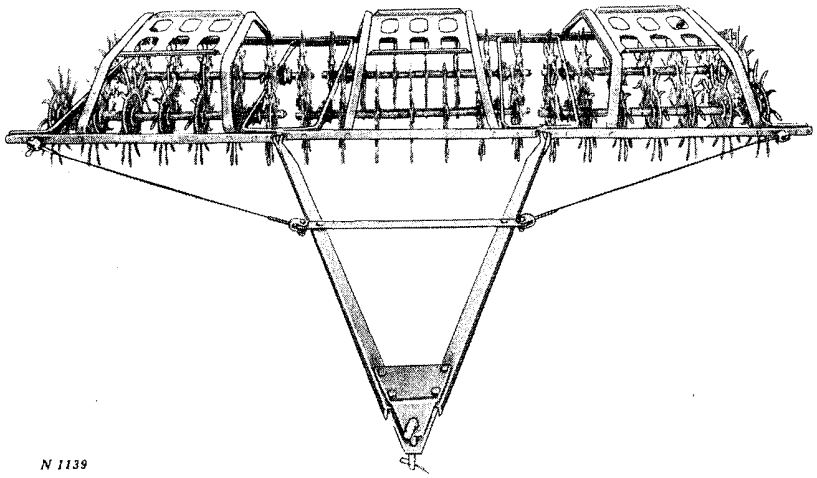
CAUTION: Added weight on integral rotary hoes is not recommended. Use tractor hydraulic system down pressure if desired.



ROTARY HOE AS DRAWN EQUIPMENT

The 12 Series Rotary Hoe can be operated as drawn equipment in multiples of two, three, four, six, or eight sections. Attach sections end to end with eyebolts.

The 312 Rotary Hoe is shown below. Other drawn units are similar to the 612 Rotary Hoe shown on page 2.



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ROTARY HOE AS INTEGRAL EQUIPMENT ON JOHN DEERE "430," "420," AND "40" SERIES TRACTORS

When used with a 3-point hitch (No. 2C Pickup Hitch, three-section) 12 Series Rotary Hoes can be carried as integral implement on a John Deere "430," "420," or "40" Series Tractor if the tractor is equipped for 3-point hitch operation.

PREPARING THE TRACTOR

Tire Inflation and Weight Requirements

When using rotary hoes as integral equipment it is necessary to compensate for the weight of the implements carried on the tractor by adding front end weights and by changing tire pressures. See your tractor manual for instructions concerning tire inflation and added weights.

3-Point Hitch Settings

Set 3-point hitch parts as described below. Refer to the specific tractor operator's manual for detailed instructions pertaining to these parts.

Upper Link. Attach the upper link to the hole in the load control yoke closest to the pivot pin; this will set the system to its least sensitive operation. The length of this link may be changed later to level the hoe.

Lift Links. Attach lift links to inner holes in rockshaft lift arms. The length of lift links may be changed later to level the hoe.

Dual Touch-o-matic Settings

Set the dual touch-o-matic system for parallel cylinder operation as described below. Refer to the tractor Operator's Manual for detailed instructions pertaining to these settings.

Control Levers. Place the left-hand touch-o-matic control lever to the rear and move the quadrant stop against the lever so it will not operate. Operate the hydraulic system by using the right-hand control lever.

Lift Arms. Pin the left-hand lift arms together so they function as one unit.

Load Control Screw. Turn load control screw out so Load-and-Depth Control does not function.

Crossover Valve. Set the crossover valve in the "out" position. On older "420" and all "40" Tractors with selector lever, set the lever in the forward position.

ATTACHING AND DETACHING

Back up tractor to rotary hoe and attach left-hand draft link, as shown below.

Attach right-hand draft link. If necessary, align with leveling screw crank.

Connect upper link to mast of rotary hoe.

The length of the upper link can be changed to aid assembly or the tractor hydraulic system may be operated to align attaching parts. If the link is set short, slowly move the tractor ahead until attaching points align.

To detach the hoe, lower it onto a level surface (setting level makes it easier to reattach) and disconnect the three attaching points.

LEVELING

Adjust the rotary hoe to be level when in the operating (lowered) position by using 3-point-hitch adjustments. Obtain lateral leveling by turning the leveling crank on the right-hand lift link. Obtain fore-and-aft leveling by turning the turnbuckle on the upper link.