

**99 TWO-ROW
COTTON PICKER
EFFECTIVE SERIAL
NOS. 99L-1302
AND 99H-3654**



JOHN DEERE

OPERATORS MANUAL

**99 TWO-ROW COTTON PICKER
EFFECTIVE SERIAL NOS. 99L-1302 AND
99H-3654**

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ENGLISH



To the purchaser

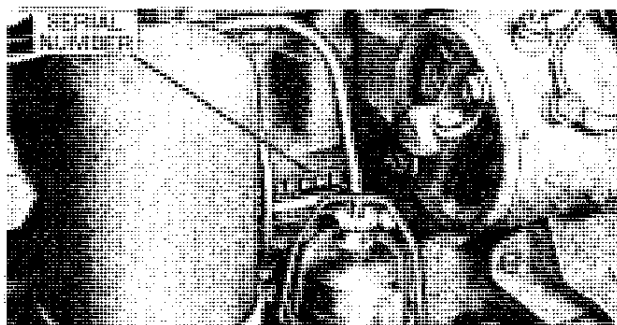
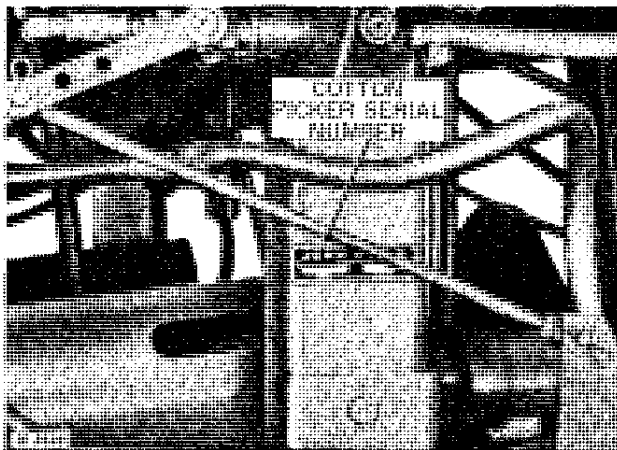
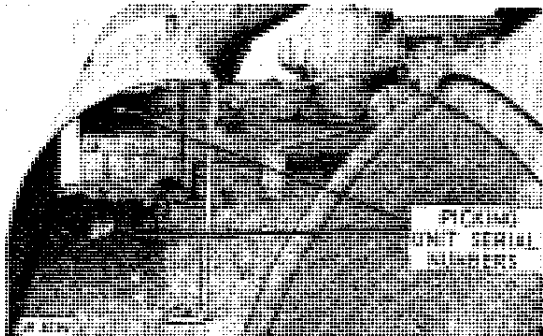
Your new cotton picker was built to rigid manufacturing standards. Material and workmanship are the best. However, the machine will serve you only in direct proportion to the care you give it. How long it will last and continue its good work is a matter entirely in your hands.

The way you operate your cotton picker and the care you give it have much to do with the service and satisfaction you will get from it. This manual has been carefully prepared and illustrated to show you what to do and when to do it. It explains the adjustments that are built into the machine and gives instructions on when and how to make these adjustments.

If you find you need information not covered in this manual or if your cotton picker requires special servicing, take advantage of the facilities offered by your John Deere dealer. He has trained mechanics, who are kept informed on the best methods of servicing and can give you prompt, "know-how" service in the field or in his shop.

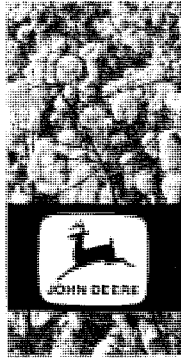
Location References. "Right" and "Left," "Front" and "Rear" refer to the operator's "Right" or "Left" and "Front" or "Rear" when facing the same direction machine is headed or traveling.

Serial Numbers



The cotton picker serial number is on a plate located on the left-hand platform. The engine serial number is on a plate located on the left-hand side of the engine block. The picking unit serial numbers are on plates located behind each boll guard. Write these serial numbers in the space provided below, for handy reference later.

PICKER SERIAL NO
ENGINE SERIAL NO
R.H. PICKING UNIT SERIAL NO
L.H. PICKING UNIT SERIAL NO
DATE PURCHASED



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specifications

ROW WIDTH 38- or 40-in. rows

GROUND SPEEDS (Full Throttle)

Picking Speeds

1st Gear 2.1 mph
2nd Gear 2.7 mph

Transport Speeds

3rd Gear 8.3 mph
4th Gear 11.0 mph
Reverse Speed 3.2 mph

CAPACITIES

Cotton Basket—Regular . 1600 lbs. seed cotton
Cotton Basket with Extensions . . . 2100 lbs.
seed cotton

Fuel Tank

Gasoline and Diesel 33 U.S. gals.
LP-Gas (85% Full) 41 U.S. gals.

Water Tank 64 U.S. gals.

Cooling System:

Gasoline 6-1/2 U.S. gals.
LP-Gas 7 U.S. gals.
Diesel 6 U.S. gals.

Engine Crankcase (Including Oil

Filter) 7 U.S. qts.
Hydraulic System 13 U.S. qts.

SHIPPING WEIGHT

High Drum Picker 12,055 lbs.
Low Drum Picker 11,430 lbs.

TIRES

Front Drive Wheels . . 18.4 x 26, 6- or 10-
ply rating, Bar or
Low Profile Tread;
18.4 x 26, 6-ply Cane
and Rice Tread

Rear Guide Wheel 7.50 x 20, 10-ply
rating, Triple Rib

GROUND CLEARANCE

Under Main Axle 34 ins.

DIMENSIONS

Length, Over-all 19 ft. 8 ins.

Width, Over-all 9 ft. 11 ins.

Height

Regular Cotton Basket . . . 13 ft. 6-1/2 ins.
With Basket Extensions . . 14 ft. 9-1/2 ins.

Tread, Center-to-Center of

Tires 79-1/8 ins.
Wheel Base 109 ins.

ENGINE (Gasoline and LP-Gas)

Make John Deere
Model

Gasoline NB217G
LP-Gas NB217L

No. of Cylinders 6

Bore 3-5/8 ins.

Stroke 3-1/2 ins.

Displacement 217 cu. ins.

Horsepower

Gasoline 77 hp
LP-Gas 77 hp

Tappet Clearance

Intake012 (cold)
Exhaust018 (cold)

Valve Location Valve-in-head

Firing Order 1-5-3-6-2-4

Engine Speeds

Fast Idle (no load) 2600 rpm
Rated (under field load) 2500 rpm
Slow Idle 600 rpm

Fuel System

Carburetor . . . Marvel-Schebler (Single up
Draft)

Type of Fuel . Regular Gasoline or LP-Gas

Oil Filter Regular Equipment

Air Cleaner Heavy-duty oil bath with
pre-cleaner screen

Governor Pierce (centrifugal fly-
weight, type)

Ignition System

Type . . . Battery, 12-volt with Distributor
Batteries . . . Two 6-volt, Group I connected
in series

CLUTCH Borg and Beck (Single Plate)

COOLING SYSTEM . . . Water, Pressure-Type

ENGINE (Diesel)

Make John Deere NA248D
 No. of Cylinders 6
 Bore 3-7/8 ins.
 Stroke 3-1/2 ins.
 Displacement 248 cu. ins.
 Horsepower 80 hp
 Compression ratio 19 to 1
 Tappet clearance
 Intake012 (cold)
 Exhaust018 (cold)
 Valve location valve-in-head
 Firing order 1-5-3-6-2-4
 Engine speeds
 Fast idle (no load) 2560 rpm
 Rated (under field load) 2500 rpm
 Slow idle (no load) 800 rpm
 Governor . . Integral with fuel injection pump
 Fuel system
 Make of fuel injection pump . Roosa-Master
 (Includes electric fuel cut-off)
 Make of injection nozzles . . Robert-Bosch
 (leak-off)
 Type of fuel No. 1-D or No. 2-D
 Diesel fuel (40 cetane minimum rating)
 Fuel filters Two-stage
 micronic-type
 Electric operating system 12-volt
 Electric starting system
 Starting motor 12-volt Hi-Torque
 Starting aid . . Glow plug for each cylinder
 actuated by push button on instrument panel
 Air cleaner Heavy-duty oil bath
 with pre-cleaner screen
 Batteries Two 12-volt - 91 ampere-
 hour, SAE 9H9 batteries;
 connected in parallel

PICKING UNITS

No. of Units 2
 No. of Picking Drums 4
 No. of Picker Bars (per unit)
 Front Drum 16
 Rear Drum 12
 No. of Spindles (per machine)
 Low Drum Picker 784
 High Drum Picker 1120

PICKING UNIT SPEEDS (All speeds determined with engine operating at approximately 2500 rpm rated speed under field load.)

Picking Drums
 Front Drum (16 Bar)
 Low Range 69.4 rpm
 High Range 92.4 rpm
 Rear Drum (12 Bar)
 Low Range 92.5 rpm
 High Range 123.1 rpm
Doffer Shaft
 For Front Drum (16 Bar)
 Low Range 1232 rpm
 High Range 1645 rpm
 For Rear Drum (12 Bar)
 Low Range 1250 rpm
 High Range 1670 rpm

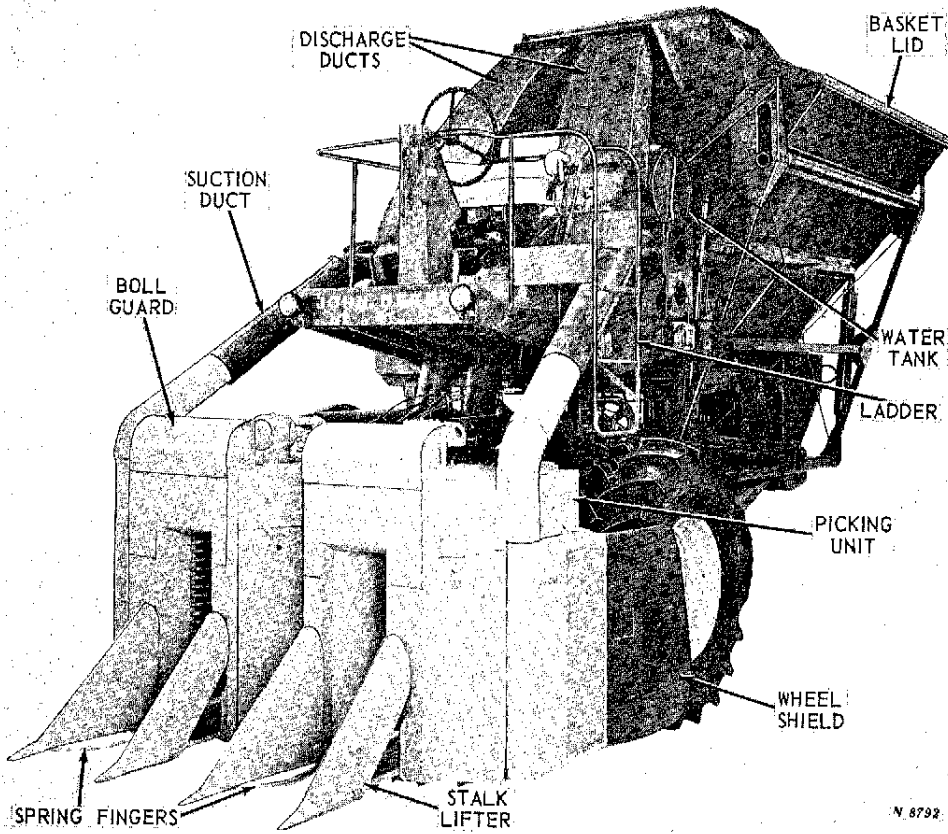
OPTIONAL EQUIPMENT

Gasoline, LP-Gas, or Diesel Engine
 Regular or High Lift Basket
 Low Profile Tires (18.4 x 26, 6- or 10-ply)
 Bar Tread Tires (18.4 x 26, 6- or 10-ply)
 Cane and Rice Tires (18.4 x 26, 6-ply)

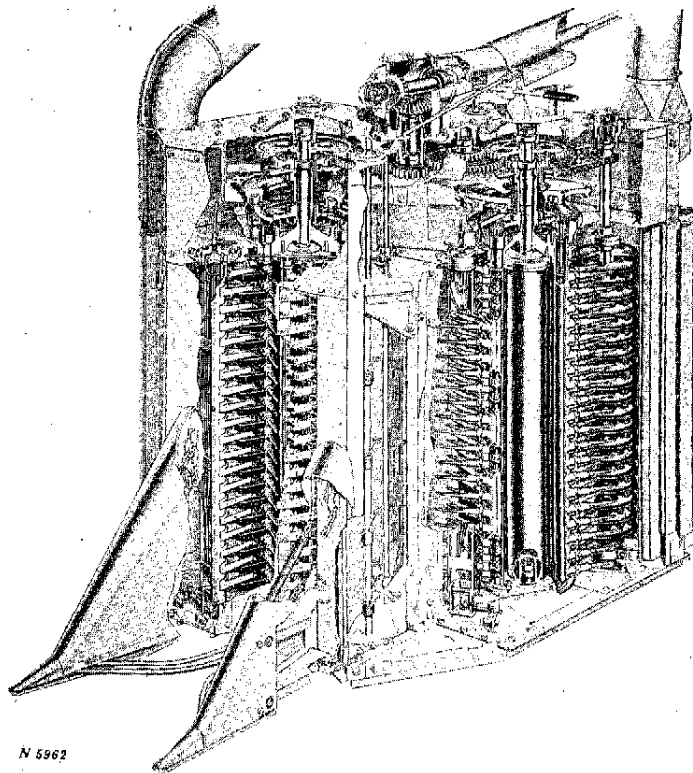
ATTACHMENTS

Tunnel Grids
 Pressure Plate Ribs
 Basket Extensions
 High-Lift Basket (Field Conversion)
 Warning Lamp
 Fan Drive Belt Shields
 Air Pre-cleaner Collector Bowl

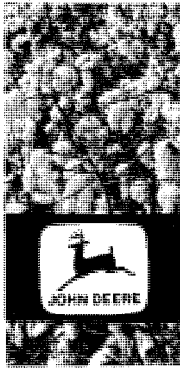
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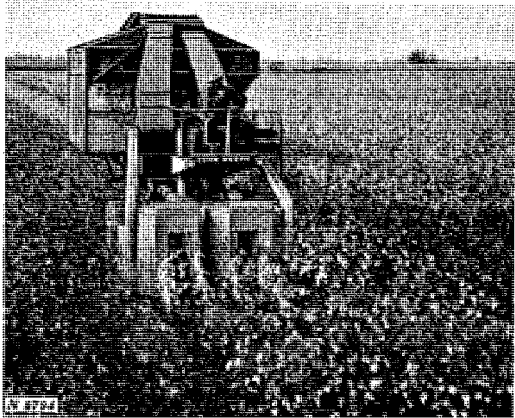
John Deere 99 Cotton Picker



Cutaway View of Picking Unit



description



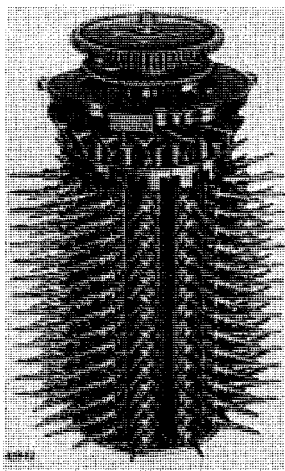
The 99 is a practical two-row cotton picker. Operating costs are low. It is easy to handle and transports fast.

The picker consists of four basic components:

1. Picking units.
2. Fan delivery system and basket.
3. Operator's platform and controls.
4. Propelling mechanism.

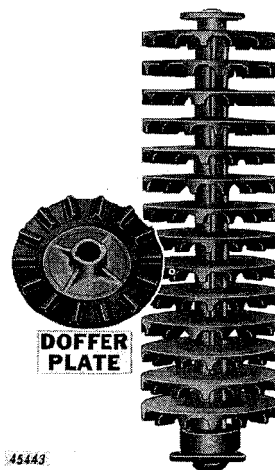
These basic components are mounted in such a way that the cotton picker is well balanced and the picking operation is efficient.

Picking Units

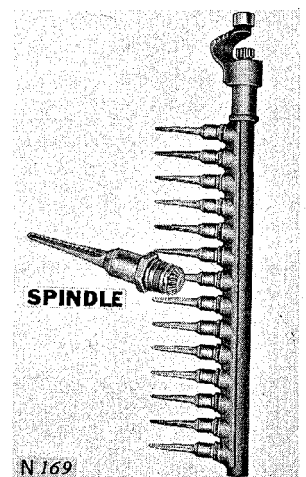


Low-drum front picking drum

The heart of the picker is the two highly efficient spindle-type picking units. There are two drums of spindles per picking unit. The front drum consists of 16 cam-controlled picker bars, and the rear drum consists of 12 cam-controlled picker bars. Each picker bar, has 14 (low drum unit) or 20 spindles (high drum unit). Thus the picker has 784 (low drum unit) or 1120 (high drum unit) individual barbed spindles that pick cotton from the plants.

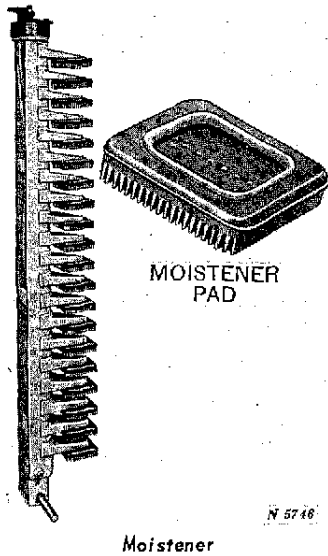


Doffer



Picker bar

A doffer assembly is provided, for each spindle drum, to unwind the cotton from the spindles and deliver it to a chute in the door. Each assembly consists of a shaft with 14 or 20 aluminum alloy doffer plates with rubber doffers molded to each plate.



There is also a spindle moistener column for each spindle drum, that wipes each spindle with water, to keep it clean, for a better job of picking cotton.

Stalk lifters guide the cotton plant into the picking zone of the unit where grid bars and pressure plates take over to hold the plant in position for picking.

How the picking units work

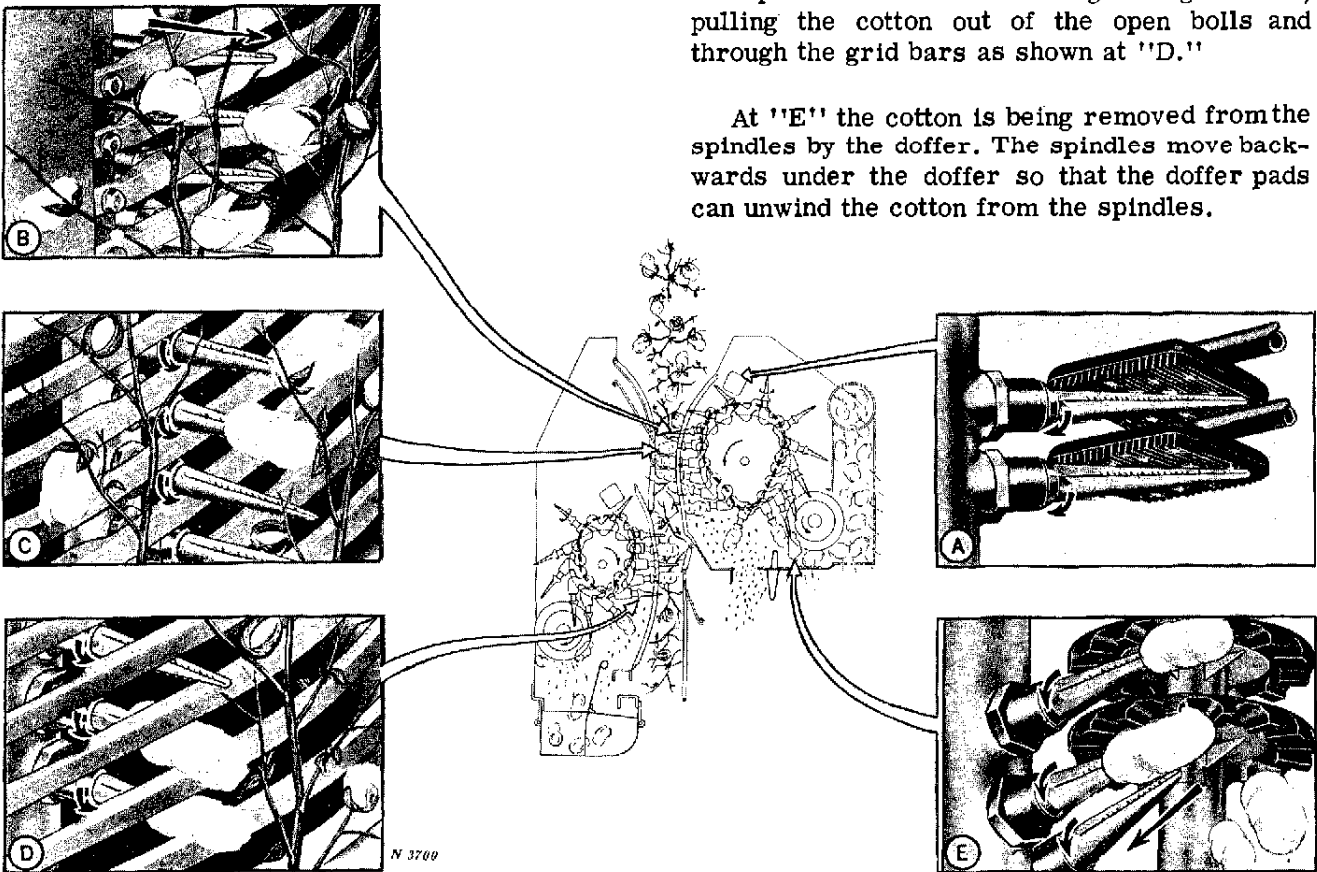
Knowing what is going on inside the picking units will be a great help to you. It will give you a better understanding of the capabilities and limitations of a mechanical cotton picker. You will also know why certain adjustments are necessary and when to make the adjustments.

The illustration below shows what happens during the picking cycle. At "A," the spindles go under the moisteners and are cleaned of lint, plant sap, and stain by a film of water.

Then the cleaned spindles start through the grid bars at "B." The speed of the spindle drums is synchronized with the picker ground speed (2.1 or 2.7 miles per hour with engine running full throttle) so the spindles have no forward or backward motion in relation to the cotton plant. The rotating spindles simply poke straight into the cotton plant and pull straight back. Because of this, the spindles can brush past unopened bolls and stalks, leaving them undamaged.

At "C," the spindles are all the way out and wrap the cotton fibre onto the spindle barbs. Then the spindles move back through the grid bars, pulling the cotton out of the open bolls and through the grid bars as shown at "D."

At "E" the cotton is being removed from the spindles by the doffer. The spindles move backwards under the doffer so that the doffer pads can unwind the cotton from the spindles.



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