

99 TWO ROW COTTON PICKER EFFECTIVE SERIAL NOS. 99L-552 AND 99H-2248



JOHN DEERE

OPERATORS MANUAL

99 TWO ROW COTTON PICKER
EFFECTIVE SERIAL NOS. 99L-552 AND
99H-2248

OMN97535 A1 English

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To the purchaser

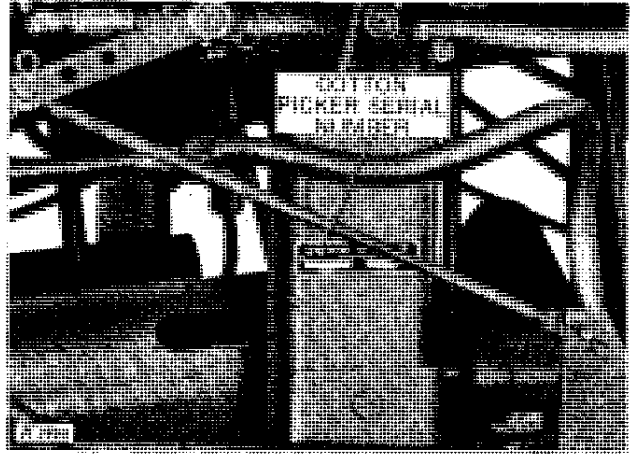
Your new cotton picker was built to rigid manufacturing standards. Material and workmanship are the best. However, the machine will serve you only in direct proportion to the care you give it. How long it will last and continue its good work is a matter entirely in your hands.

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. The information given in this manual will afford a clear understanding of the fundamentals of cotton picker harvesting. The best use of these fundamentals to suit the conditions in which the machine is operating is a responsibility that is completely up to the operator.

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

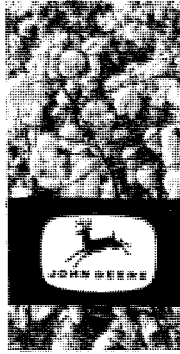


You will find the serial number of your cotton picker stamped on a plate located on the left-hand platform post. The engine serial number is stamped on a plate located on the left-hand side of the engine block on LP-Gas engines or the right-hand side of the engine block on gasoline engines. Write these serial numbers in the space provided below for hand reference later.

PICKER SERIAL NO.

ENGINE 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 33 U.S. gals.
LP-Gas (85% Full) 41 U.S. gals.
Water Tank 67 U.S. gals.
Cooling System 7-1/2 U.S. gals.
Engine Crankcase (Including Oil
Filter) 5 U.S. qts.
Hydraulic System 13 U.S. qts.

SHIPPING WEIGHT

High Drum Picker 11,950 lbs.
Low Drum Picker 11,250 lbs.

TIRES

Front Drive Wheels . . 18.4 x 26, 6- or 10-
ply rating, Bar or
Low Profile 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. 2 ins.
With Basket Extensions 14 ft. 5 ins.
Tread, Center-to-Center of
Tires 79-1/8 ins.
Wheel Base 109 ins.

ENGINE

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) 2750 rpm
Rated (under full 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

CLUTCH Borg and Beck (Single Plate)

COOLING SYSTEM . . . Water, Pressure-Type

IGNITION SYSTEM

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

PICKING UNITS

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

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

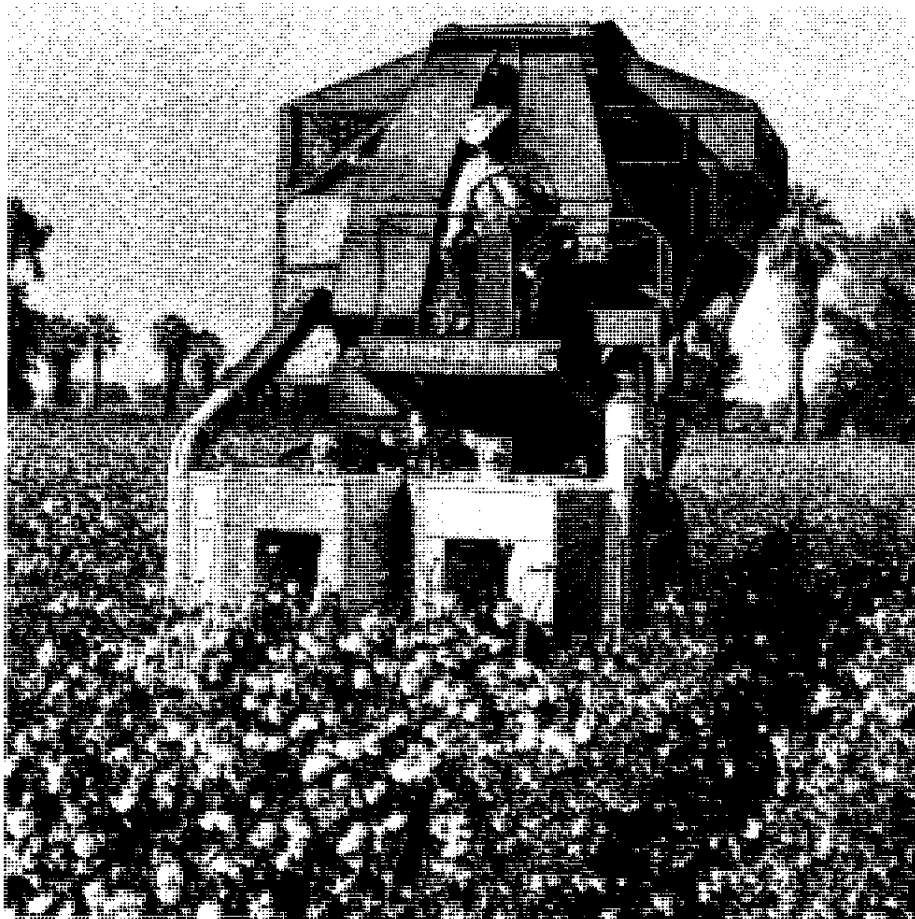
Low Range 1250 rpm
 High Range 1670 rpm

OPTIONAL EQUIPMENT

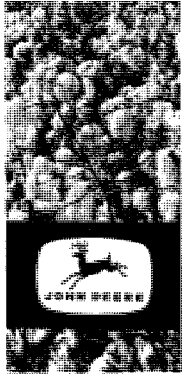
- Manual or Power Steering
- Gasoline or LP-Gas Engine
- Regular or High Lift Basket
- With or Without Picking Pressure Trip Clutch
- Low Profile Tires (18.4 x 26, 6- or 10-ply)
- Bar Tread Tires (18.4 x 26, 6- or 10-ply)

ATTACHMENTS

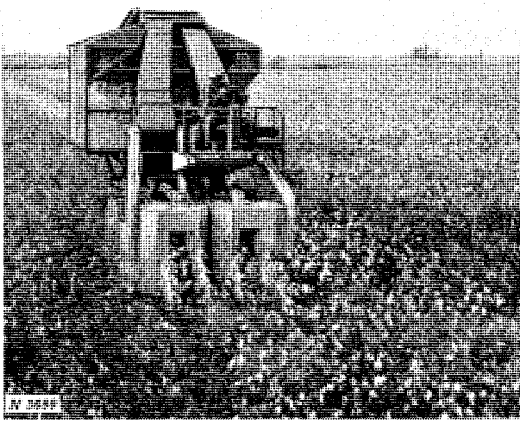
- Tunnel Grids
- Pressure Plate Ribs
- Basket Extensions
- High-Lift Basket (Field Conversion)
- Power Steering (Field Conversion)
- Warning Lamp
- Fan Drive Belt Shields
- Picking Unit Pressure Trip Clutch (Field Conversion)



John Deere 99 Cotton Picker



description



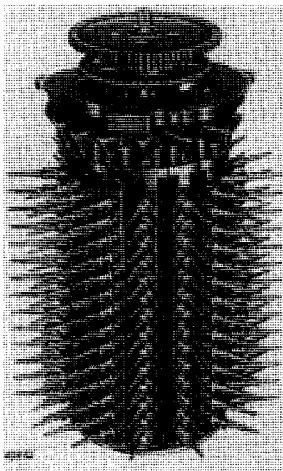
The 99 is a practical two-row cotton picker. Operating costs are low. It is easy to handle and transports fast.

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.

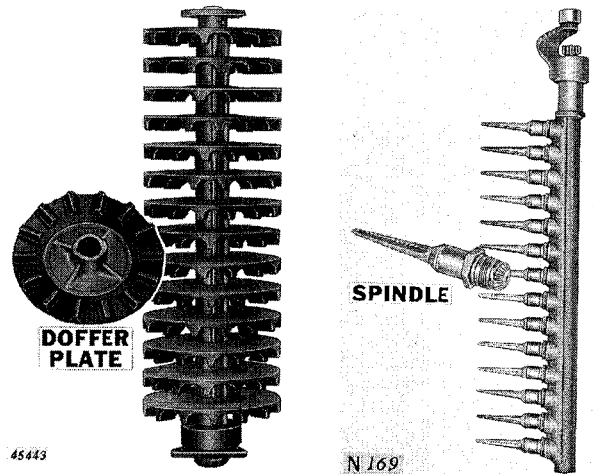
These basic components are mounted in such a way that the cotton picker is well balanced and the picking operation is efficient.

Picking Units



Low-drum front picking drum

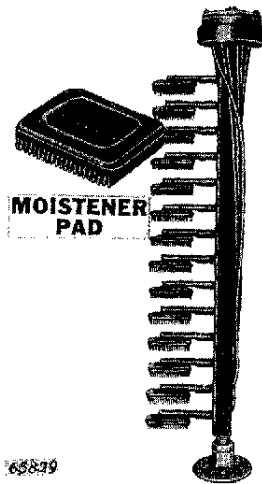
The heart of the picker is the two highly efficient spindle-type picking units. There are two drums of spindles per picking unit. The front drum consists of 16 cam-controlled picker bars, and the rear drum consists of 12 cam-controlled picker bars. Each picker bar, has 14 (low drum unit) or 20 spindles (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.



Moistener

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

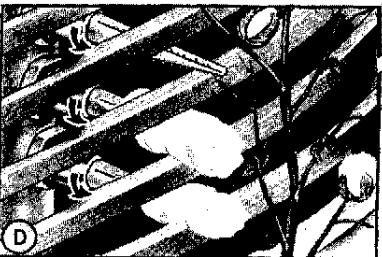
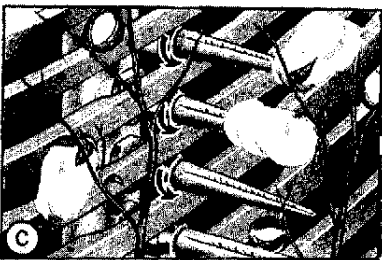
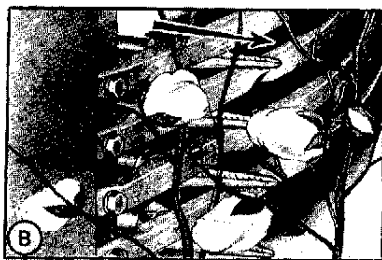
Knowing what is going on inside the picking units will be a great help to you. It will give you a better understanding of the capabilities and limitations of a mechanical cotton picker. You will also know why certain adjustments are necessary and when to make the adjustments.

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.

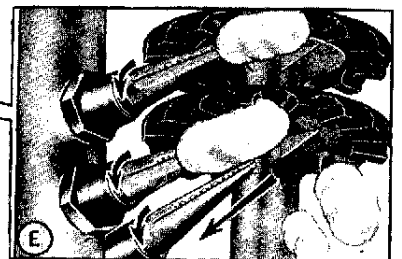
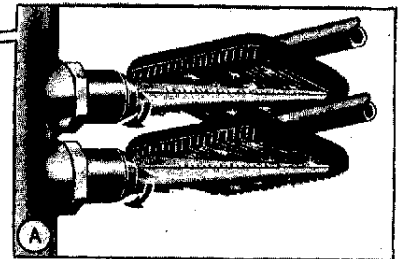
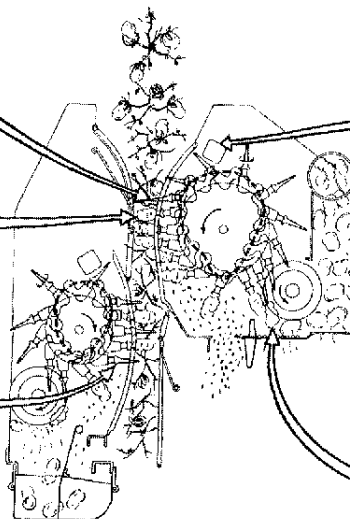
Then the cleaned spindles start through the grid bars at "B." The speed of the spindle drums is synchronized with the picker ground speed (2.1 or 2.7 miles per hour) so the spindles have no forward or backward motion in relation to the cotton plant. The rotating spindles simply poke straight into the 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.

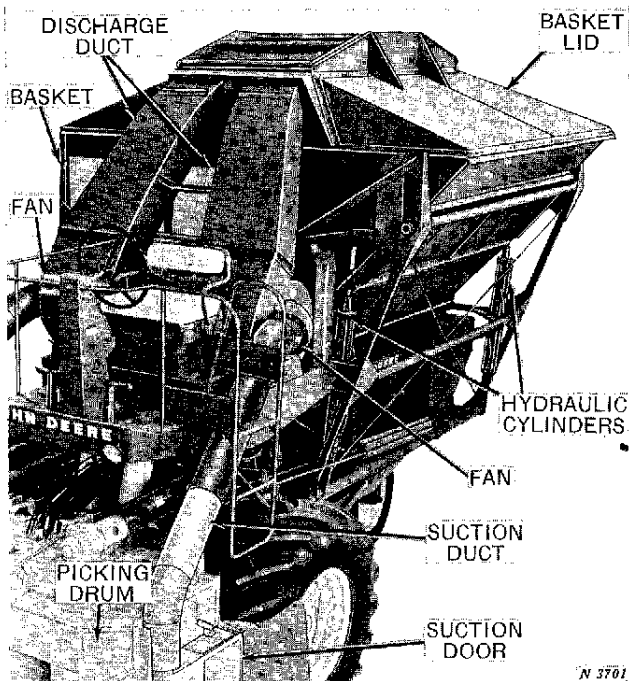


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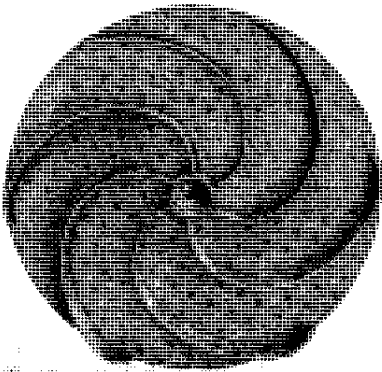


6 description

Fan delivery system and basket



A powerful, double-rotor fan provides individual suction for each picking drum. The cotton is sucked out of the picking unit through metal suction ducts to the fan and then blown into the basket.

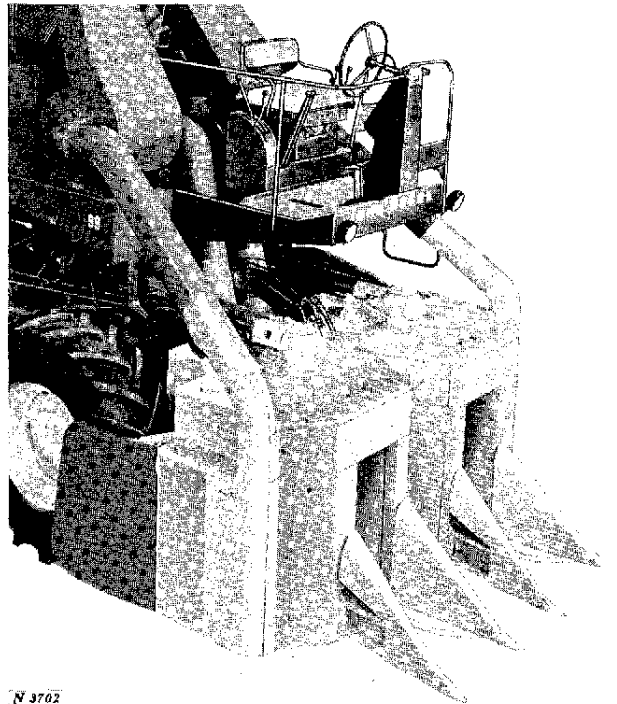


Fan rotor

The fan has spiral-shaped blades so the cotton is handled with the least amount of damage to the seed.

The regular basket will hold 1600 pounds of seed cotton. With basket extension, the basket will hold 2100 pounds, so that you will have to dump it fewer times during a day. Two powerful double-acting hydraulic cylinders raise and lower the basket for dumping. The lid opens and closes automatically as the basket is raised and lowered.

Platform and controls



The operator is right on top of the picking operation when at the controls of the 99 Cotton Picker. He is up high out of the dust and dirt, with maximum visibility of the working area.

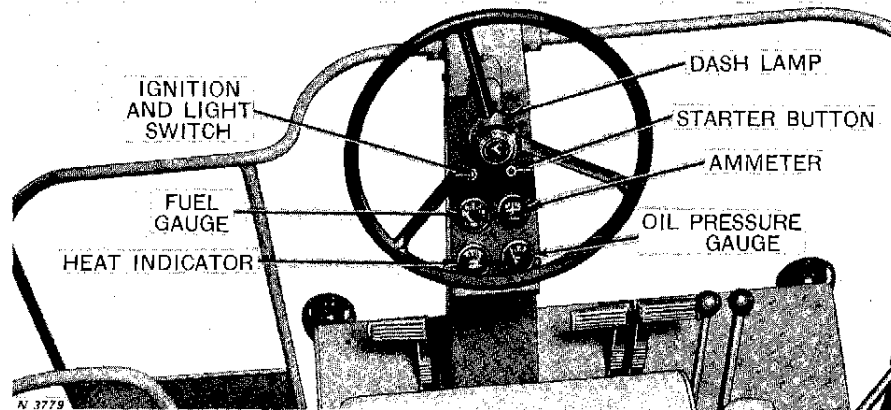
All controls are within easy reach. After a couple of trips up and down a field, the operator will feel perfectly at home on this cotton picker.

Propelling mechanism

The cotton picker is powered by a 6-cylinder gasoline or LP-gas engine. The power is transmitted through a drive shaft to the transmission, final drive and thus propelling the drive wheels.



controls and instruments



All controls for the operation of the cotton picker are located on the operator's platform. The high, roomy platform provides a good view of both picking units.

Instruments

The instrument panel contains the ammeter, oil pressure gauge, heat indicator, ignition and light switch, starter button, fuel gauge (gasoline only), and dash lamp.

Ammeter

Right-hand upper gauge on instrument panel, indicates rate of electric current flow to batteries from generator, or rate of discharge from batteries.

Heat indicator

Left-hand lower gauge on the instrument panel indicates temperature of water in cooling system. If temperature gauge needle raises above its normal operating position, stop engine and determine cause.

Oil pressure gauge

Right-hand lower gauge on instrument panel indicates pressure of engine lubricating oil. Pressure reading may vary according to operating conditions. If pressure drops to zero at any time engine is running, stop engine immedi-

ately and determine cause. This gauge does not indicate amount of oil in crankcase.

Fuel gauge

Left-hand upper gauge indicates the amount of fuel in the fuel tank if picker has a gasoline engine.

NOTE: If picker is equipped for LP-Gas, a blank button plug replaces the instrument panel fuel gauge. A gauge on the fuel tank is used instead. See page 9.

Ignition and light switch

A combination ignition and light switch is located on the upper left of the instrument panel. The switch controls the electrical circuit to the starter button as well as to the lights.

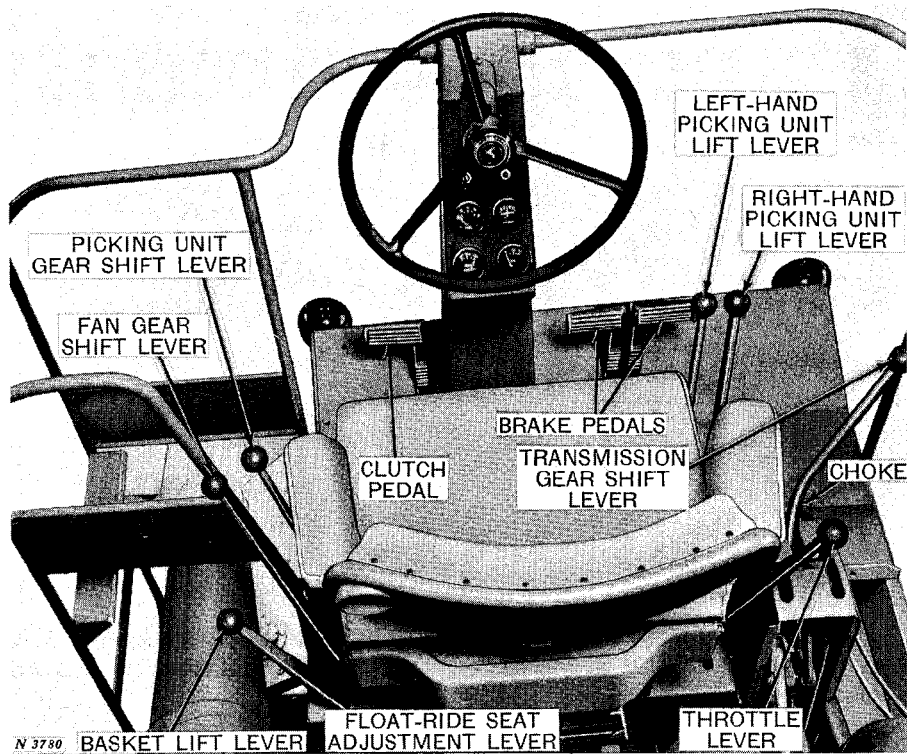
Starter button

Pushing the starter button activates the starter which cranks the engine. The starter button will not operate until the ignition and light switch is turned on.

Dash lamp

The dash lamp illuminates the instrument panel at night. It is turned on by the ignition and light switch when the main lights are turned on.

Picker controls



Brakes

The efficient mechanical-type brakes can be applied individually or simultaneously. The individual pedals have latches so that the brakes can be locked to hold the picker on a hill or incline.

Clutch pedal

Depressing the clutch pedal will disconnect the flow of power from the engine to the transmission, picking units and fan drives.

Choke

The choke is operated to provide a rich mixture of gasoline for starting. Pull button to choke engine; push in for normal operation.

Throttle lever

The throttle lever controls engine speed by regulating the governor. Move lever forward to increase speed, rearward to decrease speed.

Transmission gearshift lever

The transmission has four speeds forward and one speed in reverse (two locations) with two neutral positions. The positions of the gearshift lever for the various transmission speeds are shown on the gearshift plate. The ground speed that can be obtained in each gear is as follows.

Gear	MPH	Operation
1st	2.1	Picking-units in LOW range
2nd	2.7	Picking-units in HIGH range
3rd	8.3	Transporting
4th	11.0	Transporting
Reverse	3.2	Backing up

Picking unit gearshift lever

This lever engages and disengages the picking units. To engage, depress clutch pedal and move lever forward for LOW range operation, or rearward for HIGH range. The middle position is neutral.

Fan gearshift lever

This lever engages and disengages the suction fans and the water shut-off valve. To engage depress clutch pedal and move the lever forward.

Basket lift lever

This lever controls the unloading of the basket. Move it to the rear to raise the basket and forward to lower the basket. Two hydraulic lift cylinders raise the basket so it can be emptied in a trailer to the left of the picker.

Picking unit lift levers

These levers, located at the right of the operator's platform, control the height of the picking units individually or simultaneously through the

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