

**200 and 900 Series Cutting Platforms  
40 and 90 Series Corn Heads  
50 and 50A Series Row Crop Heads**

**John Deere Harvester Works  
TM1581 (03OCT94)**

LITHO IN U.S.A.  
ENGLISH

## FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.

 This is the safety-alert symbol. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury.

Technical manuals are divided in two parts: repair and operation and tests. Repair sections tell how to repair the components. Operation and tests sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values.

Technical Manuals are concise guides for specific machines. They are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

## HANDLE FLUIDS SAFELY—AVOID FIRES

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



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-JUN23AUG88  
TS227

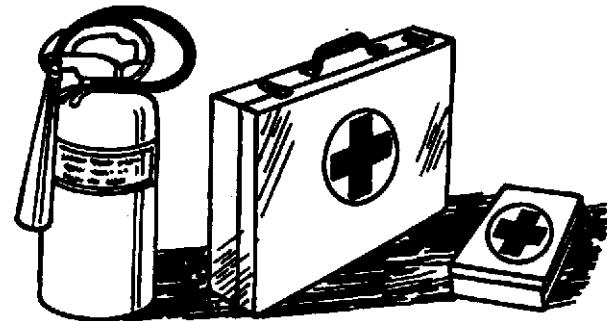
DX,FLAME -19-04JUN90

## PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



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TS291

DX,FIRE2 -19-03MAR93

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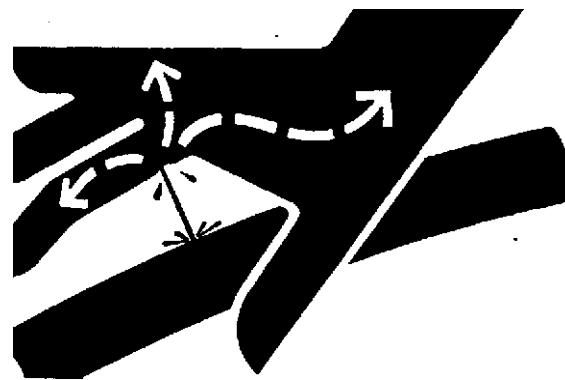
## AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.



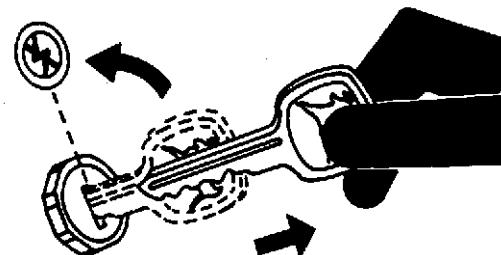
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X9811

DX,FLUID -19-03MAR93

## PARK MACHINE SAFELY

Before working on the machine:

- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag in operator station.



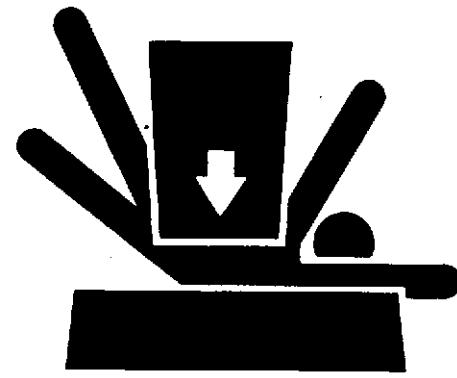
-UN-24MAY89

DX,PARK -19-04JUN90

## SUPPORT MACHINE PROPERLY

Always lower the attachment or implement to the ground before you work on the machine. If you must work on a lifted machine or attachment, securely support the machine or attachment.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

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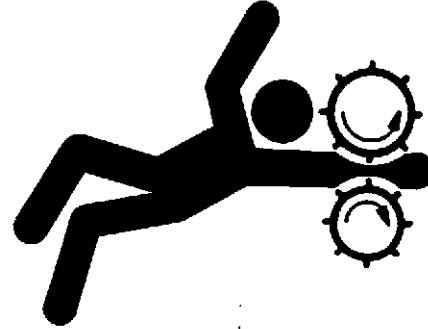
TS229

DX,LOWER -19-04JUN90

## SERVICE MACHINES SAFELY

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



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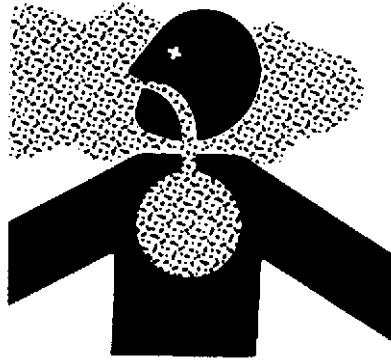
TS228

DX,LOOSE -19-04JUN90

## WORK IN VENTILATED AREA

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.



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TS220

DX,AIR -19-04JUN90

## ILLUMINATE WORK AREA SAFELY

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Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.



-JUN-23AUG88

TS223

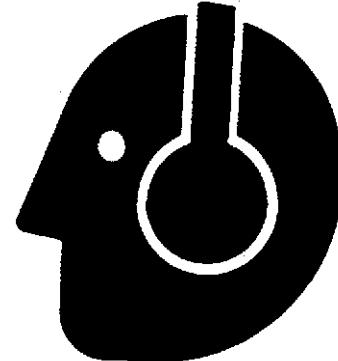
DX,LIGHT

-19-04JUN90

## PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



-JUN-23AUG88

TS207

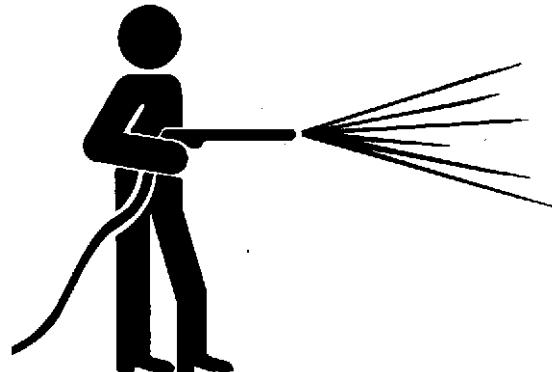
DX,NOISE

-19-03MAR93

## WORK IN CLEAN AREA

Before starting a job:

- Clean work area and machine.
- Make sure you have all necessary tools to do your job.
- Have the right parts on hand.
- Read all instructions thoroughly; do not attempt shortcuts.



-JUN-18OCT88

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DX,CLEAN

-19-04JUN90

## USE PROPER TOOLS

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

Use only service parts meeting John Deere specifications.

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DX,REPAIR -19-04JUN90

## DISPOSE OF WASTE PROPERLY

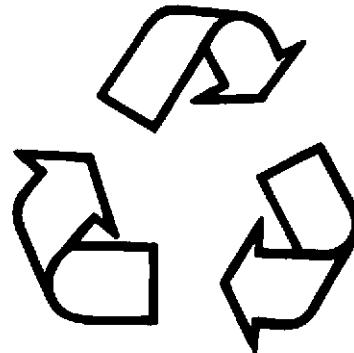
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.

TS133  
JUN-26NOV90

DX,DRAIN -19-03MAR93

**LIVE WITH SAFETY**

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Before returning machine to customer, make sure  
machine is functioning properly, especially the safety  
systems. Install all guards and shields.



DX,LIVE

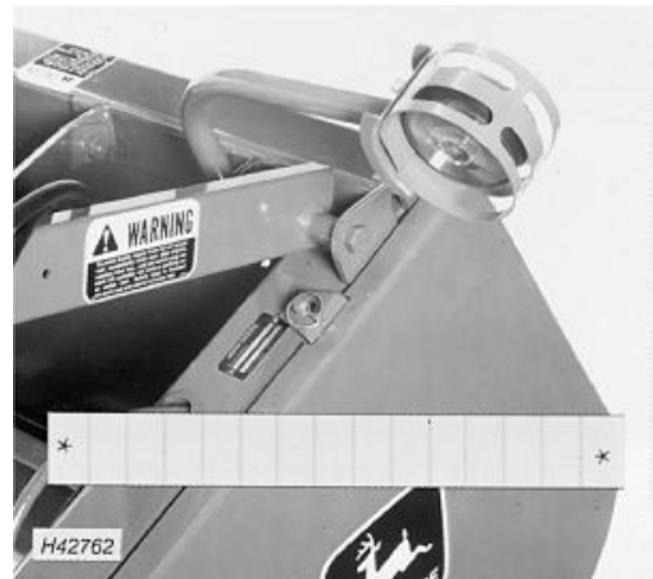
-19-25SEP92

TS231  
-19-07OCT88

## SERIAL NUMBER

The serial number is on a plate located on the top left-hand end of the cutting platform.

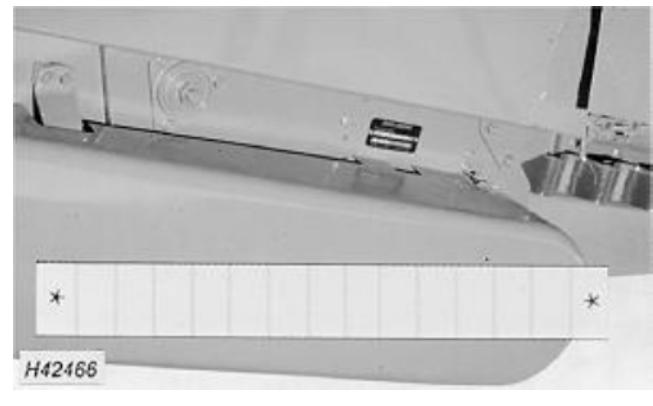
When ordering parts, always bring the serial number from the serial number plate. This will help your John Deere dealer in giving you fast service.



TM1581,10A -19-03OCT94

The serial number is on a plate located on the right-hand end of the row-crop head.

Record your row-crop head serial number in the space provided on the illustration. Provide this serial number to your dealer when ordering parts.



TM1581,10B -19-03OCT94

The serial number is on a plate located on the right-hand end of the corn head.

Record your corn head serial number in the space above. Give this serial number to your dealer when ordering parts.



TM1581,10C -19-03OCT94

*Identification/Serial Number*

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## 200 SERIES PLATFORMS

*Specifications given in this manual are intended for service ONLY and do not include normal factory manufacturing tolerances.*

*(Specifications and design subject to change without notice)*

Rigid Cutterbar Platform Model	Cutting Width	Combine Model
213	3 812 mm (12 ft. 6 in.)	4420, 4425, 6600, 6620, 7700, 7720
215	4 422 mm (14 ft. 6 in.)	4420, 4425, 6600, 6620, 7700, 7720, 8820
216	4 727 mm (15 ft. 6 in.)	4420, 4425, 6600, 6620, SideHill, 6620, 7700, 7720, 8820
218	5 336 mm (17 ft. 6 in.)	4420, 4425, 6600, 6620, 7700, 7720, 8820
220	5 846 mm (19 ft. 6 in.)	4420, 6600, 6620, 7700, 7720, 8820
222	6 556 mm (21 ft. 6 in.)	6600, 6620, 7700, 7720, 8820
224	7 165 mm (23 ft. 6 in.)	6600, 6620, 7700, 7720, 8820
230	8 994 mm (29 ft. 6 in.)	7700, 7720, 8820
Flex Cutterbar Platform Model		
213	3 812 mm (12 ft. 6 in.)	4420, 4425, 6600, 6620, 7700, 7720
215	4 422 mm (14 ft. 6 in.)	4420, 4425, 6620, SideHill, 6620, 7720, 8820
216	4 727 mm (15 ft. 6 in.)	4420, 4425, 6620, SideHill, 6620, 7720, 8820
218	5 336 mm (17 ft. 6 in.)	4420, 4425, 6620, 7720, 8820
220	5 846 mm (19 ft. 6 in.)	4420, 6620, 7720, 8820
222	6 556 mm (21 ft. 6 in.)	6620, 7720, 8820
224	7 165 mm (23 ft. 6 in.)	6620, 7720, 8820

*NOTE: Conversion parts are available to convert 213, 215, 216, 220 and 222 Model platforms for use with the SideHill 6600 and 6620 Combines. The 215 flex and 216 flex and rigid platforms are also available with factory installed parts as noted above.*

## Specifications

### Cutterbar

Type . . . . .	Enclosed wobble drive
Extension (rigid) . . . . .	102 mm (4 in.) forward and 102 mm (4 in.) rearward 203 mm, (8 in.) max.
Tilt range . . . . .	9 degrees
Flexible cutterbar float range . . . . .	102 mm (4 in.)
Cutterbar length . . . . .	152 mm (6 in.) less than platform width
Knife sections . . . . .	Heavy-duty, overserrated
Guards . . . . .	Forged steel heat-treated
Knife speeds: (measured at sheave rpm)	
4420, 6620, 7720 . . . . .	502 rpm (Std.) 439 rpm (Opt. Slow) 565 rpm (Opt. Fast) 6620 (—610727), 7720 (—611386)
8820 . . . . .	529 rpm (Std.) 462 rpm (Opt. Slow) 596 rpm (Opt. Fast) 6620 (610728—), 7720 (611387—)
Backshaft speeds	
4420, 6620, 7720 . . . . .	460—470 rpm 6620 (—610727) 490 rpm 6620 (610728—) 7720 (—611386)
4425 . . . . .	500 rpm 7720 (611387—)
8820 . . . . .	490 rpm

### Reel (Pickup)

Number of slats . . . . .	6 (with spring steel fingers)
Diameter . . . . .	1 067 mm (42 in.)

### Reel (Slat)

Number of slats . . . . .	5
Diameter . . . . .	1 016 mm (40 in.)

### Reel Controls

Height control . . . . .	Hydraulic
Speed control . . . . .	Hydraulic
Operating speeds . . . . .	(Pickup 5—44 rpm) (Slat 8—66 rpm)

### Platform Auger

Diameter . . . . .	610 mm (24 in.)
Operating speed:	
4420, 6600, 6620, 7720, 7700 . . . . .	151 rpm std., 121 opt. 6620 (—610727), 7720 (—611386)
8820 . . . . .	159 rpm std. 127 rpm opt. 6620 (610728—), 7720 (611387—)

*NOTE: A special 121 rpm for 4420, 6600, 6620, 7700,  
7720 and 127 rpm for 8820 slow speed  
sprockets is available.*

### Retractable auger fingers

Number of fingers	Platform Size
12 . . . . .	13 and 15 ft.
18 . . . . .	16, 18, 20, 22, 24, 30 ft.
Diameter . . . . .	16 mm (5/8 in.) with breakaway notch
Reach . . . . .	152 mm (6 in.)

**900 SERIES PLATFORMS**

Specifications given in this manual are intended for service only and do not include normal factory manufacturing tolerances.

Rigid Cutterbar Platform Model	Cutting Width	Gathering Width	Combine Model
918	5334 mm (17 ft. 6 in.)	5.5 m (18 ft.)	4435, 6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
920 and 920 Rice	5944 mm (19 ft. 6 in.)	6.1 m (20 ft.)	6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
922 and 922 Rice	6556 mm (21 ft. 6 in.)	6.7 m (22 ft.)	6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
925 and 925 Rice	7620 mm (25 ft.)	7.8 m (25 ft. 6 in.)	6620, 7720, 7722, 8820, 9400, 9500, 9600, SideHill 9500, CTS
930 and 930 Rice	8992 mm (29 ft. 6 in.)	9.1 m (30 ft.)	7720, 8820, 9500, 9600, SideHill 9500, CTS
Flex Cutterbar Platform Model	Cutting Width	Gathering Width	Combine Model
913	3810 mm (12 ft. 6 in.)	3.8 m (12 ft. 5 in.)	4435, 6620, 7720, 9400, 9500, 9600, SideHill 9500, CTS
915	4572 mm (15 ft.)	4.5 m (14 ft. 11 in.)	4435, 6620 SideHill, 6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
918	5334 mm (17 ft. 6 in.)	5.3 m (17 ft. 5 in.)	4435, 6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
920	5944 mm (19 ft. 6 in.)	5.9 m (19 ft. 5 in.)	6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
922	6554 mm (21 ft. 6 in.)	6.6 m (21 ft. 5 in.)	6620, 7720, 8820, 9400, 9500, 9600 SideHill 9500, CTS
925	7620 mm (25 ft.)	7.6 m (24 ft. 11 in.)	6620, 7720, 8820, 9400, 9500, 9600, SideHill 9500, CTS
930	8992 mm (29 ft. 6 in.)	9.0 m (29 ft. 5 in.)	7720, 8820, 9500, 9600 SideHill 9500, CTS

(Specifications and design subject to change without notice.)

HX1581,1015,AC -19-03OCT94

## Specifications

### Cutterbar:

Type . . . . .	Enclosed wobble drive
Extension (rigid) . . . . .	102 mm (4 in.) forward and 102 mm (4 in.) rearward 203 mm (8 in.) max.
Tilt range . . . . .	9 degrees
Flexible cutterbar float range . . . . .	90 mm (3-1/2 in.)
Cutterbar length . . . . .	152 mm (6 in.) less than platform width, except for 915 and 925 models
Knife sections . . . . .	Heavy-duty, overserrated
Guards . . . . .	Forged steel, heat-treated

### Knife Speed: (measured at sheave rpm)

539 cpm on Flexible Platforms

562 cpm on Rigid Platforms

### Reel: (pickup)

Number of slats . . . . .	6 (with DURA-FLO fingers)
Diameter . . . . .	1067 mm (42 in.)

### Reel: (slat)

Number of slats . . . . .	5
Diameter . . . . .	1016 mm (40 in.)

### Reel Controls:

Height control . . . . .	Hydraulic
Speed control . . . . .	Hydraulic
Operating speeds . . . . .	(Pickup 5—44 rpm) (Slat 8—66 rpm)

### Platform Auger:

Diameter . . . . .	610 mm (24 in.)
Operating speed . . . . .	169 rpm std. 135 rpm opt.

HX1581,1015,AD -19-03OCT94

**918 DRAPER PLATFORM**

"Specifications given in this manual are intended for service only and do not include normal factory manufacturing tolerances."

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Combine Models .....	9500, 9600, 7720 and 8820
Platform Drive Shaft .....	521 rpm
<b>Cutter Bar</b>	
Type .....	Enclosed wobble drive
Cutterbar length .....	5.33 m (17.5 ft.)
Knife sections .....	Chrome plated, heavy-duty, overserrated
Guards .....	Forged steel heat-treated
Knife Speed (measured with 521 rpm backshaft speed) .....	491 cpm
<b>Pickup Reel</b>	
Number of slats .....	6 (with spring steel fingers)
Diameter .....	1320 mm (52 in.)
<b>Reel Controls</b>	
Height control .....	Hydraulic
Speed control .....	Hydraulic
Operating speeds .....	3-30 rpm
<b>Auger</b>	
Diameter .....	610 mm (24 in.)
Operating speed .....	169 rpm
Retractable auger fingers	
Number of fingers .....	12
Diameter .....	16 mm (5/8 in.)
With break-a-way notch	
Reach .....	152 mm (6 in.)
Torque required to seat new finger .....	70 N·m (50 lb-ft) (maximum)
Platform weight .....	1696 kg (3740 lb)

TM1581,HX15,C -19-03OCT94

**40 SERIES CORN HEAD**

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6 Specifications given in the manual are intended for service only and do not include normal factory manufacturing tolerances.

CORN HEAD MODEL	MACHINE MODEL	NUMBER OF ROWS	CORN HEAD MODEL	MACHINE MODEL	NUMBER OF ROWS
443	Forage Harvester 4420 Combine 4425 Combine 4435 Combine 6620 Combine	4	644	6620 Combine 7720 Combine 8820 Combine 9400 Combine 9500 Combine 9600 Combine CTS Combine	6
444	Forage Harvester 4420 Combine 4425 Combine 6620 Combine SideHill 6620 Combine 7720 Combine 9400 Combine 9500 Combine SideHill 9500 Combine	4	645	6620 Combine 7720 Combine 8820 Combine 9400 Combine 9500 Combine 9600 Combine CTS Combine	6
546	6620 Combine SideHill 6620 Combine 7720 Combine 8820 Combine 9400 Combine 9500 Combine SideHill 9500 Combine 9600 Combine CTS Combine	5	843	7720 Combine 8820 Combine 9500 Combine 9600 Combine CTS Combine	8
643	6620 Combine SideHill 6620 Combine 7720 Combine 8820 Combine 9400 Combine 9500 Combine SideHill 9500 Combine 9600 Combine CTS Combine	6	1243	8820 Combine 9600 Combine	12

Gatherer Points .....	Low profile floating type hinged above gatherer chains	10 15 7
Center and Outer Gatherer Sheets .....	hinged, quick-removable	
Type of Gatherer Chains .....	Heavy-duty 555 endless steel roller chain (no master connecting link)	
Minimum Clearance Between Gatherer Chains and Ground .....	32 mm (1-1/4 in.)	
Row Unit Drive .....	Enclosed gear box with gears submerged in lubricant; driven by single input hex. shaft	
Gatherer Chain Adjustment .....	Spring loaded- self-adjusting	
Stalk Rolls .....	Spiral-pointed, flute-type (2 per row unit)	
Deck Plate Adjustment .....	Bolt adjusted	
Slip Clutch .....	One per row unit plus auger drive	
Trash Knives .....	Full length one piece heat-treated steel	

HX1581,1015,AE -19-03OCT94

*Specifications*

Approximate Overall Width for Storage—	
443	3454 mm (11 ft. 4 in.)
444	3708 mm (13 ft. 6 in.)
546	4928 mm (16 ft. 2 in.)
643	4928 mm (16 ft. 2 in.)
644	5791 mm (19 ft.)
645	6096 mm (20 ft.)
843	6299 mm (20 ft. 8 in.)
844	7820 mm (25 ft. 8 in.)
1243	9347 mm (30 ft. 8 in.)
Approximate Overall Length for Storage—All Corn Heads	
Heads	3048 mm (10 ft.)
Approximate Shipping Weight of Corn Head—(Includes Shipping Skid)	
443	1129 kg (2488 lb.)
444	1184 kg (2610 lb.)
546	1472 kg (3245 lb.)
643	1590 kg (3505 lb.)
644	1855 kg (4090 lb.)
645	1901 kg (4190 lb.)
843	2243 kg (4944 lb.)
844	2470 kg (5466 lb.)
1243	3332 kg (7340 lb.)

(Specifications and design subject to change without notice.)

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