400 series

445, 460 plus & 475 plus
400 series

445

460 plus

475 plus
## Mounting possibilities 400 series John Deere

<table>
<thead>
<tr>
<th></th>
<th>445</th>
<th>460 Plus</th>
<th>475 Plus</th>
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<tbody>
<tr>
<td>Mounts</td>
<td>8100, 8200, 8300, 8400, 8500</td>
<td>8100, 8200, 8300, 8400, 8500</td>
<td>8400, 8500</td>
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<tr>
<td></td>
<td></td>
<td>8600, 8700, 8800</td>
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## Mounting possibilities 400 series John Deere

<table>
<thead>
<tr>
<th></th>
<th>445</th>
<th>460 Plus</th>
<th>475 Plus</th>
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<tbody>
<tr>
<td></td>
<td>6610, 6710, 6810, 6910</td>
<td>7300, 7400, 7500</td>
<td>7750, 7850</td>
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<tr>
<td></td>
<td>6650, 6750, 6850, 6950</td>
<td>7350, 7450, 7550</td>
<td>(SPFH only with 3-speed transmission)</td>
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<td></td>
<td>7200, 7300, 7400, 7500</td>
<td>7280, 7380, 7480, 7580</td>
<td>20 km/h forward speed only</td>
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<td>7250, 7350, 7450, 7550</td>
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<td>7180, 7280, 7380, 7480, 7580</td>
<td>7700, 7800</td>
<td>7750, 7950</td>
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<td></td>
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<td>7750, 7850, 7950</td>
<td>SPFH from 2010 on</td>
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<td></td>
<td></td>
<td>7780, 7980</td>
<td>7780, 7980</td>
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</table>
Rotary harvesting unit 445
Drive line 445

Power is transmitted by closed oil bath gearboxes and safety clutches
Main drive 445 (7000 series only)

Standard 2-speed gearbox

17.5% increase
- 1. gear 1:1
- 2. gear 1:1.175
Transport 445

Limited length & width
- Transport width 2,47 m
- Length 2,20 m
- Good view from the cab
- Weight close to the SPFH
- Less counter weights
- Less load on front axle
- Driving curves easily
Crop dividers & lifters - standard

2 mechanically driven crop dividers
- Support the crop transport under difficult circumstances (circles)
- The crop lifters are moveable in vertical direction (arrows)
Cutting and feedingsystem 445

Row independent cutting system
- Fast rotary cutting blades

Gathering drums rotating at low speeds
- ensure uniform flow to the chopping unit in a lengthwise direction

Excellent even cutting
Tungsten carbide coated blades 445

- Sharpness does not diminish with increasing use
- Reduced load placed on clutches and transmission
- 3 times longer service life
- Exclusive from John Deere
  - *Service set LCA79039*
  - *12 blades right, 12 Blades left, 16 scrapers, special bolts and nuts*
- *Non coated blades:*
  - *Service set LCA78866*
  - 24 blades, 16 special bolts and nuts
Special scrapers 445

- No sharp stubble
- Saves tyres
- Accelerate stubble decay
- Corn borer can hardly survive in a rotten stubble
**Technical specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Length</td>
<td>2.20 m</td>
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<tr>
<td>Overall width</td>
<td>4.60 m</td>
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<tr>
<td>Height</td>
<td>1.15 m</td>
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<tr>
<td>Working width</td>
<td>4.55 m</td>
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<td>Transport width</td>
<td>2.47 m</td>
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<tr>
<td>Weight (basic equipment)</td>
<td>1795 kg</td>
</tr>
</tbody>
</table>
445 - option

Standard: friction clutch

Option:
Liquid cooled friction clutch
Bundle LCA79243
445 option

Liquid cooled friction clutches
1. Coolant reservoir 1.3 litre
2. Friction discs
3. Spring pack
4. Housing
**WCS (Whole Crop Silage) – Crop dividers for thin stemmed crops**

More space for crop intake

Improvement of crop transport harvesting:
- WCS, Sorghum, Pampas-grass, Oilseed rape, Lucerne, etc.

(bundle = 2 pieces)
445 - option

Tips to improve WCS harvest:

• Increasing of the rotor RPM according to the instruction manual
• New saw blades
• The drum scraper distance should be as described in the instruction manual
• Cleaners should be sharp, as described in the instruction manual
445 - option

Fixed crop lifters for extreme down crop (Set = 6 Pieces):
New Kemper sensor for RowTrak & AutoTrac/RowSense
(Available from April 2011 on)

- New sensor in the middle pointer
- Black sensor measures on two sides (green) the distance (red)
- Special wiring harness for attachment to new SPFH from MY 2011 on
  - SPFH software will compensate for suddenly missing signal on one side
  - Sensor für 8000 Serie Feldhäcksler
  - Sensor for SPFH build from MY 2011
Advantages automatic steering

- Higher operating speeds day and night, increasing your performance
- Full attention to the header and spout functions for increased productivity
- Reduction of fatigue and risk of forage waste
- Special advantage of the new Kemper sensor
  - If one row is missing the SPFH will still drive straight on as the software will compensate for the suddenly missing signal on one side
  - No moving potentiometers means less wear
Rotary harvesting unit 460 plus
Harvesting conditions world wide

Maize plants over 4.0 m

Different row width

96 cm

Extreme harvesting conditions
Frame

Strong, sturdy frame
- Backside 180 mm x 180 mm square tube (basic frame)
Power transmission

Power is transmitted by closed oil bath gearboxes and safety clutches.
Main drive
(only for 7000 series SPFH)

2-speed standard main drive
• Turn the bolt to shift

---

For optimal use of all possible cutting lengths
17.5% increasing

1st gear 1:1
2nd gear 1:1.175

Main drive
(only for 7000 series SPFH)
Overload clutches inside

All drums have overload clutches inside the gearbox
  • Maintenance free!

Only two main clutches (liquid cooled) with friction clutches
  • Need to be maintained just before the season
Liquid cooled friction clutches

Standard two liquid cooled friction clutches
Liquid cooled friction clutch

1. Coolant reservoir 1.3 litre
2. Friction discs
3. Spring pack
4. Housing

Liquid cooled friction clutches
Cutting & feeding system

Row independent cutting system
- With fast rotary cutting blades
Gathering drums rotating at low speeds
- ensure uniform flow to the chopping unit in a lengthwise direction

Excellent even cutting
Bolt-on cleaners on all drums

All drums have bolt-on cleaners

- Incase of wear the cleaners can be quickly turned around or replaced

Both sides of the cleaner can be used

- Extra wear resisting material (Naxtra 70)
Flexible for odd row width

Intake fingers can be moved laterally

- Incase one row is pushed to much side ways
e.g. in 38 inch (96 cm) rows, one or more racks of fingers can be moved side ways
Drum with maize cob saver

Maize cob saver integrated in the gatherer drum
- Rill prevents corn ears falling off the machine
Plastic covers

- Less weight
- Round/smooth design
  - Round design has a positive effect on the crop flow
Perfect down crop handling
Perfect down crop handling

- Down crop pushed up by the short outer divider points
- The drum will ‘grab’ the stalks
- Mechanically driven crop dividers (power end fenders) no longer necessary for down crop!
- No auger winding/wrapping in long weedy crops
Perfect down crop handling
Push tube

Flexible crop guidance (Hydraulic tube + wear cover)

- Flexible height adjustment, avoids cob losses
- One piece crop guidance (no hand-over points)
- Very well adjusting to more or less crop flow
- Flexible while folding and unfolding the side wings
Tungsten carbide coated knives

Self sharpening effect
Reduced load placed on clutches and transmission
Longer service life
Fewer knife changes
Exclusive from John Deere

- Bundle LCA89940 (2 drums)
- 8 knives right, 8 knives left, 8 scrapers, special bolts and nuts
- Non coated knives:
- Kit LCA89941 (2 drums)
- 16 knives, 8 scrapers, special bolts and nuts

<table>
<thead>
<tr>
<th>Bundles necessary per machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
</tr>
<tr>
<td>No. of bundles</td>
</tr>
</tbody>
</table>

Bundles necessary per machine

Type | No. of bundles
---|---
460 plus | 2
Special scrapers

No sharp stubble
Saves tires
Accelerate stubble decay
Corn borer can hardly survive in a rotten stubble
Mechanical floating system
(only for the 7000 series)

Mechanical floating system
Works with two adjustable springs
Automatic locking system for transport
• Lifting the side wings locks the floating system
Transport position

Hydraulically foldable

Automatic blocking of the mechanical floating system in transport position (7000 series only, via chains)

Length 260 cm (9’ 1”)

Width 300 cm (9’ 10”)

![Image of tractor in transport position]
Option – WCS crop dividers

**WCS (Whole Crop Silage) Crop dividers for thin stemmed crops**
More space for crop intake
Improvement of crop transport harvesting:
- WCS, Sorghum, Pampas-grass, Oilseed rape, Lucerne, etc.
(bundle = 2 pieces)
Option – fixed crop lifters

Fix crop lifters
For down crop
Optional 460 plus set = 8 pieces
New Kemper sensor for RowTrak & AutoTrac/RowSense

- New sensor in the middle pointer
- Black sensor measures on two sides (green) the distance (red)
- Special wiring harness for attachment to new SPFH from MY 2011 on
  - SPFH software will compensate for suddenly missing signal on one side
  - Sensor for SPFH 7000 series build from MY 2011 on
  - Sensor for SPFH 8000 series
Advantages automatic steering

- Higher operating speeds day and night, increasing your performance
- Full attention to the header and spout functions for increased productivity
- Reduction of fatigue and risk of forage waste
- Special advantage of the new Kemper sensor
  - If one row is missing the SPFH will still drive straight on as the software will compensate for the suddenly missing signal on one side
  - No moving potentiometers means less wear
Options - Advanced Header Control (AHC)

Active control with sensors
Accurate guidance of the header height and its lateral position
• Header height – lifting of the header with the SPFH
• Lateral position – with cylinder
Equal harvesting also higher stubbles within the in sensor range
• Minimises soil contamination
• Lower wear costs (Minimum soil contact)
Advanced Header Control

Available for all SPFH with AHC,
AHC optional for 460+ & 475+
(Central sensor and cylinder on the header - 7000 series, integrated in the SPFH - 8000 series)
New gearboxes for the intake drums

- Better bearing support (greater distance)
- Less vibrations
  ➔ increased service life

Previous design (left) vs. new design (right)
New Hurricane Kit for 460 plus

• Introduction because of the new gearboxes
• Optimized design and improved guidance
## Differences:

### 360 plus

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement</th>
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</thead>
<tbody>
<tr>
<td>Length</td>
<td>m: 1.60</td>
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<tr>
<td>Width (unfolded)</td>
<td>m: 6.05</td>
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<tr>
<td>Heights (unfolded)</td>
<td>m: 1.40</td>
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<tr>
<td>Heights (folded)</td>
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<tr>
<td>Working with</td>
<td>m: 6.00</td>
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<tr>
<td>Transport width</td>
<td>m: 3.00</td>
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<td>Weight</td>
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</table>

### 460 plus

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
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<td>Length</td>
<td>m: 2.61</td>
</tr>
<tr>
<td>Width (unfolded)</td>
<td>m: 6.00</td>
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<tr>
<td>Heights (unfolded)</td>
<td>m: 1.52</td>
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<tr>
<td>Heights (folded)</td>
<td>m: 2.14</td>
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<td>Working with</td>
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<tr>
<td>Transport width</td>
<td>m: 3.00</td>
</tr>
<tr>
<td>Weight</td>
<td>kg: 2820</td>
</tr>
</tbody>
</table>
Differences:

**360 plus**
Build short
8 Gatherer drums
Drive concept
9 Divider points
Greater angle between intake and feeding drum
Technical details
Functionality

**460 plus**
Build longer
4 Gatherer drums
Drive concept
3 Divider points
Smaller angle between intake and feeding drum
Technical details
Functionality
Differences:

360 plus
Build short
- Greater manoeuvrability
- Less space required
- Lower axle loads
- Less counter weights
- Gravity point closer to the SPFH

460 plus
Build longer
- More lateral movement while steering
- More space required
- Higher axle loads
- More counter weight necessary
- Gravity point further from the SPFH
Differences:

**360 plus**
8 Gatherer drums
- Smaller drum surface, Ø 735 mm
- Less storage space for reversed plants

4 cross feed drums
- More hand-over points in the crop flow (more scrapers)

**460 plus**
4 Gatherer drums
- Bigger drum surface, Ø 1460 mm
- More storage space for reversed plants

No cross feed drums
- Less hand-over points in the crop flow (less scrapers)
Differences:

**360 plus**
Drive concept
- Gearbox axle tube
- Drive via hexagonal shaft
- 14 gearboxes
- 14 gearboxes with internal radial pin clutches
- Lower mass moment of inertia to start up or slow down

**460 plus**
Drive concept
- Gearbox axle tube
- Drive via hexagonal shaft
- 6 gearboxes
- 6 gearboxes with internal radial pin clutches
- Higher mass moment of inertia to start up or slow down
Differences:

**360 plus**
Greater angle between intake and feeding drum
- Angle between drums 20°
- Build short

**460 plus**
Smaller angle between intake and feeding drum
- Angle between drums 5°
- Build longer
Differences:

360 plus
Where manoeuvrability is important
  • Hardly any steering impact
Soil with limited carrying capacity
Maize plants < 4 m

460 plus
Manoeuvrability not so important
  • More steering impact
Odd row width
Maize plants > 4 m
  • Maize cobs over 1.80 m
  • Gravity point of the plants
  • Down crop
75 cm row width, 13.3 cm between the plants
460plus at work
Rotary harvesting unit 475 plus
• 7.50 m working width, 10 rows
• For extreme large, high productive crops (same as 460 plus)
• 2 outer drums turn inwards
  ✓ Outer rows are forwarded into the machine for saver crop transport
• 1st & 2nd drum and 5th & 6th drum rotate in pairs
• Cross feed drums forward the crop through the machine
• Cross feed drums forward the crop through the machine
  ✓ More secure cross feeding in the back of the machine
475 plus

- Direct crop flow via the large drums
- Down crop pushed up by the short outer divider points
- Small drum will ‘grab’ the stalks
- Mechanically driven crop dividers not longer necessary for down crop!
Single folding
- Almost unlimited view
Can be stored folded
Technical specifications:
Length: 2.78 m
Total width: 7.55 m
Transport width: 3.30 m
Working width: 7.50 m
Weight: 3300 kg
Height: 1.52 m
Height (folded up): 3.65 m
475 plus support wheel – special frame required

Perfect and legal transport solution

- Perfect view on the road
- Transport width 3.3 m
- Comfortable road transport
- Quick change from transport to working position
  - Automatic coupling
  - Integrated road lights
Support wheel

Steer the central divider point into the align mechanism
Closing up the divider point by lifting the header
Automatic locking when folding up the header
Locking marker visible from the cabin
Option – fixed crop lifters

Fixed crop lifters
For down crop
Options 475 plus, set = 12 pieces
Option – WCS crop dividers

WCS (Whole Crop Silage) Crop dividers for thin stemmed crops
More space for crop intake
Improvement of crop transport harvesting:
- WCS, Sorghum, Pampas-grass, Oilseed rape, Lucerne, etc.
- bundle = 2 pieces
475 plus in whole crop silage (small grain)
460 plus option

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- Less vibrations
  ➔ increased service life

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New Hurricane Kit for 475 plus

- Introduction because of the new gearboxes
- Optimized design and improved guidance
475 plus
475 plus

96.5 cm