



400 series

445, 460 plus & 475 plus



JOHN DEERE

400 series

445



460 plus



475 plus



Mounting possibilities 400 series John Deere

445	460 Plus	475 Plus
8100, 8200, 8300, 8400, 8500	8100, 8200, 8300, 8400, 8500 8600, 8700, 8800	8400, 8500 8600, 8700, 8800



Mounting possibilities 400 series John Deere

445	460 ^{Plus}	475 ^{Plus}
<p>6610, 6710, 6810, 6910</p> <p>6650, 6750, 6850, 6950</p> <p>7200, 7300, 7400, 7500</p> <p>7250, 7350, 7450, 7550</p> <p>7180, 7280, 7380, 7480, 7580</p>	<p>7300, 7400, 7500</p> <p>7350, 7450, 7550</p> <p>7280, 7380, 7480, 7580</p> <p>7700, 7800</p> <p>7750, 7850, 7950</p> <p>7780, 7980</p>	<p>7750, 7850</p> <p>(SPFH only with 3-speed transmission)</p> <p>20 km/h forward speed only</p> <p>7750, 7950</p> <p>SPFH from 2010 on</p> <p>7780, 7980</p>



Rotary harvesting unit 445



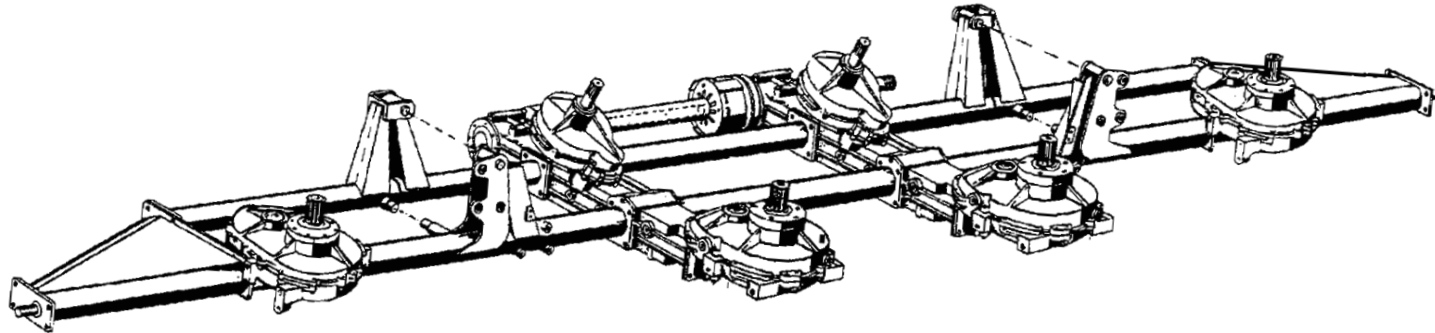
445



Drive line 445



Power is transmitted by closed oil bath gearboxes and safety clutches

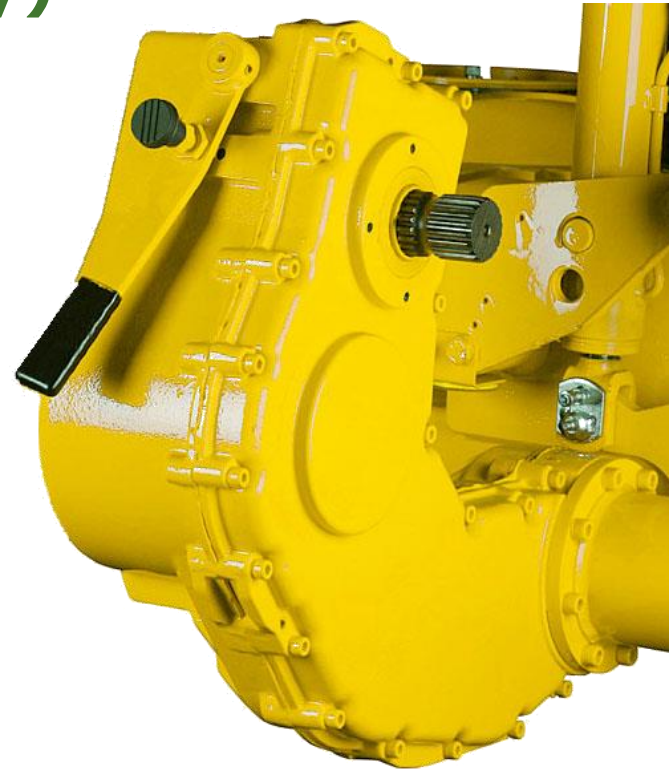


Main drive 445 (7000 series only)

Standard 2-speed gearbox

17,5% increase

- 1. gear 1:1
- 2. gear 1:1,175



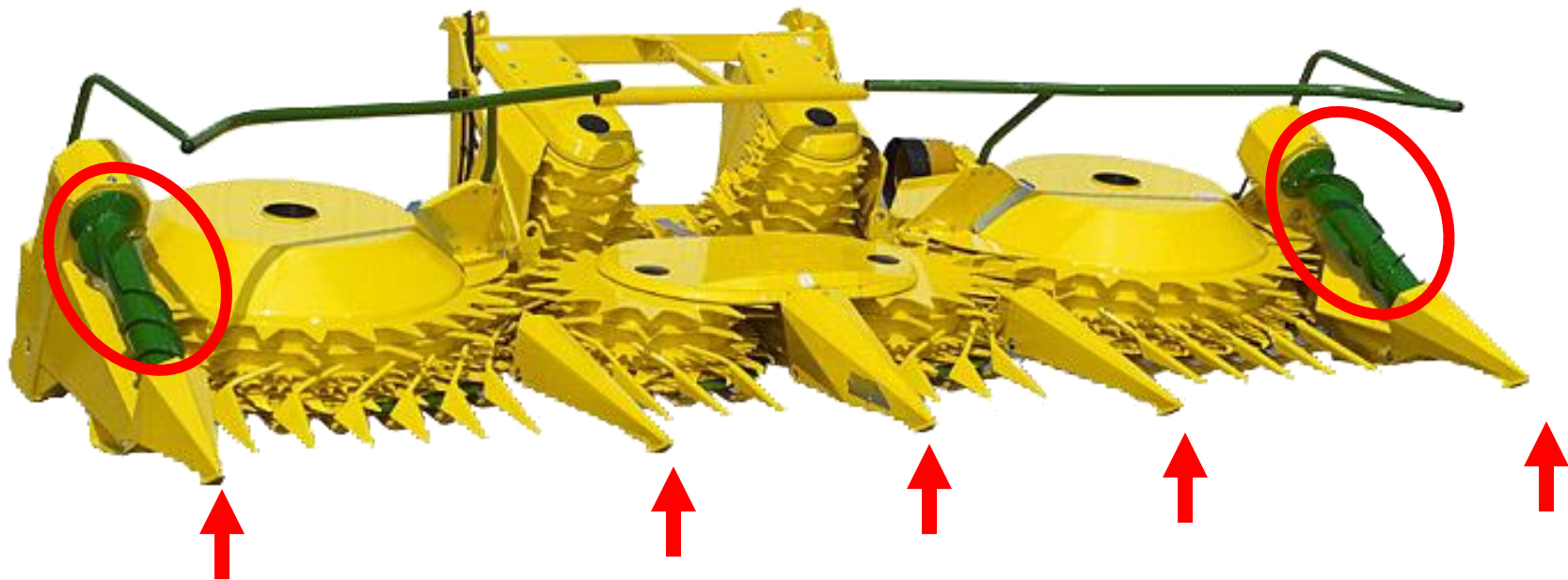
Transport 445



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

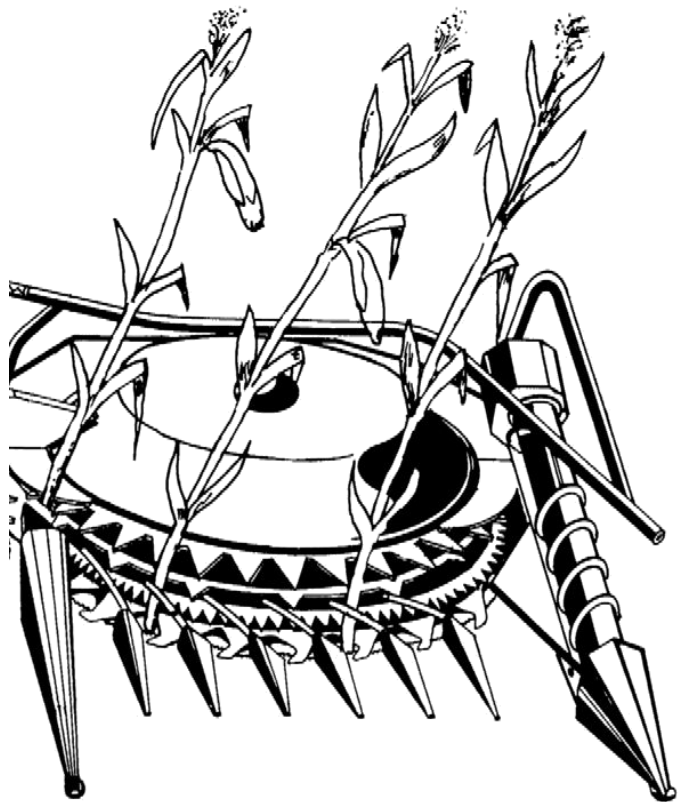


2 mechanically driven crop dividers

- 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

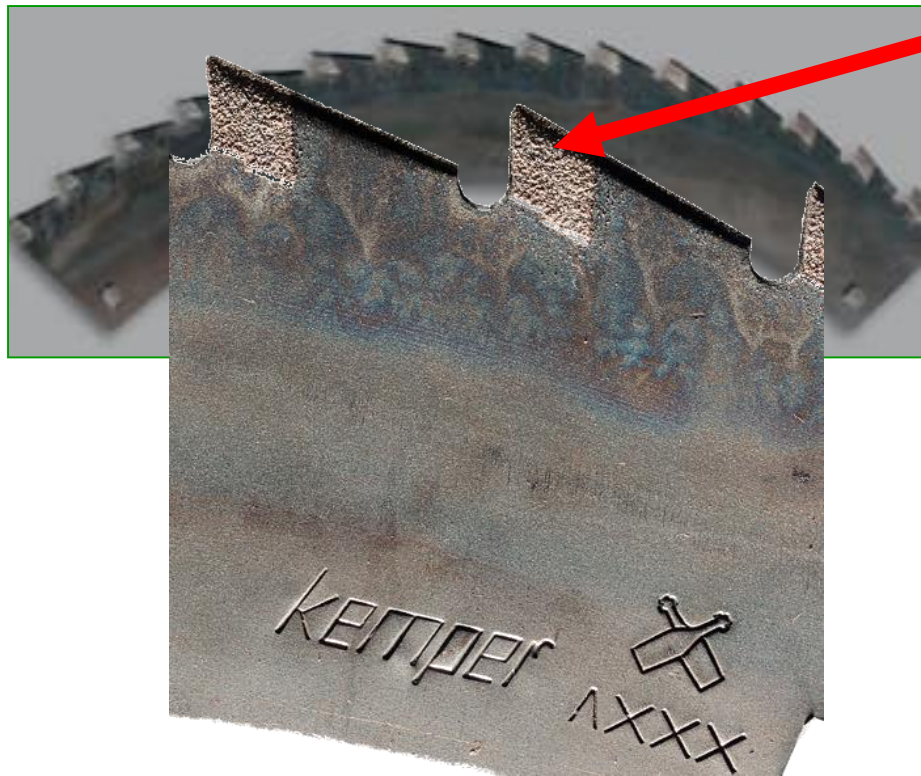
Gathering drums rotating at low speeds

- 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

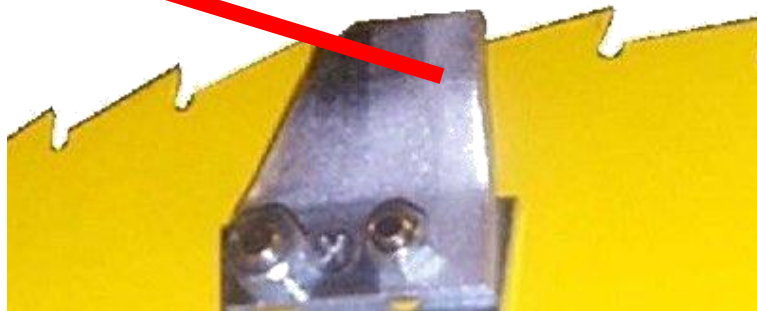


No sharp stubble

Saves tyres

Accelerate stubble decay

Corn borer can hardly survive in a rotten stubble

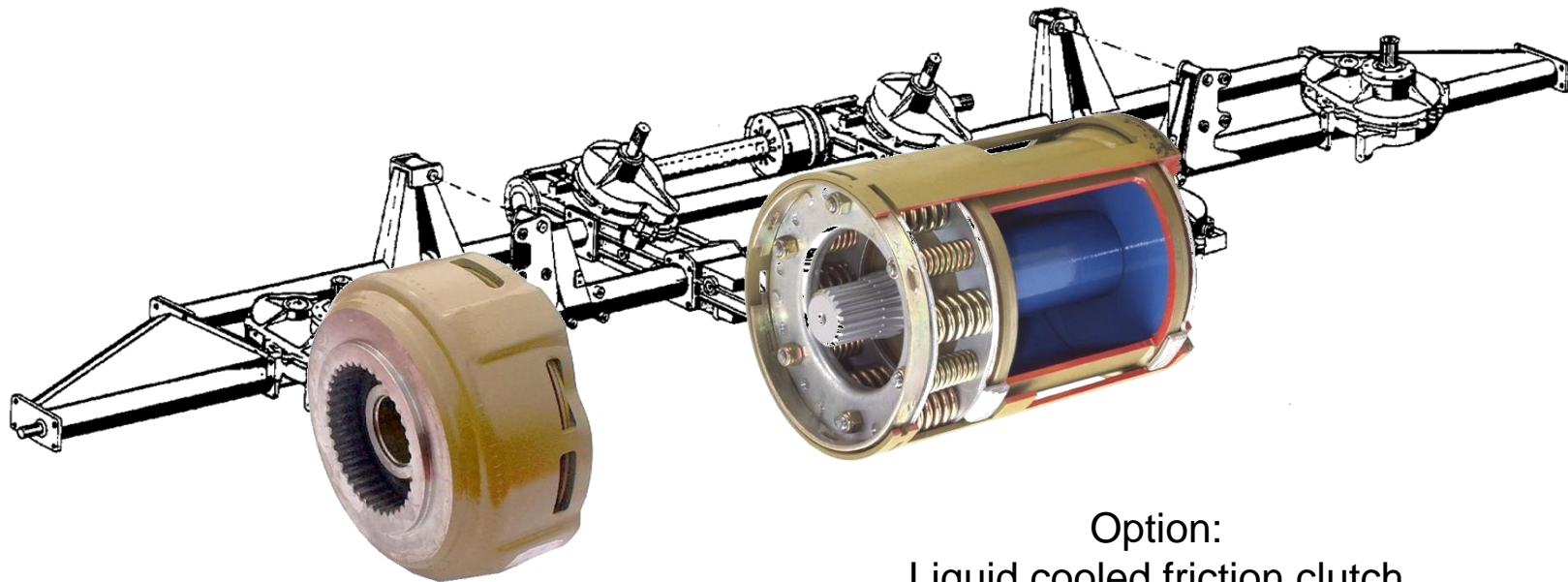


Technical specifications 445

Technical specifications	
Length	2.20 m
Overall width	4.60 m
Height	1.15 m
Working width	4.55 m
Transport width	2.47 m
Weight (basic equipment)	1795 kg



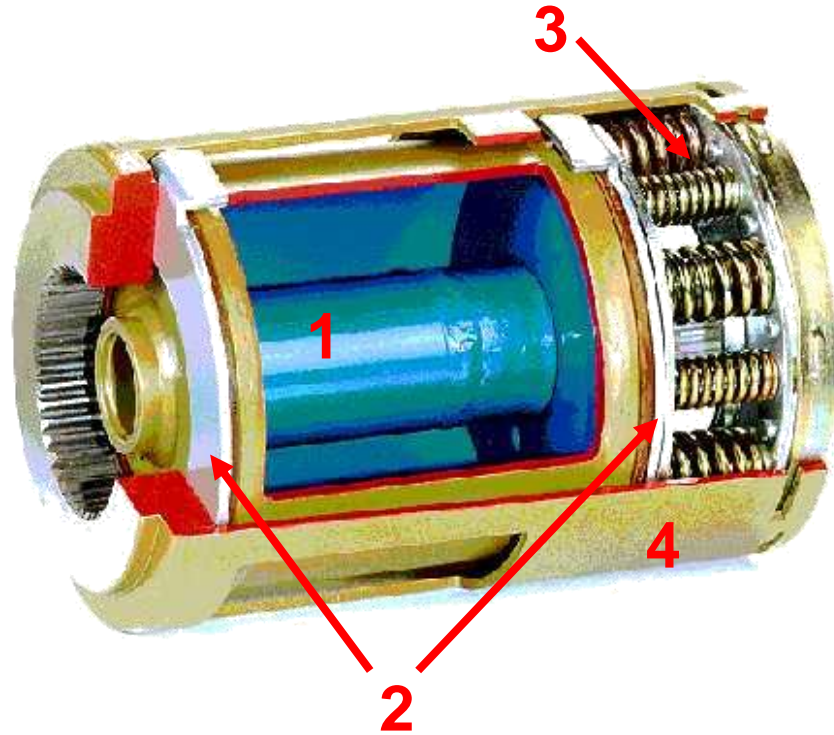
445 - option



Standard: friction clutch

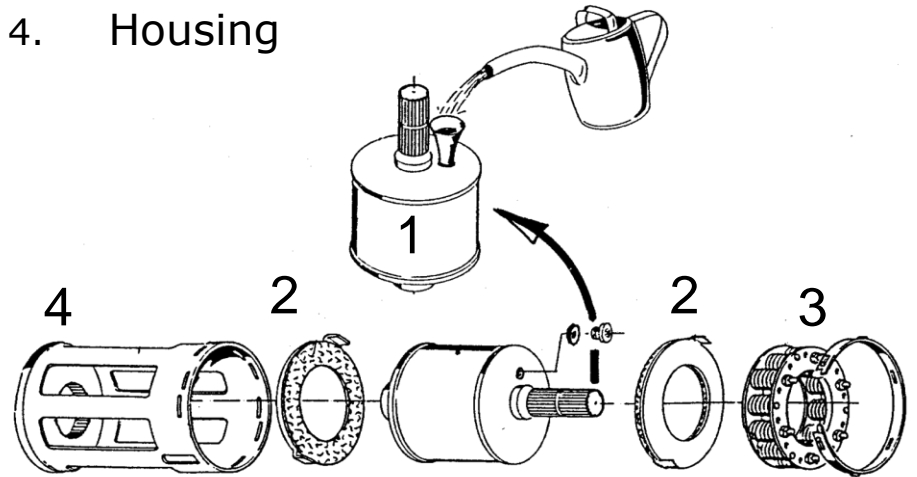
Option:
Liquid cooled friction clutch
Bundle LCA79243

445 option

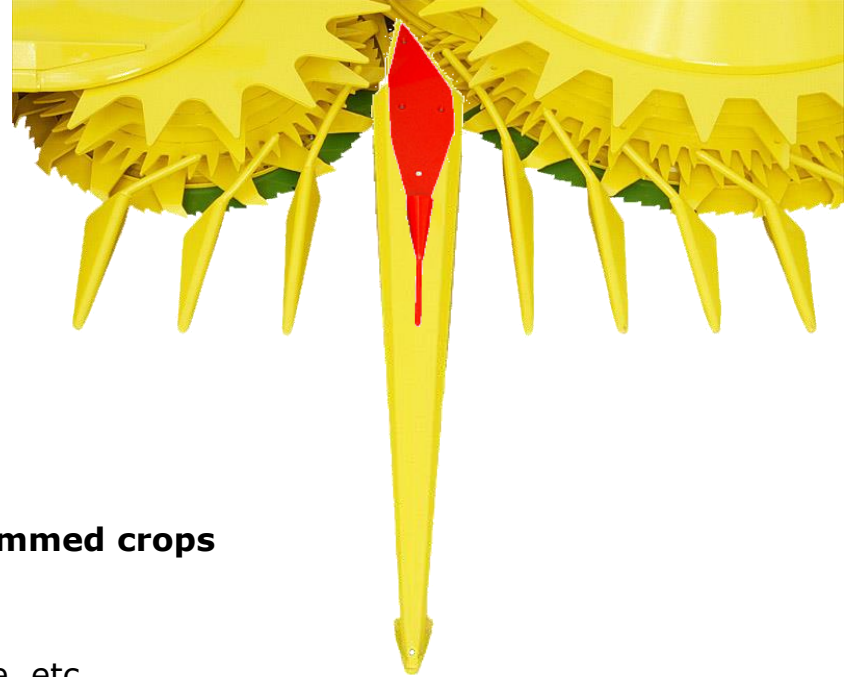


Liquid cooled friction clutches

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



445 - option



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

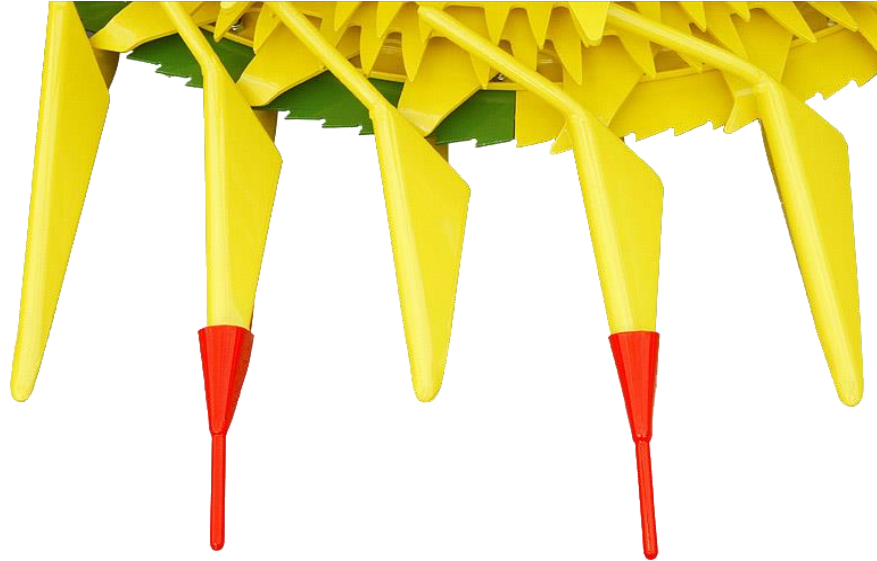


Tips to improve WCS harvest:

- 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

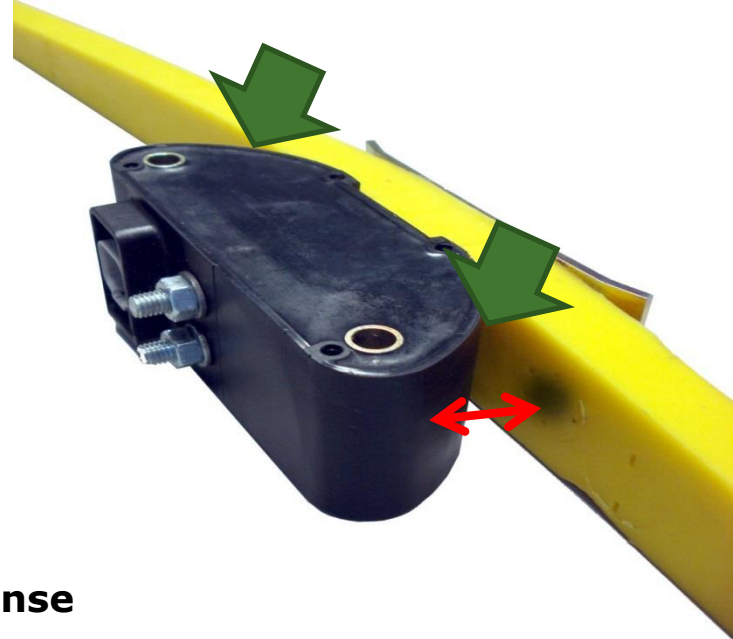


445 - option



Fixed crop lifters for extreme down crop (Set = 6 Pieces):

445 – Option



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

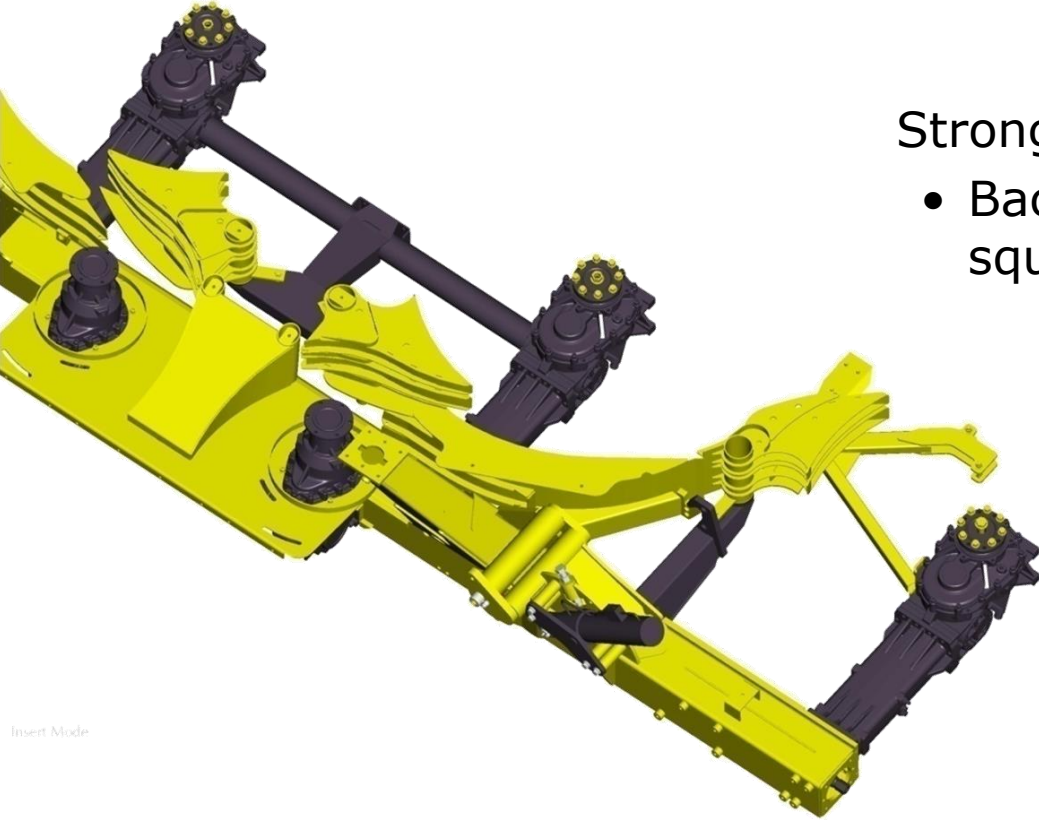


Different row width



Extreme harvesting conditions

Frame



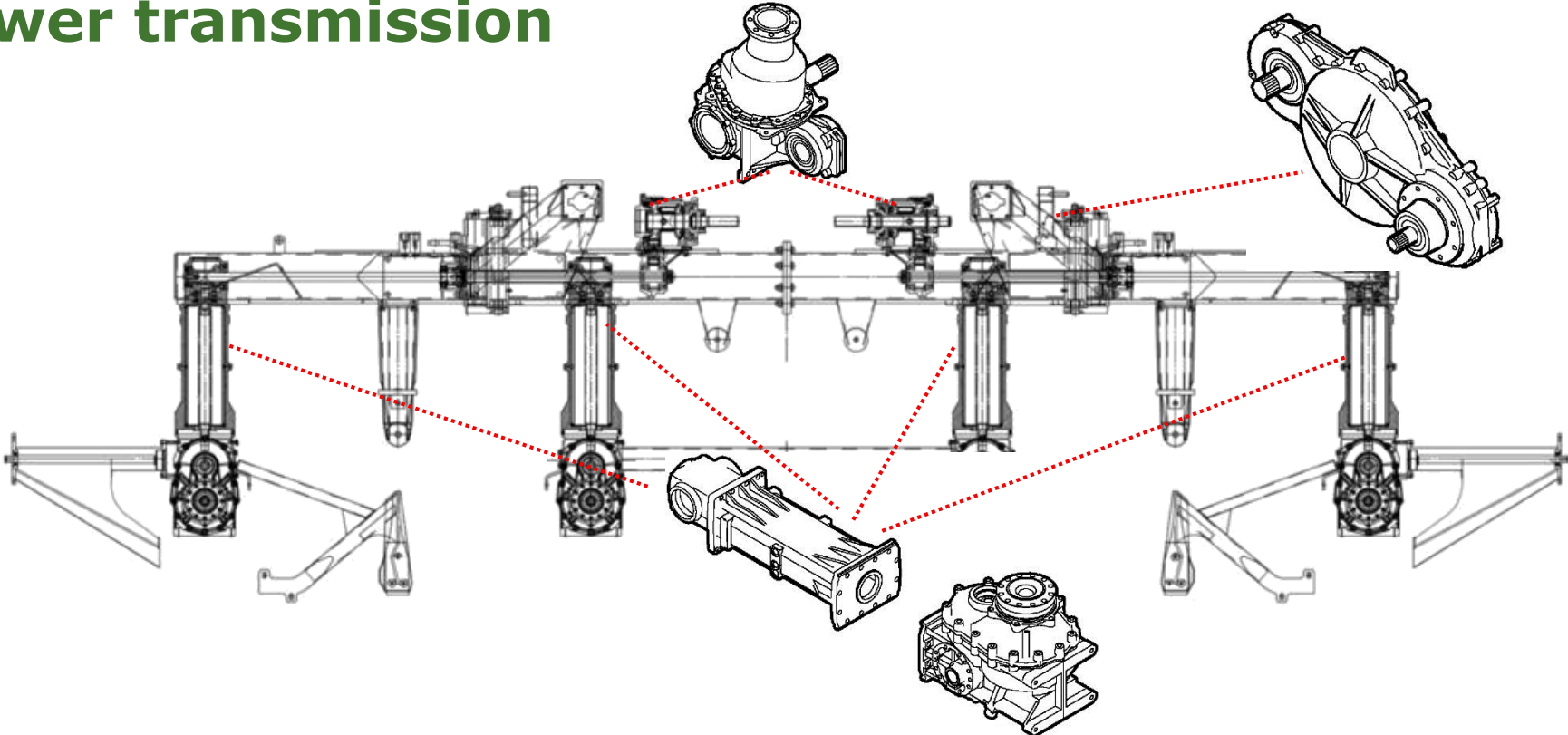
Strong, sturdy frame

- Backside 180 mm x 180 mm square tube (basic frame)

Insert Mode



Power transmission



Power is transmitted by closed oil bath gearboxes and safety clutches

Main drive (only for 7000 series SPFH)

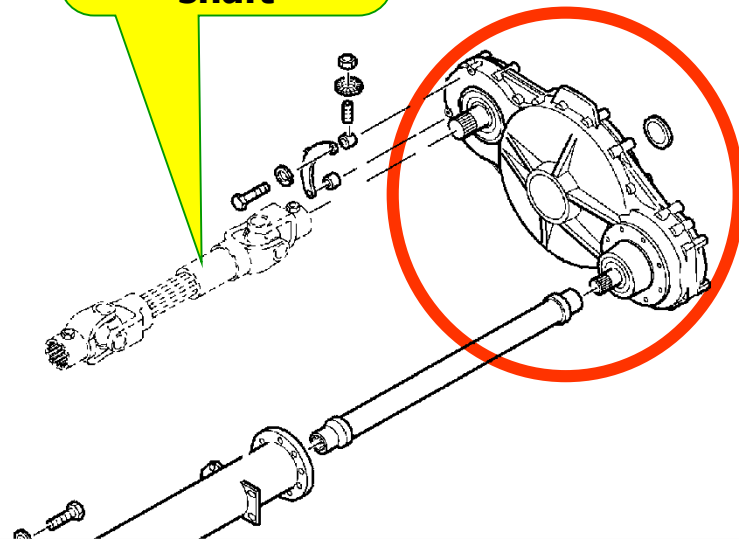
2-speed standard main drive

- Turn the bolt to shift

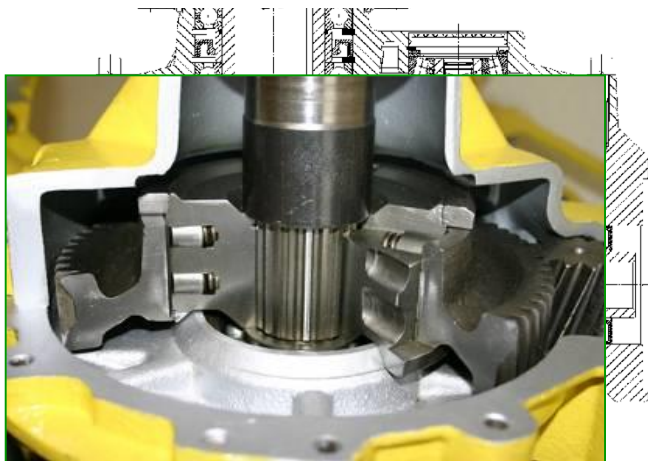


lengths

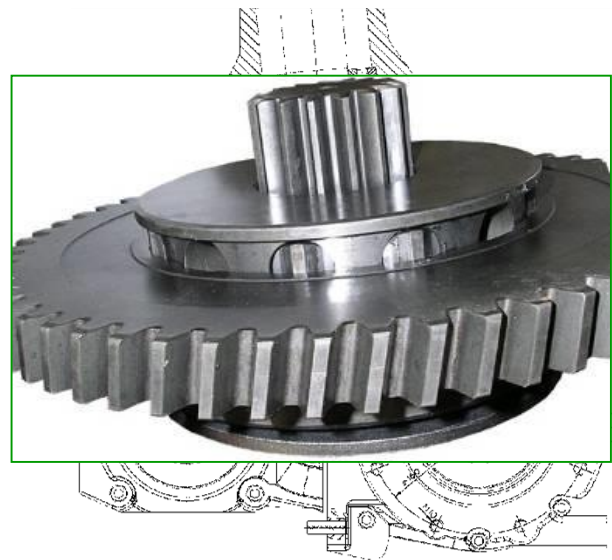
**Heavy
Walterscheid
W2500 PTO
shaft**



Overload clutches inside



Gatherer drum



Feeding drum

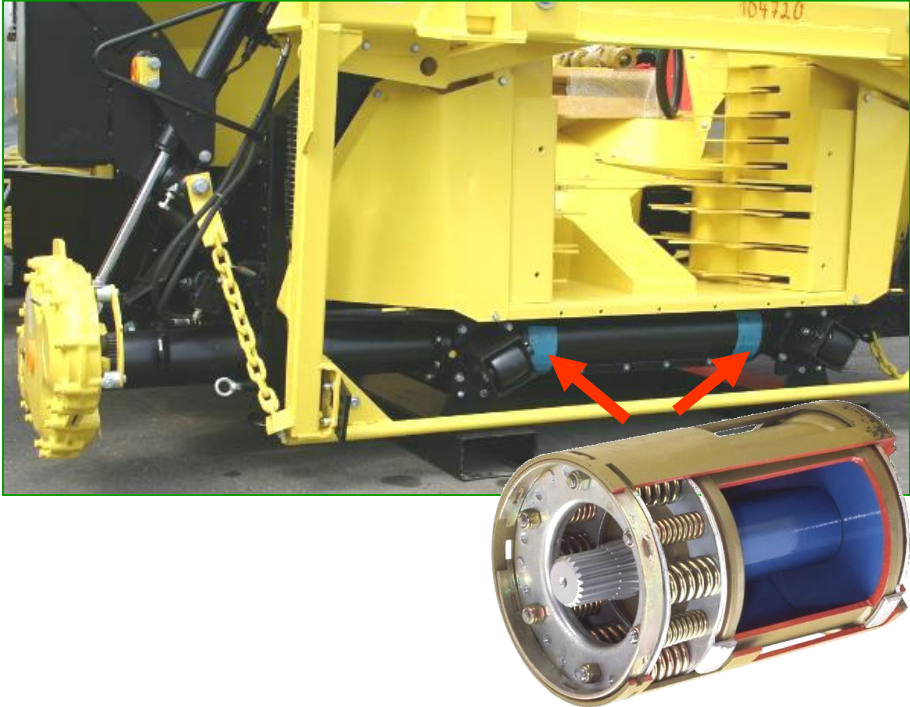
All drums have overload clutches inside the gearbox

- Maintenance free!

Only two main clutches (liquid cooled) with friction clutches

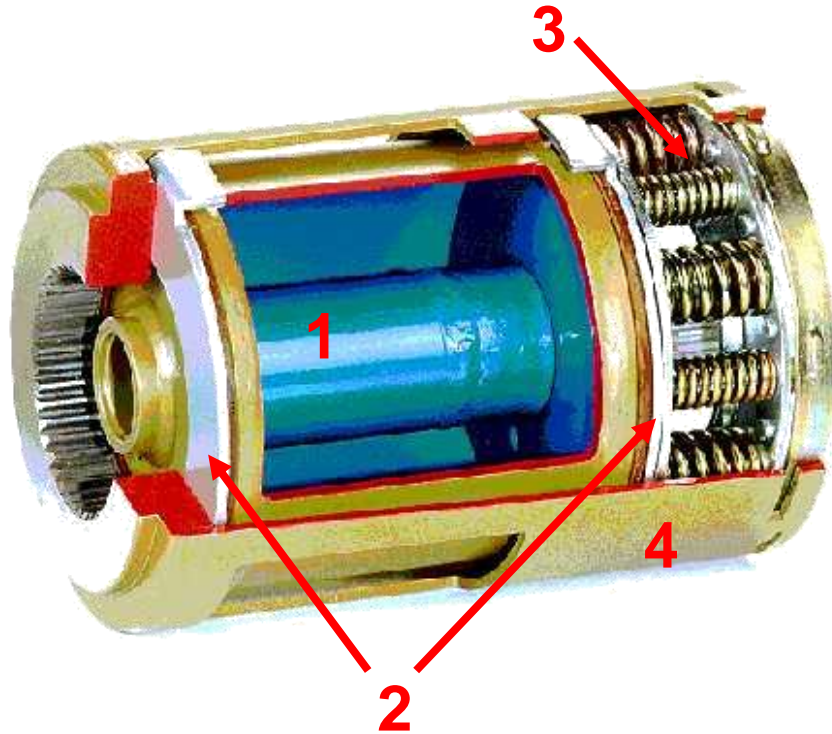
- Need to be maintained just before the season

Liquid cooled friction clutches



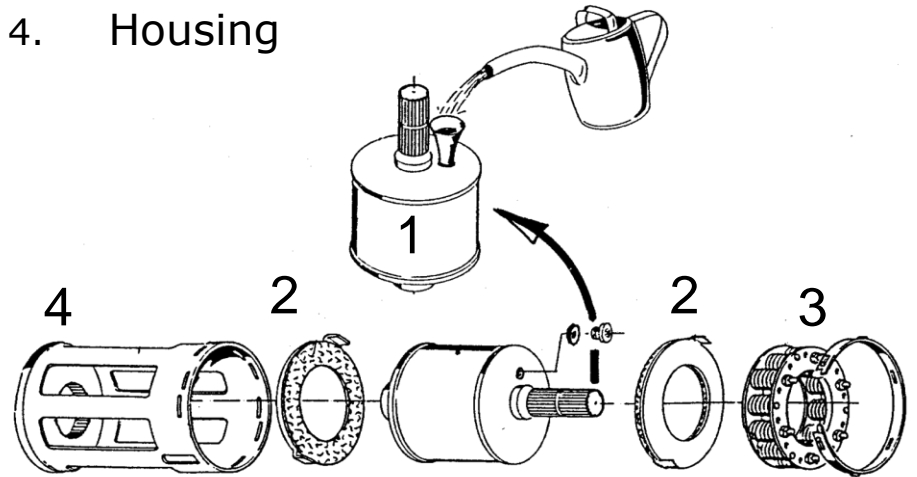
Standard two liquid cooled friction clutches

Liquid cooled friction clutch



Liquid cooled friction clutches

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



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

- In case 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)

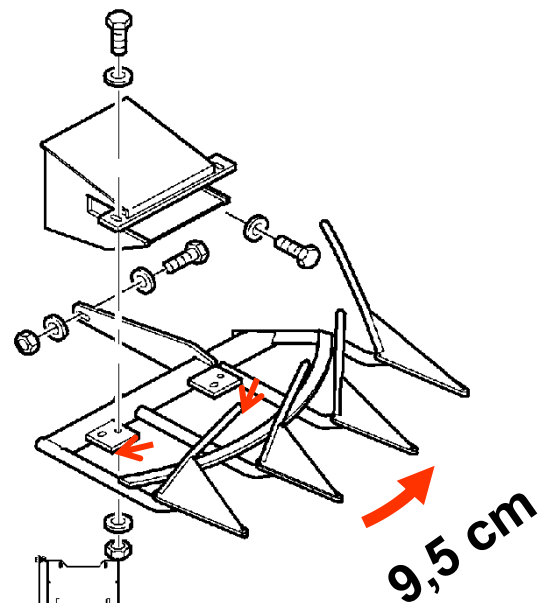
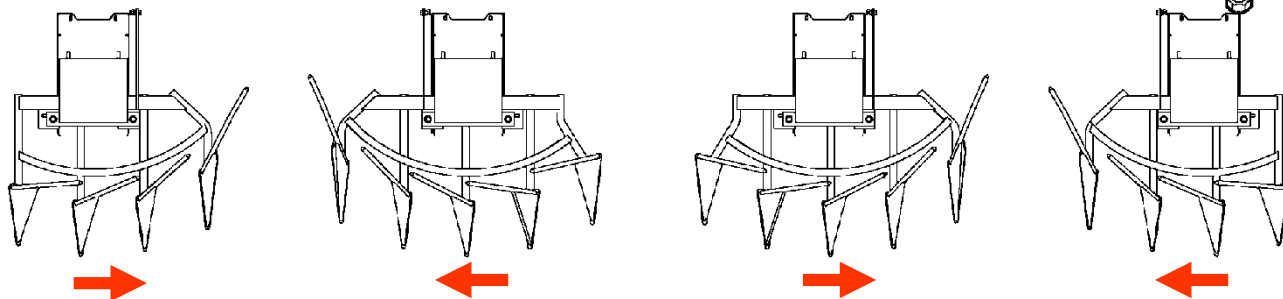


Gatherer drum

Flexible for odd row width

Intake fingers can be moved laterally

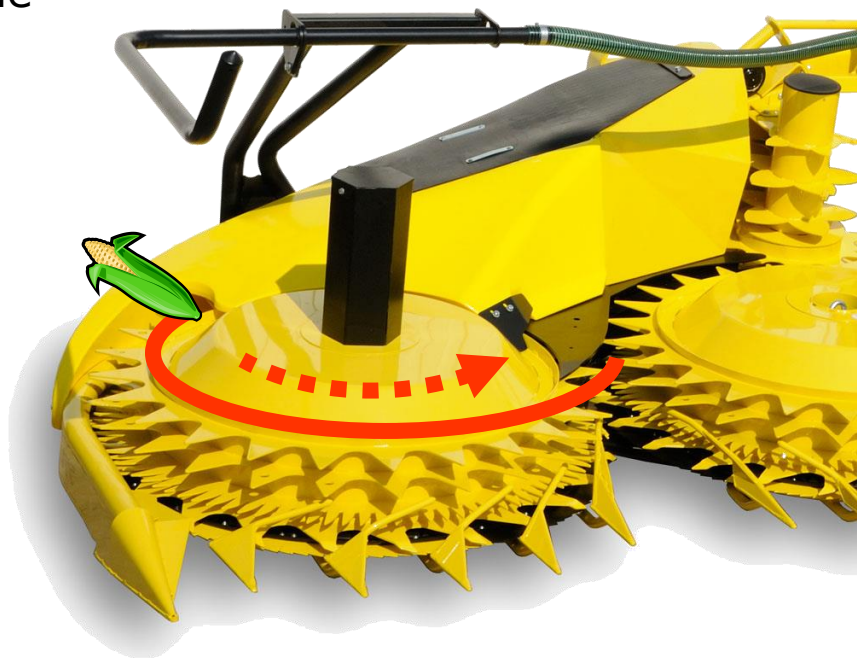
- In case one row is pushed to much side ways e.g. in 38 inch (96 cm) rows, one or more racks of fingers can be moved side ways



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



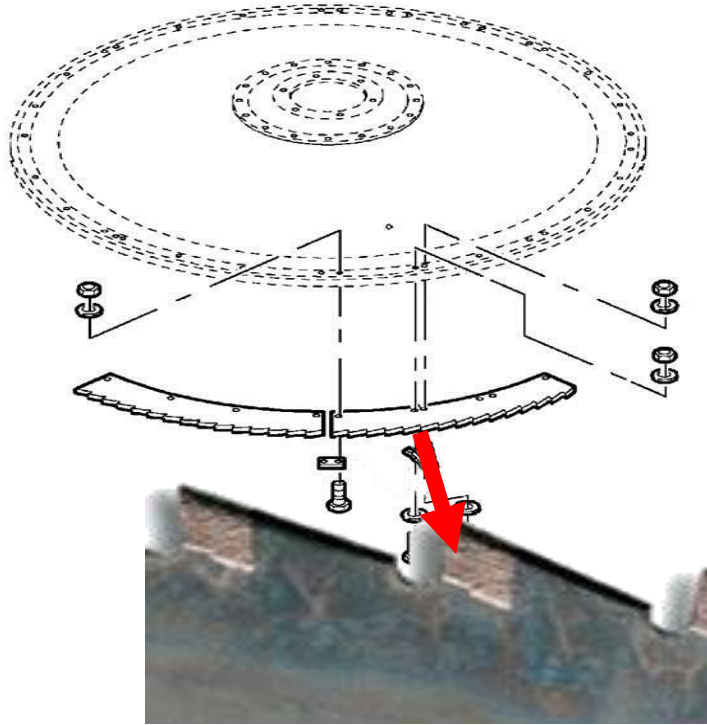
Push tube

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

Bundles necessary per machine	
Type	460 plus
No. of bundles	2



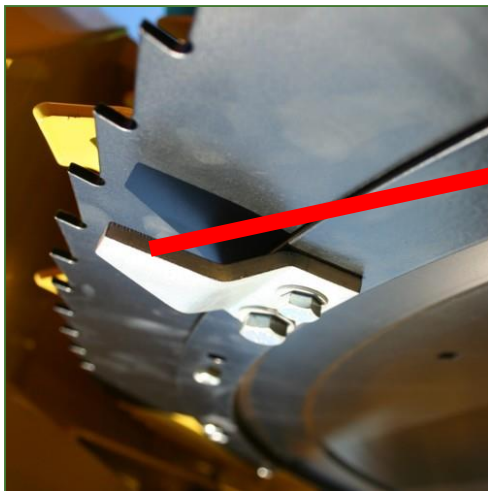
Special scrapers

No sharp stubble

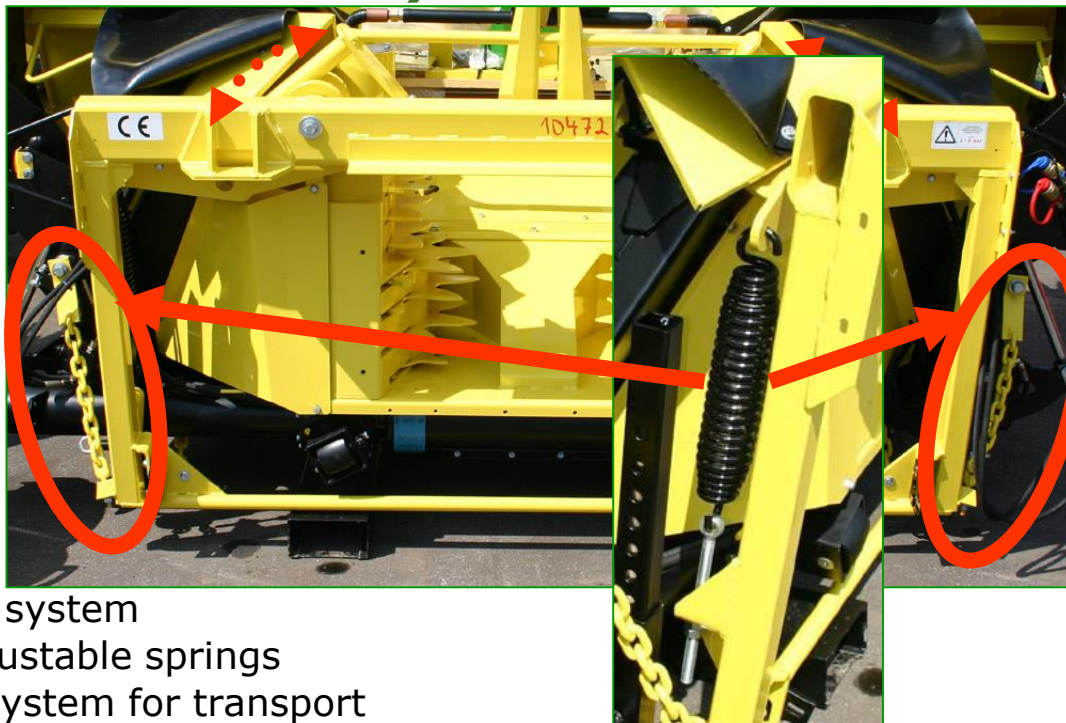
Saves tires

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")



Option – WCS crop dividers



WCS (Whole Crop Silage) Crop dividers for thin stemmed crops

More space for crop intake

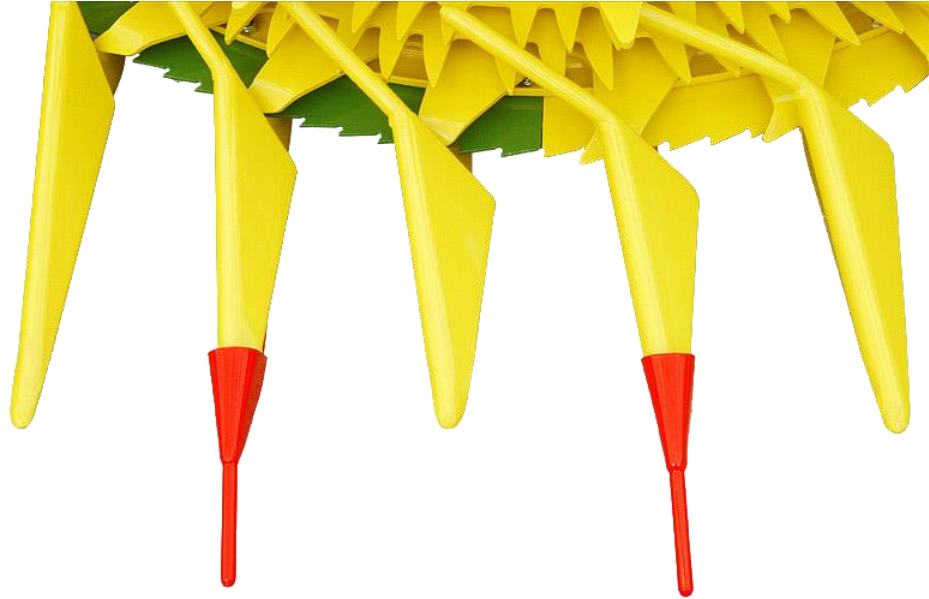
Improvement of crop transport harvesting:

- WCS, Sorghum, Pampas-grass, Oilseed rape, Lucerne, etc.

(bundle = 2 pieces)



Option – fixed crop lifters



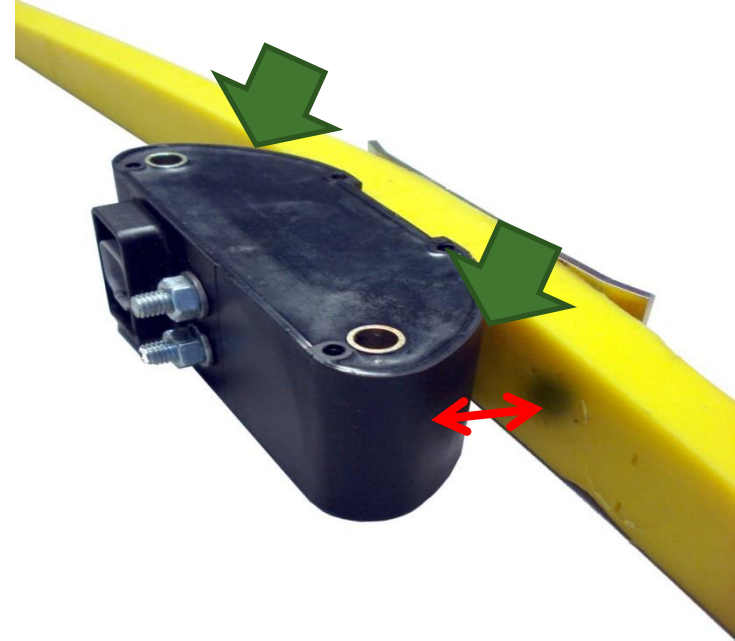
Fix crop lifters

For down crop

Optional 460 ^{plus} set = 8 pieces



460 plus option



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 plus & 475 plus

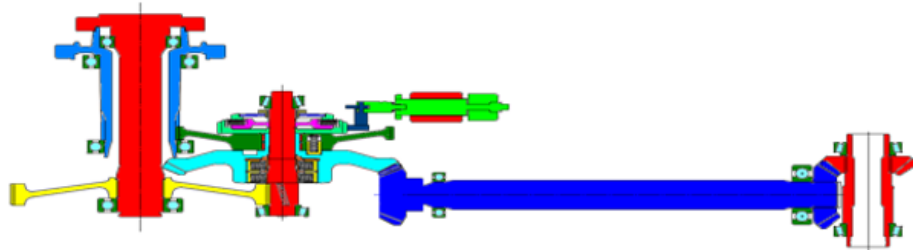
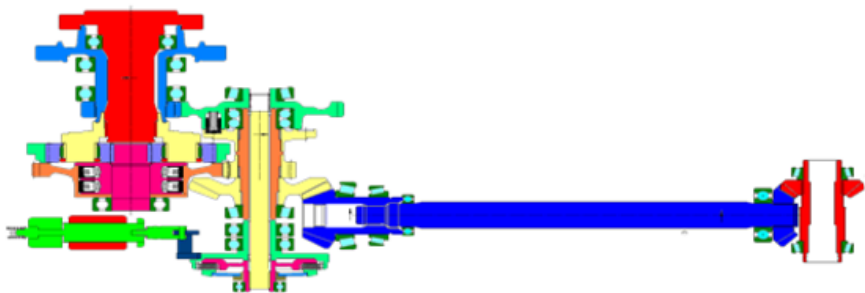
(Central sensor and cylinder on the header - 7000 series, integrated in the SPFH - 8000 series)



New gearboxes for the intake drums

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

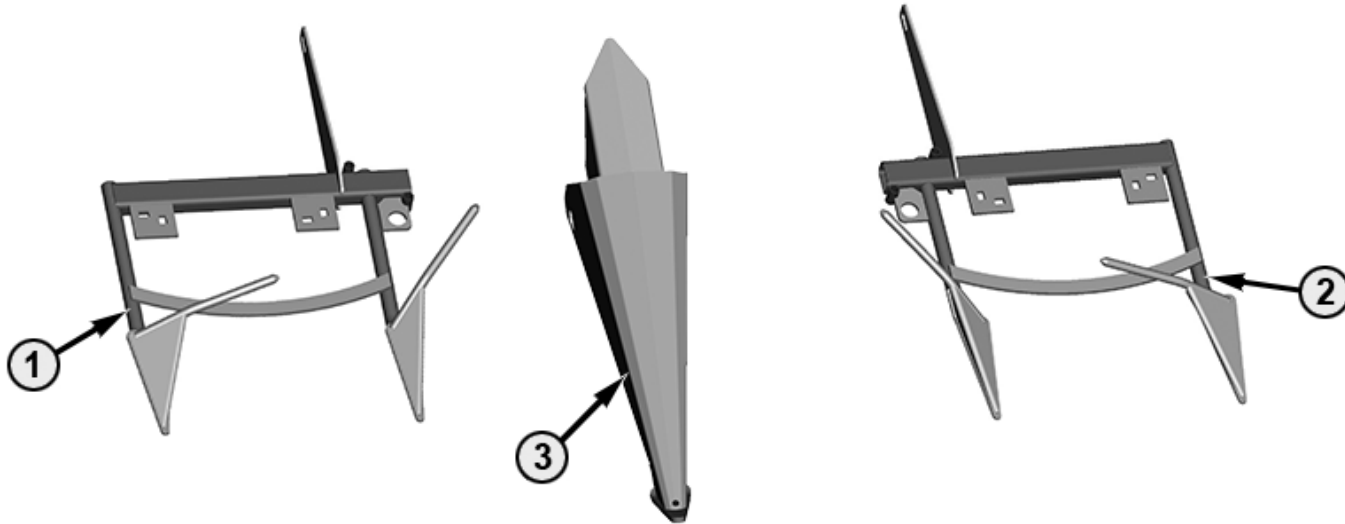
Previous design (left) vs. new design (right)



New Hurricane Kit for 460 plus

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

New in 2017



Differences:

360 plus

Length	m: 1.60
Width (unfolded)	m: 6.05
Heights (unfolded)	m: 1.40
Heights (folded)	m: 2.28
Working with	m: 6.00
Transport width	m: 3.00
Weight	kg: 2550



460 plus

Length	m: 2.61
Width (unfolded)	m: 6.00
Heights (unfolded)	m: 1.52
Heights (folded)	m: 2.14
Working with	m: 6.00
Transport width	m: 3.00
Weight	kg: 2820



Differences:

360 plus

Build short

8 Gatherer drums

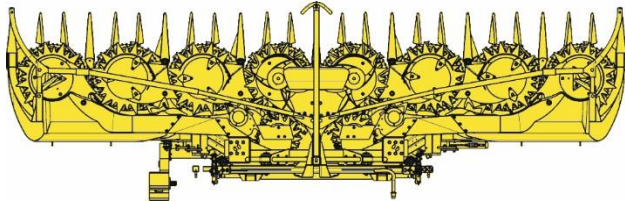
Drive concept

9 Divider points

Greater angle between intake and feeding drum

Technical details

Functionality



460 plus

Build longer

4 Gatherer drums

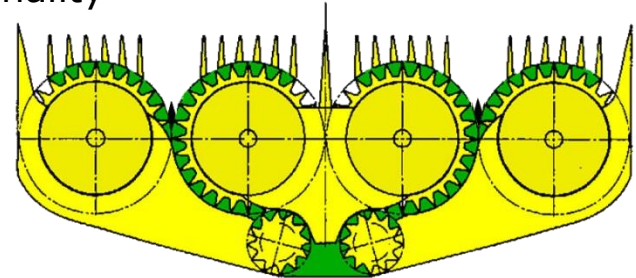
Drive concept

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:

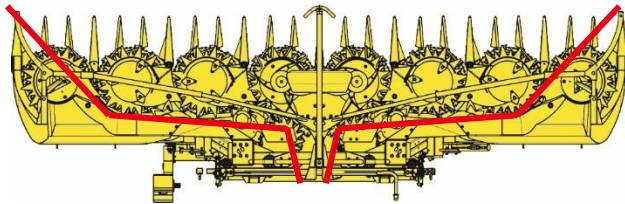
360 plus

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)



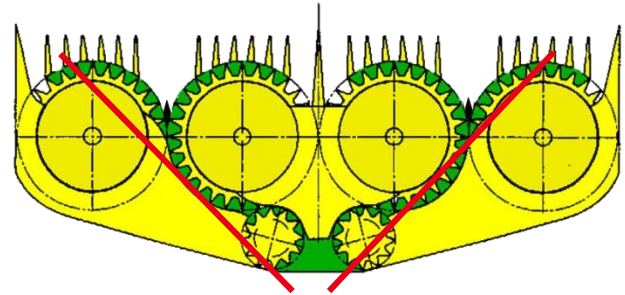
460 plus

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)

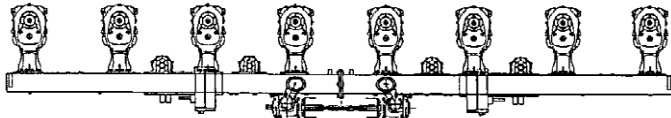


Differences:

360 plus

Drive concept

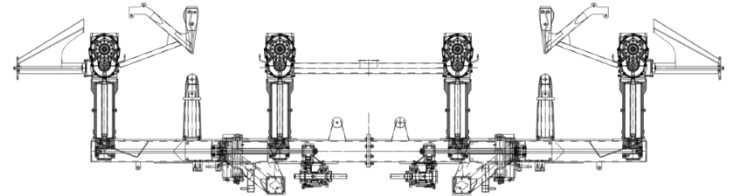
- Gearbox axle tube
- Drive via hexagonal shaft
- 14 gearboxes
- 14 gearboxes with internal radial pin clutches
- Lower mass moment of inertia to start up or slow down



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

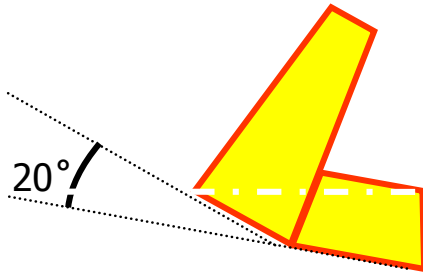


Differences:

360 plus

Greater angle between intake and feeding drum

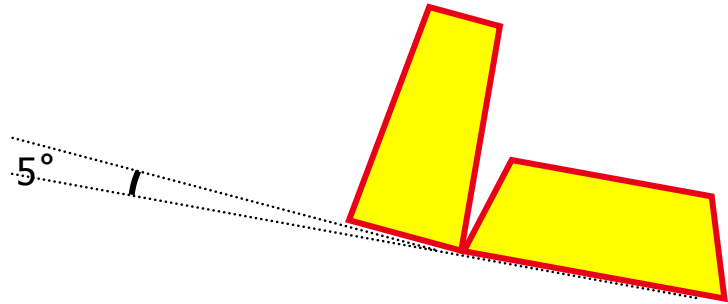
- Angle between drums 20°
- Build short



460 plus

Smaller angle between intake and feeding drum

- Angle between drums 5°
- Build longer



Differences:

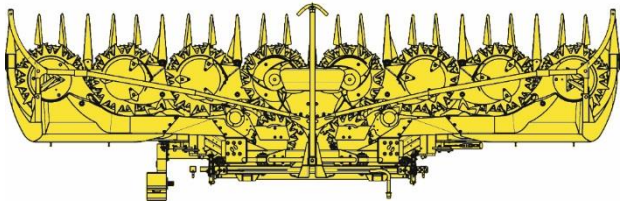
360 plus

Where manoeuvrability is important

- Hardly any steering impact

Soil with limited carrying capacity

Maize plants < 4 m



460 plus

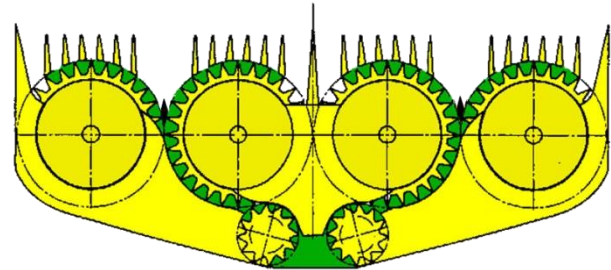
Manoeuvrability not so important

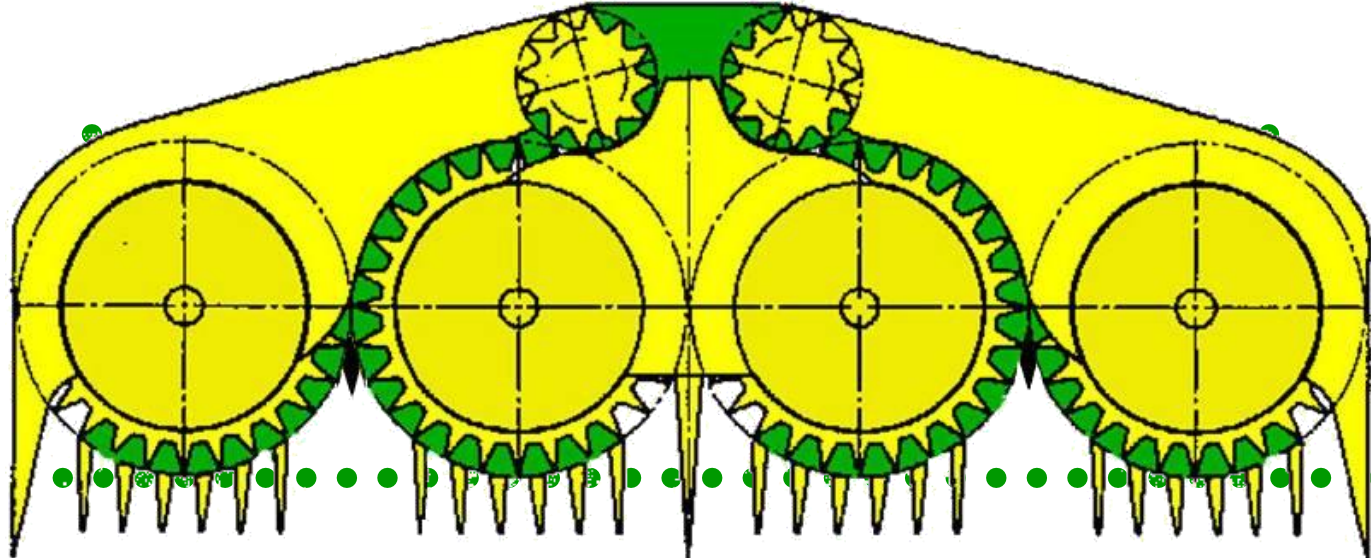
- More steering impact

Odd row width

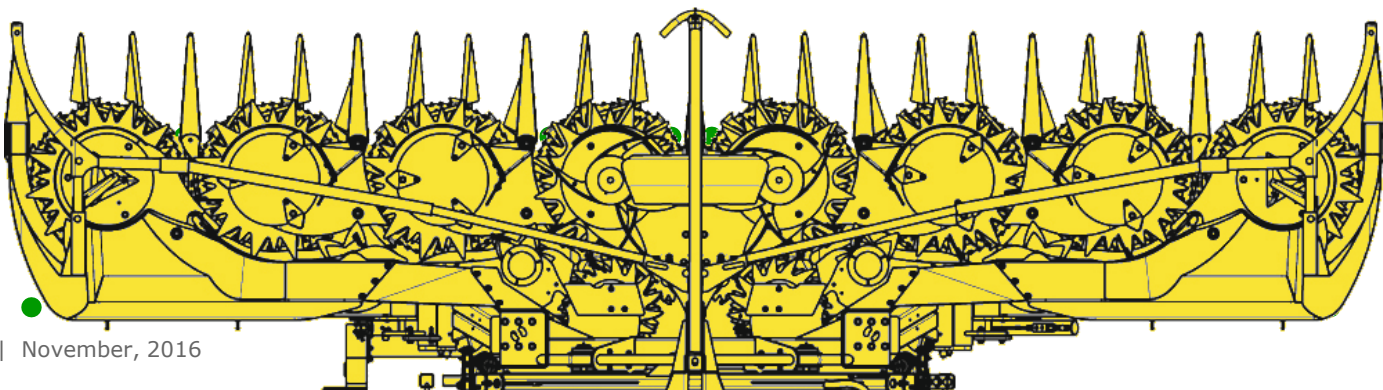
Maize plants > 4 m

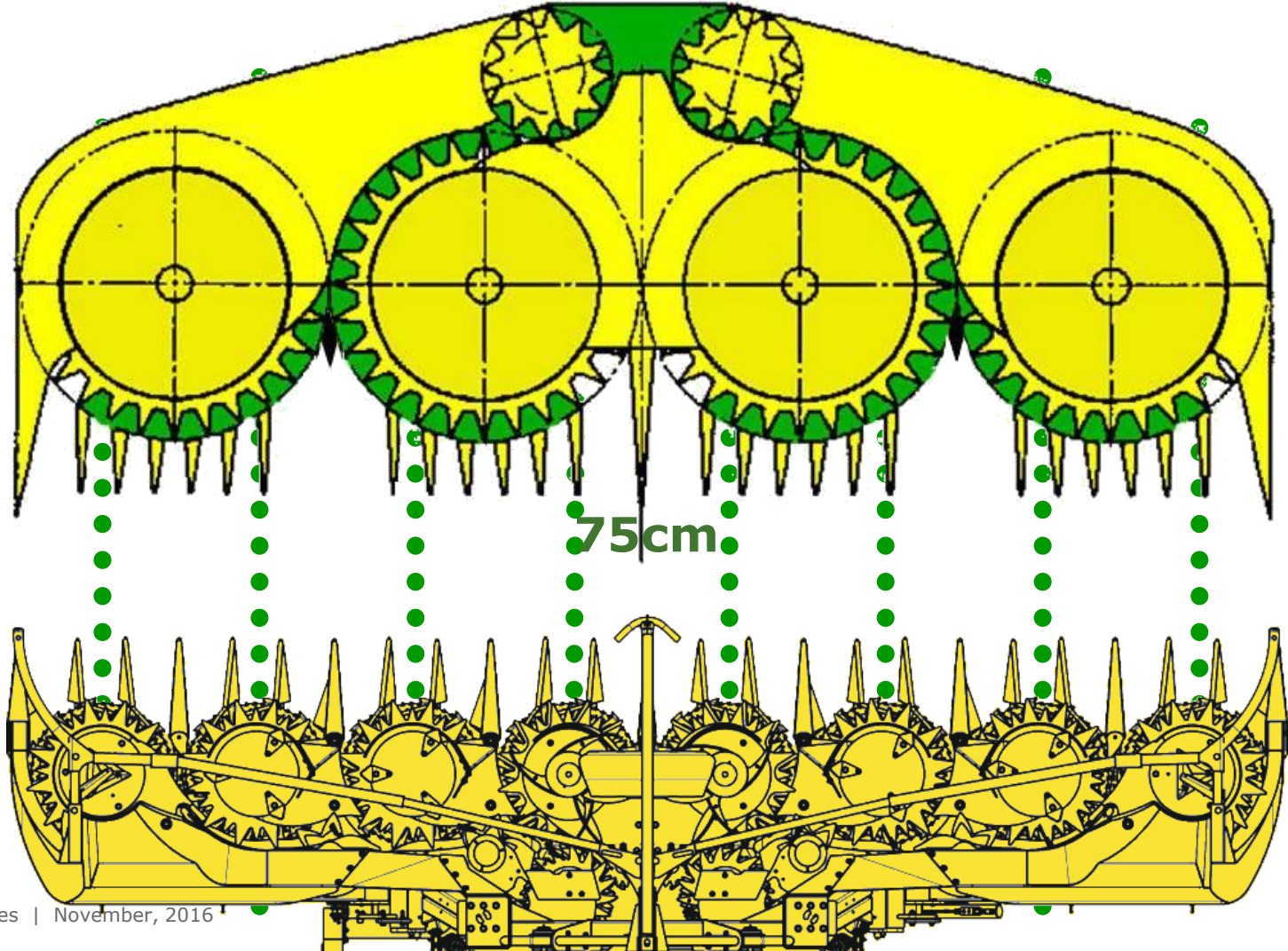
- Maize cobs over 1.80 m
- Gravity point of the plants
- Down crop

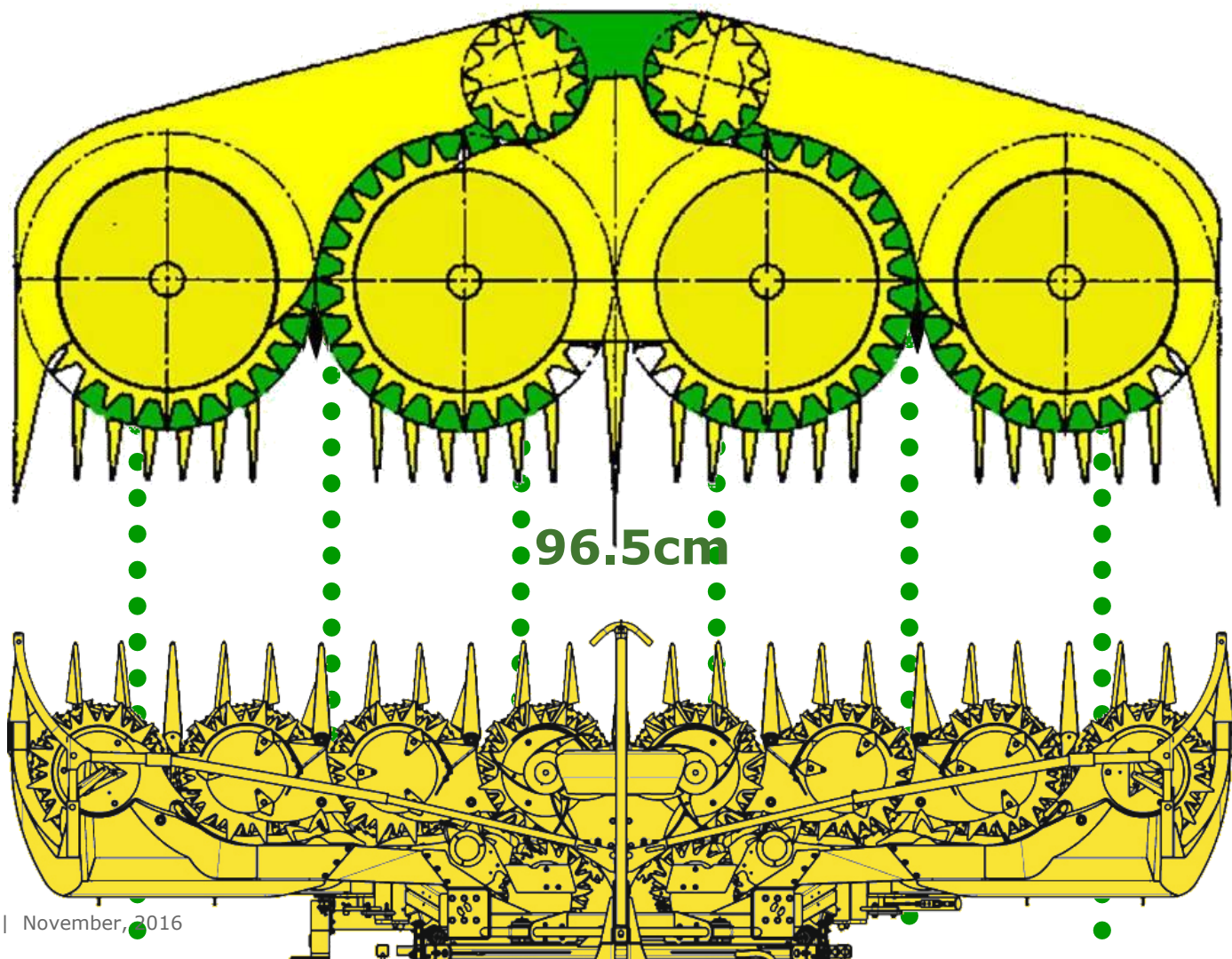




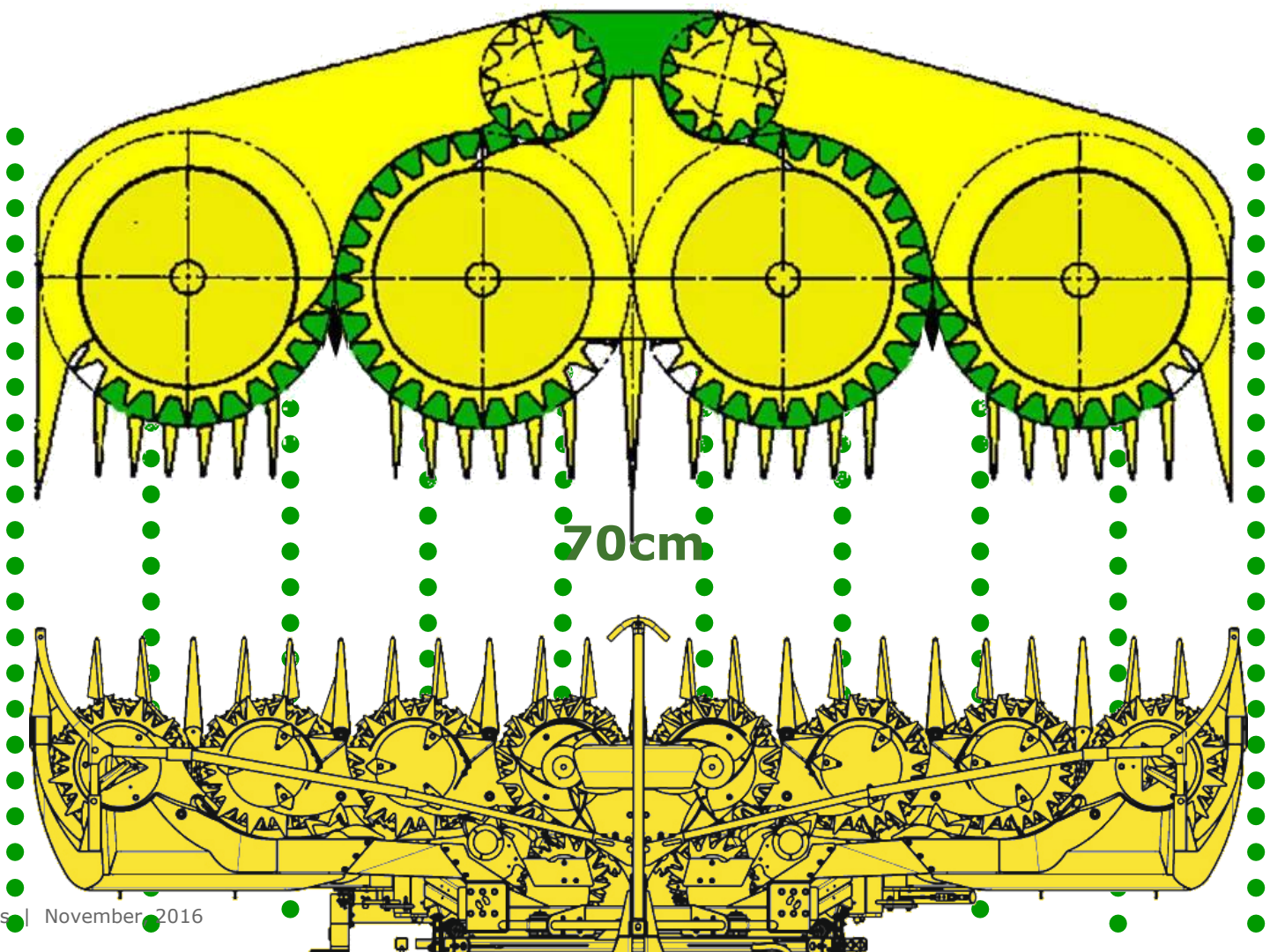
75 cm row width, 13.3 cm between the plants







96.5cm



70cm

460plus at work



Rotary harvesting unit 475 plus

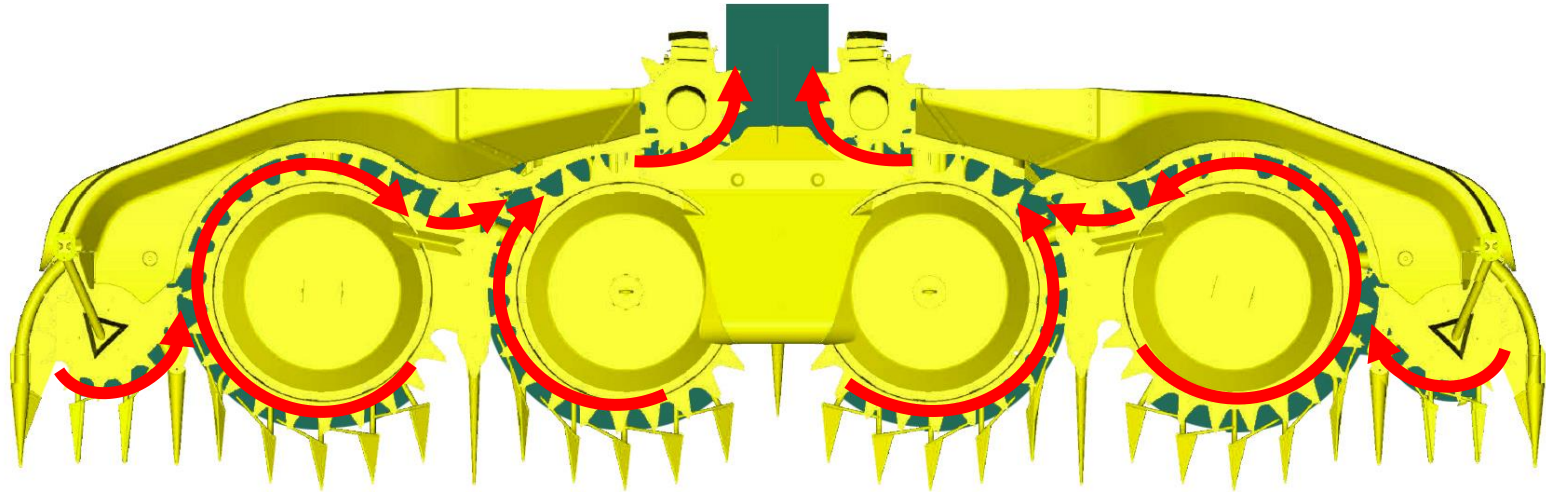


475 plus



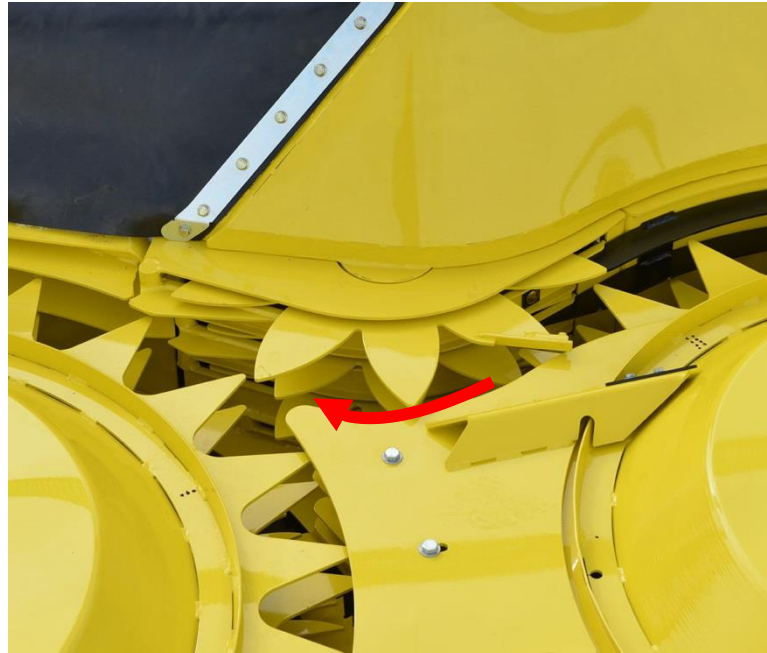
- 7,50 m working width, 10 rows
- For extreme large, high productive crops (same as 460 plus)

475 plus



- 2 outer drums turn inwards
 - ✓ Outer rows are forwarded into to machine for saver crop transport
- 1st & 2nd drum and 5th & 6th drum rotate in pairs
- Cross feed drums forward the crop through the machine

475 plus



- 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!

475 plus



Single folding

- Almost unlimited view

Can be stored folded



475 plus



Technical specifications:

Length: 2.78 m

Total width: 7.55 m

Transport width: 3.30 m

Working width: 7.50 m

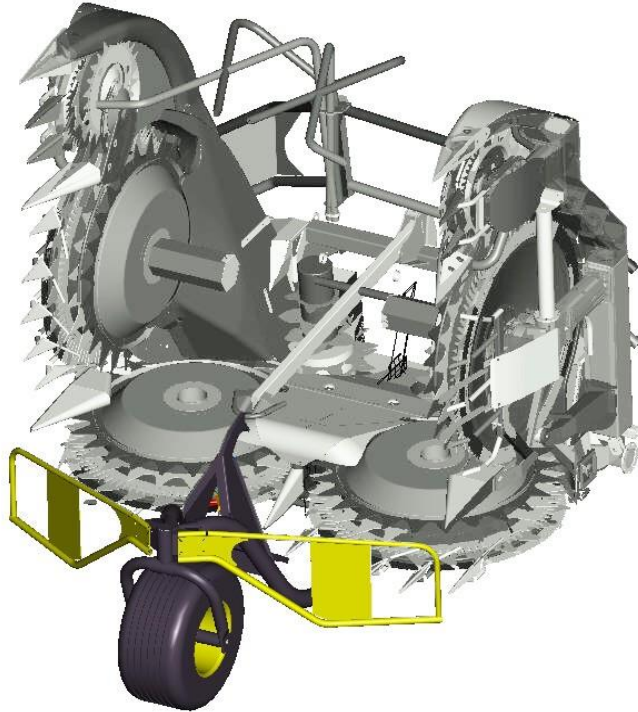
Weight: 3300 kg

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

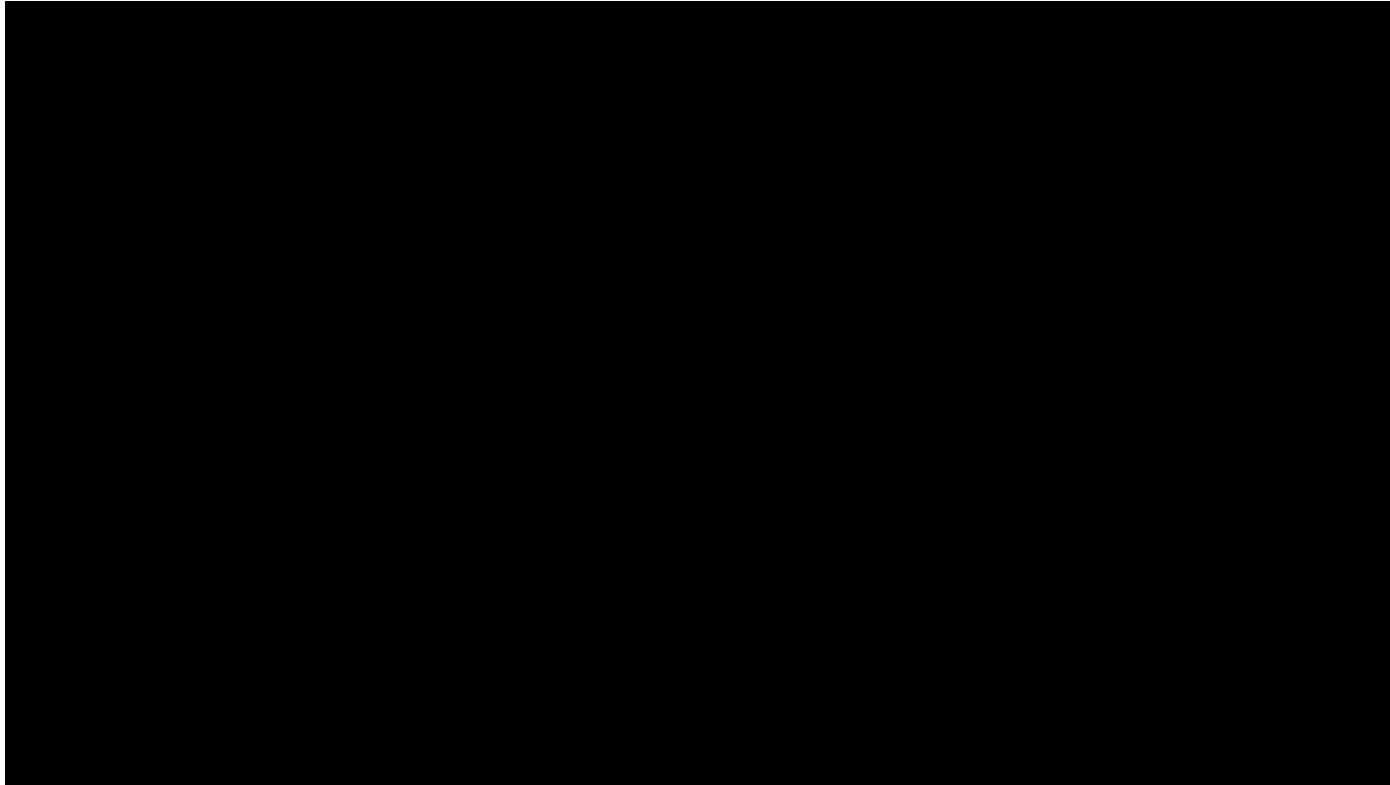
More space for crop intake

Improvement of crop transport harvesting:

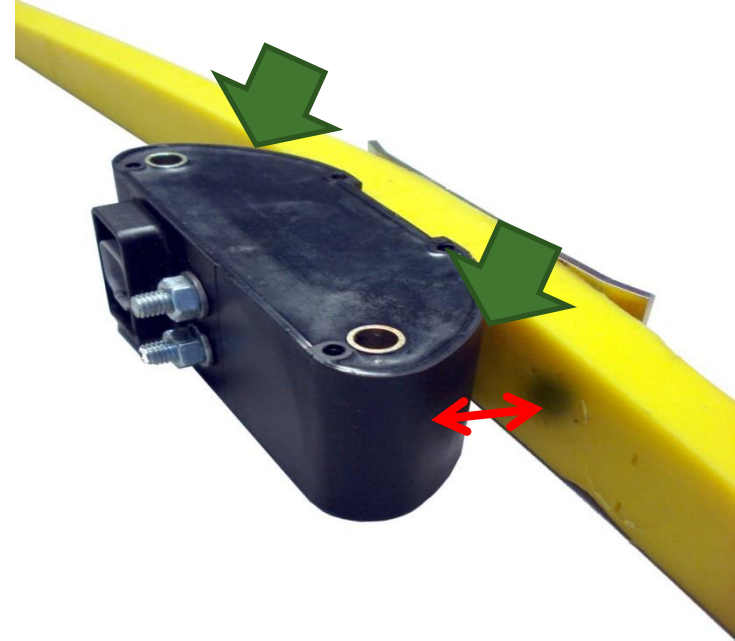
- WCS, Sorghum, Pampas-grass, Oilseed rape, Lucerne, etc.
- bundle = 2 pieces



475 plus in whole crop silage (small grain)



460 plus option



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 on the SPFH

AHC optional for 460 ^{plus} & 475 ^{plus}

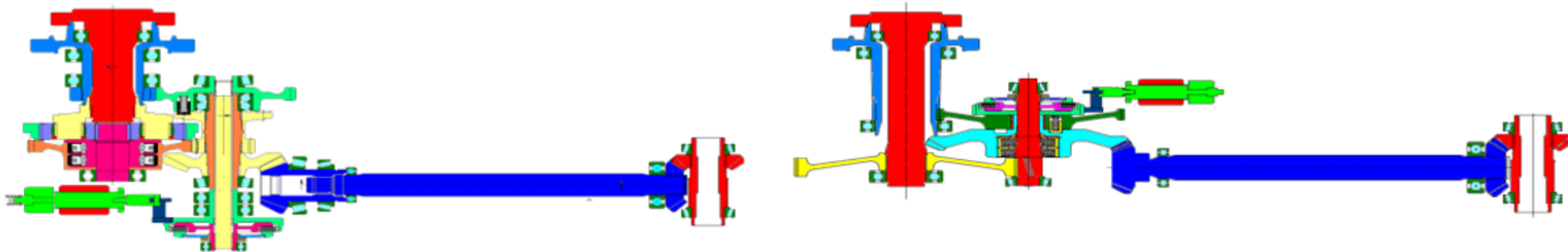
(Central sensor and cylinder on the header - 7000 series, integrated in the SPFH - 8000 series)



New gearboxes for the intake drums

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

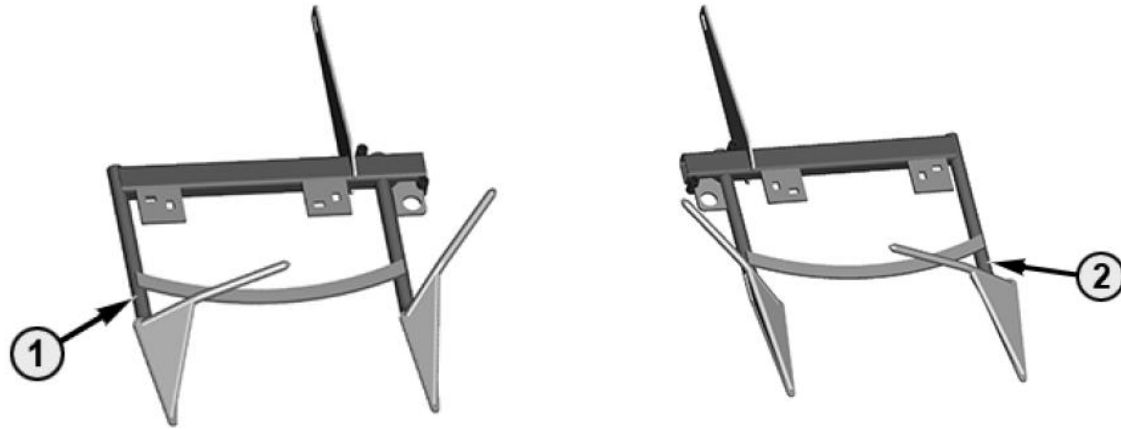
Previous design (left) vs. new design (right)



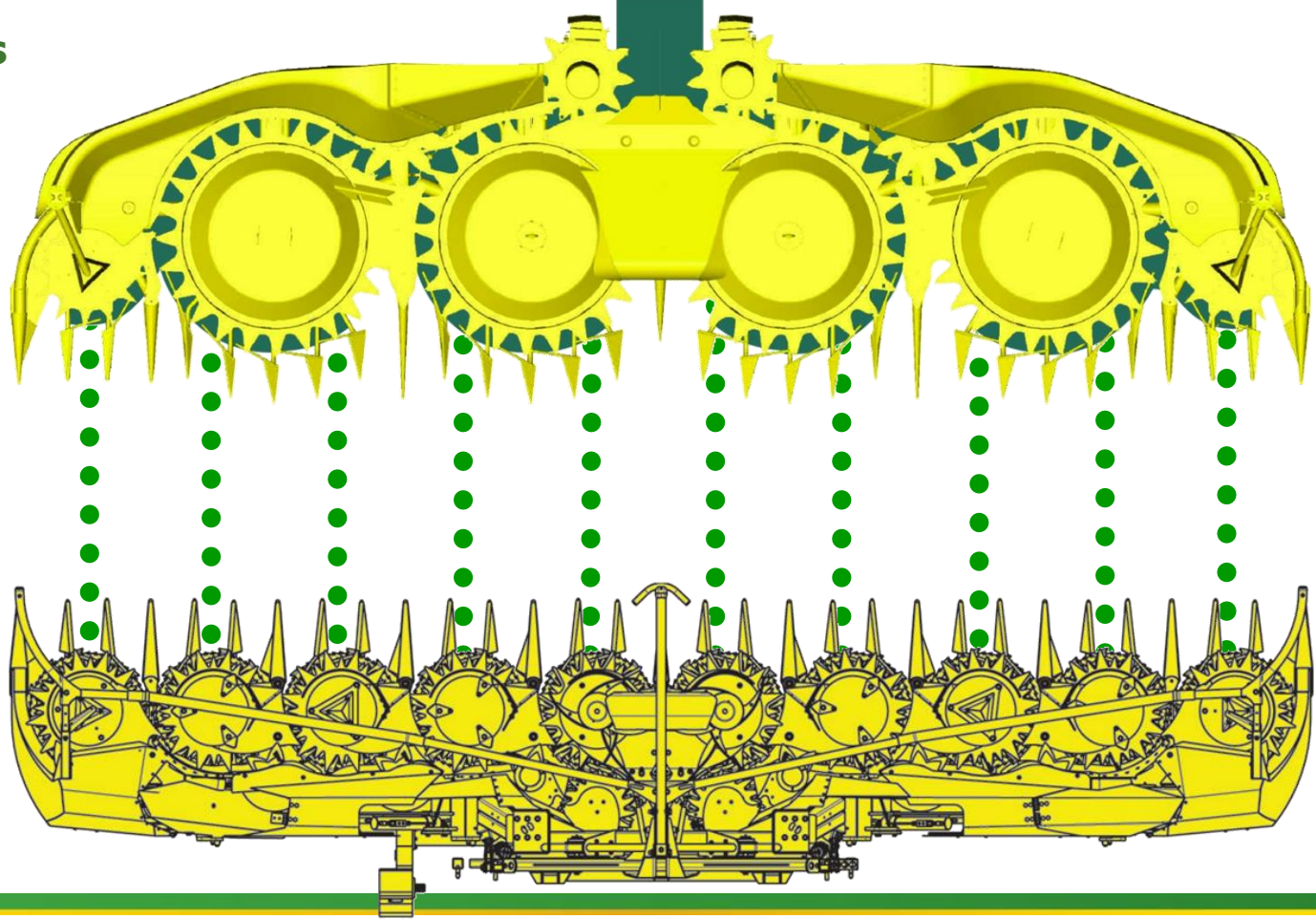
New Hurricane Kit for 475 plus

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

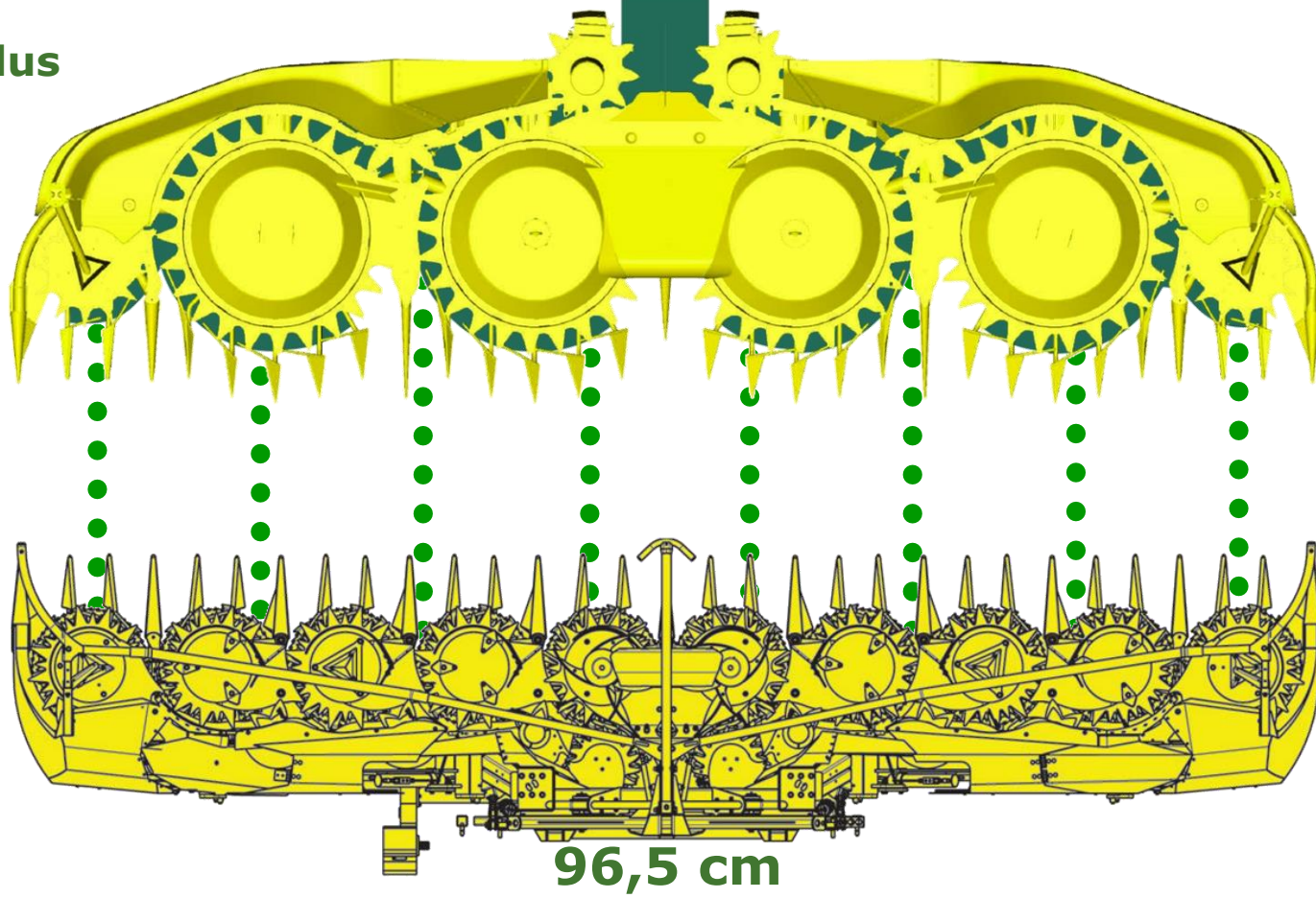
New in 2017



475 plus



475 plus





JOHN DEERE