

Quick Start Videos

For quick start videos, scan the QR code below, or go to -
<https://www.youtube.com/playlist?list=PLtzw5x6F2At7hjndyghYAxsjAcRcM4BAZ>

I-Phone users – Just hold your camera up to it and click the link

Android users – Hold your camera up to it and select the barcode option



Command Arm



Machine Settings



Kemper Videos

My Operations App



With the John Deere My Operations app it allows quick and easy access to machine location, harvest settings, remote display access and with a connect subscription can quickly provide yield, moisture and speed maps. This will bring up fields and machines with quick access via the search facilities.

download in the app store – [John Deere My Operations](#)

8000 SPFH Quick Reference



Engage Feedrolls

Quick Stop

Engage AutoTrac

Header Height Presets

Header Control

Spout Control

Disengage Feedrolls
Hold to Reverse Feedrolls

Engage AFC
Hold for Spout AutoHome

Park Brake

Engine Temperature

Forward Speed

Engine Speed

Cutterhead lift Pressure

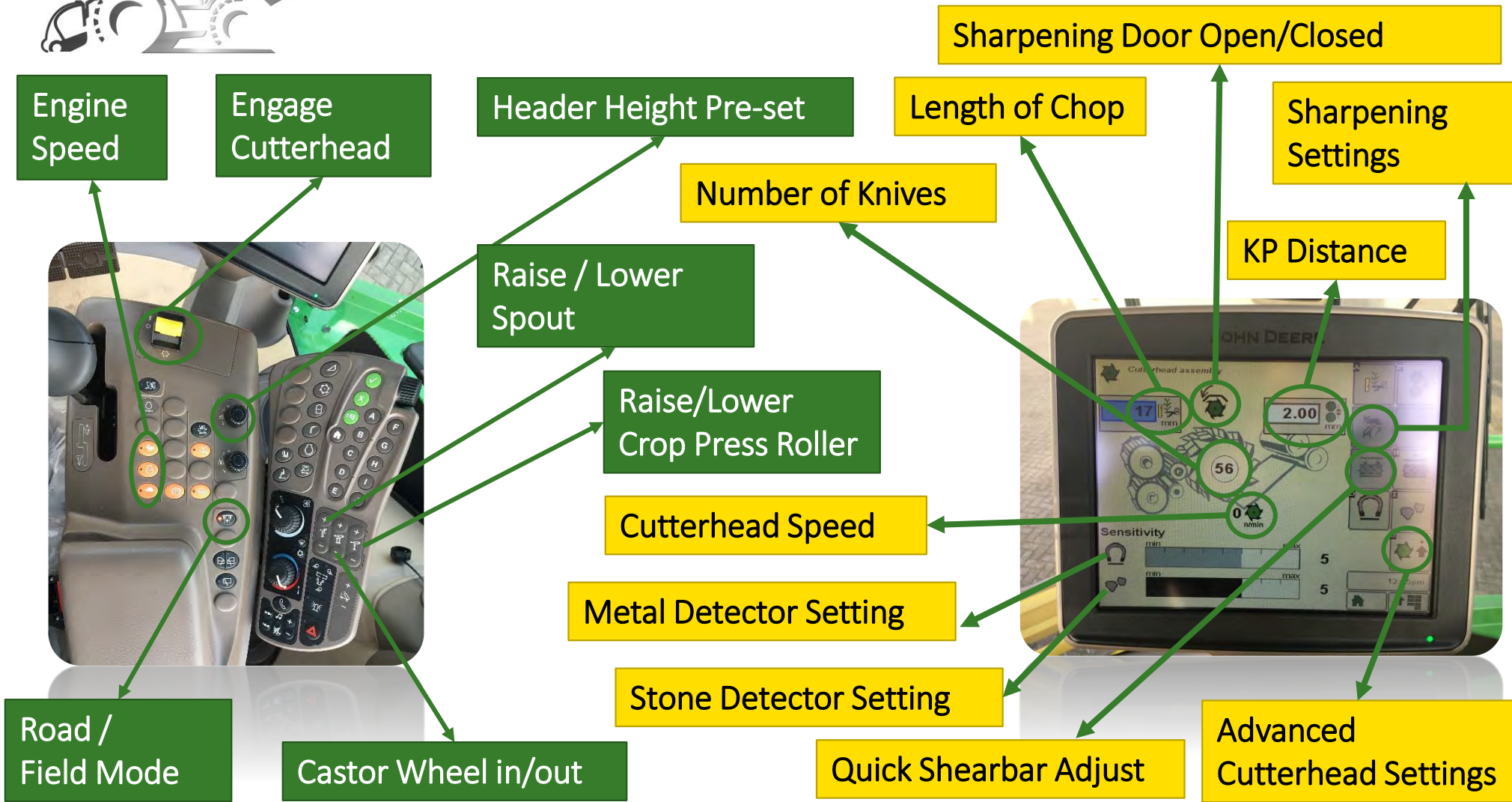
Header Height

This is intended for quick reference only. For more detailed information please see the operators manual.





8000 SPFH Quick Reference



Cab Controls & User Interface

Forage Harvester Home Page



Left Side List Boxes

They will remain on the left side of the screen when navigating to other pages

SPFH - Home Page

3.8 h

0 n/min

22 mm

0.2 h

8 rows

0.00 ha/h

0.0 ha

0 n/min

OFF

OFF

Main Home Page List Boxes
Several different possibilities

Configurable Soft Keys in Right Hand Region

The operator can choose what soft keys he wants to have on RHS, using the layout manager.

Select the soft key and then select the function to configure for that soft key.

3.0 mm	47.4 h	0.0 t	0.0 t/h	0.00 L/ha	4 L
0.0 h	0.0 L	0.0 ha	0.0 L/h	0.0 t/ha	0.0 L

Cab Controls & User Interface

Configurable Controls



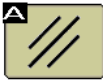


⚠ WARNING

Improper operation can cause unintended movement of hydraulic functions


To avoid the risk of death or serious injury to a bystander, ensure:


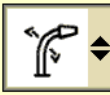

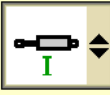

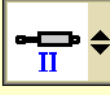


- Users know which function is mapped to each control
- Controls are properly labeled






Select **ACCEPT** to enable Configurable Controls



A  **B**  **F** 

Operator Settings
Controls Setup

Enable Configurable Controls 

	M N	
	R T	
	K L	
	P	

A 
B  **M**
N
C  **R**
T
D  **K**
L
E  **P**

Cab Controls & User Interface

Header

Fixed or Automatic Auger Speed (in base) and Tines Speed (Dual Drive)

Auger Speed depending on LOC - Tines Speed depending on Ground speed

Fixed or Automatic (based on LOC) Corn Header Speed

Auto Header Speed in WCS with Corn Header : No differentiation yet in the software between a Corn header used for Corn and a Corn head used for WCS. For WCS, customers have to use manual speed setting, as the Auto mode is made only for Corn harvest at that time.

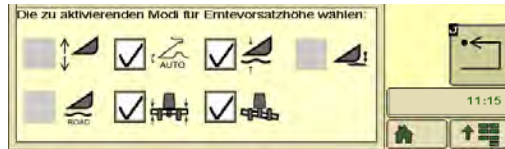


Cab Controls and User Interface

Header Height Control



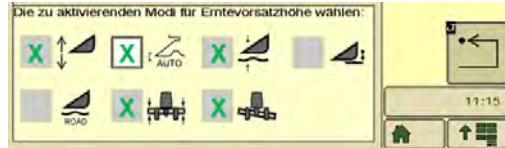
- **Kemper Grass Pickup**



- CH Switch ON
- Auto Centering: Button 1 & PU above HRH
- Tilt Float Mode: PU below HRH (manual or Button 2/3)
- Important:



- **Kemper Corn Header**



X : Possible Selection

- CH Switch ON
- Auto Centering: Button 1
- Tilt Float Mode:

With AHC Sensor & Button 2	Tilt Float Mode becomes inactive
Fix Height	Tilt Float Mode active
Header Float	Tilt Float Mode active
Manual raise/lower header	Tilt Float Mode becomes inactive
Manual Tilt while Tilt Float Mode active	Tilt Float Mode becomes inactive as long Manual Tilt is requested. After manual tilt button released Tilt Float Mode active again

- **Direct Cut Header (Zürn)**

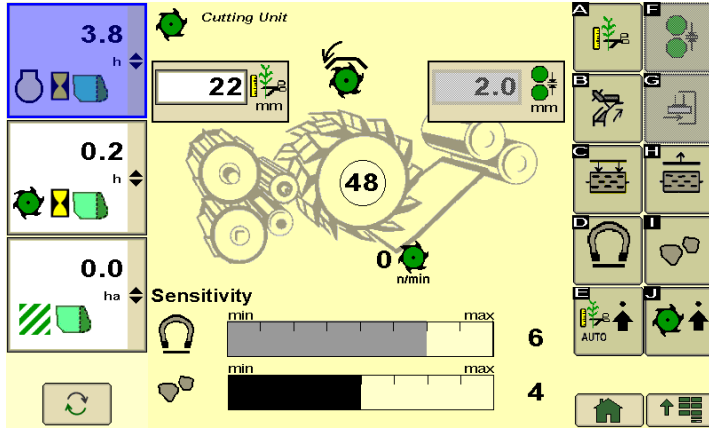


- CH Switch On
- Auto Centering: Button 1
- Tilt Float Mode:

Fixed Height	Tilt Float Mode active
Header Float	Tilt Float Mode active
Manual raise / lower / tilt header	Tilt Float Mode becomes inactive



Cab Controls & User Interface

Cutting Unit





 - LOC

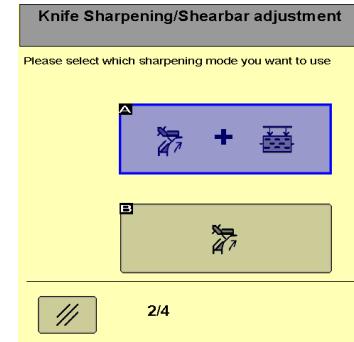
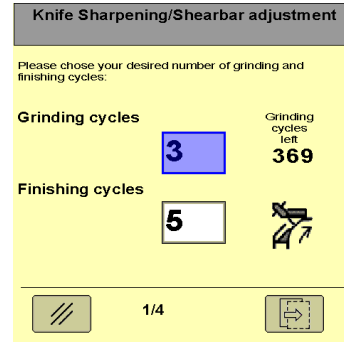
 - KP Processing Gap

 - Metal / Stone detectors sensitivity :
Higher is the number, more sensitive is the sensor.
 Metal / Stone detectors can be enabled - disabled (see next page)

 Knives grinding

 Shearbar adjustment
Regular process - 45sec

 Shearbar away
(Stop automatic adjustment)
Longer shearbar adjustment process



Important : With a KP installed, always engage first the CH forward for a few seconds, before to start knife sharpening and/or shearbar adjustment, to prevent KP belt slippage.

Cab Controls & User Interface

Cutting Unit

The main Cutting Unit control screen displays several key parameters and a central diagram of the cutting unit. On the left, there are three vertical sliders: the top one is set to 3.8 h, the middle one to 0.2 h, and the bottom one to 0.0 ha. The central diagram shows a cutting unit with a large '48' in a circle, representing the number of knives. To the right of the diagram, there are two more sliders: one set to 22 mm and another to 2.0 mm. Below the diagram, there are two horizontal sliders labeled 'Sensitivity', with the top one set to 0 n/min. On the right side of the screen, there is a grid of icons for various functions, including a sharpening door icon (a green circle with a white arrow) which is highlighted with a red box. At the bottom right, there are icons for 'HOME' and 'MENU'.



Sharpening Door Opening:
Only from the Command Center
Only with Running Engine

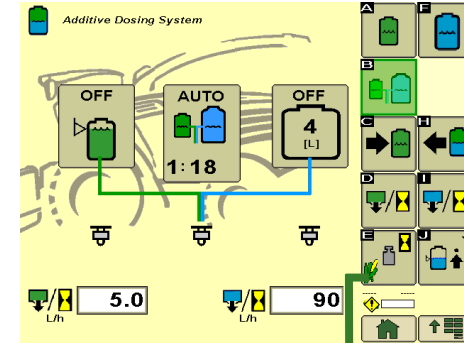
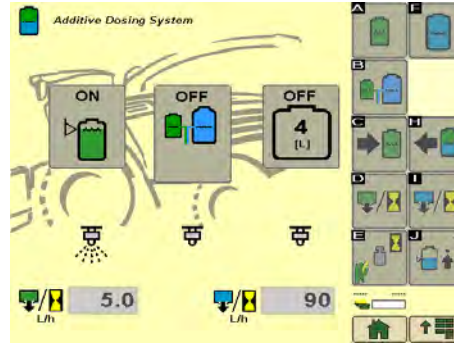
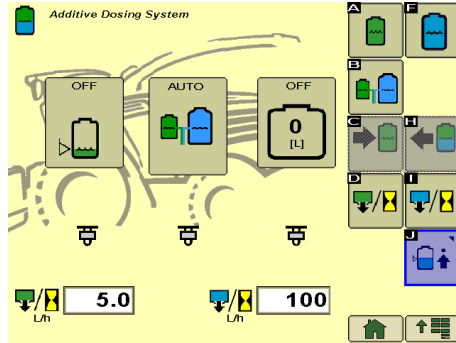
The AutoLOC Advanced Settings screen shows the 'AutoLOC Engage' status as checked. Below it, there are two sliders: one for 'AutoLOC Setup' set to 40% and another for 'Number of knives' set to 20 mm. There are three rows of sliders for 'AutoLOC Setup' with values of 40%, 35%, and 30% on the left, and 9 mm, 12 mm, and 15 mm on the right.

The Cutting Unit Advanced Settings screen shows the 'Sharpening door' status as 'CLOSED'. Below it, there are three sliders: 'Number of knives' set to 48, 'Grinding cycles' set to 369 (with a red 'Reset' button next to it), and 'Metal detector enable' checked. There are also two checked boxes for 'Stone detector enable' and 'KP type' set to 'Not Installed'.

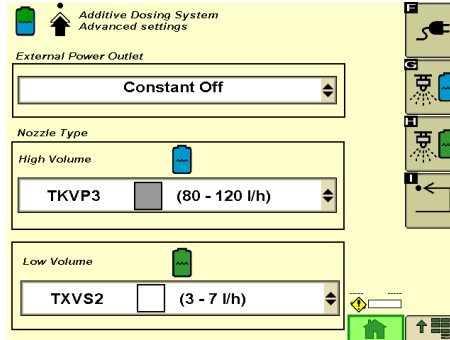
Operator Tip:
Reset counter when stone replaced

Cab Controls & User Interface

Additive Dosing System



Nozzle Selection
2-13 L/h for LV
30-382 L/h for HV



Different dosing scales :



Cab Controls & User Interface

Spout



Spout speeds

The Spout speeds control panel features a large yellow curved nozzle icon with arrows indicating its range of motion. To its right is a vertical green progress bar with a white arrow at the top, labeled '100%'. Below this are two horizontal progress bars: the top one is labeled '90%' and the bottom one is labeled '30%'. On the right side, there are three small icons labeled A, B, and C, each showing a different nozzle orientation. At the bottom right, there are icons for a home button and a list button.

Auto spout positioning

The Auto spout positioning control panel shows three rows of controls. Each row includes a top-down view of the spout assembly, a lightbulb icon with colored dots representing sensor or light patterns, and a directional arrow button. The first row has a blue arrow button pointing right and is labeled '1'. The second and third rows have grey arrow buttons pointing right and are labeled '2' and '3' respectively.

Spout Setup

The Spout Setup control panel includes a yellow curved nozzle icon and a person icon. It features two rows of controls. The first row has a yellow trapezoidal icon with a right-pointing arrow, a square checkbox, and a checked square checkbox. The second row has a similar yellow trapezoidal icon with a right-pointing arrow, a square checkbox, and a checked square checkbox.



Cab Controls & User Interface

Statistics

Statistic Settings

Header

Material

Header of Material

Field Farm Day Statistics Totals (Total / Perf) :


Field	Farm	Day Statistics	Totals (Total / Perf)
<p>Total</p> <p>3.8 h 0.2 h</p> <p>41.5 l</p> <p>Transport</p> <p>0.1 h 1.0 km</p> <p>3.2 l</p> <p>Harvesting</p> <p>0.0 h 0.0 ha</p> <p>0.0 l 0.0 l</p> <p>1.0 l 1.3 l</p>	<p>Customer A</p> <p>Total</p> <p>3.8 h 0.2 h</p> <p>41.5 l</p> <p>Transport</p> <p>0.1 h 1.0 km</p> <p>3.2 l</p> <p>Harvesting</p> <p>0.0 h 0.0 ha</p> <p>0.0 l 0.0 l</p> <p>1.0 l 1.3 l</p>	<p>Total</p> <p>3.8 h 0.2 h</p> <p>41.5 l</p> <p>Transport</p> <p>0.1 h 1.0 km</p> <p>3.2 l</p> <p>Harvesting</p> <p>0.0 h 0.0 ha</p> <p>0.0 l 0.0 l</p> <p>1.0 l 1.3 l</p>	<p>Total</p> <p>5.1 h 0 h</p> <p>41.5 l</p> <p>Transport</p> <p>0.1 h 1.0 km</p> <p>3.2 l</p> <p>Harvesting</p> <p>0.0 h 0.0 ha</p> <p>0.0 l 0.0 l</p>
<p>Performance / Engine hours</p> <p>0.0 hah 5.5 th</p> <p>0.0 th</p> <p>Performance / Cutterhead hours</p> <p>0.0 hah 207.7 th</p> <p>0.0 th</p> <p>Performance / Harvesting hours</p> <p>0.0 hah 0.0 th</p> <p>0.0 th</p> <p>Fuel consumption / Mass</p> <p>0.0 l</p>	<p>Customer A</p> <p>Performance / Engine hours</p> <p>0.0 hah 5.5 th</p> <p>0.0 th</p> <p>Performance / Cutterhead hours</p> <p>0.0 hah 207.7 th</p> <p>0.0 th</p> <p>Performance / Harvesting hours</p> <p>0.0 hah 0.0 th</p> <p>0.0 th</p> <p>Fuel consumption / Mass</p> <p>0.0 l</p>	<p>Performance / Engine hours</p> <p>0.0 hah 5.5 th</p> <p>0.0 th</p> <p>Performance / Cutterhead hours</p> <p>0.0 hah 207.7 th</p> <p>0.0 th</p> <p>Performance / Harvesting hours</p> <p>0.0 hah 0.0 th</p> <p>0.0 th</p> <p>Fuel consumption / Mass</p> <p>0.0 l</p>	<p>Performance / Engine hours</p> <p>0.0 hah 4.1 th</p> <p>0.0 th</p> <p>Performance / Cutterhead hours</p> <p>0.0 hah 0.0 th</p> <p>0.0 th</p> <p>Performance / Harvesting hours</p> <p>0.0 hah 0.0 th</p> <p>0.0 th</p> <p>Fuel consumption / Mass</p> <p>0.0 l</p>

Cab Controls & User Interface

Engine and Aftertreatment




Engine Speed Limits + ESM (ProDrive) :

 *Engine and Aftertreatment*

Engine Speed Limit



Field mode



1900

n/min


Road transport mode

2100


n/min

Engine Speed Management




Manual


Exhaust Filter Cleaning



Auto




Disabled



P

Headland

Economy

Mode	Function
Manual mode	- Manual control of engine speed
Headland mode	- Engine speed reduction on headland and in standing still - Engine speed increase when feed rolls are engaged - Harvesting engine speed is user defined or pre-selected - High idle when harvesting and spout in rear position*
Economy mode	= Headland mode + Engine speed and ground speed are automatically controlled depending on engine load
	Use safety road mode button to switch between road mode and field mode. The engine speed limits for road mode and for field mode can be adjusted independently

Cab Controls & User Interface

Vehicle Settings

Greasing / Wipers / Mass Flow / Calibrations:



Vehicle settings

Vehicle Status: Auto Off
Time between lubrication cycles
19 min

Header Status: Auto Off
Lubrication Time Per Minute
5 s

Greasing : Only Pause Times are adjusted (interval between 2 cycles), but the greasing time is fixed (20min).

SPFH - Wiper Interval

Front Wiper Interval **5**
Left Wiper Interval **5**
Right Wiper Interval **5**
Rear Wiper Interval **5**
Separate Intervals

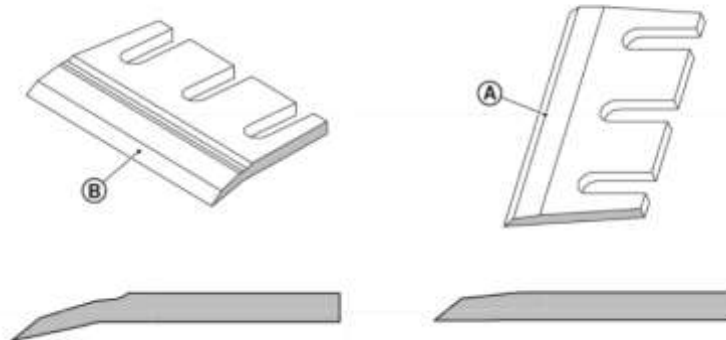
Mass Flow Calibration

Throughput
Average **0.00** t/h
Current **0.00**

Calibration
0 kg
0 kg
Calfactor **1000**

SPFH - Diagnostics Information
Calibrations

SPFH Blade Config's



Curved Blade – B – Maize knife

Straight Blade – A – Grass Knife

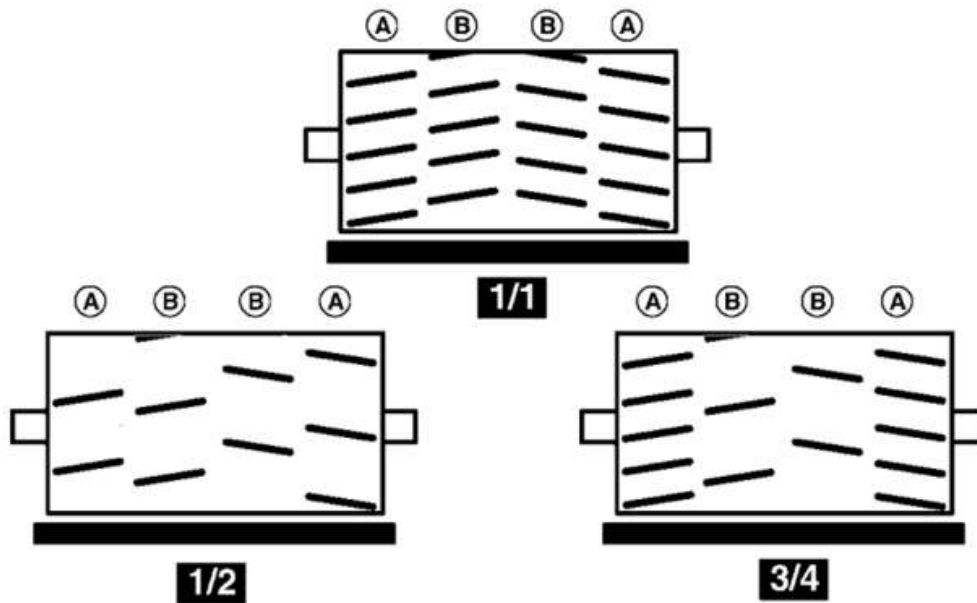
Maize knives are hardened and not to be used in grass – foreign objects could cause blade failure

Grass Knives – can be used in maize but will impact chop quality due to – blade sharpness, and cutting edge clearance to shear bar

Length Of Cut

Cutterhead Knife Configuration	Nb of Knives	1170 rpm Cutterhead Speed	1350 rpm Cutterhead Speed
		Length-of-cut	
Full set of cutterhead knives	64 knives.....	3–16 mm (0.12–0.63 in)	3–14 mm (0.12–0.56 in)
	56 knives.....	4–18 mm (0.15–0.71 in)	4–16 mm (0.15–0.63 in)
	48 knives.....	6–21 mm (0.24–0.83 in)	
	40 knives.....	7–25 mm (0.28–0.98 in)	
3/4 a set of cutterhead knives	48 knives.....	4–24 mm (0.15–0.94 in)	4–21 mm (0.15–0.83 in)
	42 knives.....	6–27 mm (0.24–1.06 in)	6–24 mm (0.24–0.94 in)
	36 knives.....	9–32 mm (0.35–1.26 in)	
	30 knives.....	10–37 mm (0.39–1.47 in)	
Half a set of cutterhead knives	32 knives.....	6–32 mm (0.24–1.26 in)	6–28 mm (0.24–1.10 in)
	28 knives.....	8–36 mm (0.30–1.41 in)	8–32 mm (0.30–1.26 in)
	24 knives.....	12–42 mm (0.47–1.65 in)	
	20 knives.....	14–50 mm (0.56–1.96 in)	

SPFH Blade Config's



Not enough finishing cycles
Or
Adjust stone changing direction time (dwell) in CHC 105 accordingly (default 1800ms)

Round edges → reduce to 1400ms
Ear building → increase to 2200ms

Examples of recommended values for CHC 105 :

64K: 1400 ms - 56/48K: 1600 ms
40/32/28/24/20K: 2200 ms

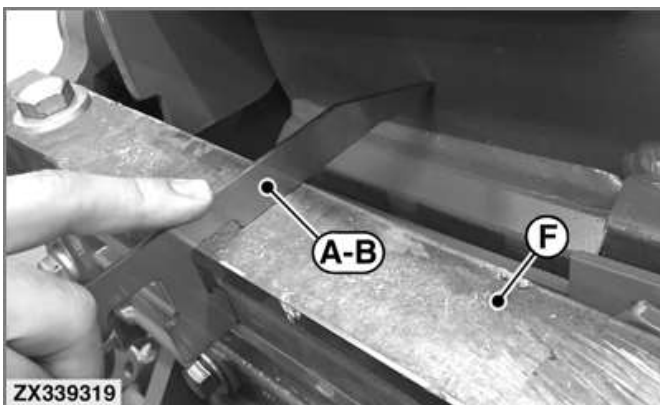
When installing non full sets of blades, a staggered drum configuration will allow smoother crop flow, quieter running and more even chop length, please see picture above as an example.

Also remember to alter address CHC 105 for sharpening stone dwell time

Blade bolts – 3 bolts per blade, Outer bolts 260NM, Centre bolt 230NM

This allows a blade to push back rather than twist

Clean Blade Hangers – ensures the best possible mating surface to the drum



Use Special tool to set clearance between the back of the shear bar and the cylindrical part of the drum. 3 sides to the tool, depending on blade wear

- See table below

Tool usage	Section marked (124.5)	Section marked (121.9)	Section marked (117.4)
Grass	New knives	Knives with coating of 10–16 mm (0.39–0.63 in)	Knives with coating of 3–9 mm (0.12–0.35 in)
Corn	New knives	Knives with coating of 12–20 mm (0.47–0.78 in)	Knives with coating of 3–11 mm (0.12–0.43 in)

What is an Optimised SPFH?

- Clean, exact cut
- Chopped
Material not too fibrous



- Smooth,
compact spout
jet
- No coughing



- Smooth / even
Engine Sound
- Engine loaded
between
1700 – 1900
rpm

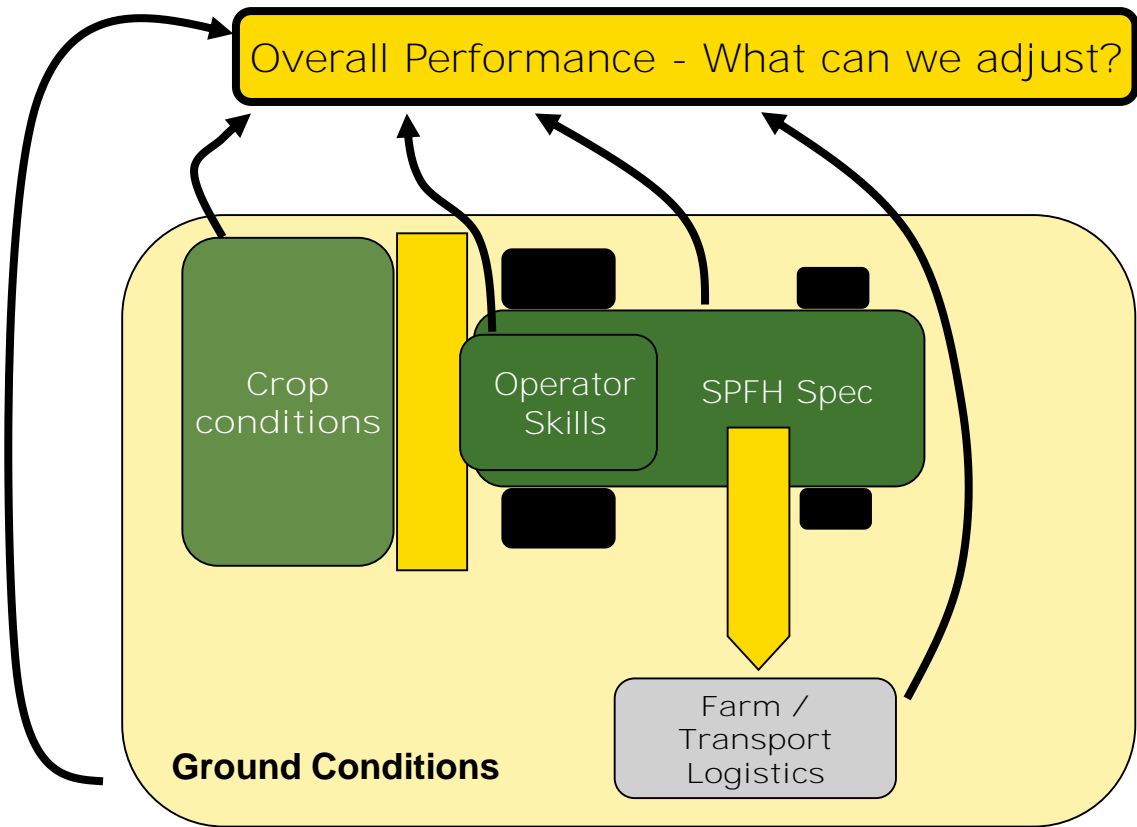
- Constant
smooth ground
speed

- Smooth /
continuous
machine feeding



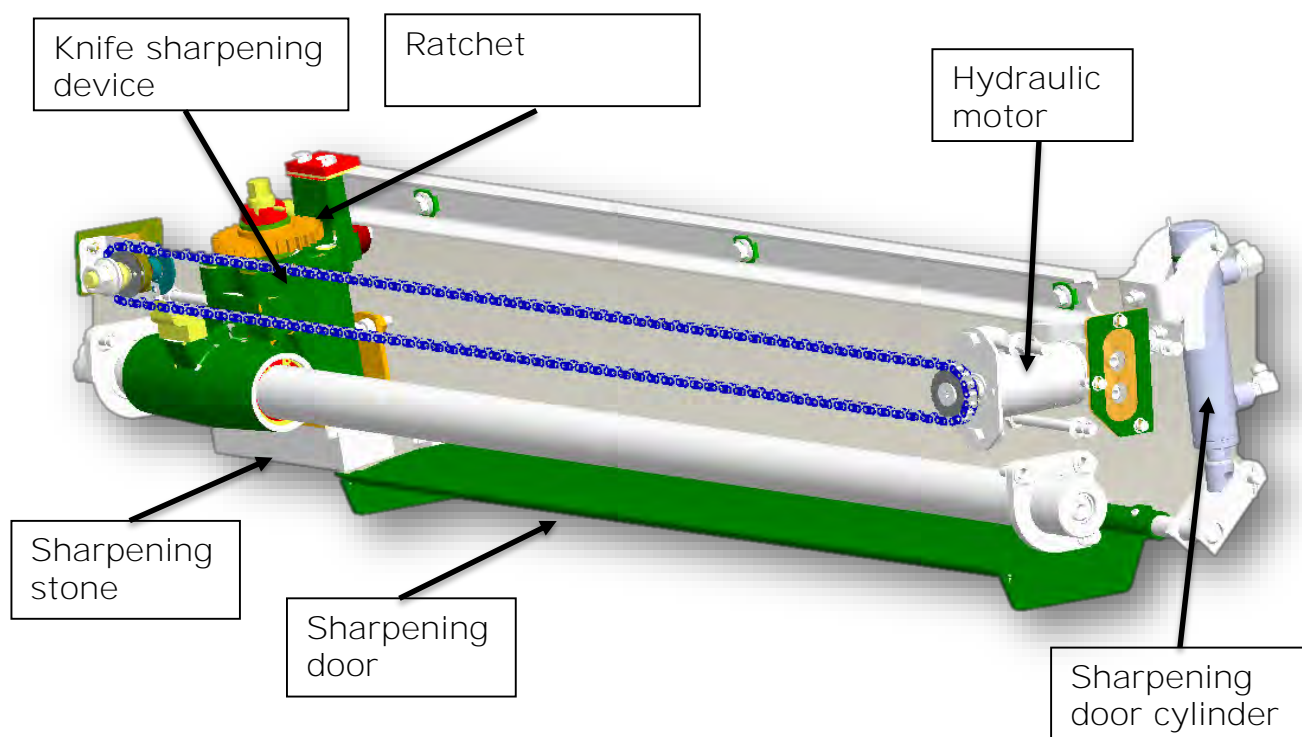
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Factors effecting SPFH Performance



Knife Condition
Shear Bar Adjustments
ProStream Cutterhead Adjustments
ProStream Blower Adjustments
Header Adjustments
Engine Speed Management
Agricultural Management Solutions (AMS)
Tyre Pressure
FAQ – Optimisation Area's

Grinding Procedure



When the machine is in working mode, the sharpening door is closed by the sharpening door cylinder and the sharpening device is in the park position on the right hand side. If you start a sharpening cycle the door gets open by the cylinder, the cutterhead is turning backwards with 350 rpm and the sharpening device is driven by the hydraulic motor and the chain to the left and back again.

Operator Tip:
Chain adjustment with engine turned off

Grinding Theory

Sharpening cycle

- More material removal due to the vertical stone adjustment after each cycle.
- Used in abrasive conditions (grass)
- Risk to over sharpen the knives



Finishing cycle

- No stone adjustment in vertical direction
- Still removes material (less with more finishing cycles)
- Used to straighten the knives after sharpening cycle or to maintain the knives shape
- Good compromise between knives maintenance vs. operating lifetime

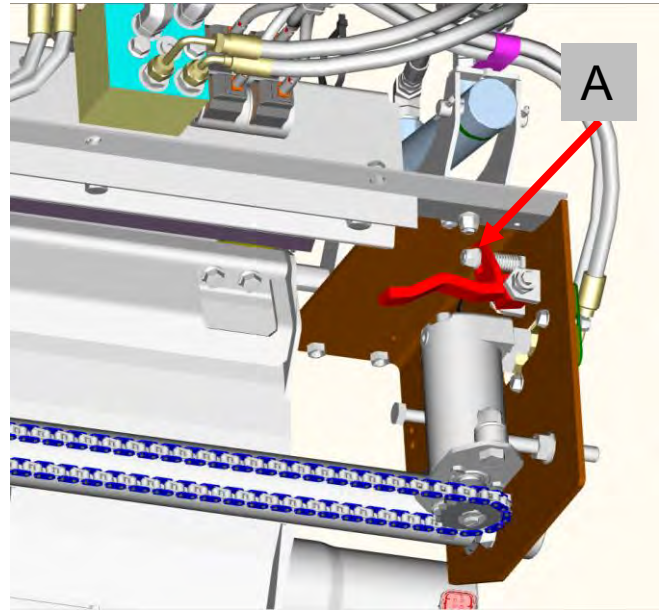


Finishing becomes a lot more important in corn, where the knife wear is much less than in grass, in such conditions the sharpening cycles can be reduced to a minimum, finishing is enough to keep the knife straight and sharpened.

Grinding Adjustments

Adjustment of the arrestor

It is important that the arrestor pushes the ratchet just one position during a sharpening cycle, more than one position will result in a shorter lifetime of the knives and the stone. Check and adjust the setting of the arrestor if necessary by tightening the screw (A) to have a less aggressive setting



Sharpening procedure:

It is always recommended to do twice the amount of finishing cycles compared to sharpening cycles. This ensures the knife has a smooth polished edge.

Knife Sharpening / Stationary knife adjustment		
Please chose your desired number of sharpening and finishing cycles:		
Sharpening cycles	Remaining sharpening cycles	
<input type="text" value="4"/>	416	
Finishing cycles		
<input type="text" value="8"/>		
	1/4	

Chop Quality Guide

8000 Series SPFH



JOHN DEERE

Understanding Current Condition

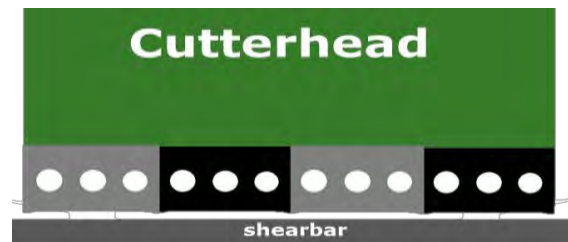
If knives are new

- Ensure knives are set parallel to shearbar
- Ensure outer knife edge is parallel to Cutterhead side wall



If knives are used

- Measure distance between knives and shearbar across 3 points of every knife to ensure straight cutting edge



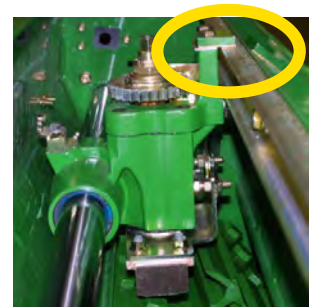
Corrective Action

Check for play in sharpening mechanism

- Remove shims as necessary

Gaining a straight edge across shearbar

- Do as many finishing cycles as necessary until a straight edge is gained



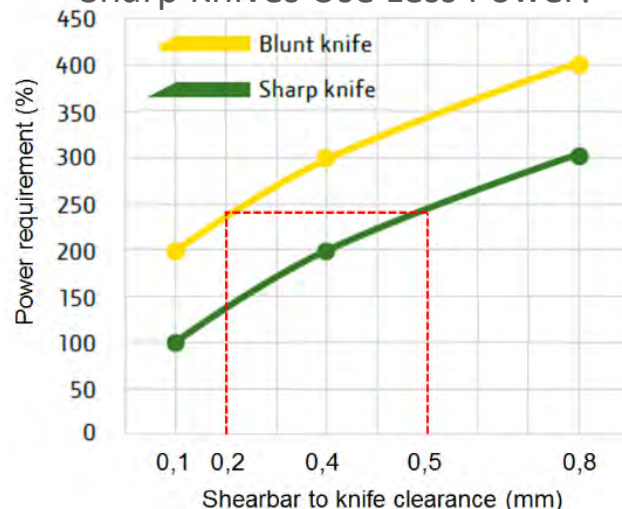
Maintaining Chop Quality

Correct Sharpening Theory

- Do 2 finishing cycles for 1 sharpening cycle
- Do 1 long shearbar adjust for every 3 short shearbar adjusts
- You are better doing more small sharpenings more often than few big sharpenings

- 1st shearbar adjust directly after grinding
- 2nd shearbar adjust within the following 60 min (sharpened knife edges have spline, which comes off soon)
- 3rd shearbar adjust in between the 2nd adjustment and the next grinding process (to compensate knife wear)

Sharp Knives Use Less Power!



Chop Quality Guide

8000 Series SPFH



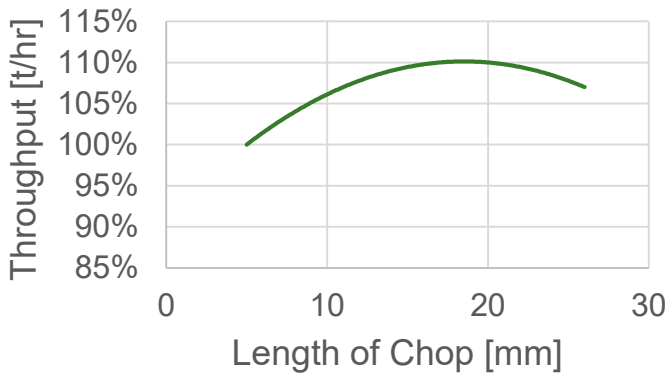
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Common Issues

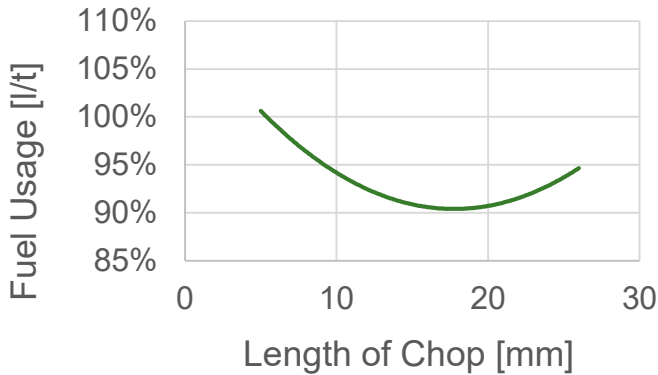


Chop Length

Effect on throughput



Effect Fuel Usage



Not enough finishing cycles
Or
Adjust stone changing direction time (dwell) in CHC 105 accordingly (default 1800ms)

Round edges → reduce to 1400ms
Ear building → increase to 2200ms

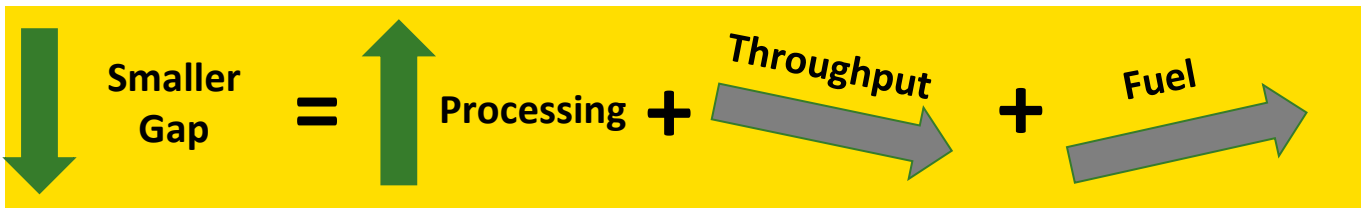
Examples of recommended values for CHC 105 :

64K: 1400 ms - 56/48K: 1600 ms
40/32/28/24/20K: 2200 ms



Not enough sharpening

Kernal Processor Gap



Field Experience

Knife Conditions

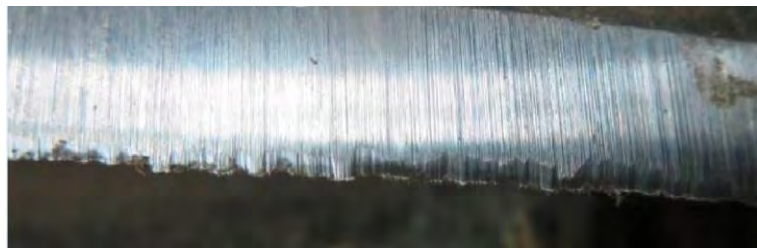
- Shows knives without any maintenance around the cutterhead



- To little sharpening cycles due to abrasive condition (Grass)



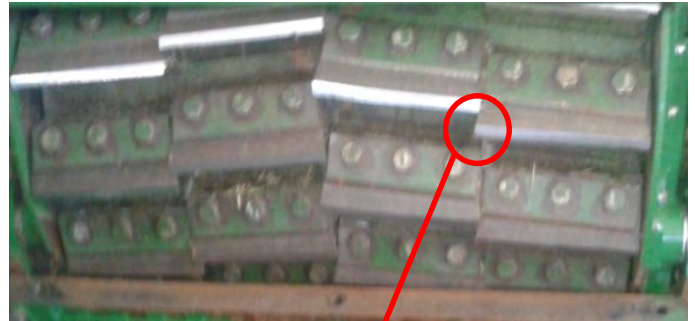
- Self-sharpening effect in corn. No sharpening cycles are needed. A few finishing cycles are enough to keep the knives sharp



Field Experience

Uneven wear in overlap area

- Less wear in knife overlap areas
- Heavy sharpening will not compensate this situation, as the stone backs off in overlap areas
- Unequal shearbar gap as a result, because the shape is not cylindrical
- Due to this excessive wear at the shearbar is possible



Counteraction:

- Adjust sharpening cycles according to current knife wear.
- Add at least **10 finishing cycles** after the grinding process to straighten the knives.
- If knives are in quite good conditions just work with finishing cycles.

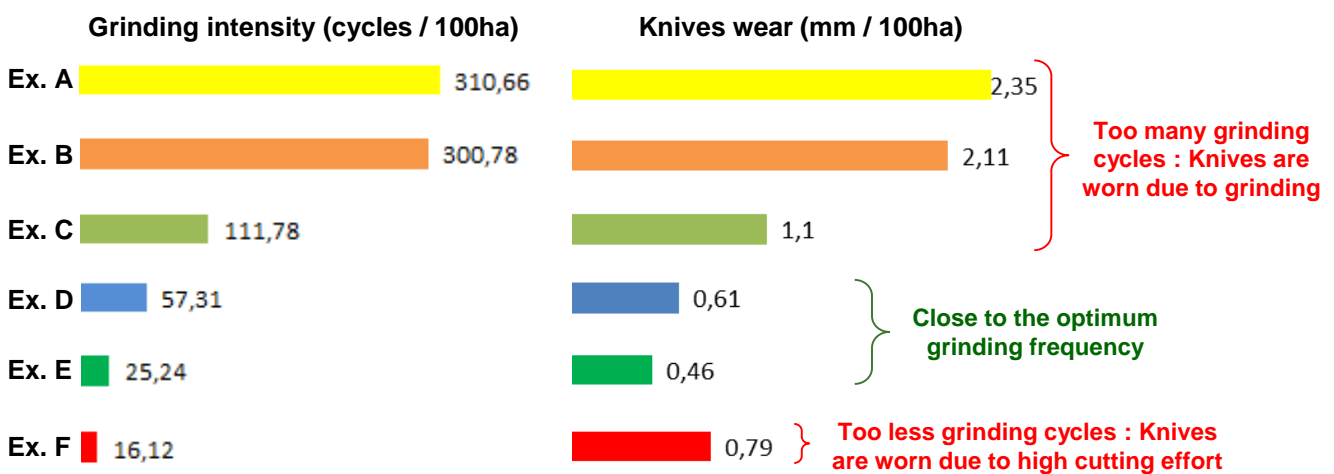
How to reduce wear ?

Benefit of reducing grinding intensity

Knife wear tested at a group of 6 SPFH customers. Average grinding intensity was 114 cycles / 100 ha, but the distribution is surprising, from 16 cycles to 310 cycles / 100 ha depending of the customer !

Knives wear distribution was also very different, from 0.46mm to 2.35mm of wear / 100 ha.

This study highlights the impact of the grinding intensity / frequency on the knives wear.



The outcome is clear, there are 3 different types of customers:

- Those who are over sharpening (A, B, C)
- Those who have found the optimum (D, E)
- One who is clearly under sharpening (F)

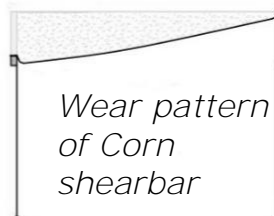
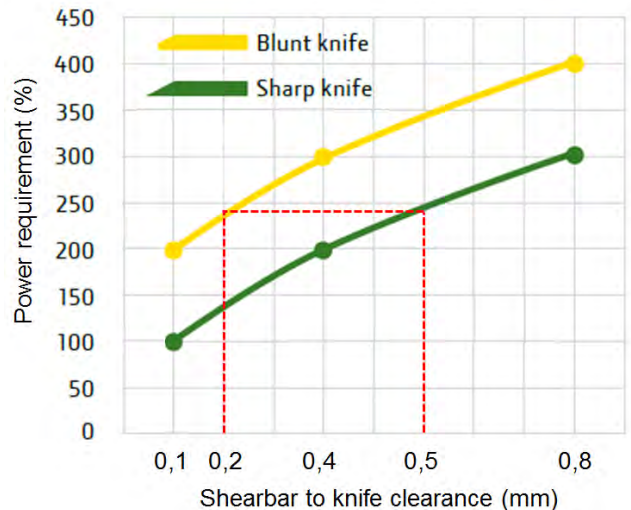
... MAKE SURE TO FIND YOUR OPTIMUM ...

* Source: Claas Jaguar Journal N° Juli /2013, Author Dominik Grothe

Machine Optimization

Shearbar Adjustment

- Too large shearbar gap impacts the cutting performance as well as the fuel consumption.
- A large gap also increases the wear on shearbar and knives, as the material is pulled through the shearbar.



Solution:

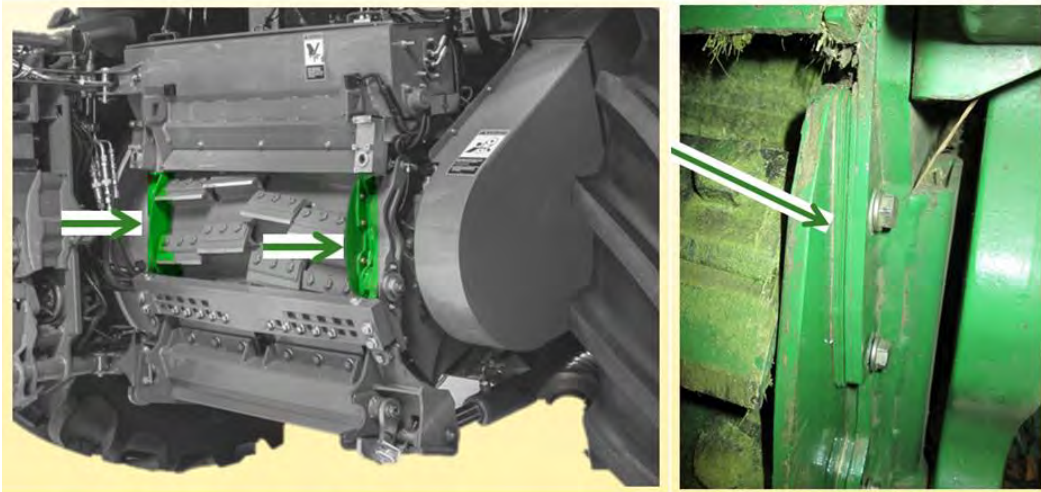
- 1st adjust shearbar directly after grinding.
- 2nd adjust shearbar within the following 60 min (sharpened knife edges have spline, which comes off soon).
- 3rd adjust shearbar in between the 2nd adjustment and the next grinding process (to compensate knife wear).
- Do one long shearbar adjustment process per day.



ProStream™ Chop Quality

Situation :

Some of the crop may enter the gap between cutterhead and cutterhead frame. The length of cut may be impacted with some stems being cut too long.



Solution :

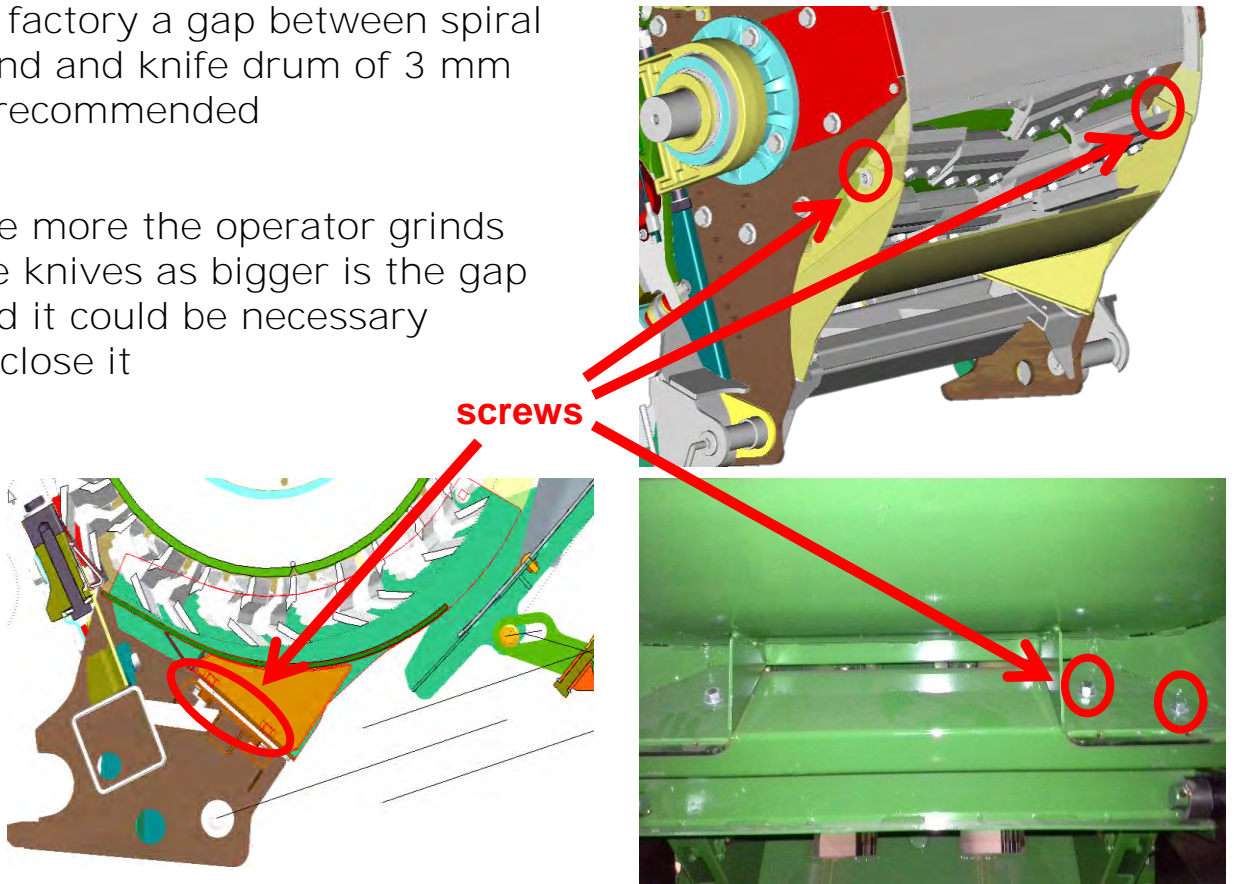
There are 2 wear plates HXE84524, one on each side, installed on the cutterhead frame, between the cutterhead and the frame itself.

Those wear plates need to be adjusted by means of shims HXE76993. The amount of shims will depend on the type of cutterhead knives to be 2mm away from the knives the knives.

In case the knives are changed or the cutterhead replaced there is a need to re-adjust the wear plates.

ProStream™ Spiral Band

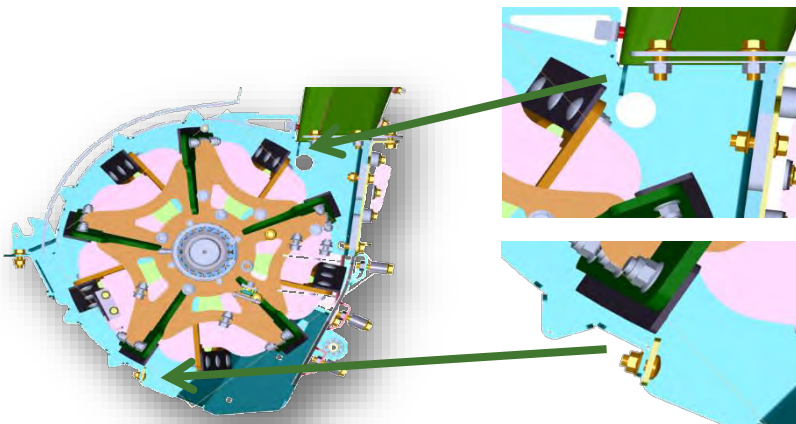
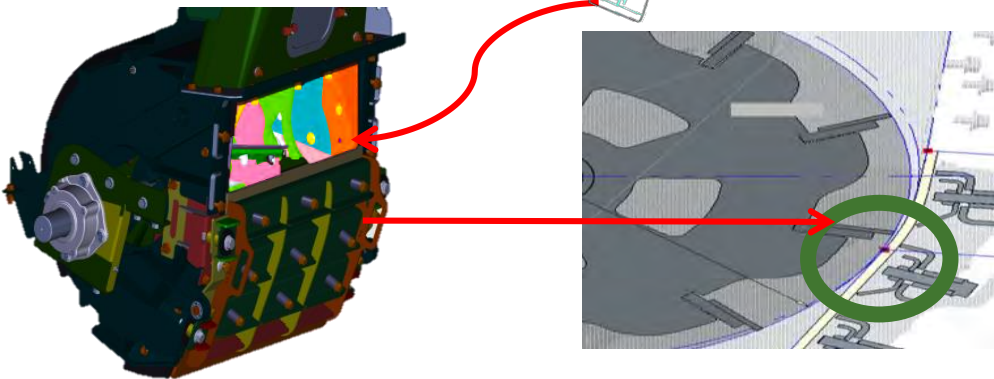
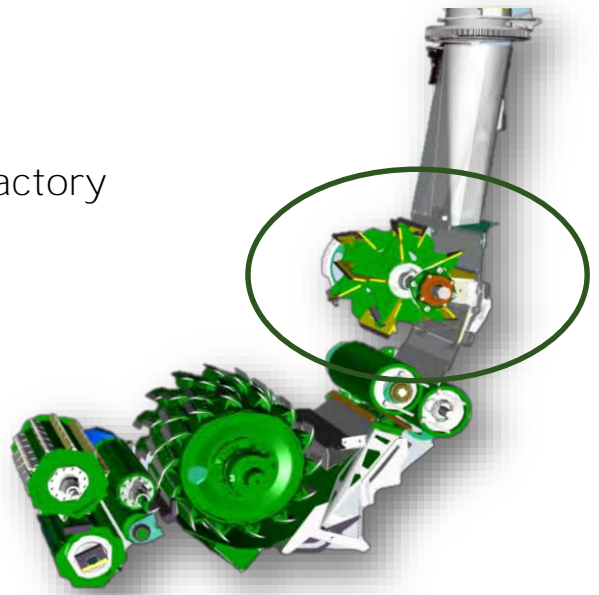
- Ex factory a gap between spiral band and knife drum of 3 mm is recommended
- The more the operator grinds the knives as bigger is the gap and it could be necessary to close it



- Open the screws on the side and below the spiral band
- Put additional shims between frame and spiral band until there is no gap
- Remove some shims with the thickness of 3mm
- Tighten the screws

ProStream™ Blower Paddles

- Paddle Adjustment: 3mm Ex-Factory
- Recommendation: Grass 3mm
Corn 1mm
- Scrapers



Outlet Scraper: 1-2mm

To prevent too much
back feeding

Inlet: 3-4mm

To create vacuum
for better cropflow

639 Optimisation

Gauge Wheel Setting :

Tines Should be 50mm above ground

Rake Setting

Very wet conditions Lower rear of the Rake

Dry conditions Lift rear of the Rake



Auger position



Distance from Auger flights to scrapers 0-2mm

Distance from auger flights to deck sheet 20mm

Auger Spring 37mm+/-2mm

Engine Speed Management

To reduce fuel consumption and to increase efficiency during field operations, the engine speed management allows the operator to toggle between three different field modes

Manual

- Engine speed and the machine ground speed are manually

Headland (ProDrive™ machines only)

- Engine speed is automatically controlled depending on the machine field situation engine speed reduction in headland
- Engine speed reduction when machine is standing still
- Engine speed increase when feed rolls are engaged

Economy (ProDrive™ machines only)

- Engine speed and ground speed are automatically controlled depending on engine load.
- The system automatically adapts the engine load efficiency by controlling the ground speed as well as the engine speed (described under Headland (ProDrive™ machines only)).
- The machine ground speed is based on engine load which results in a throughput control to optimize the fuel efficiency.





On-Board Systems 2630

Active Fill Control

Fill height bar graph indicates fill height status:

Red = fill height reached

Yellow = almost full

Green = far from full

Grey = deadbands

AFC status pie

Detected trailer box

Desired unloading location



Selected fill strategy

Selected offset

Warnings



Blinded by sunlight
– check performance

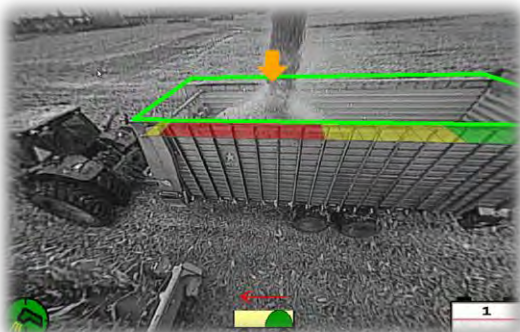


Excessive airborne dust or dirt on lenses
– check if lenses need to be cleaned



Upcoming dark
– turn on lights

Transitioning between rear and side unloading mode will be determined automatically



Side Unloading



Rear Unloading



JOHN DEERE



On-Board Systems 2630

Active Fill Control

Range: 70—115 %
in steps of 5 %
(default: 100 %)

Range: -10 till +10
in steps of 1 default:
0 offset).

- Back to front
- Front to back
- Back to front to back
- Front to back to front

Range:
0 – 150 cm in steps of 25 cm
(0 in. to 60 in. in increments of 10 in.)

System Status

State



✓ Required components present



✓ System calibrated and free of trouble codes



✓ Enable AFC button in CommandCenter has been pressed, System is enabled.



✓ AFC button on multi-function lever has been pressed. System is engaged.



✓ Trailer is detected



JOHN DEERE



On-Board Systems 2630

Active Fill Control

To enable system, the following conditions must be met:



I. Image Processing Unit (IPM) ready



II. Stereo camera ready



III. Spout sensors and AFC calibrated

IV. Road safety mode button in field mode



To be able, the following conditions must be met:



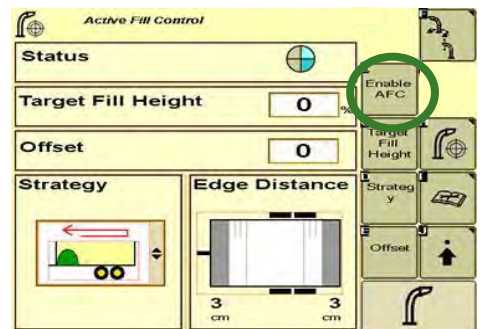
I. Operator seated

II. Main clutch engaged



III. Header is engaged

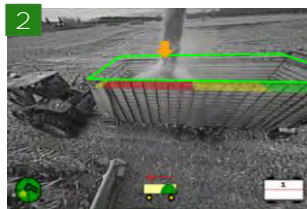
IV. AFC Activated



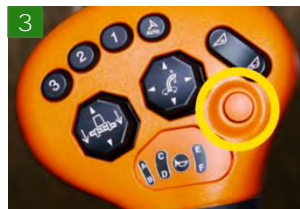
Side Unloading



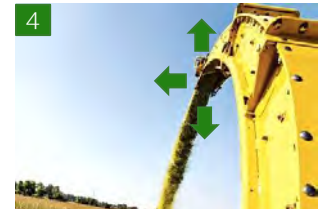
1 Start unloading to the rear (center trailer position)



2 If trailer detected, AFC activation possible



3 Press AFC button



4 Distribute material in the trailer

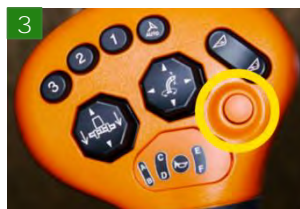
Rear Unloading



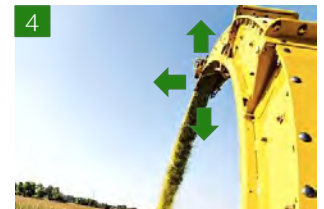
1 Start unloading to the rear (center trailer position)



2 If trailer detected, AFC activation possible



3 Press AFC button



4 Distribute material in the trailer



On-Board Systems 2630

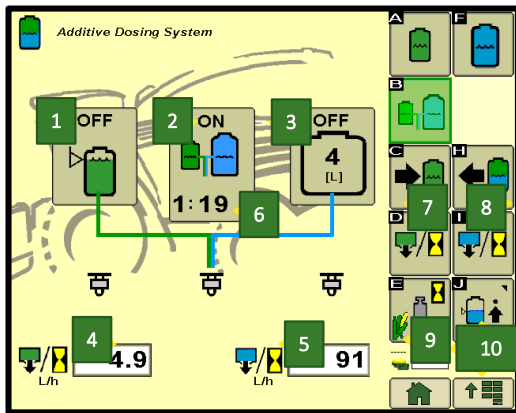
Innoculant Dosing System



3 different modes available for each system:
OFF / AUTO / ON

ON Mode not available when dosing rate set to l/t

Auto turns IDS on when Feedrolls engaged and crop going over the shearbar



1. Select Mode for Low Volume System (LV)*
Also via button A
2. Select Mode for Twin Line System (TL)*
Also via button B
3. Select Mode for High Volume System (HV)*
Also via button F
4. Adjust Dosing rate for LV System
Also through button D
5. Adjust Dosing rate for HV system
Also through button I

Different dosing scales :

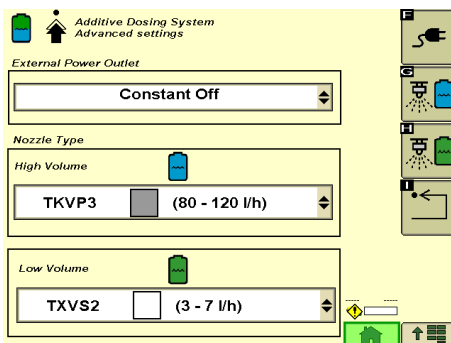
- i. 5.0 90
- ii. 100 1.0
- iii. 300 3.0

6. Ratio for Twin Line System (Display)
7. Store concentrate of LV system
8. Start / Stop cleaning process
(available for LV, HV or TL System)

9. Switch Dosing rate unit

- i. L/h - Litres Per Hour
- ii. L/t – Litres Per Ton
- iii. L/DMt – Litres Per Ton Dry Matter

10. Sub Menu (External system, nozzle choice)





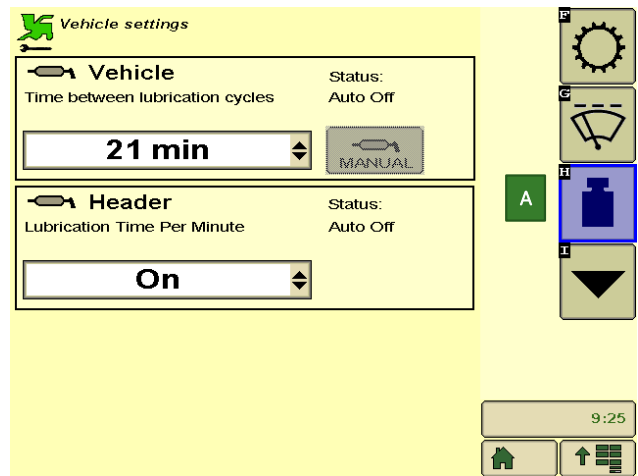
On Board Systems 2630

Mass Flow System

Mass Flow Calibration

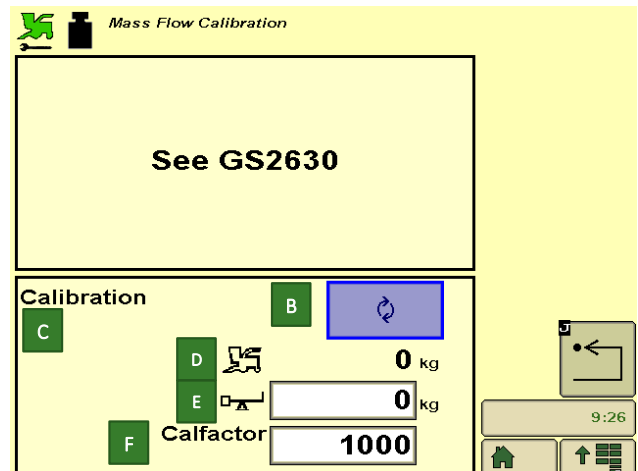
On the Vehicle Settings Page press the mass flow calibration page (Button A)

Perform a yield calibration for every crop and when crop conditions change.



On The Mass Flow Calibration Page:

1. Press calibration button (B). Display changes to: Calibration *In progress* (C).
2. Begin harvesting. Weight displayed at (D) should increase while harvesting.
3. Harvest known amount of material (i.e., truck load, wagon load, etc.).
4. When known load is completed, press calibration button (B) again to stop calibration.
5. Have known amount of material in truck or wagon weighed. While waiting for scale ticket to return, you may continue harvesting.
6. When scale ticket returns to machine, press net weight platform scale (E) to change weight value.
7. Input net weight of material from scale ticket.



- A. Mass Flow Calibration Page Access Button
- B. Calibration Status
- C. Calibration Button
- D. Displayed Weight
- E. Net Weight Platform Scale
- F. Calibration Factor

IMPORTANT: Changing the calibration factor does NOT change data already saved. After changes are made, all harvest information collected from that point will reflect the changes.



Length Of Cut

		1170 rpm Cutterhead Speed	1350 rpm Cutterhead Speed
Cutterhead Knife Configuration	Nb of Knives	Length-of-cut	
Full set of cutterhead knives	64 knives.....	3—16 mm (0.12—0.63 in)	3—14 mm (0.12—0.56 in)
	56 knives.....	4—18 mm (0.15—0.71 in)	4—16 mm (0.15—0.63 in)
	48 knives.....	6—21 mm (0.24—0.83 in)	
	40 knives.....	7—25 mm (0.28—0.98 in)	
3/4 a set of cutterhead knives	48 knives.....	4—24 mm (0.15—0.94 in)	4—21 mm (0.15—0.83 in)
	42 knives.....	6—27 mm (0.24—1.06 in)	6—24 mm (0.24—0.94 in)
	36 knives.....	9—32 mm (0.35—1.26 in)	
	30 knives.....	10—37 mm (0.39—1.47 in)	
Half a set of cutterhead knives	32 knives.....	6—32 mm (0.24—1.26 in)	6—28 mm (0.24—1.10 in)
	28 knives.....	8—36 mm (0.30—1.41 in)	8—32 mm (0.30—1.26 in)
	24 knives.....	12—42 mm (0.47—1.65 in)	
	20 knives.....	14—50 mm (0.56—1.96 in)	

Optimisation Area's

Optimisation Areas	SPFH Ground speed	Grass PU Compressor roll adjustment	Grass PU Tine Speed	Grass PU auger speed	Grass PU Paddles	WCS header speeds	Corn Head speed	UFFR rasp bar settings	Feedroll springs	Smooth roll scraper	Shearbar gap/ condition	Number of knives installed for the LOC	Knives edge/ Condition	Cutterhead side shims	Spiral floor position	Lower/front chute positioning	Grass chute downsteps/ positioning	KP/KS gap setting	KP/KS positioning (swing in swing out stops)	Accelerator paddles	Accelerator scrapers Inlet and outlet	Wear plates through the crop flow	ESM settings
The machine is feeding very lumpy and uneven feeding through the crop flow of the SPFH and out of the spout, Causing the engine RPM to surge and ground speed is inconsistent.	X	X	X	X	X	X	X		X	X	X				X	X	X	X				X	X
The SPFH has a good crop stream but sometimes produces a "tumbleweed" under the crop stream															X	X	X			X	X		
The SPFH has a very slow and messy crop stream from the spout.	X										X		X	X	X	X				X	X	X	
Feeding to the cutterhead is not consistent at short LOC			X	X		X	X		X	X													
Feeding is not smooth causing the feedrolls to jump when chopping at long LOC	X	X	X	X	X				X														



Optimisation Area's

Optimisation Areas	SPFH Ground speed	Grass PU Compressor roll adjustment	Grass PU Tine Speed	Grass PU auger speed	Grass PU Paddles	WCS header speeds	Corn Head speed	UFFR rasp bar settings	Feedroll springs	Smooth roll scraper	Shearbar gap/ condition	Number of Knives installed for the LOC	Knives edge/ Condition	Cutterhead side shims	Spiral floor position	Lower/front chute positioning	Grass chute downsteps/ positioning	KP/KS gap setting	KP/KS positioning (swing in swing out stops)	Accelerator paddles	Accelerator scrapers inlet and outlet	Wear plates through the crop flow	ESM settings	
The SPFH is struggling feeding corn in to the feedroll cabinet from the header and then feeding in lumps or blocking the header	X						X	X	X															X
SPFH is blocking up between the CH and the blower in grass											X		X		X	X	X					X	X	
SPFH blocking up inbetween CH and KP in corn											X		X		X	X		X	X			X	X	
Poor QOC in all crops	X		X	X	X	X	X	X	X	X	X	X	X	X										X
Inconsistent chop length in corn and WCS	X		X	X	X	X	X	X	X	X	X	X	X	X										X
Engine is labouring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
The service compartment is filling with chopped crop																X	X		X			X		



Lubricants

Please check all oil/grease levels regularly, oil types and change intervals below.

Auto-lube System – John Deere SD Polyurea Grease

Hydraulic Oil – John Deere Hy – Gard -2yrs or 1000hr

Rear Axle beam only – John Deere Extreme Gard EP90w– 500hr/annual

Rear Axle hub only – John Deere Extreme Gard EP90w – 500hr/annual

Prodrive Transmission – John Deere Hy-Gard – 1000hr/2yrs

Power Distribution Gearbox - John Deere Hy-Gard – 1000hr/2yrs

Header Gear Case - John Deere Hy-Gard – 500hr/annual

Feedroll Gear case - John Deere Hy-Gard – 500hr/annual

Engine – John Deere plus 50 II – 500hr or annually

- John Deere plus 50 II – fully synthetic – 1000hr/annually (97,98,9900 only)

X-StreamKP – Shell Corena S4 R 32 – daily level check

Coolant – John Deere Coolgard II – 4yrs or 6000hr

Cleaning Guide

8000 Series SPFH



JOHN DEERE

Regular and thorough cleaning of machine combined with other routine maintenance procedures listed in the Operator's Manual greatly reduce the risk of fire, chance of costly downtime, and improve machine performance.

Crop material and other debris can accumulate in various areas.

Direction of wind, type of crop, and crop moisture content can all impact where and how much crop material and debris can accumulate.

Be aware of harvest conditions and adjust your cleaning schedule to ensure proper machine function and to reduce the risk of fire. These areas may require more frequent cleaning, even multiple times per day, depending on harvest conditions. Inspect and clean these areas as needed throughout the harvest day.

Other areas not covered in this section may also collect crop debris and **MUST** be cleaned periodically for machine function and appearance. Use high velocity air (from air compressor or blower) to blow crop debris off the SPFH when cleaning. Thoroughly inspect the entire machine on a regular basis throughout the harvest season. **Refer to the Machine Cleanout Section of your Operator's Manual for further information.**

Engine Compartment



Check the side air inlets on both sides of the machine



Check area above service compartment behind the Cab

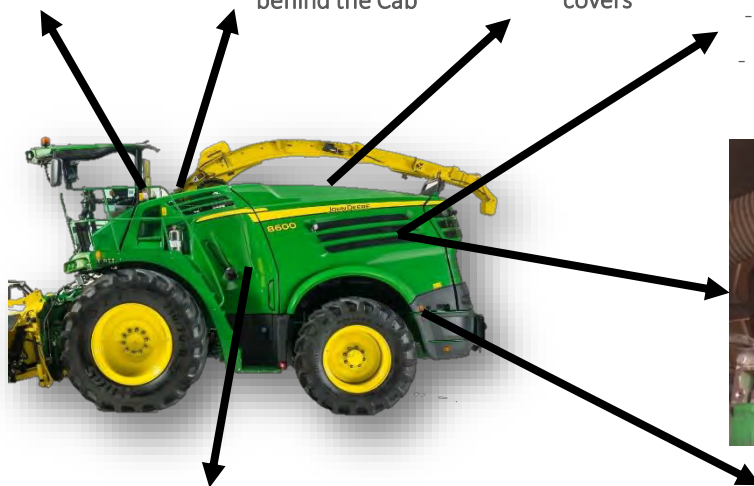


Check area between side panels and top covers

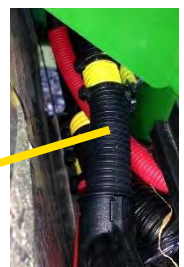


Ensure there is no crop accumulation around the engine, specifically :

- Turbo and EGR cooler on JD 13.5L.
- Exhaust Manifold and cylinder head on Cummins 19L.



Remove LHS panel periodically to clean this area thoroughly, specifically around Suction Blower Fan.



Rear part of the frame on both sides of the high volume IDS tank

Cleaning Guide

8000 Series SPFH



Service Compartment & Cutterhead Unit

Note : As a general reminder, ensure there is no crop accumulation around the cutterhead and feedrolls unit. Make sure to run up machine before sharpening to reduce the risk of crop accumulation in the cutterhead and the kernel processor



Ensure area around hydraulic valve block is clean



Ensure there is no crop accumulation underneath plastic panels



Corn with Kernel Processor in position
Grass when Grass Chute in position



Ensure cooling package is sealed correctly and clean



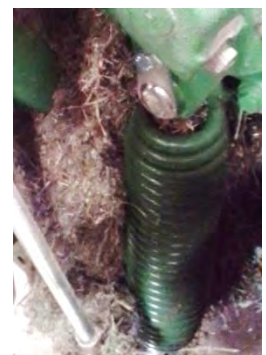
Open Cutterhead to thoroughly clean this area



Clean area behind sharpening compartment on top of cutterhead



Clean sharpening door compartment



Clean area around feedrolls springs, upper and lower rear feedrolls

XStream™ Kernel Processor End of Season Maintenance

End of season maintenance on your XStream™ KP is VERY IMPORTANT and will help reduce bearing failures and greatly reduce downtime for future harvesting.

The preferred method of cleaning off the KP is to use air.

If you decide to power wash the processor, immediately dry the processor and open it to expose bearing castings and rolls. After power washing, there is a good possibility that water penetrated the bearing seals which will cause imminent bearing damage. After power washing the processor, you can prevent bearing damage by immediately servicing the processor and following a few steps.



XStream™ Kernel Processor

- Remove the tops of the bearing castings with a soft mallet and inspect the condition of the oil and bearing. Be very careful with the mating surfaces of the castings since they are machined surfaces. Keep the top half with the bottom half since they are machined as a mating pair and are numbered accordingly. If there is no contamination, simply remove the old oil and replace the felt seals (HXE131372 – qty. 12).
- If contamination is present, the bearing casting needs to be removed and cleaned thoroughly. The oil line and the temp sender should be removed in order to clean the casting. New felt can then be installed. The bearing may also need to be replaced if there is a substantial amount of contamination in the bearing casting. An inspection of the bearing rollers may also help determine if the bearing needs to be replaced.
- Make sure all bearings get 15cc of fresh John Deere Kernel Processor oil after they have been inspected or changed. TY27729¹²
- Inspect spool seal (HXE131373) for wear.
- After the KP is cleaned and reassembled, apply some form of anti-corrosion to the rolls. (Oil, grease or paint works well.) This is very important for the roll balance and roll wear.
- Replace the Coalescing Filter annually (HXE136039).

¹ Kernel Processor Oil (XStream™ SPFH) 2.5 gal (9.46 L)

²Refer to the Operators Manual for additional compatible oils.



FAROL 