

Inspection and maintenance guide

8000 Series Self-Propelled Forage Harvester



Get hands-on knowledge from the experts.

At John Deere our engineers, dealers and service technicians understand what it takes to keep your SPFH 8000 up and running. But we think you should too when it comes to regularly cleaning and inspecting your valued machine. So put this user-friendly guide to work come harvest season to squeeze more yield from your field.





Inspection and maintenance guide

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General Maintenance

Daily cleaning and maintenance

How can you maintain peak performance and greatly reduce the chance of costly downtime?

By regularly cleaning your SPFH and performing all of the routine maintenance procedures described here and in your operator's manual.

Optimal operation also requires that you regularly check all moving parts. The following pages will take you through the various stations of the inspection process and show you what to look for and what to do on a daily basis.



Section	Maintenance Check	Key Areas
Header	Clean with air	Pickup drive chains
	Check for visual damage & wear	Pickup tines & feeding auger
		Corn header gathering drums
	Lubricate & grease	Corn header scraper & blades
Crop flow channel	Clean with air	Pickup drive chains, PTO drives
	Perform quick access opening	From feed roll unit to spout exteriors
Transmission	Check hydraulic hoses and fittings	Cutterhead & feed roll
	Check hydraulic oil level	
Engine compartment	Check engine oil level	Hydraulic system
	Clean with air	Engine short block
	Check cooling system	Engine air filter
Cab	Clean with air	Rotary screen & radiators
	Check functions	Cooling system
Additive dosing system (if installed)	Clean with air	Cab air filter & cab itself
	Flush system	Lights and indicator lights
Other areas	Check tires & tire pressure	Filter, tanks and lines
	General clean	Tires
		Indicator, lights and interior surfaces

The 250-hour checkup

After 250 hours of work, it's time to take an even closer look at your machine. Perform this checkup at the same time you do the weekly checkup. The 250-hour checkup focuses on operating fluid levels.

Reminder: It is very important to change oil more often (every 100 hours) if fuel contains more than 0.5% sulphur. Fill the crankcase with seasonal viscosity grade oil (John Deere Plus-50 II™ oil is preferred). Do not operate engine with an oil level below the low mark on the dipstick.



When the season is over it is time for an in-depth component check. You need to complete this before storing your SPFH away for the winter. Before completing either the 250-hour or 500-hour checks, it is essential to complete all daily (every 10 hour) inspections.

Maintenance Task
Tighten front wheel bolts to 710 N-m
Tighten rear wheel nuts to 550 N-m
Tighten attaching screws of rear axle pivots to 310 N-m
Tighten steering cylinder attaching screws to 240 N-m
WITHOUT John Deere Plus-50 II oil only <ul style="list-style-type: none">■ Drain engine oil and fill crankcase with fresh oil■ Change engine oil filter
Check specific gravity of battery electrolyted. (If necessary, charge battery and/or top up with distilled water.)
Check coolant level – Top up with antifreeze/water mixture if required
Check foot brake adjustment and correct if required – Push button shift transmission only
Adjust park brake Bowden cable if required – Push button shift transmission only
Check turbocharger hardware and hose connections for tightness
Clean cab paper filter element
Check transmission oil level
Check header gearbox oil level
Check left feed roll gearbox oil level
Check right feed roll gearbox oil level
Check oil level of final drives
Check oil level of rear axle differential (four-wheel drive)
Check oil level of rear axle wheel hubs (two-wheel drive)
Check brake fluid level – Push button shift transmission only



The 500-hour checkup

In most cases, your 500-hour checkup will take place once a season and concentrates on preparing your machine for winter storage, as well as changing all filters.

It is also time to give your unloading spout a careful clean and thorough inspection. Remove the spout in order to check the rotation mechanism and the transition chute. Then, clean and inspect the transition chute. If necessary, replace it – consider using a new version which includes replaceable wear plates. If the wear plates look worn, replace them with genuine parts.

Lubricate as indicated in the operator's manual. Fill the crankcase with seasonal viscosity grade oil (John Deere Plus-50 II is preferred). Do not operate engine with an oil level below the low mark on the dipstick.

Maintenance Task

Change fuel filter elements

WITH John Deere Plus-50 II oil only

- Drain engine oil and fill crankcase with fresh oil
- Change engine oil filter

Thoroughly clean rotary screen and radiator

Check rollers on rotary screen for wear and replace if necessary

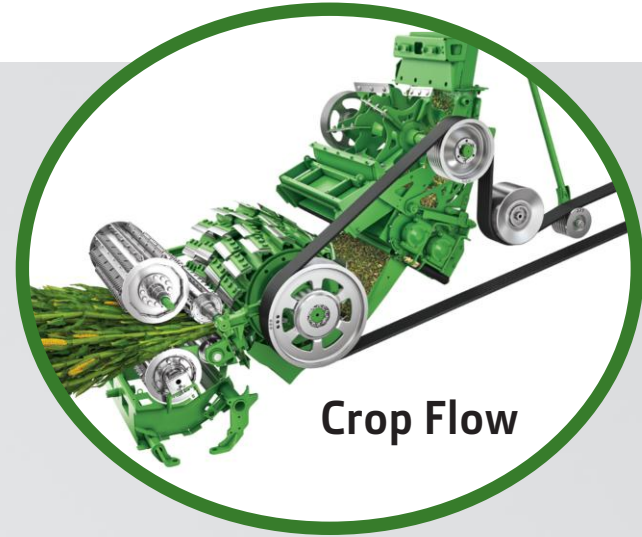
Check rocker arm cover ventilation

Complete all greasing points as described in the Operator's Manual.

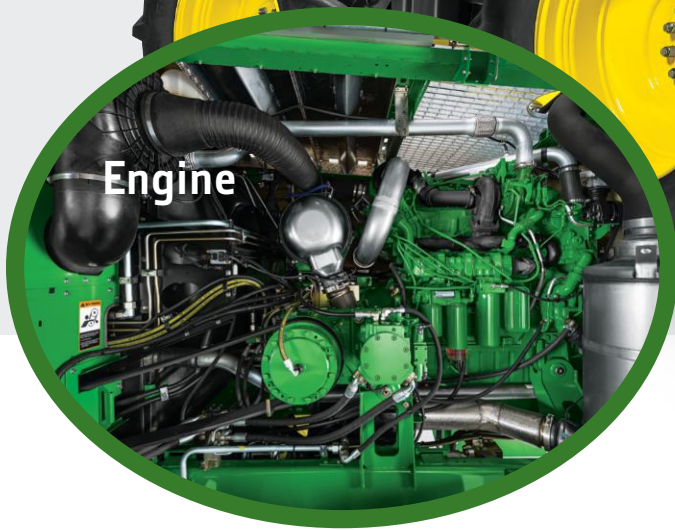
Daily maintenance
at a glance



Header



Crop Flow



Engine



Cab



Header Maintenance

The 8000 Series is designed for maximum versatility and can be used to harvest all kinds of forage including grass, corn, sorghum, and alfalfa. However, it's important to regularly inspect and perform routine maintenance on your header to maximize operating efficiency all season long.

	Window Pickups			Small Drum Rotary Harvesting Unit				Large Drum Rotary Harvesting Unit		
Model	639	649	659	696	698	690	692	676	778	770
Rows	-	-	-	6	8	10	12	6	8	10
Working Width	3.0	4.0	4.5	4.5 m (14.8 ft)	6.0 m (19.7 ft)	7.5 m (24.6 ft)	9.0 m (29.5 ft)	4.5 m (14.8 ft)	6.0 m (19.7 ft)	7.5 m (24.6 ft)
SPFH Recommended and Possible	8100-8800			8100-8300 8400-8500	8100-8200 8300-8600	8500 8600-8800	8600-8800	8100-8300 8400-8500	8100 8200-8600	8500 8600-8800
Crop	Grass			Corn						



Header Maintenance



Above:

Use compressed air to clear plant residue and ensure entire pick-up is clean and free of debris. Check if tines are bent or broken.

Left:

Check the oil level in the reservoir. Lubricate the chains as needed. Fill reservoir with John Deere Multiluber oil or 30W oil.

Clean the chain drive compartment with compressed air. Check to make sure chain drives are taut. Ensure:

- Upper idler sprocket has a slack of 3-10 mm
- Lower idler sprocket has a slack of 10-15 mm

Not Shown:

Grease pick-up drive shaft and quick couplers. Use John Deere HD Lithium Grease.

Pick-up adjustment for grass

Part	Benefit	Adjustment
Feeding auger (paddle/finger)	<ul style="list-style-type: none"> Smooth crop flow Exact machine feeding 	<ul style="list-style-type: none"> Space between gap scraper and auger should be less than 2 mm In high yield/heavy crop, loosen support springs to allow more vertical movement of the intake auger
Feeding auger (paddle)	<ul style="list-style-type: none"> Prevent material wrapping 	<ul style="list-style-type: none"> In high yield/heavy crop/long crop use smooth settings = straight side outside In light crop/low yield/short crop use aggressive setting = serrated side outside
Guage wheels	<ul style="list-style-type: none"> Minimum crop loss and contamination 	<ul style="list-style-type: none"> Ground clearance to maximum level possible Finger reel should not touch the ground Readjust in case of low quality work

1. Wash and inspect auger

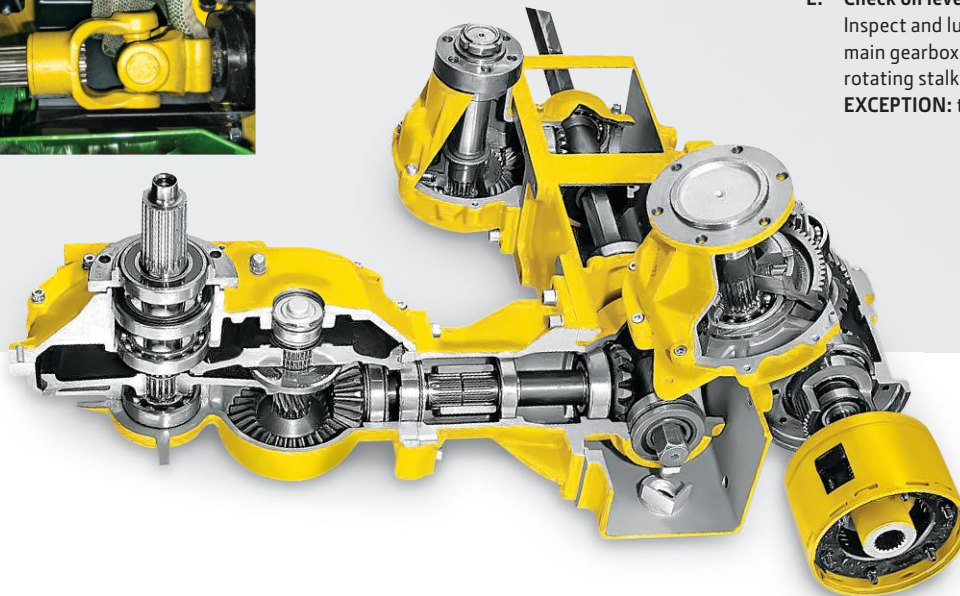
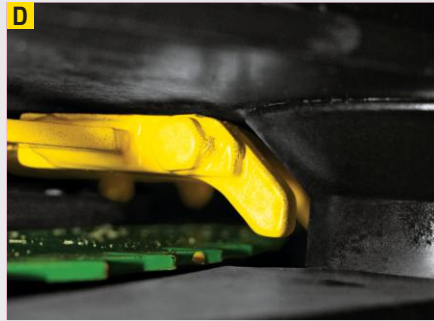
- Wash the auger thoroughly to remove any corrosive plant residue
- Check the strippers and replace any bent or worn auger fingers
- Check and grease the outside auger fingers

2. Adjust height space

- Adjust the space between auger and bottom sheet to 20+/- 5 mm
- Loosen springs on both sides, lift auger and adjust with spacers
- Tighten springs

3. Check auger scraper for correct position

- Check auger scraper and re-adjust
- Change if worn out
- Readjust guide plates if necessary or change if it is worn out



Rotary Harvesting Unit

- A. Inspect knives**
Check knives carefully. Replace any blades that are bent, damaged or worn.
- B. Inspect scrapers**
Replace scrapers that are damaged or missing on the rotor cleaning drums. Also, check to ensure bolts are tight. By changing scrapers regularly, you save tires and improve stubble decay. A corn borer can hardly survive in rotten stubble.
- C. Consider bolt-on scraper sets**
Because you are able to use both sides of a new bolt-on high-performance scraper, maintenance costs are reduced. Check all scrapers on the drums periodically. If a scraper is bent or worn, you are risking increased power consumption and interrupted crop flow. The solution is to either use its reverse side or, if both sides are worn, to replace it immediately. Make sure the scrapers are adjusted as closely as possible to the external scraper bar.
- D. Adjust cleaners**
Check condition of cleaners and adjust if necessary. Set cleaners as close as possible to drums since properly adjusted cleaners minimize power demand and ensure ideal header function. The lower cleaners on the gatherer drums should be positioned to ensure a gap that is no more than 2 mm wide (adjustable by 8 mm screws).
- E. Check oil levels**
Inspect and lubricate the gearboxes and PTO shafts. Inspect hydraulic hoses. Ensure oil drainage plug on main gearbox is tightened. Replace any worn or damaged parts. Grease the lower bearing found on the rotating stalk lifter joint shaft.
EXCEPTION: the feed drum spur gear drive is self-lubricating.

Rotary Harvesting Unit



1. Corn header

Use an air compressor to blow off major buildups of debris and residue; then wash thoroughly with a power washer.

2. Blades

For fast, efficient harvesting, sharp blades are a must. Check the blades and scrapers, and replace any that are bent, damaged, or worn.

3. Worn points

If you notice teeth are blunt or damaged, replace with new points. Points must be installed in pairs on opposite sides of the drum. Refer to your operator's manual for detailed instructions.

4. Scrapers

You'll get better results when you have sharp scrapers. Check scrapers and replace any that are damaged or missing on the rotor cleaning drums. Also, check the bolts to make sure they're tight.

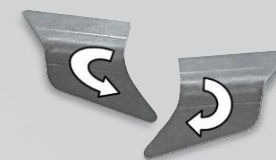
5. Gathering drums

Inspect the teeth on the gathering drums. Make sure teeth are sharp to ensure smooth crop flow.

6. High-performance scrapers

With the convenient bolt-on design, you can use each side of the scraper so you'll have fewer maintenance costs.

Continued on next page



Rotary Harvesting Unit

7. Feed drum scrapers

Check the scrapers on the feed drums. Make sure they are sharp and at least 10 mm wide. Check to make sure the clearance between the scraper and the cleaner is no wider than 1 mm.

8. Intake fingers

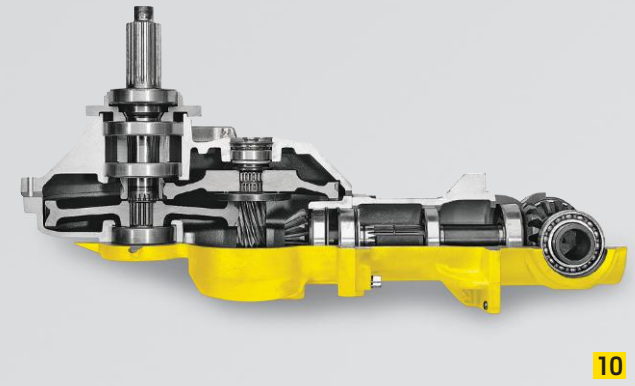
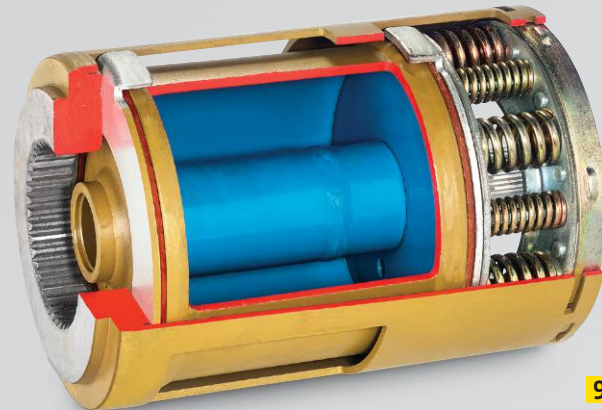
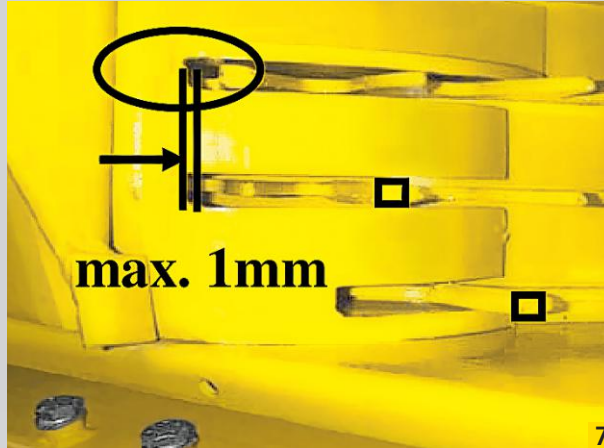
Check the intake fingers to make sure they are positioned correctly (see photo). Replace any fingers that are worn or damaged.

9. Friction clutch

Inspect the friction clutch to make sure the bolts are tight. Replace the clutch if the gears look worn.

10. Check oil levels

Inspect and lubricate the gearboxes and PTO shafts. Check hydraulic hoses. Make sure the oil drainage plug on the main gearbox is tightened. Replace any worn or damaged parts, and always remember to review your operator's manual.



Corn Header Preparation

Genuine for a reason – John Deere header knives

The knives of a John Deere header are the most important wear parts and feature the following benefits:

- Sharpness does not diminish with increase use
- Reduce load on clutches and transmission
- Service life is three times longer
- Fewer blade changes necessary

Change tungsten, carbide-coated blades regularly. Service sets include all blades, scrapers, special bolts and nuts.



Header Model	Part Number	Number required to cover complete header
696	LCA79040	3
698		4
690		5
692		6
778	LCA89940	2
770	LCA89940	2
	LCA98800	1

Header Model	Part Number	Number required to cover complete header
696	LCA78553	3
698		4
690		5
692		6
778	LCA89941	2
770	LCA89941	2
	LCA98799	1

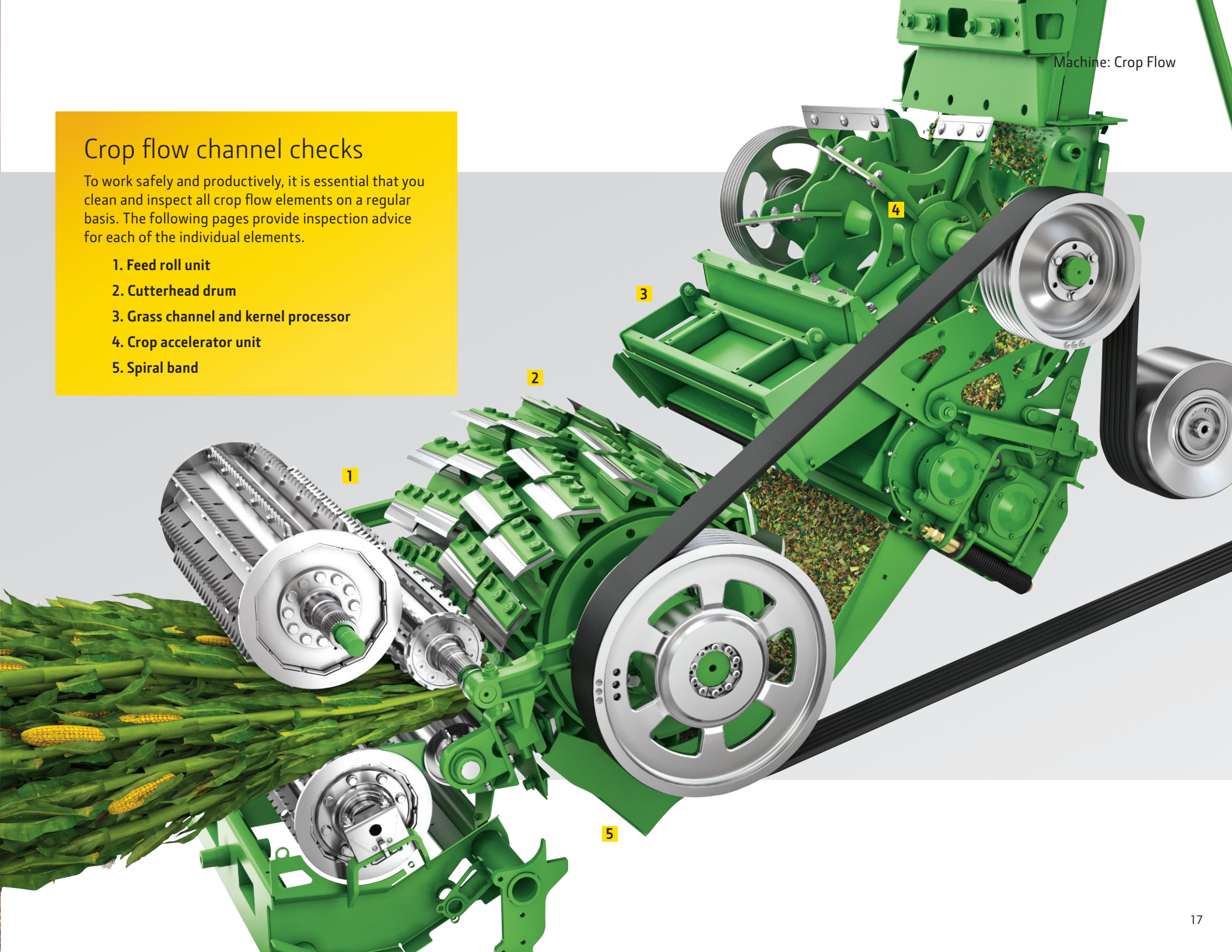
Machine: Crop Flow



Crop flow channel checks

To work safely and productively, it is essential that you clean and inspect all crop flow elements on a regular basis. The following pages provide inspection advice for each of the individual elements.

1. Feed roll unit
2. Cutterhead drum
3. Grass channel and kernel processor
4. Crop accelerator unit
5. Spiral band



Quick cutterhead access with header attached

A new design gives quick, partial access to the cutterhead interior without having to remove the header. This makes it easy to complete daily cutterhead, shearbar and drum-knife checks.

IMPORTANT

Never perform the quick cutterhead access procedure without a header attached to the machine.



- Lower feed roll housing so the header touches the ground



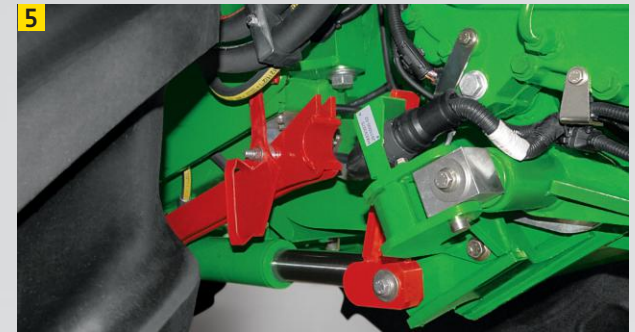
- Shut off engine
- If necessary, roll in pull-out curtain
- Release upper locking device from feed roll housing frame. Unscrew nut until lock is fully retracted.



- Remove pin
- Start engine



- Slowly raise the cutterhead until the maximum of opening is reached
- Shut off engine



- Engage cutterhead lift lock on the right-hand side

Open feed roll housing for easy cutterhead access with header removed



- Move the feed roll housing into a horizontal position and shut off the engine. Use spirit level to obtain correct leveling.



- Remove the header driveline from its front support.



- If necessary, roll in the pull-out curtain.



- Unlock the feed roll housing in the following order:
- Lower locking device - Unscrew cap until the hook fully detaches from the tube



- Upper locking device - Unscrew nut until lock is fully retracted then remove from the feed roll housing frame



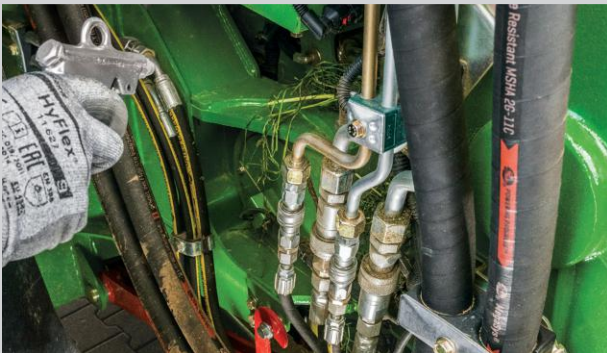
- Open the feed roll housing and secure in position with the latch (stored on top of the feed roll housing)

Feed roll area and cutterhead



Clean the cutterhead regularly, especially before grinding as sparks can ignite dust and debris that builds up around the grinding stone area. This area must be kept clean.

The pull-out curtain reduces crop debris buildup around the cutterhead.



Clean feed roll area

Use compressed air to clear debris from:

- Feed roll tensioning springs and header driveline on the left and right-hand side



- Around the upper feed roll drive shaft and lower feed roll drive hub on the right-hand side



- Cutterhead lift lock on the right-hand side

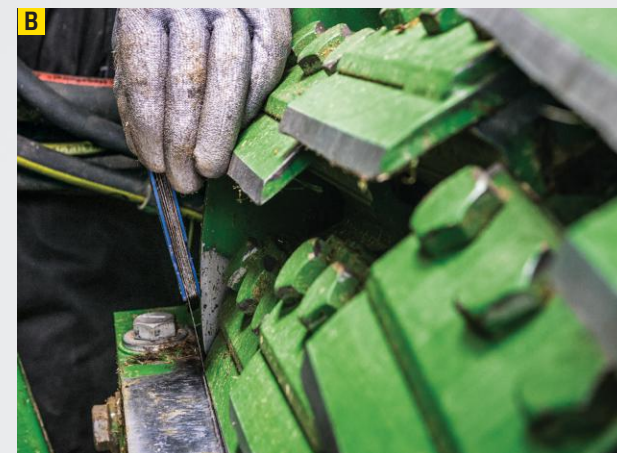
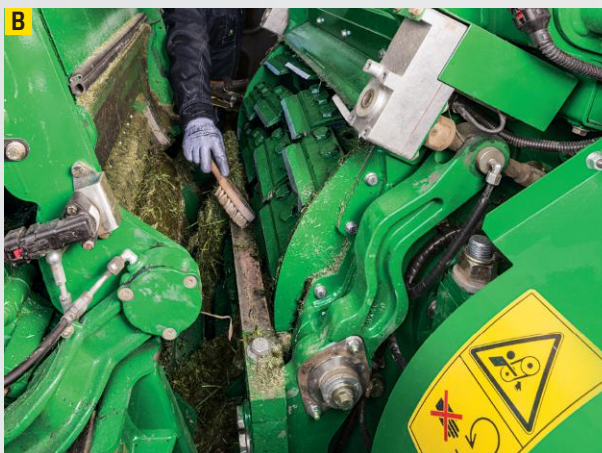
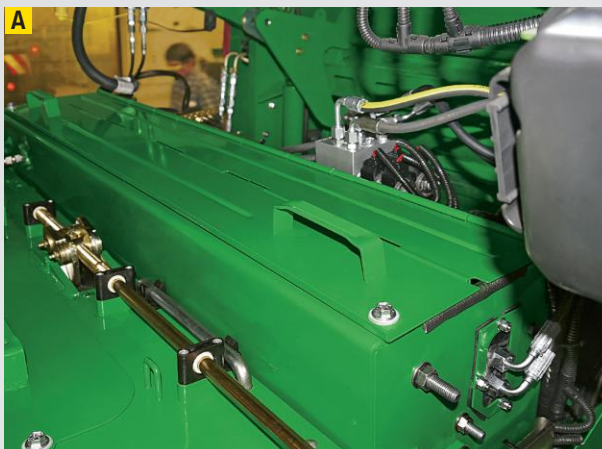
A. Inspect cutterhead area

Use compressed air to clean:

- Behind the cutterhead
- Under both sides of the stationary knife adjusting arm assembly and stationary knife retainer
- Hydraulic hoses, lubrication lines and wiring harnesses

B. Inspect knives and shearbar

- Check cutterhead knives for wear and damage or displacement by carefully turning the drum by hand
- Inspect shearbar surface and edges
- Check cutting clearance – ensure distance of 0.2–0.4 mm between shearbar and knives
- Close cutterhead quick access and grind knives then complete a shearbar adjustment.



Check feed rolls for wear and damage



Clean feed roll area

Remove crop residue build-up from around the upper rear, lower rear and lower front feed rolls.



Inspect feed roll area

Check the slats on both the lower/upper feed rolls for excessive wear or damage. Replace if necessary.



Check rear feed roll

- Check for visual damage and material build up before cleaning the smooth roll and scraper.
- Ensure the gap between the smooth roll and scraper is checked regularly and properly adjusted (maximum gap of 0.2–0.8 mm).
- To achieve this gap, loosen the four screws and adjust the stripper evenly.
- After adjustment, make sure the smooth roll can still turn freely.



When handling sharp edges, wear safety glasses and gloves to help prevent personal injury.

To close feed roll housing, follow the opening process in reverse.

Start from the feed rolls and work towards the spout.

A correctly adjusted stripper minimizes material wrapping around the smooth roll, which can effect cutting performance and wear life.

Note: Cleaning the smooth roll and stripper areas ensures an even flow of material. You should replace the stripper if it becomes excessively worn.



On both front feed rolls (upper and lower) each wear bar is reversible (i.e. has a straight, serrated edge) so you can adjust the aggressiveness of crop feeding to suit the needs of your business.



Smooth Edges

The slat with smooth edges is ideal for high-wear conditions, such as abrasive soils. To avoid material wrapping this side can be used in grass.



Serrated edges

The slat with serrated edges is the more aggressive wear bar and improves crop pull in. This side is recommended for corn and short grass harvest.

Harder wearing.
Smoother feeding.

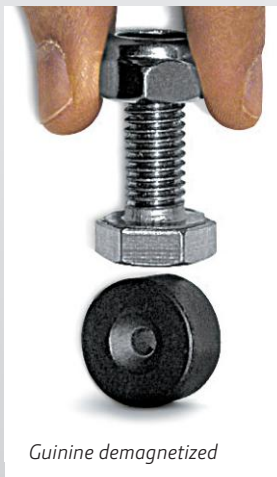
Upper and lower feed roll with replaceable wear bars.

A smooth mat of crop doesn't just mean better quality silage; it also shows that your feed rolls are working efficiently – which is essential to maximize your productivity and profits.

Unlike rival manufacturers, which may use lower quality materials, John Deere feed rolls are always made from heavy-duty stainless steel, which minimizes potential downtime. To further extend service life, we also make sure that the shaft of every upper rear feed roll is induction hardened, making it tougher and more resistant to wear.

John Deere feed rolls, wear bars and bolts are made from heavy-duty, induction hardened stainless steel, which helps to minimize potential downtime. They are also demagnetized to prevent them from false tripping the metal detection system.

The replaceable wear bars on the upper feed roll are easy to replace if damaged as they can be removed individually. This saves time and money – and is an option for the lower feed roll as well.



Guinine demagnetized

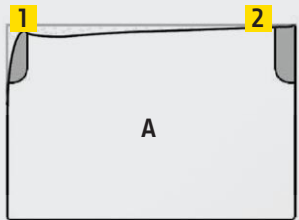
It is essential to regularly inspect and maintain the feed roll on your 8000 Series. If they wear too much, you may encounter problems such as crop not being properly fed into the cutterhead. This can result in silage with irregular length of the cut.

NOTE: If straps become damaged, they are easy to replace individually. Additionally on the upper roll, each wear bar has a plastic strip attached.

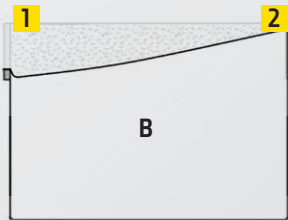
Part Number	Description	Quantities	SPFH Series
HXE93580	Upper roll steel wear bar	10	
HXE87701	Upper roll plastic strip	10	8100-8500
HXE55068	Lower roll steel wear bar	12	
HXE93575	Upper roll steel wear bar	10	
HXE87459	Upper roll plastic strip	10	8600-8800
HXE54553	Lower roll steel wear bar	12	
HXE87510	Upper bar screw	50	
Z74127	Lower bar cap screw	60	8000
Z74128	Nut	(50 + 60)	

Detailed cutterhead check

The feed roll housing opening provides excellent access to the complete cutterhead unit.



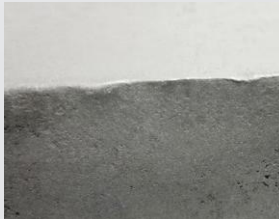
1 Used edge



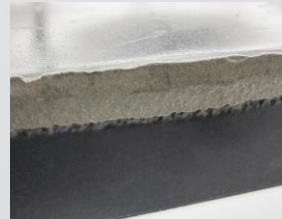
2 Still non-used edge

Measure shearbar wear

Both drawings show wear pattern on well maintained machines, where only one edge has been used:



For grass shearbar (A), maximum of wear is reached when hard-faced edge (10 x 3 mm) is no longer visible at max. 20 % of the total edge's length.

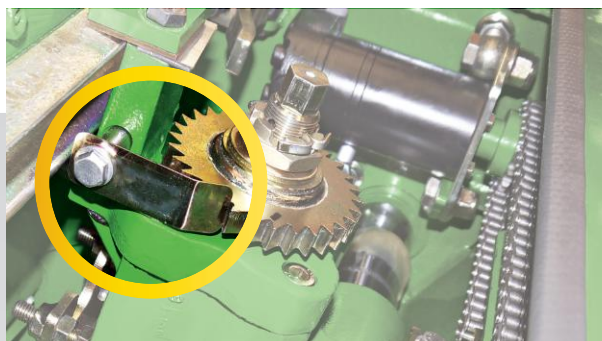
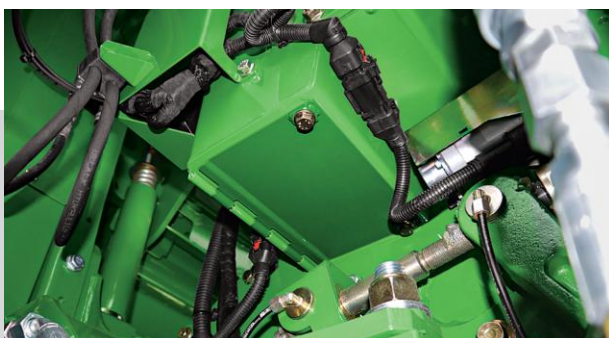


For corn shearbar (B), maximum of wear is reached when tungsten-carbide edge (10 x 1 mm) is no longer visible on max. 10% of the total edge's length.



Measure knife coating

Check knife coatings on the rear of knives and exchange if it is less than 2-3 mm.



Remove the used grinding stone

- Through the opening beneath the stone carrier:
 - Alternately, disconnect the grinding device from the drive chain by opening the chain link. Then slide the device to the right so that grinding stone can be removed from the grinding housing.
 - Install new grinding stone and then reinstall all removed parts in reverse order of removal.

Replacing the grinding stone

Remove ratchet stop, then turn ratchet assembly so that carrier and grinding stone move away from cutterhead drum to increase space for new higher stone.



Worn-out grinding stone

The inset photo is a new grinding stone.

Clean the entire area with compressed air, including the hidden side of the cutterhead drum. Use safety gloves.

A new grinding stone's wear life is approximately 450 cycles.

NOTE: Don't forget to reset the grinding cycle count every time the grinding stone is replaced. You can do this on the "Cutting Unit Advanced settings" page.



How to reach the grinding stone

This is located directly inside the grinding housing.

- Access the Cutterhead Assembly Setup page then select the Cutting Unit Advanced Setting button (J)
- Open sharpening housing door by pressing corresponding (G) button
- Open sharpening device top guard from the top of the cutterhead
- Estimate required grinding/finishing cycles



Knife Sharpening/ Shearbar adjustment

Please chose your desired number of grinding and finishing cycles:

Grinding cycles	Grinding cycles left
<input type="text" value="15"/>	<input type="text" value="450"/>
Finishing cycles	
<input type="text" value="5"/>	

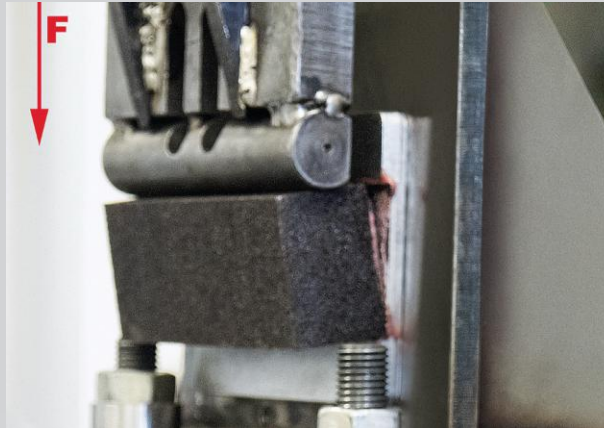
Check grinding stone wear

When initiating grinding, you will be informed about the amount of cycles left. As soon as this number falls below "30" it will turn to red to indicate that it is time to replace the grinding stone.



Genuine

100% glue distribution ensures a stronger bond than the natural cohesive forces within the stone.



Genuine

Breaking strength of 49 kN.



Hydraulic grinding system

We have totally re-engineered the mechanism in the 8000 Series new hydraulic grinding system. The sharpening stone door and the movement of the grinding stone are both now hydraulically activated, providing better reliability.

Grinding stones

Only Genuine John Deere grinding stones possess the necessary properties to ensure knives are sharpened quickly and reliably.

Why choose Genuine John Deere grinding stones?

- Strong construction materials can withstand high temperatures and vibrations
- High-coarse grain content and additional cubitron ensure efficient grinding
- Large pores allow the stone to cool more efficiently and any grinding residues can escape easily

Part Number	Description	SPFH Series
AXE17437	Knife grinding stone	8000



Spiral band check

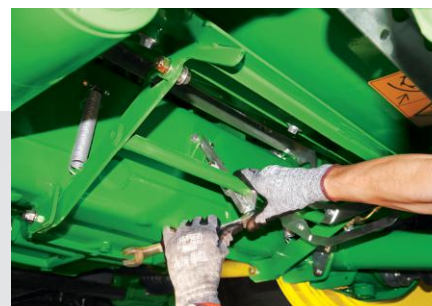
Use this maintenance operation to visually inspect the inside of the crop channel from the cutterhead bottom liner to the front chute:

- Use shims to immediately adjust distance of the spiral band to the drum when SPFH ejection performance is impacted
- Check liners for wear (maximum wear is reached when liners are perforated)
- Shims with 1 mm and 5 mm thickness are stored in the tool box compartment. Torque shim's screws to 140 N·m. Torque frame's screw to 30 N·m

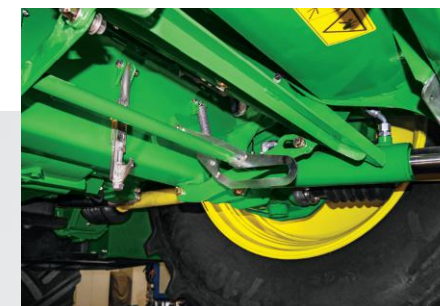


Fully raise cutterhead assembly.

CAUTION: Before working under raised cutterhead, secure cutterhead with locking beam as shown (red beam).



Slightly unscrew discharge chute locking device and make sure the safety hook has engaged on rod (as shown) while discharge chute is lowered.



Continue unscrewing locking device until it disengages from the rod.



Slowly raise discharge chute until safety hook can be unhooked from rod; then lower discharge chute.



How to adjust spiral band (if distance is greater than 2-3 mm)

1. To allow movement of cutterhead frame, slightly loosen the screws on either side.
2. On the lower part of the spiral band, slightly loosen the four screws.
3. Insert shims until spiral band touches knives.
4. Remove 2-3 shims (1 mm) to allow rotation of the drum by hand.
5. To close it, follow the procedure in reverse.

Better chopping. Outstanding performance.

Dura-Drum cutterhead and knives

The cutterhead plays a critical role in any successful forage harvester operation. With the 8000 Series SPFH, we have redesigned our unique Dura-Drum cutterhead to make it more effective than ever before.

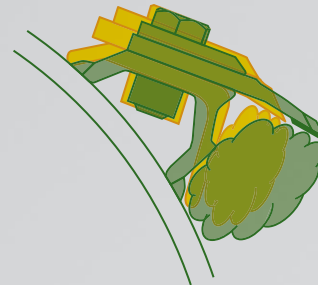


Better performance

Even crop flow. Material is evenly distributed across the full width of the crop channel. It is then funneled into the center by angled knife brackets.

More uptime

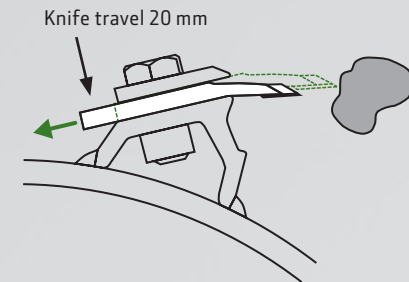
Fewer parts. We've reduced the number of knives we offer – from eight varieties to four – but have increased their versatility. This means you can cut back on the number of parts you keep in your inventory, saving you money. It also reduces the likelihood of not having the right part in stock!



30% more efficient crop transport

The new 8000 series knife carriers have a higher profile (dark green ink) than previous generation SPFHs (yellow ink), which allows for a greater knife overhang. This increases the overall volume available for crop transport and reduces excessive knife wear.

It also allows the new 8000 series to handle extreme conditions even if knives are partially worn.



Extra stone protection

The 8000 Series knife clamping system increases the retraction of knives by 30%, (up to 20 mm compared to the 7080 Series 15 mm). This protects the rotor from damage and reduces downtime.

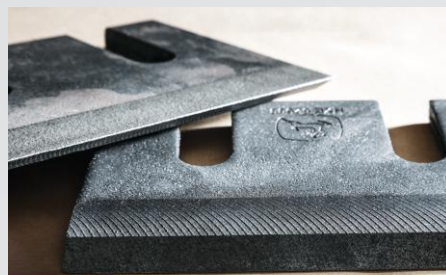
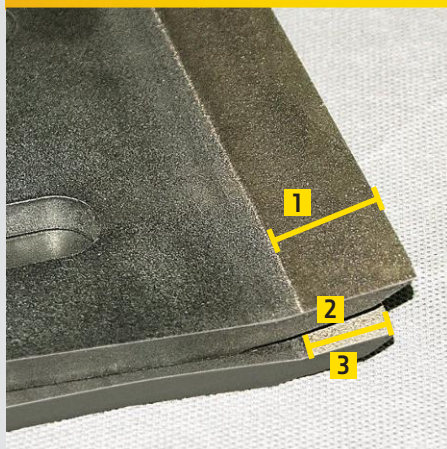
John Deere uses four rows of small knives for flexibility and safety reasons, as knives are more likely to retract correctly if coming into contact with foreign objects. Other manufacturers use much longer knives without any retraction possibility.

Part Number	Description	SPFH Series
HXE53570	Corn knife	8100-8500
HXE53568	Grass knife	
HXE52950	Corn knife	8600-8800
HXE52933	Grass knife	

Lower cost of operation.

Longer wear life. The wear life of a knife is directly related to the width of the coating on the chopping edge. Compared to the 7080 Series, the 8000 Series has wider coatings on corn knives by 41% and on grass knives by 33%. This improves durability and reduces wear – saving you money on maintenance and resource costs.

- 1. Coating width
Plus 41% on corn knife
Plus 33% on grass knife
- 2. 8000 Series
- 3. 7000 Series



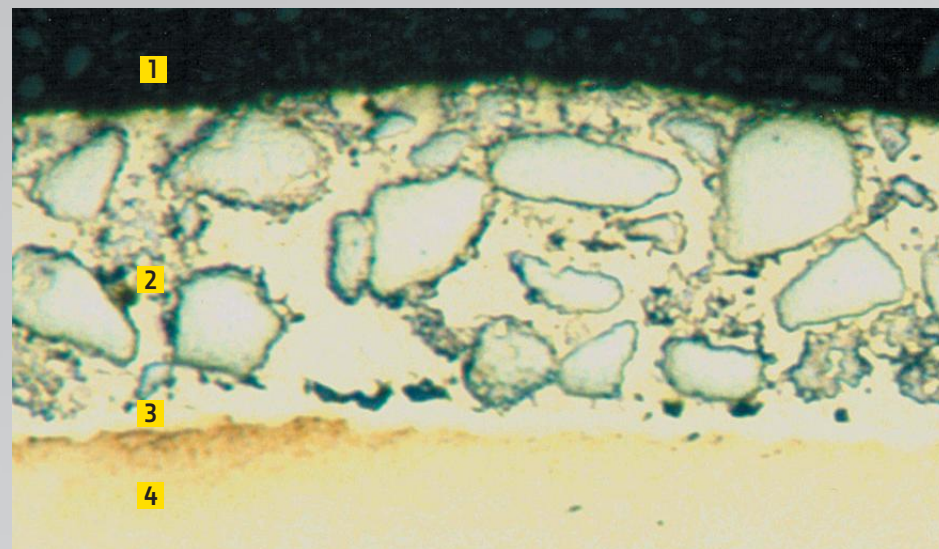
Grass knife



Corn knife

Extra strong: knife coatings

Genuine John Deere knives feature a tough, tungsten-carbide coating for high-quality cutting, longer wear life and lower engine power demands – staying sharper for longer than the competition.

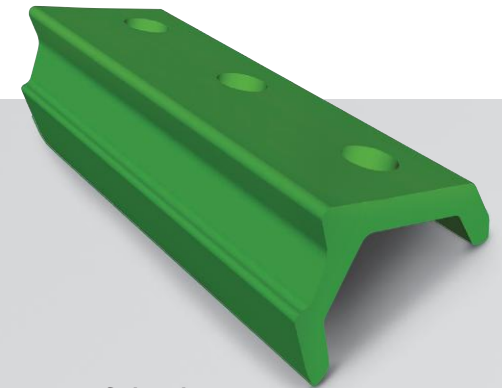


- 1. Even layer of tungsten coating
- 2. High particle content
- 3. Low porosity
- 4. No bonding failures

Stronger bolts. Securer knives.

Cutterhead knife bolt

Part Number	Description	SPFH Series
HXE53571	Cover plate	8100-8500
Z71196	Thread bar	
HXE53563	Knife bracket (non-coated)	
HXE57319	Knife Bracket (coated)	8600-8800
HXE52938	Cover plate	
HXE29392	Thread bar	
HXE52928	Knife bracket (non-coated)	
HXE56084	Knife Bracket (Coated)	8000
HXE29393	Knife bolt	



Cover plates

The excellent steel quality of John Deere knife cover plates means you can rely on them to securely hold knives in place. They also allow the controlled retraction of knives when impacted by foreign objects, such as stones.

The cover plate functions much like a disc spring, and all edges clamp the knife when the attachment bolts are torqued.

Why choose Genuine John Deere cover plates?

- Defined hardenings
- Excellent quality materials
- Sandblasted finish
- Countersunk bores
- Correct steel grain direction
- High fracture strength

Cutterhead knife bolt

Genuine John Deere cutterhead knife bolts are coated with Dacromet® – an alloy containing zinc, aluminium and chrome.

What are the benefits of a Dacromet coating?

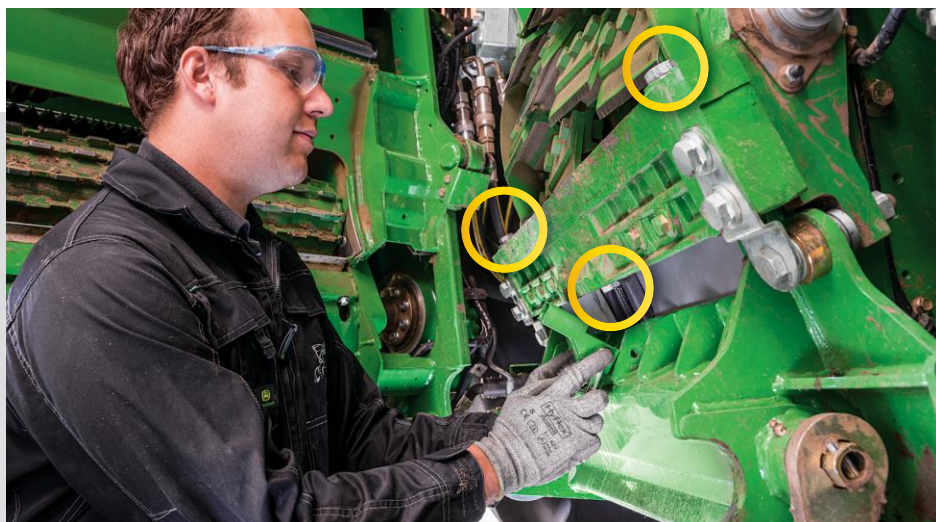
- Additional strength (lack of hydrogen eliminates brittleness)
- Superior corrosion protection
- Optimum adjustment of the required clamping force
- Allows knives to move when impacting a foreign object

Knife brackets

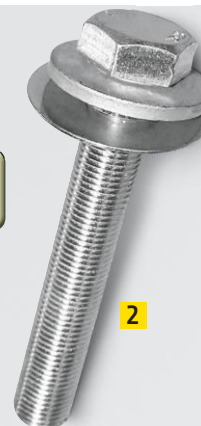
Knife brackets house knives when they are attached to the cutterhead drum. If damaged by a stone or foreign object, it is possible to weld your own new brackets.

Depending on your cutterhead option, brackets can also be ordered with a tungsten carbide coating which significantly increases wear life.





1



2

Shearbar exchange

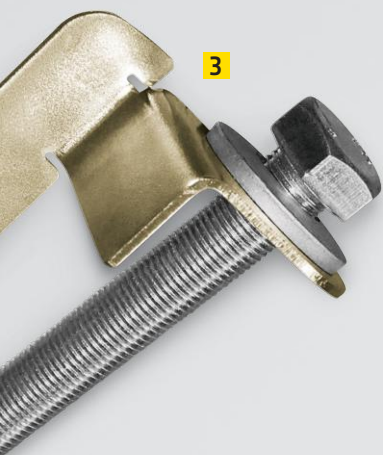
NOTE: When swapping from end to end of the shearbar, you should follow the same procedure as outlined below.

IMPORTANT: For crop change, you don't need to exchange your shearbar if you have the "All crops" Dura Line Plus™ shearbar installed.

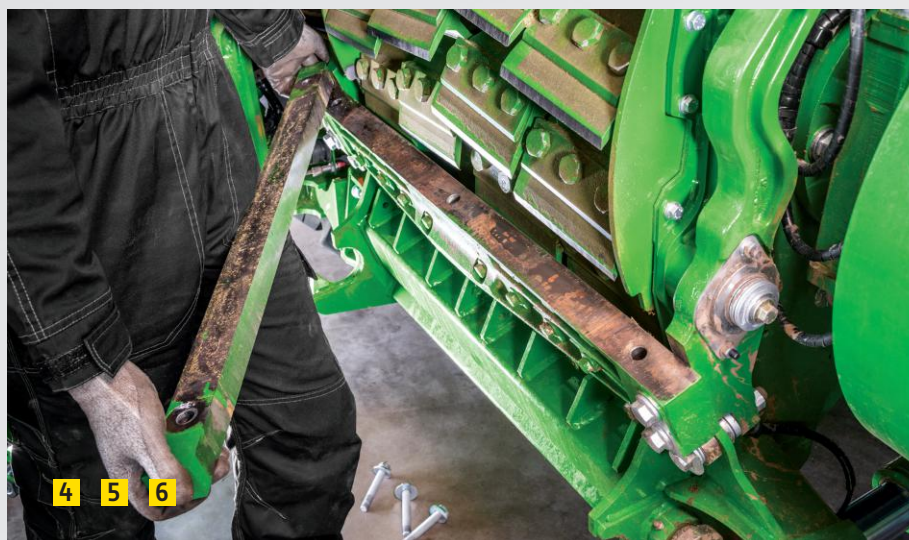
To start, remove header and open feed roll housing door.

1. In the cab, press the Automatic Shearbar Adjustment button to move the shearbar away from the cutterhead.
2. First remove the cover to then unscrew center screw. IMPORTANT: Pay close attention to the location of washers.
3. Remove the upper attaching screw, the washer and the strap from both sides.
4. Remove the shearbar.
5. Thoroughly clean the shearbar support's top surface.
6. Make sure the new cutting edge is turned towards the cutterhead before positioning the shearbar and aligning it with the screw holes.

IMPORTANT: Do not lubricate the stationary knife or knife retainer – lubrication will decrease the friction holding the knife, reducing chop quality.



3



4

5

6

Continued on next page

7. On both sides attach the shearbar, then reattach the retainer, washer and upper attaching screw. Tighten the bolts to 260 Nm.

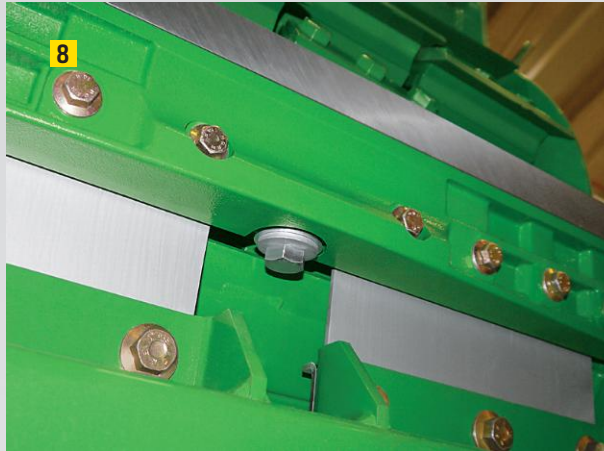
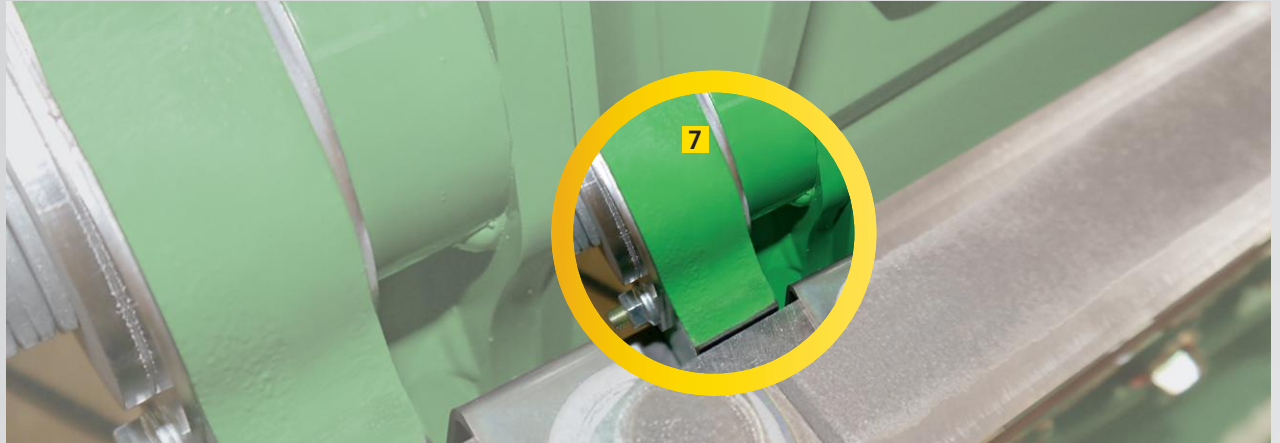
IMPORTANT: Ensure the strap is correctly reinstalled. The inner surface of the retainer must be in full contact with the back side of the shearbar and the angle plate should be aligned with the cutterhead side wall as shown.

8. Underneath the shearbar support, install the lower bolt and the two washers. Tighten the bolts to 260 Nm.

IMPORTANT: Manually turn the cutterhead to check the knife clearance. Cutterhead knives must not touch the shearbar.

9. Reinstall shield.

10. Close the feedroll housing and run a shearbar adjustment. If necessary, adjust spiral floor or recutter floor.



Simple to adjust. Easier to chop.

Shearbars – or stationary knives – are the “other half” of the chopping mechanism. They are critical to the effective performance of the cutterhead and provide a fixed platform against which to cut the crop.

Lower cost of operation.

8000 Series

Redesigned as an all together simpler adjustment, the entire shearbar assembly pivots toward the cutterhead drum to ensure a constant optimum cutting gap of 0.2–0.4 mm. The simplified shearbar system in the 8000 Series allows knives more room so they can have wider coatings. It also makes shearbar adjustments easier and cuts the cost of replacing Teflon strips.

7080 Series

A Teflon strip on the shearbar helps for shearbar movements.

There are three Genuine John Deere shearbars to choose from:



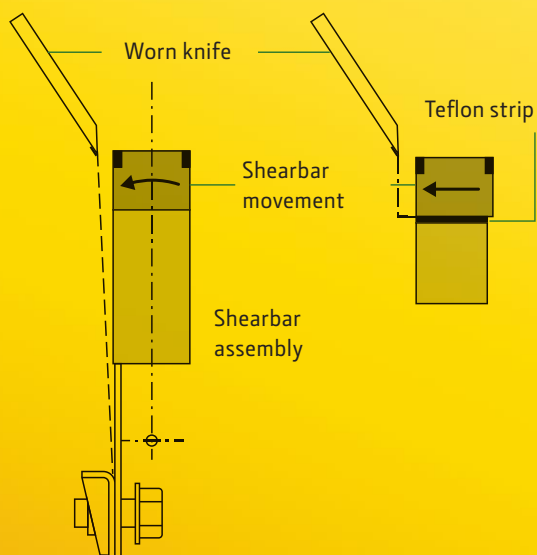
Grass



Corn



Dura Line Plus



New 8000 Series fixing – 3x bolts without strips



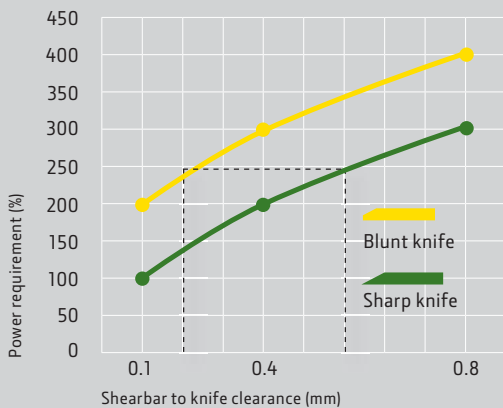
7080 Series fixing – 2x bolts clamping and 3 Teflon strips

Part Number	Description	SPFH Series
HXE86990	Corn	8100-8500
HXE86991	Grass	
HXE94584	Dura Line™ Plus	
HXE86980	Corn	8600-8800
HXE86911	Grass	
HXE94585	Dura Line™ Plus	

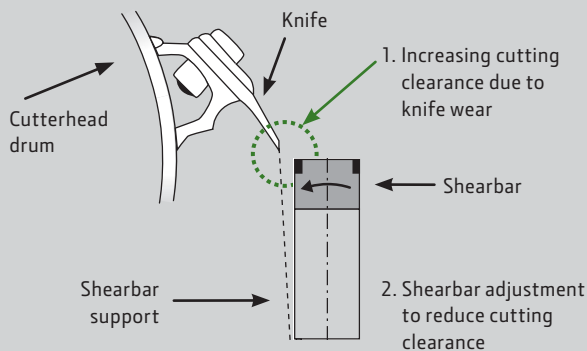
In field settings:

Optimize your chopping performance and reduce your costs of operation

To get the most from your SPFH, it is important to make sure you've got the right setup in place. However, it can be a challenge to work out the exact adjustments you need to make. The tips on the next few pages should help you avoid making common mistakes.



Source: Effect of sharpness and clearance on cutting energy (from McClure and Hall, 1992)



Why should I adjust the shearbar?

Increased fuel consumption isn't just caused by blunt knives but also by a large cutting clearance between the shearbar and knives. The diagram shows that sharp knives at 0.6 mm clearance require as much power as blunt knives at 0.2 mm clearance. It's important to adjust the shearbar because the cutterhead drum diameter reduces when harvesting while the cutting clearance increases. At a high clearance the crop is more ripped than cut, which impacts your cutting performance and increases your fuel consumption.

When should I adjust the shearbar?

1. After grinding because it slightly reduces the cutterhead diameter
2. After 60 minutes of operation because sharpened knife edges are brittle and will reduce slightly in size (but are still sharp enough for operation)
3. In-between the second adjustment and the next grinding cycle

Why are these settings important?

Sharp knives and a small cutting clearance give a smooth, close cut that requires less power. Blunt knives and/or a larger clearance can rip crops and increase your power requirement, which pushes up your fuel costs. Knives can cut up to 300 tons of crop per hour, so it is inevitable that they are going to wear and become damaged if exposed to stones. Blunt knives reduce cutting efficiency and require more power.

To cut efficiently and cost effectively, you should complete the necessary automatic grinding cycles and shearbar adjustments several times per day. Doing so ensures:

- Sharp knives
- Sharp shearbar edges
- An optimal cutting clearance between 0.2 and 0.4 mm

It also means:

- Optimized machine performance
- Reduced cost of operation

Always clean before grinding

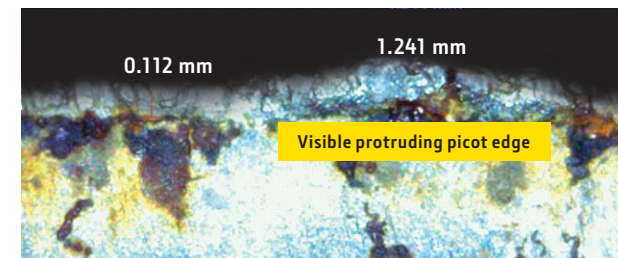
Crop debris buildup can be ignited by sparks from grinding. Every part of the knife grinding device and cutterhead assembly area **MUST** be cleaned before each knife grinding procedure. This includes behind the cutterhead, beneath the stationary knife adjusting arm assembly and knife retainer, around the hydraulic hoses, lubrication lines and wiring harnesses, as well as above and beneath the transition chute and around the spiral floor.

NOTE: Never initiate a grinding procedure in an area with flammable material or while driving the machine.

How often should I grind knives?

You should grind knives regularly to ensure optimal sharpness. However, it's important to realize that the chrome carbide coating in genuine John Deere knives has gradually increased over the past 15 years so they require less grinding than non-genuine alternatives. Excessive grinding can damage this expensive coating.

This is particularly important in less-abrasive crops like corn, where John Deere knives undergo a self-sharpening effect while cutting to reduce the need to grind as frequently. This is attributed to the base material of the knife wearing faster than the high-quality coating, which creates an aggressive cutting or "picot" edge.



View of the surface of a knife edge (magnified x200) Source: HTW Dresden, Karl J. Wild, Veit Walther, John K Schueller

In-field recommendations

The grinding frequency is also dependent on the crop yield. In the table below, we've highlighted the average yield sizes based on a 10-hour working day to help you decide what's best for you.

- It is better to grind frequently with fewer cycles than to grind irregularly with more cycles
- Start out with the recommended grinding values in the table below and then experiment with your settings to find what works best for your operation.



Grinding Table

	Grass	Corn	Other crops (Whole crop, Alfalfa)		
Conditions	Stony	Abrasive (sandy)	Not abrasive	Not abrasive	Abrasive
How to identify	Lots of impact marks on shearbar, frequently displaced knives, low wear life	Little impact marks on shearbar, rounding on both ends, poor wear life	Almost no impacts on shearbar, good wear life		
Best Practice: Cutting height / cm	≥ 7 Note: - A lower cutting height significantly increases wear - Foreign bodies (e.g. stones) reduce wear life and silage quality			≥ 12	≥ 7
Best practice knife	Grass knife			Corn knife	Grass knife
Best practice shearbar	Grass / Dura Line Plus	Corn / Dura Line Plus	Grass / Dura Line Plus		
Grinding cycles per day (recommended)	2 x 15–25	3 x 10–20	2 x 10–20	1 x 10–15	2 x 10–20
Finishing cycles per day (recommended)	3-5 (Note: Finishing is not essential in grass)			5-10	Same as grass

Blower area interior check

Access the service room and follow the steps on these two pages.

8600i



1. Remove plastic cover.



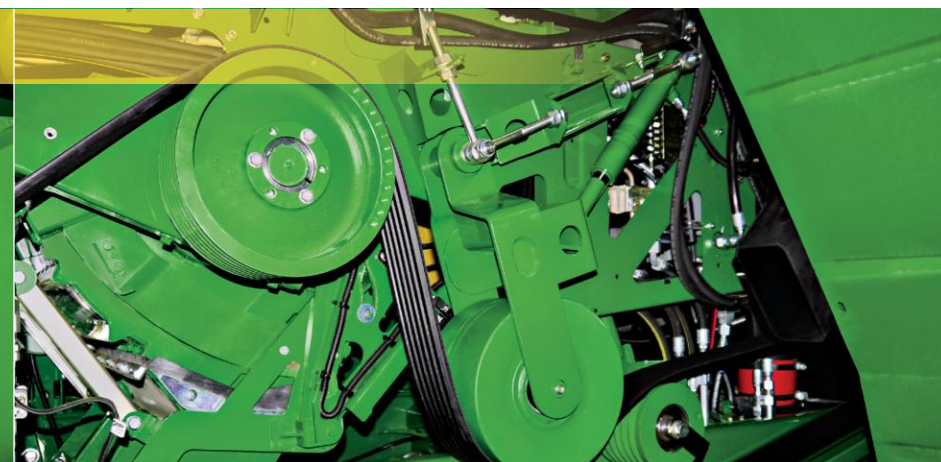
2. Use the special tool stored in toolbox to check paddle/liner setting. Basic gap setting is:

Corn: 1.5 mm (+/- 0.5 mm)

Grass: 3 mm (+/- 0.5 mm)



3. Open service plate to improve access to the blower area interior.



Sheaves

Sheave surfaces and grooves must be cleared of foreign bodies every day. This is because foreign bodies may cause vibration, which in turn may cause premature bearing wear.

Chassis

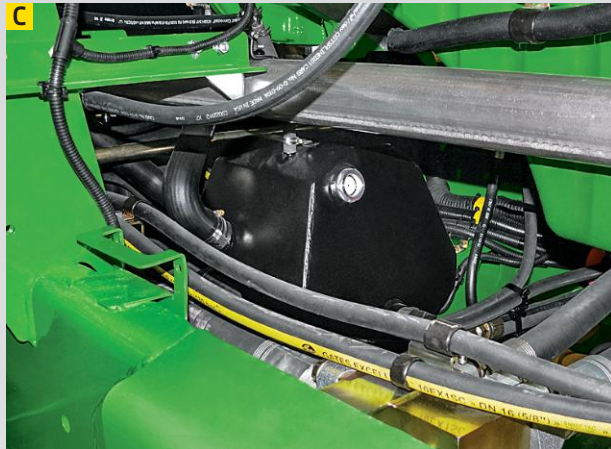
Use compressed air to clean the area between the main frame from below.



The fuel tank is ventilated through two breathers. Check both and clean if required.

Transmission

Checking your transmission on a regular basis prevents expensive downtime during the harvesting season.



A. Check hydraulic oil levels in main reservoir

- Withdraw all hydraulic cylinders before checking oil levels
- Add oil as needed
- Oil levels should sit between the “Min” and “Max” marks of the relevant sight glass
- Keep an eye out for leakage on connectors and hoses when you refill oil

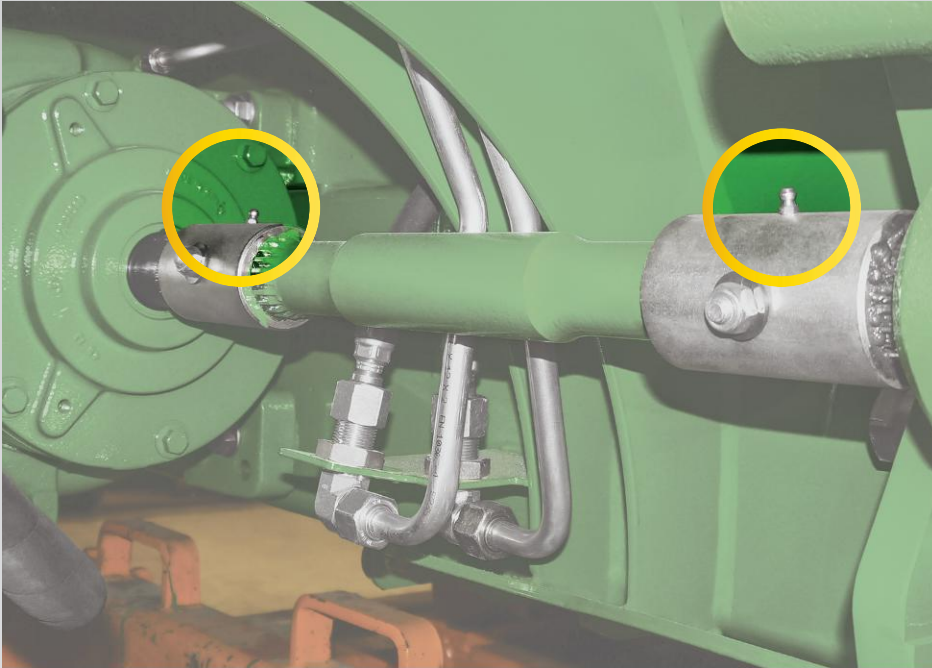
B. Check hoses and fittings

- Inspect hydraulic hoses, fittings and pumps for possible leaks
- Oil leakage can be easily detected by looking for parts coated with dust
- Replace damaged parts
- Tighten fittings where necessary

C. Check oil level in power distribution gear lubrication system

- Make sure oil is visible in the sight glass
- If required, add oil as necessary

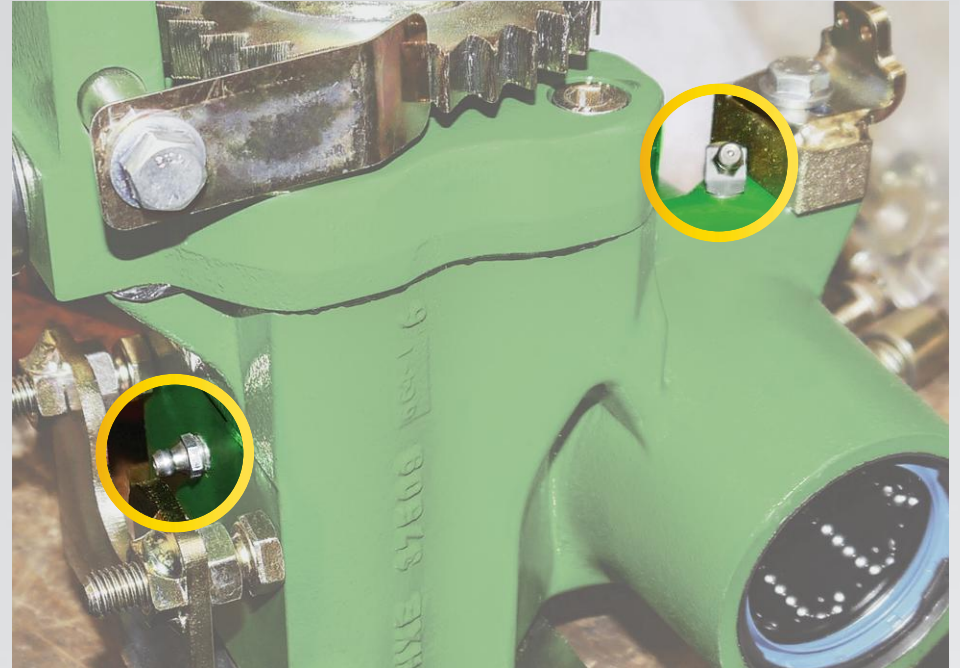
Greasing



Apply several shots of grease via the grease gun at the relevant greasing points. Continue until grease becomes visible around the housing.

The following points should be greased:

- 2 points in grinding stone area
- 4 points on final drive shaft couplers (2 on each side)



We recommend using John Deere multi-purpose grease.

IMPORTANT

The following instruction is only for 8000 Series SPFH with automatic greasing. For other configurations, please refer to Operator's Manual.



Cab

When you spend a lot of time in the cab, keeping it clean and organized will make your working day more relaxing, productive and enjoyable.

Clean cab

- Wipe down the seats, the console and the corner displays

Clean fresh air filter

- Clean the fresh air filter and housing using compressed air
- A clean fresh air filter keeps the the cab clean and maintains the efficiency of the air conditioning system
- The filter can easily be removed from outside of the cab

Exterior

Side & Rear Windows: Use ladders and appropriate cleaning tools to access and clean the cab windows. Important: Do not manually move the wiper arm as this can damage the wiper mechanism. Do not climb over the spout to reach the other side of the cab.



Clean fresh air filter

Additive Dosing System

1. Cleaning the filter bowl



The filter bowl can be found inside the pumping cabinet, behind the blower. You can only access it from the right side of the machine.



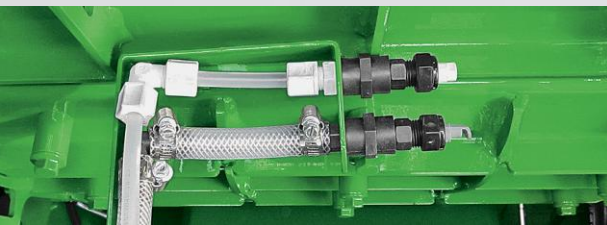
Remove the cabinet door. Check that the ball valve next to the pump is turned off.



Locate the filter bowl next to the valve and unscrew the bottom section, then remove the strainer.

NOTE: Clean off any debris with warm water and a mild soap if necessary. Once the screen is clean, follow the instructions in reverse order to reinstall the filter bowl.

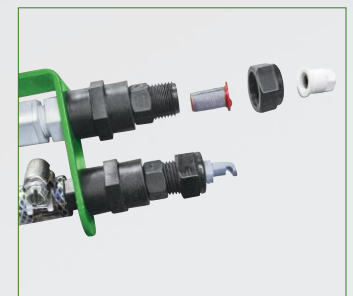
2. Clean the tips and tips screen



The tips and tip screen can be found in the spray nozzle assembly, which is located in the service compartment to the left of the blower's transition.

NOTE: Check that the ball valve inside the pumping cabinet is turned off. Disconnect the spray nozzle hanger by removing the knobs.

- Hold and keep the nozzle body from turning while removing the nozzle caps within a 22 mm wrench. Remove the tip and screen. Clean off any debris and soak in warm water with a mild soap if necessary.
- Once the tips and screens are cleaned, reinstall by following directions in reverse order.



3. System cleaning

A. Preparation

At the end of the day, clean all residues from the tanks. Then pour clean water into the dosing system:

- High Flow System tank – approximately 20 liters
- Low Flow System tank – approximately 4 liters
- Make sure you have a container handy that can collect the dirty rinse water

B. Execution in the cab

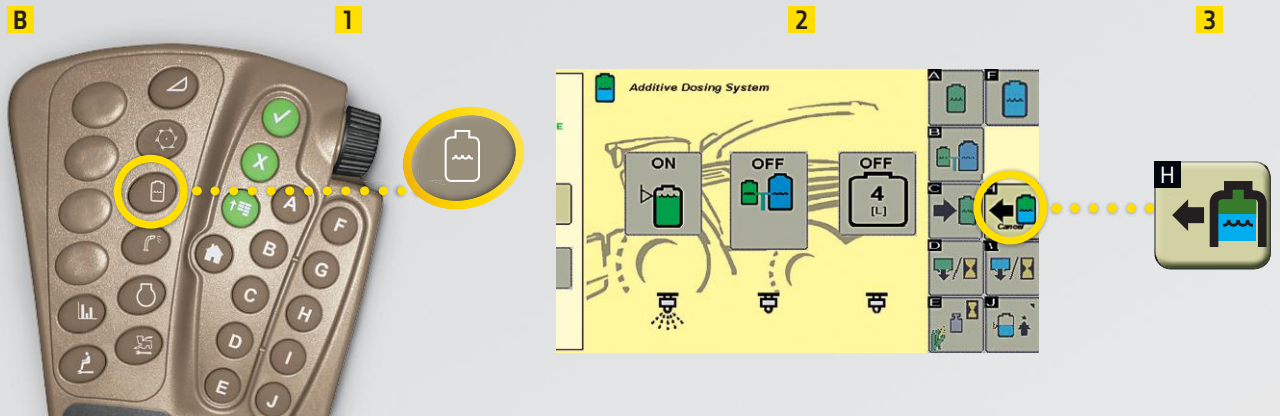
1. To access the additive dosing system page select yellow marked button on CommandArm
2. Ensure that the Dosing System is in AUTO or ON mode
3. Start Clean Mode (soft key 'H') to initiate a 2-minute automatic cleaning mode

NOTE: During this period the Clean Mode button will be grey and the flow rate will automatically switch to the maximum for the nozzle size installed. After the Clean Mode is finished the system will resume with the most recent previous setting.

- Shut OFF dosing system to finish cleaning process



Rinsing valve on low flow system tank 30 L





Inspect Inoculant Dosing System hoses (if installed)

- Check hoses for any damage or cracks.
- Replace if needed.

IMPORTANT

Always wear the appropriate personal protection equipment before replacing hoses.

Other areas – Inspect tires and check pressure

Before checking tire pressure, inspect for cuts or damage. Your new 8000 Series forage harvester is designed with the optimum weight distribution to maximize traction and minimize soil compaction; however, it is important to ensure you adjust the tire pressures and ballast to match the header equipment you are using.



Before the new harvest season starts, you need to ensure your machine is properly set up to minimize soil compaction:

Measure the load on each axle in the machine's harvest configuration.

Using the load data, check the tire manufacturer's tables to find the minimum pressure required for transport at 40 km/h.

Adjust the tire pressure to the lowest value possible as this will help minimize soil compaction.



Run indicator lights test and check lights.

A twist of the ignition key will enable you to check all lights on the warning display. Take a moment to check if all other lights – internal and external - are functioning as well.



If equipped, drain water from air compressor reservoir.

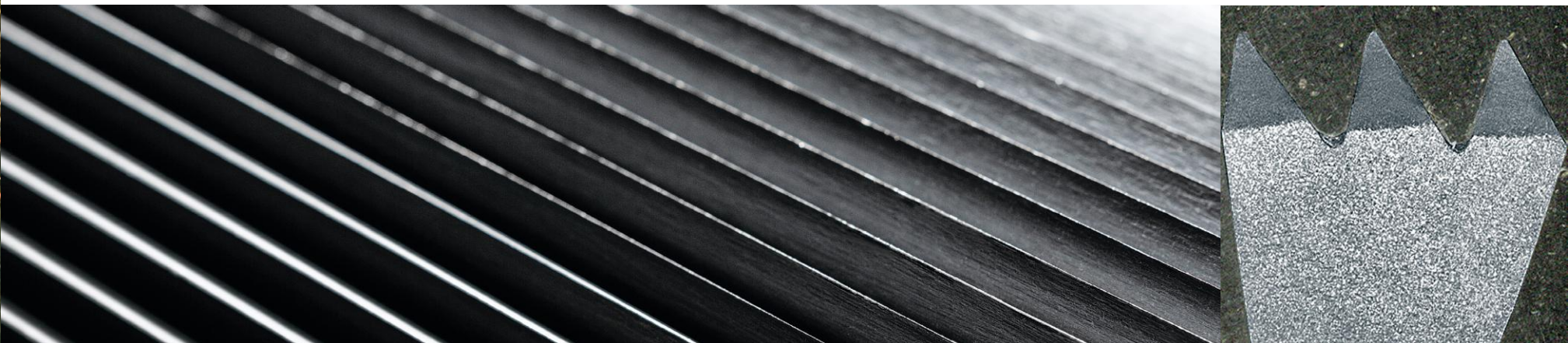
Place suitable container underneath the air compressor reservoir to collect residues.



Parts and Attachments

Aggressive performance. Smoother crop flow.





Kernel processor rolls

Genuine John Deere saw-tooth kernel processor rolls come pre-assembled and balanced. There's no need to manually install individual parts that can lead to unbalancing and premature wear. Our kernel processor rolls are resistant to moisture penetration, which can also lead to unbalancing.

Why choose Genuine John Deere saw-tooth kernel processor rolls?

- Smoother crop flow in all conditions
- More aggressive performance than triangle teeth
- Excellent performance in corn
- Moisture resistant
- Induction hardened for longer wear life than cheaper non-genuine flame hardened alternatives

Types and Application	Triangle Standard	Saw Tooth Standard	Saw Tooth DuraLine Plus	Saw Tooth Whole Crop	Triangle Milo
Crop	Corn	Corn	Corn	Whole crop	Alkalage and Milo
Benefit		More aggressive performance	Increased lifespan and more aggressive		
Gap recommendation	2.5–3 mm	2.5–3 mm	2.5–3 mm	0.5 – 1 mm	0.5 – 1 mm
Speed difference	21%	21%	21%	32%	32%

SPFH Width	Tooth Type	# of Teeth	Part Number Front Roll	Part Number Rear Roll
Standard body	Triangular teeth	118	AXE43638	Same as front
	Standard saw teeth	118	AXE43571	AXE43572
	Dura Line™ Plus saw teeth	118	AXE43639	AXE43640
	Dura Line™ Plus saw teeth (rear roll reversed)	118	AXE43639	Same as front
	Whole crop saw teeth	178	AXE43641	AXE43642
	Sorghum triangular teeth	238	AXE43643	Same as front
Wide body	Triangular teeth	118	AXE43491	Same as front
	Saw teeth	118	AXE43163	AXE43182
	Dura Line Plus saw teeth	118	AXE43492	AXE43493
	Dura Line Plus saw teeth (rear roll reversed)	118	AXE43492	Same as front
	Whole crop saw teeth	178	AXE43494	AXE43495
	Sorghum triangular teeth	238	AXE43496	Same as front

KernelStar 2 – Redefining processing!

The revolutionary KernelStar 2 multi-crop processor from John Deere is a unique design. It offers several advantages over a traditional cylindrical roller kernel processor:

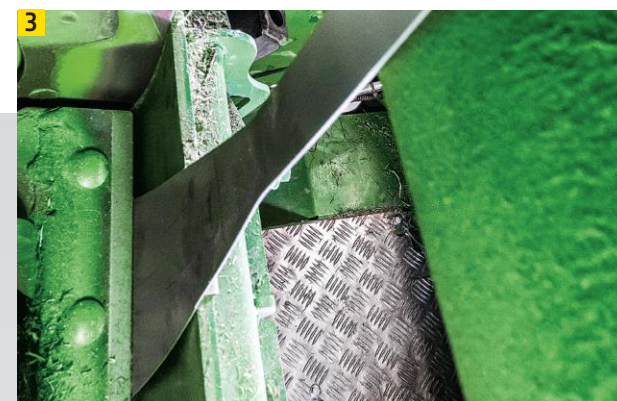
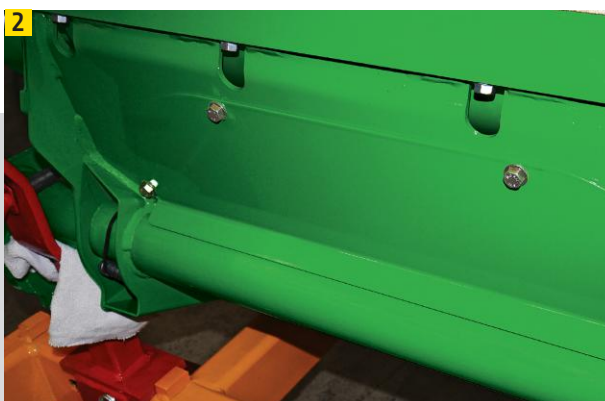
- More aggressive tearing action which smashes every kernel for higher nutrient value
- 270% more working surface offering a higher throughput
- 20% bigger discs than 7080 Series SPFH

SPFH Width	Tooth Type	# of Discs	Part Number Roll
Standard Body	Front KernelStar 2 complete roll	15 + 2 x 1/2	AXE51956
	Rear KernelStar 2 complete roll	14 + 2 x 1/2	AXE51955
Wide Body	Front KernelStar 2 complete roll	17 + 2 x 1/2	AXE51954
	Rear KernelStar 2 complete roll	16 + 2 x 1/2	AXE51953

IMPORTANT

- Speed up kernel processor installation with a mounting crane.
- To install a kernel processor on a grass-equipped 8000 Series SPFH, you'll need the right accelerator drive.
- Maximize the potential of your Corn silage with a stand-alone kernel processor / KernelStar 2.





1. If smooth side was used in grass harvest, reverse the feedroll bars so that they have the serrated side facing outwards.

2. Install grain panels under the feedrolls for dry harvest conditions.

3. Install the recutter screen if required (i.e. dry harvest conditions).

Adjust the distance between paddle and accelerator floor to 1.5 mm. If paddles are worn out, you need to replace them.

Don't forget to adjust ballast for rotary headers, as they are much heavier than grass headers (see the Operator's Manual ballast section).

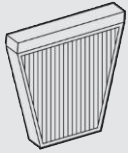
Part Number	Description	Model
AXE34299	Bottom panel	8100-8500 Series
HXE57121	Rear panel	
AXE34171	Bottom panel	8600-8800 Series
HXE57079	Rear panel	

Part Number	Description	Model
HXE37067	Straight paddle (10 required)	8100-8500 Series
HXE71450	Serrated paddle (5 from each required)	
HXE71452		
HXE29814	Straight paddle (10 required)	8600-8800 Series
HXE34825	Serrated paddle (5 from each required)	
HXE34826		

Filter Overview with Service Intervals

8000 Final Tier 4 (FT4) Series Self-Propelled Forage Harvesters - 8100, 8200, 8300, 8400, 8500, 8600, 8700, 8800

Cab fresh air



1

Recirculation air filter

L214634

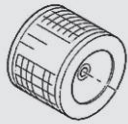
Clean or replace as required.

2

Fresh air filter

RE284091

Clean or replace as required.



Engine



3

Diesel exhaust fluid (DEF) tank header suction filter

DZ103739

Replace as indicated by Diagnostic Trouble Code.



4

Diesel exhaust fluid (DEF) tank vent filter

H216169

Replace after the first year, then every 4500 hours or three years, whichever occurs first.



5

Fresh air filter (ProDrive only)

AXE27449

Replace after the first 100 hours, then every 1000 hours and as indicated by Diagnostic Trouble Code.



6

Diesel exhaust fluid (DEF) dosing unit filter

RE554498

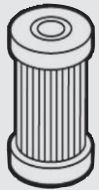
Replace after the first year, then every 4500 hours or three years, whichever occurs first.



Filter Overview with Service Intervals

8000 Final Tier 4 (FT4) Series Self-Propelled Forage Harvesters - 8100, 8200, 8300, 8400, 8500, 8600, 8700, 8800

Basic Hydraulic/Inside Frame

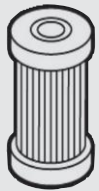


7

Reservoir oil filter

AXE27447

Replace every 1000 hours or two years, whichever occurs first, and as indicated by Diagnostic Trouble Code.



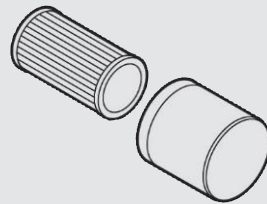
8

Power distribution gear oil filter

AXE27449

Replace after the first 100 hours, then every 1000 hours and as indicated by Diagnostic Trouble Code.

Engine



9

Primary air cleaner

(8100-8200) HXE43545

(8300-8600) HXE60966

(8700-8800) AZ104110

Clean as required (up to six times).
Replace every 1500 hours.

10

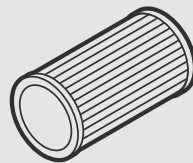
Secondary air cleaner

(8100-8200) HXE43546

(8300-8600) HXE60967

(8700-8800) AZ104111

Replace with each primary air cleaner change.



11

Coolant filter

(8700-8800) REC405896500

Replace every 250 hours.



12

Oil filter

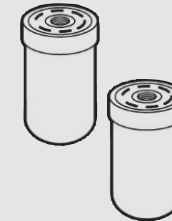
(8100-8200) RE509672

(8300-8600) RE572785

(8700-8800) RE574468 - Qty. 2

Replace after initial 100 hours, then every 250 hours.

If Plus-50 II oil is used interval may be extended to 500 hours.



13

Fuel filter

(8100-8600) RE539465, RE533910

(8700-8800) RECFS1976300

(8700-8800) RECFF0578200 - Qty. 2

Replace every 500 hours and as indicated by Diagnostic Trouble Code.



Capacities

8000 Final Tier 4 (FT4) Series Self-Propelled Forage Harvesters - 8100, 8200, 8300, 8400, 8500, 8600, 8700, 8800

Fuel Tank:

8100-8600.....	1100 L (290 gal)
8700-8800	1500 L (396 gal)

DEF Tank:

8100-8600.....	43 L (11.4 gal)
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Cooling System (Complete):

Cool-Gard™ II

8100-8200.....	82 L (21.7 gal)
8300-8600	113 L (29.9 gal)
8700-8800	110 L (29.1 gal)

Engine with Filter:

Plus-50™ II

8100-8200.....	37 L (9.8 gal)
8300-8600	58 L (14.8 gal)
8700-8800	64 L (16.9 gal)

Transmission (PBS):

GL-5.....	9.6 L (10.1 qt)
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Transmission (ProDrive™):

Hy-Gard™	13 L (3.4 gal)
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Final Drives (Each):

GL-5.....	7.0 L (7.4 qt)
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Four-Wheel Drive Rear Axle:

GL-5

Differential (Medium Duty)	15.5 (4.1 gal)
Differential (Heavy Duty)	17 L (4.5 gal)
In Motor Housing.....	1 L (1.1 qt)
Reduction Gear	7 L (.74 qt)

Two-Wheel Drive Rear Axle:

GL-5

Wheel Hub.....	5 L (.53 qt)
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Hydraulic System:

Hy-Gard™

Hydraulic Oil Reservoir	50 L (13.2 gal)
<i>(Without High Flow Dump Option)</i>	
Hydraulic Oil Reservoir	70 L (18.5 gal)
<i>(With High Flow Dump Option)</i>	
Right Feedroll Gearbox.....	6.7 L (7.1 qt)
Left Feedroll Gearbox.....	7 L (.74 qt)
Header Gearbox	87 L (.92 qt)
<i>(Medium Duty)</i>	
Header Gearbox	1.33 L (1.4 qt)
<i>(Heavy Duty)</i>	

Power Distribution Gear Lubrication System:

Hy-Gard™	33 L (8.7 gal)
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Brake System (PBS Transmission): DOT3 or DOT4

Brake Fluid.....	1 L (1.1 qt)
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Belts overview

Air screen drive

Part Number: Z103479

ENGINE Fan drive

8100-8600 Part Number: AXE33760

8700 Part Number: CQ40222

8800 Part Number: AXE33760

Vacuum fan drive

Part Number: HXE64200

Alternator & A/C compressor

(mounted in back w/ 8700-8800)

Part Number: HXE24688

Optional air compressor drive

8100-8200 9 L FT4

Part Number: HXE90896

8300-8600 13.5 L FT4

Part Number: HXE41402

8700-8800 19 L

Part Number: HXE81232

Kernel processor

8100-8500 Part Number: HXE39119

8600-8800 Part Number: AXE25334

KernelStar

8100-8500 Part Number: HXE93098

8600-8800 Part Number: AXE52471

Power belt

8100-8200

Part Number: AXE37395

8300-8600 w/ CH Speed 1100 rpm

Part Number: AXE17662

8300-8600 w/ CH Speed 1200 rpm

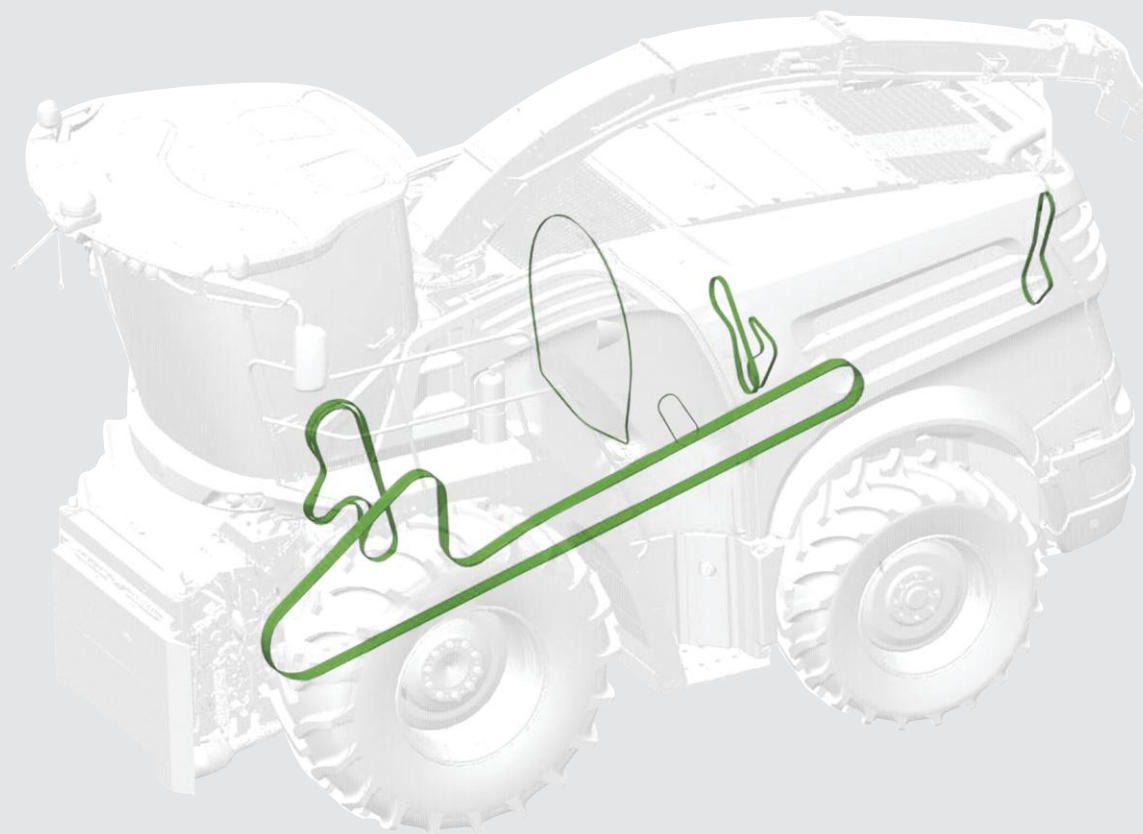
Part Number: AXE51063

8700-8800 w/ CH Speed 1100 rpm

Part Number: AXE41286

8700-8800 w/ CH Speed 1200 rpm

Part Number: AXE51876



Dura Line™ Parts. High wear-resistance. Lasts four times longer.

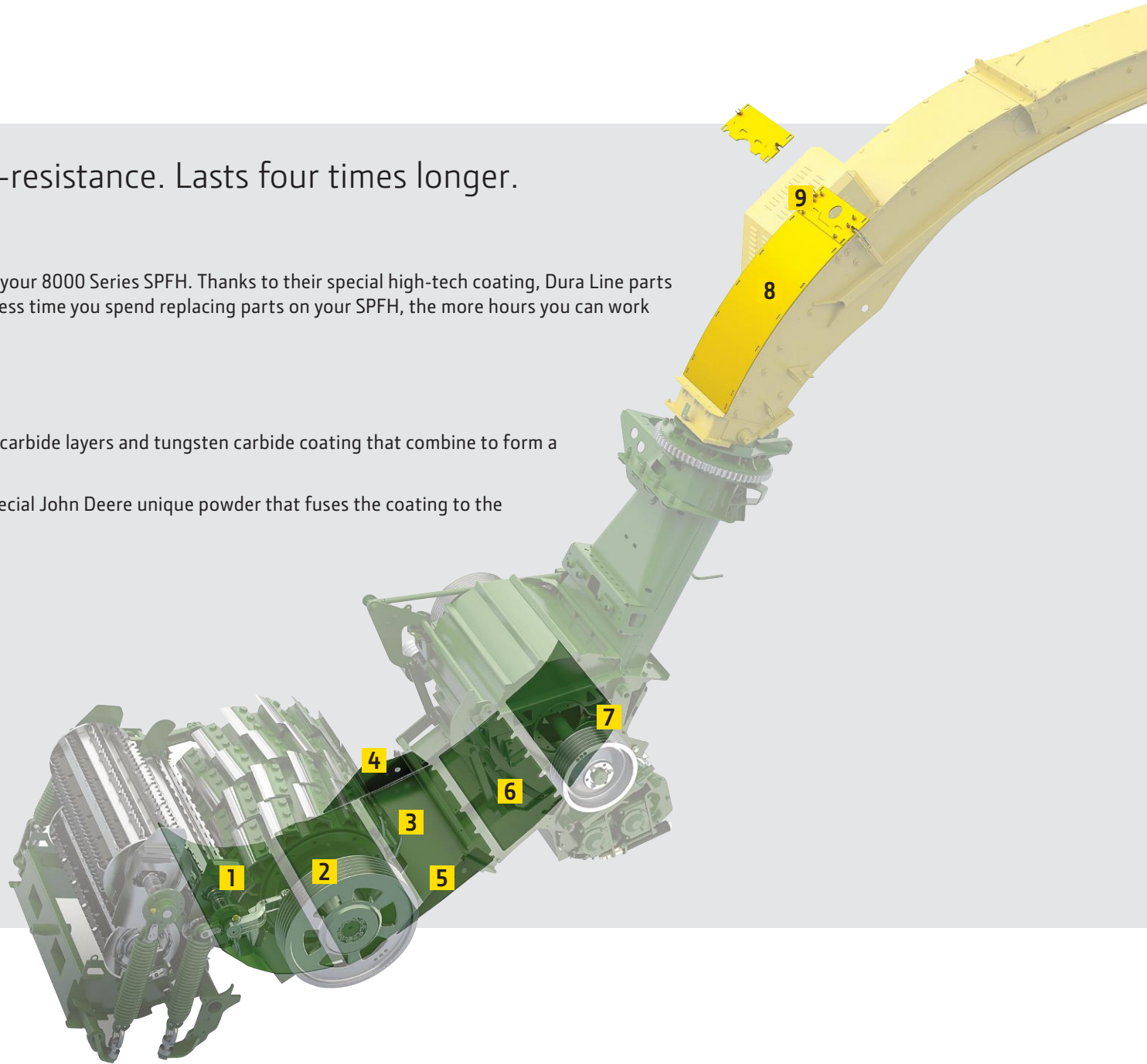
Save time and money

It pays to use Dura Line™ long-life components in your 8000 Series SPFH. Thanks to their special high-tech coating, Dura Line parts eliminate in-season downtime for good. And the less time you spend replacing parts on your SPFH, the more hours you can work and the more profitable your machine becomes.

Unrivaled technology

What makes Dura Line so special? It's the chrome carbide layers and tungsten carbide coating that combine to form a unique, ultra hard-wearing surface.

The chrome carbide layers are produced with a special John Deere unique powder that fuses the coating to the metal at an incredible 1250 degrees Celsius.





Part Number	Description	SPFH Series
1	AXE42241	8100-8500
2	AXE46841	
3	AXE46840	
4	HXE59380	
5	HXE59388	
6	AXE35696	
7	AXE42112	
1	AXE42240	8600-8800
2	AXE46843	
3	AXE46842	
4	HXE45292	
5	HXE45291	
6	AXE29033	
7	AXE42114	
8	HXE47058	8000
9	AXE29779	
9	AXE29053	
10	AXE55603	
11	AXE55604	

Unrivaled performance

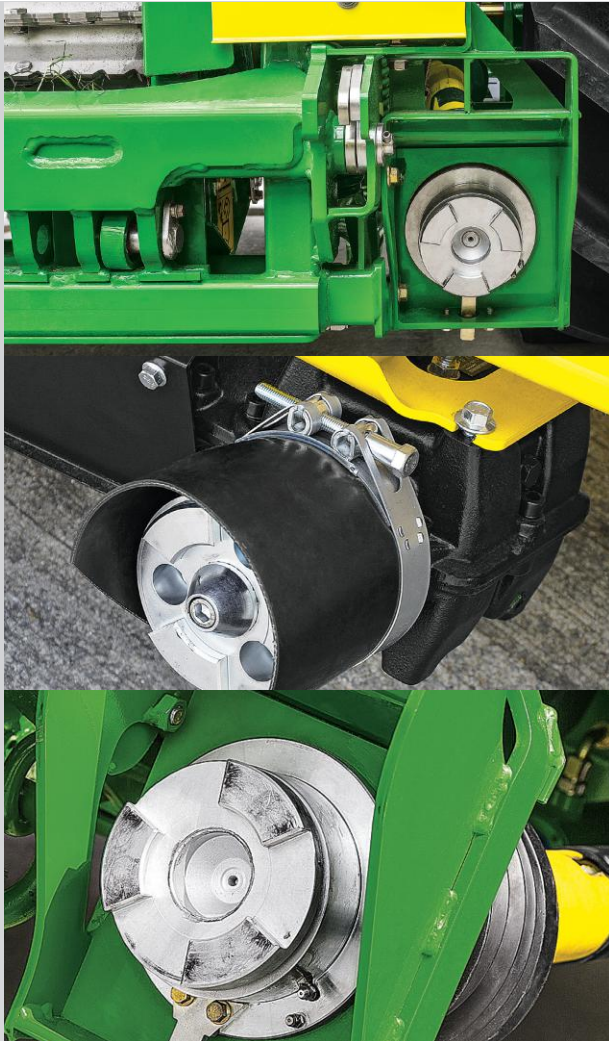
Thanks to their incredibly hard coating, Dura Line parts are tougher than anything our field testers have ever seen.

This incredible hardness also produces a very high self-cleaning effect, which helps to improve machine performance throughout by reducing the build up of crop residue. This is particularly useful in crops with high sugar content such as first cut grass.

Unrivaled value for money

With Dura Line components, you save a lot more than you spend. Although they cost more than conventional premium John Deere parts, Dura Line parts last up to 4 times longer and significantly minimize the risk of in-season downtime. This cuts both your parts and labor costs and reduces your maintenance bill.





Automatic PTO Coupler for header driveline retrofit bundle

Recommended for un-foldable extra wide headers (ProfitCut or grass pick-ups), which need to be removed for road transport.

NOTE: The header must also be fitted with the corresponding coupler (see below).

Part Number	Description	John Deere Headers
LCA112492 Quick Coupler Kit 639-659 Pick-up	Retrofit kit Auto PTO coupler	Pick-ups & Corn header
LCA113521	Quick Coupler Kit	700 Series Corn Headers
LCA113522	Quick Coupler Kit	600 Series Corn Headers

Automatic PTO coupler for John Deere headers retrofit bundle

Order the Auto coupler for quick and easy John Deere header installation.

NOTE: Requires corresponding part on the other side (SPFH).

Part Number	Description	
BXE10772	Retrofit kit Auto PTO coupler for header drive	8000 MY15
BXE10775	Retrofit kit Auto PTO coupler for header drive	8000 from MY16

Additive Dosing System retrofit bundle

We all apply additives to silage because we want to improve the quality of the end product. So, naturally, the range of additives available on the market is vast. This makes it difficult for SPFH owners to choose the right dosing system for their machine.

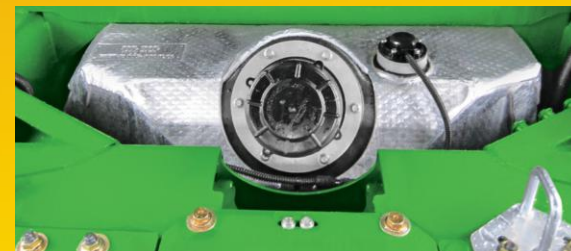
We've used intense research and customer feedback to design a unique twin line Additive Dosing System (ADS) just for the 8000 Series.

The John Deere ADS twin line is the most complete and flexible dosing system available. It is comprised of:

Why choose John Deere's twin line ADS?

- Acid-proof high-volume system
- Automatically clean hoses and nozzles after use
- Reverse low-volume system can store unused additives
- Easy access to tanks for cleaning and draining
- Easy fill level checking with indicator built into the cab display
- Centralized, easy-to-access control unit

Part Number	Description	SPFH Series
BXE10599	Retrofit additive tank and dosing system, 360 L Tank	8000
BXE10474	Additive dosing system twin line, 30 L tank (Only if BXE10599 is already installed)	



High-volume dosing system with a large 360 L tank located at the machine rear.



Low-volume concentrate dosing system with a 30 L tank located on the right-hand platform.



Additive Dosing System Steering Page for both high-and low-volume systems.

Advanced Header Control retrofit bundle

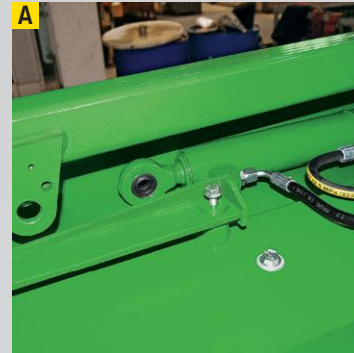
With Advanced Header Control (AHC), your 8000 Series machine actively controls the height and lateral tilt of the corn header to ensure a consistent length of cut, even in rough terrain.

Using two sensors located on the outer ends of the header, AHC automatically adjusts the lateral-tilt cylinder on the header frame as well as both header lift cylinders. By coordinating all three components, AHC ensures the corn header maintains the desired height throughout the field, so that you can enjoy a uniform cut.

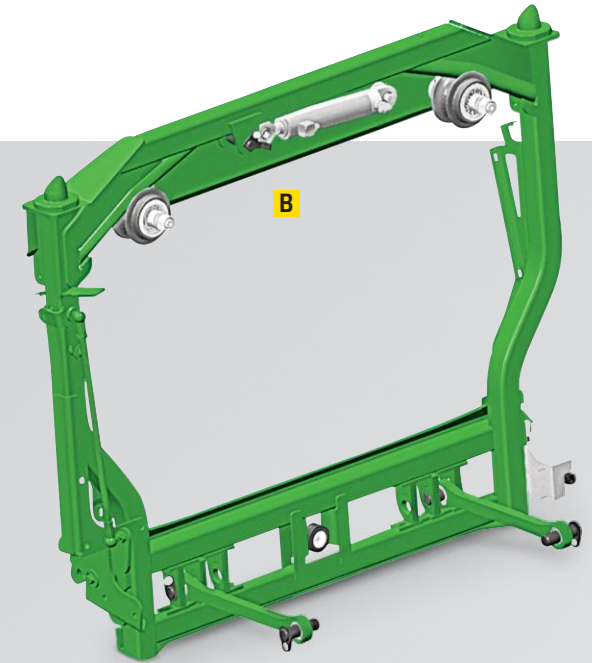
This feature is especially valuable with wider corn headers where passive pivoting offers only limited results. Even with an AHC bundle installed, the standard header modes (float/return to height) can still be enabled or disabled from the in-cab display.

NOTE: To implement AHC, 600 or 700 Series corn headers must be equipped with height sensors and cable routing. This feature is only available for corn headers.

Pick-up and direct cut headers operate in passive pivoting mode.



A. Pivoting frame

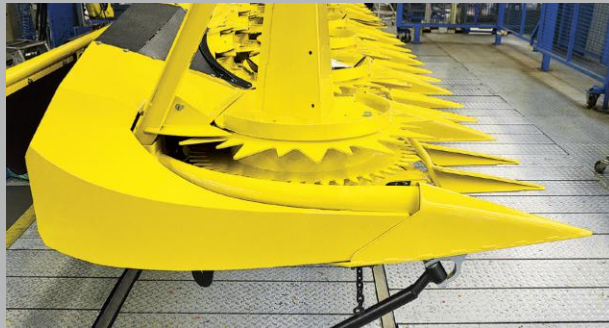


B. Header frame , Lateral-tilt cylinder

John Deere headers – AHC retrofit bundle

You can also install Advanced Header Control on John Deere headers.

NOTE: The machine must also be fitted with the active advanced control (see right).



Part Number	Description	SPFH Series
BXE10603	Advanced Header Control	8100-8500 w/o wagon Dump
BXE10638	Advanced Header Control	8100-8500 with wagon Dump
BXE10640	Advanced Header Control	8600-8800 w/o wagon Dump
BXE10639	Advanced Header Control	8600-8800 with wagon Dump

Part Number	Description	John Deere Corn Header
LCA107634	Height Sensor complete Kit	600 and 700 Series

Stone detection retrofit bundle

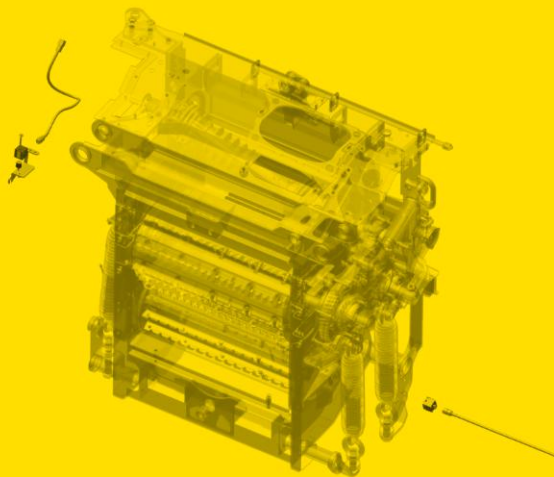
The electro-magnetic, metal-detection device in your 8000 Series SPFH can be upgraded with an additional stone detection feature.

Non-metallic knocks and jerking movements are detected in the feedroll thanks to the placement of two sensors, one in the lower front feedroll rectangular tube and the other on the right-hand side upper front feedroll arm. This system significantly improves the detection of solid foreign objects, minimizing false trips.

When tripped both the metal and stone detector trigger Selective Control Valve 1 (SCV1) automatically raise the crop compressor device on the grass pick-up. Re-engaging the feed rolls lowers the device back into place so you can continue chopping.

Description	SPFH Series
Stone detection retrofit kit	8000

Please contact your John Deere dealer for bundle number.



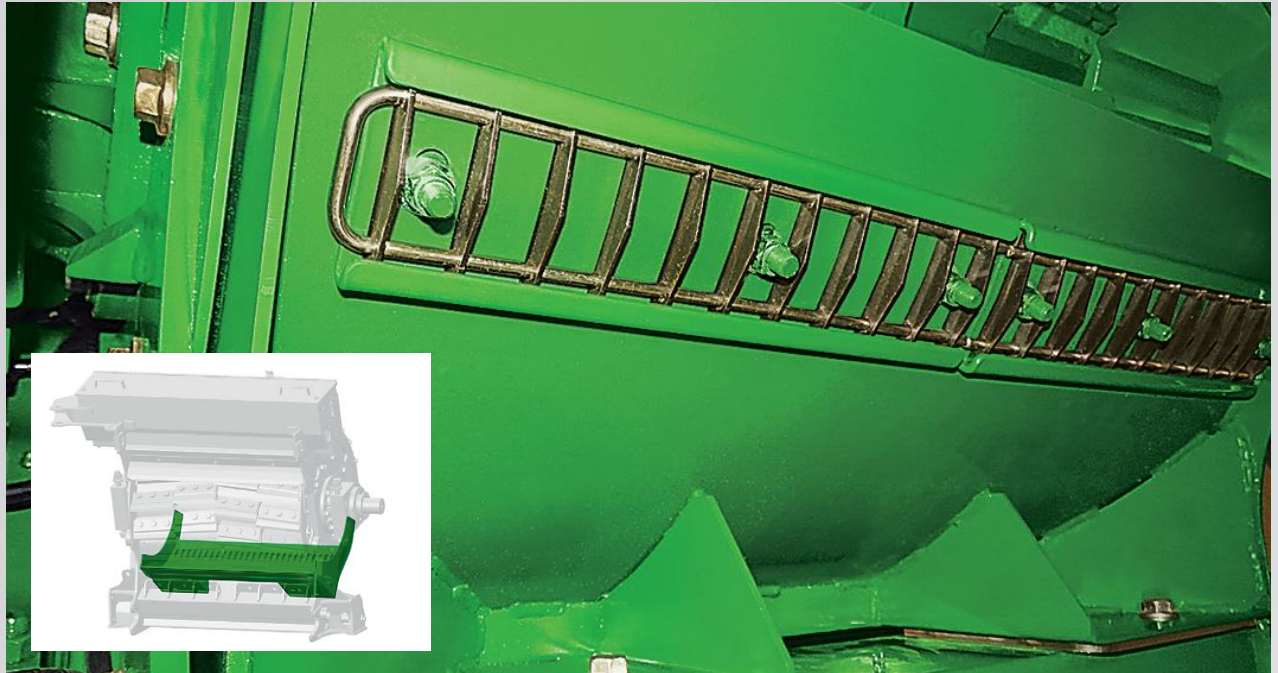
Crop specific attachments

Whether you're harvesting grass, corn or another crop entirely, our crop specific attachments are designed to improve your results during the harvest season – from longer knife wear life to adjustable spout bundles, we've got you covered.

Spiral band recutter screen kit

With a heavy corn harvesting season approaching, there's no better way to prepare than by installing John Deere "quick-change" knives, which are easy to install and have a highly resilient tungsten carbide coating. They also help you to reduce long leaves in dry corn conditions.

The spiral band knives are housed in two cassettes. These blades are exposed to large amounts of rough material in the crop flow, which makes them more susceptible to wear. "Quick change" knives cut downtime as they can be quickly and easily removed or reversed. And as all knives are tungsten carbide coated, you can expect a wear life up to 4 times longer than non-genuine knives.



Part Number	Description	SPFH Series
BXE10542	Spiral band recutter screen kit	8100-8500
BXE10543	Spiral band recutter screen kit	8600-8800



Kernel processor mounting crane retrofit bundle

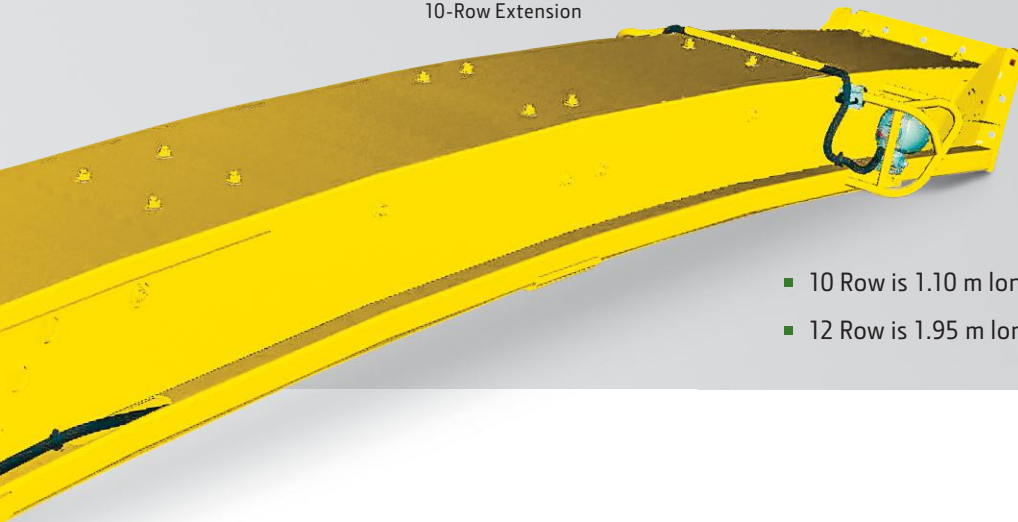
To speed up the kernel processor change over, we strongly recommend taking advantage of the mounting crane retrofit bundle.

Using an electric-lift motor to install or remove the kernel processor makes the change over to different crops, as well as machine maintenance, much easier and faster. And with the crane taking the strain, it makes your job a little bit more relaxing.

Part Number	Description	SPFH Series
BXE10608	KP-crane complete kit	8000



10-Row Extension



- 10 Row is 1.10 m longer than standard 8-row spout
- 12 Row is 1.95 m longer than standard 8-row spout

Spout extension retrofit bundles

The spout extension makes trailer filling easy and precise. It is ideal for use in corn as it helps to match the working width of your big corn headers:

Part Number	Description	SPFH Series
BXE10544	Spout extension for 10 row corn heads	8000
BXE10577	Spout extension for 12 row corn heads	

Stand-alone kernel processor / KernelStar 2 retrofit bundle

Your 8000 Series SPFH can be equipped with crop processing technology that ensures the very highest quality of corn silage. To maximize your performance, we implement crop processing principles to reflect different crop conditions and harvesting capacities relative to engine power.

Roller kernel processors can be tuned for customers requiring the absolute highest quality of forage:

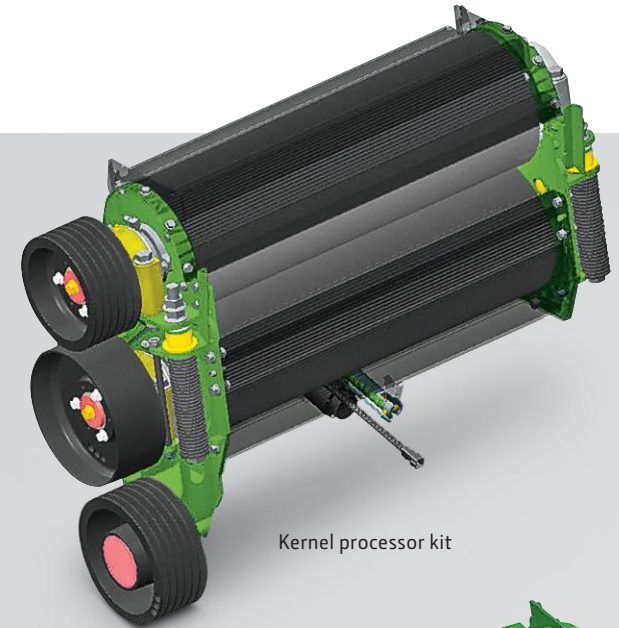
- Rollers can be individually specified for various crops
- Differences in roller speed can be altered in relation to the processing requirement and the crop maturity or moisture

The bundle is comprised of hard-plated rollers and various teeth configurations which address different crops and crop abrasiveness.

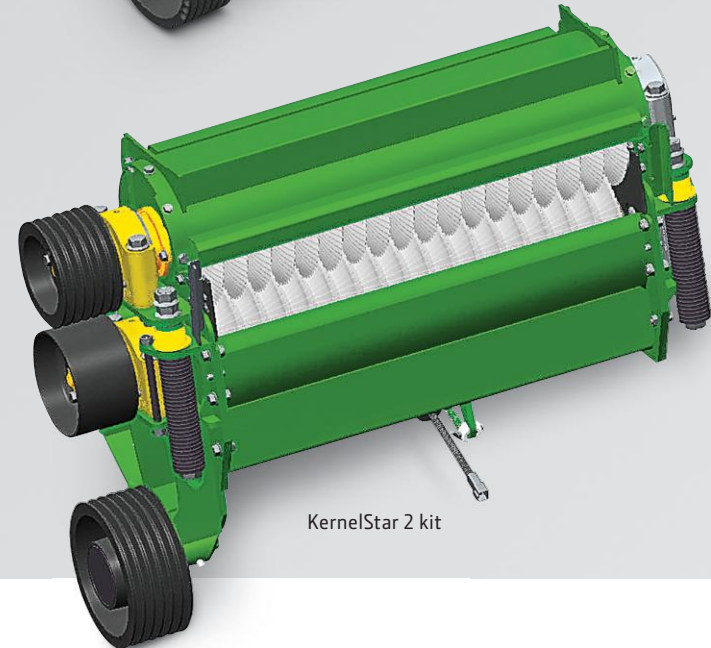
The revolutionary KernelStar 2 multi-crop processor has a unique design that offers three key advantages over cylindrical roller kernel processors:

- More aggressive tearing action that smashes every kernel for higher nutrient value
- 270% more working surface provides a higher throughput
- 20% bigger discs compared to a 7080 Series SPFH

Part Number	Description	SPFH Series
BXE10819	Dura Line™ saw teeth with 32% speed differ.	8100-8500
BXE10546	Whole crop saw teeth without differential speed pulley	
BXE10549	32% differential speed pulley required with BXE10546	
BXE10548	Kernelstar 2	
BXE10820	Dura Line saw teeth with 32% speed differ	8600-8800
BXE10547	Whole crop saw teeth w/o differential speed pulley	
BXE10550	32% differential speed pulley required with BXE10547	
BXE10545	Kernelstar 2	



Kernel processor kit



KernelStar 2 kit

Kernel processor / KernelStar 2 drives retrofit bundle

When retrofitting a kernel processor or KernelStar 2 on a grass harvest equipped 8000 Series SPFH, the drive kit includes an accelerator drive pulley and tensioner for the kernel processor belt.

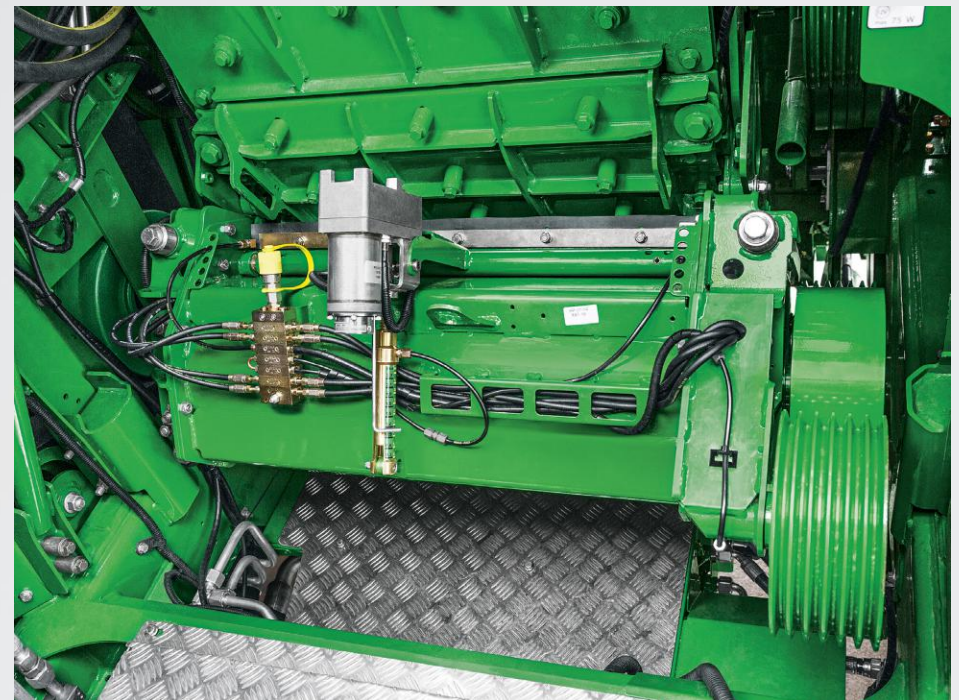
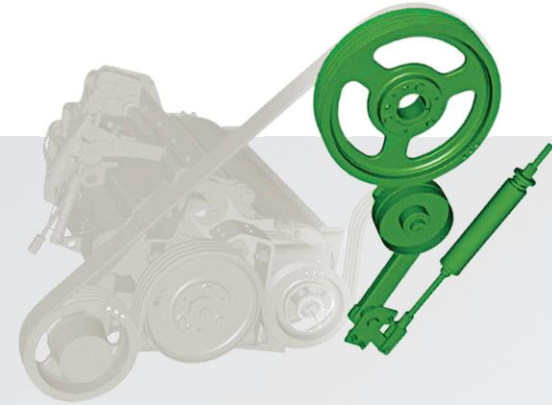
Part Number	Description	Processor Type	SPFH Series
BXE10609	Kernel Processor Drive Kit	Kernel Processor	8100-8500
BXE10611	KernelStar 2 Drive Kit	KernelStar 2	
BXE10610	Kernel Processor Drive Kit	Kernel Processor	8600-8800
BXE10612	KernelStar Drive Kit	KernelStar 2	

Electrical kernel processor / KernelStar 2 gap adjustment retrofit bundle

You can also upgrade your kernel processor from manual roll adjustments to electrical adjustments. This makes easy work of adjusting the kernel processor roll clearance as it can be done on-the-go from the cab. It also lets you react quickly to changing crop conditions.

If you work in fields with a lot of dry crops and dry crop debris, you can significantly reduce machine fuel consumption by using wider kernel processor roll clearance settings.

Part Number	Description	SPFH Series
BXE10569	Electrical kernel processor roll clearance adjustment	8000





GreenStar™ “i ready” retrofit bundle

John Deere Agricultural Management Solutions (AMS) make it easy to track and improve every part of your business. Record your in-field performance, monitor crops as they are harvested, follow machine status remotely, stay on top of important business data and much more. AMS makes managing your business easier than ever.

Choose the Greenstar “i ready” bundle and you’ll enjoy a whole new level of precision harvesting in your 8000 Series SPFH.

NOTE:

- Order this bundle to upgrade a “without i” 8000 Series SPFH to the level of an “i ready” 8000 Series SPFH
- This bundle contains: mass flow sensor, GreenStar™ display and StarFire™ bracket
- If HarvestLab is required, please order its attachment bracket bundle separately

Part Number	Description	SPFH Series
BXE10598	GreenStar ready retrofit kit	8000



HarvestLab™ attachment bracket

The HarvestLab moisture sensor is mounted to a bracket on top of the discharge spout and takes accurate moisture readings as crop passes through. This is the same technology professional forage laboratories use to measure moisture and has the ability to also measure sugar, starch, acid detergent fibre (ADF), neutral detergent fibre (NDF), ash and protein in corn silage.

To keep maintenance to a minimum, the attachment bracket ensures a secure fitting for the HarvestLab sensor and helps to reduce disturbance caused by machine vibration.

NOTE:

- This kit contains the bracket only, which is needed to install the HarvestLab sensor onto the spout
- Requires a GreenStar ready SPFH

Part Number	Description	SPFH Series
BXE10574	HarvestLab attachment bracket	8000



New 8000 Series Self-Propelled Forage Harvester (SPFH) Toolbox

John Deere is pleased to announce a new toolbox available for the 8000 series self-propelled forage harvesters. The toolbox is designed for the rear storage compartment on the 8000 series. The accordion style toolbox has multiple compartments and easy to carry handles. Although the toolbox is specifically designed for the 8000 series, it may be used in other applications.

Note: Tools not included

Part Number	Description	SPFH Series
FH330251	Self-Propelled Forage Harvester Toolbox	8000

RowSense™ sensor kit for John Deere headers retrofit bundle

Combining leading edge GPS position data with row sensor data, AutoTrac RowSense is the next step for high efficiency corn harvesting.

The pinpoint accuracy of automatic guidance technology ensures that corn headers stay between corn rows when harvesting. This lets operators work more efficiently and with less stress.



Part Number	Description	SPFH Series
LCA106105	RowSense Sensor complete kit	345 Plus, 360 Plus, 375 Plus, 390 Plus



Service lighting package retrofit bundle

Choose the service lighting package to make easy work of maintenance in low light conditions. Whether you're working through the night to meet a deadline or simply find yourself in cloudy weather, the exterior service lights will help brighten things up.

It's the ideal solution to help speed up daily checks in the field.

This bundle contains:

- 1 x light in the back of the engine compartment
- 1 x light in the service compartment
- 2 x light in the engine compartment left and right side
- 1 x light above the cutterhead

Part Number	Description	SPFH Series
BXE10601	LED Service Lighting Package	8000



Working lighting package retrofit bundle

During peak season, you can spend 14 hours a day or more in your machine. That means there's going to be some late nights at some point, or at least some low-light finishes.

That's why our working lighting package is perfect for those long hours in the field. The LED bulbs are not only as bright as regular bulbs but they last longer and use less energy too – saving you a lot of money in the long run.

Take charge of challenging harvesting conditions and choose the solution to make your life more comfortable and productive.

Part Number	Description	SPFH Series
Contact Dealer	LED Working Lighting Package	8000



John Deere grease

Multi-Purpose Lithium grease

We recommend Multi-Purpose Lithium for light to medium-duty applications. It's ideal for all seasons and all brands.

Multi-Purpose HD lithium complex grease

John Deere HD Lithium Complex is great for wheel bearings and U-joints when lithium grease is recommended, no matter what make you own.

Multi-Purpose SD Polyurea grease

Our premium factory-fill grease is ideal for most brands of equipment. It's perfect for high temperatures and extreme pressures. Use it on wheel bearings, U-joints and other contact points that require severe-duty grease.

Multi-Purpose extreme-duty synthetic grease

Our extreme-duty grease is recommended for almost any application. It's nontoxic and odorless, making it ideal for food-processing areas.



StrongBox™ batteries

We make sure you get the most power out of our StrongBox batteries. They come dry-charged from the factory, and we wait to activate them until you're ready to take them home. Since they're not losing juice on the shelves, they'll stay charged when you really need them.



Fuel-Protect

If your engine isn't running like it should, the problem could be your fuel. Luckily, John Deere offers new Fuel-Protect diesel fuel conditioner to make problematic fuel a non-issue. Fuel-Protect stabilizes fuel, helps keep injectors clean and prevents corrosion to maximize your performance year-round. Ask about our summer and winter formulas.



Hydraulic hoses and fittings

Rely on your John Deere dealer for hose assemblies to fit the exact specs of your machine. Our hoses are reinforced for strength and feature deep-biting teeth for a strong grip.

Preserve your equipment — inside and out.

John Deere goes beyond tough replacement parts to keep you in the field. We've also developed a top-quality line of maintenance products to make sure you're getting the most out of your equipment.

Our maintenance line is designed to add to your productivity and extend the life of your machine. Ask your John Deere dealer what products are best for you.



Plus-50™ II premium engine oil

Plus-50 II is proven to protect your equipment up to 500 hours* in the field, so you'll save money on maintenance costs. John Deere engineers put Plus-50 II through one of the industry's toughest tests, making sure it will protect your engine from wear this season and beyond. Plus-50 II can be used in most diesel machines. Ask about bulk oil for added convenience.



Cool-Gard™ II antifreeze/coolant

Cool-Gard II is designed to protect your cooling system for up to six years or 6,000 hours. This remarkable coolant/antifreeze protects against corrosion, cavitation and deposits under the harshest conditions. Advanced oxidation stability provides long-lasting protection against heat so you can cut back on downtime and save on service costs. You'll spend more time in the field turning profits and less time worrying about maintenance expenses.

*JDQ-78X dyno engine test performed by Southwest Research Institute in San Antonio, Texas in April 2008.

World-class parts and service, just around the corner

Your customers demand that you're ready to roll on time, every time, and your John Deere dealer is there to make that happen. Trained John Deere parts and service experts are ready with the parts and knowledge it takes to get the best machine performance or, if needed, get you back to the field. So visit a John Deere dealer near you for the first-rate service you deserve.





Exceptional parts availability

1. All John Deere dealers are connected to a central, worldwide parts database. If the part you need is not in stock, your dealer can quickly query other dealers using the JDPOINT online order system.
2. The F.L.A.S.H. (Fast Locating And Special Handling) system lets dealers access parts inventories in both Europe and North America.

JDParts online ordering

With JDParts you can order replacement parts and accessories online from the convenience of your home. Talk to your John Deere dealer and let them show you how easy it is to set up your preferred online parts ordering account.

Unmatched service and support

John Deere service technicians are among the best in the business. They're continually trained on the best ways to get you back in the field, whether you need just a small adjustment to harvest more effectively or a complete machine overhaul. They have access to the best facilities and resources available for speedy repairs and less downtime, like ServiceAdvisor diagnostic system. Because their job is to get you back to work as quickly as possible.

Convenient store hours

John Deere dealers know that your day doesn't always end at five o'clock. That's why they're open weekends, on-call most evenings, and extend their hours during key months. Plus, John Deere experts can come directly to you in our mobile service trucks. So see your local John Deere dealer today because your business is too important to wait for solutions.



SPFH Models



Model	8100	8200	8300	8400	8500	8600	8700	8800
Engine HP @ 2100 RPM	337	396	447	495	536	574	697	744
Engine Model	9.0 L FT4	9.0 L FT4	13.5L FT4	13.5L FT4	13.5L FT4	13.5L FT4	QSK 19.0L	QSK 19.0L
Transmission								
Standard	Hydrostatic 3-Speed	Hydrostatic 3-Speed	Hydrostatic 3-Speed	Hydrostatic 3-Speed	Hydrostatic 3-Speed	Hydrostatic 3-Speed	ProDrive	ProDrive
Optional	ProDrive	ProDrive	ProDrive	ProDrive	ProDrive	ProDrive		



OUR EXPERTS ARE READY FOR YOU

Rely on your John Deere Parts and Service Team to help keep you running.

Sure, you can find what you need at your John Deere dealership – top-performing equipment, must-have products and a fully stocked parts inventory to keep you running when you need it most. But even more

importantly, you can find who you need – parts and service professionals dedicated to helping you keep your operation running as smoothly as it should.

We hope you'll come see our parts and service team – but we'll try to get you out the door quick. Because as much as we love to see you, we'd rather see you in the field.



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