

X

SERIES COMBINES



JOHN DEERE

NOTHING RUNS LIKE A DEERE



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CATCHES EVERY GRAIN

ULTRA EFFICIENT CROP FEEDING

Our new range of Hinged Draper (HD) headers were developed to match the X9's huge throughput. They follow the ground like no other header, catching all the grain and reducing tillage costs.



SUPERIOR BY DESIGN

The HD header range has several market leading advantages which will not only improve your harvest performance, but make significant improvements to your whole crop management.

LOW SHATTER LOSSES

The reel clearance to the cutterbar can be adjusted up to 1,110 mm on the HDX. This greatly reduces shatter losses in tall, fluffy crops like rapeseed as the reel only engages with the crop when it is directly over the top of the grain saver belts.

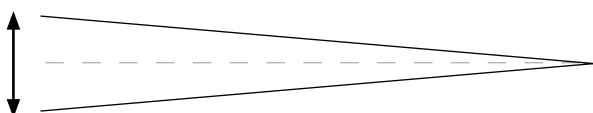


SMALL GRAIN VERSATILITY

The HDX header with its 1,200 mm belts has all the advantages of an extendable platform with draper belt technology. This gives you maximum flexibility especially during the rapeseed harvest.



10°



UNMATCHED GROUND FOLLOWING

The hydraulically adjustable attachment frame moves vertically, which helps isolate the header from the combine for better ground following.

The header wings behave like two independent cutter bars. Flexing by up to 10° they deliver great performance in down crop and leave an even stubble on undulating ground. Together with the attachment frame the vertical movement at the wing tips is for example on the HD45X 2,972 mm and on the HD50R 3,317 mm. A tight reel to cutterbar distance is also maintained across the full width, thanks to the 'projected pivot point' of each wing meeting in the centre of the header.

CONSISTENT STUBBLE HEIGHT

Cutting crop to a consistent stubble height improves the loading of the combine which delivers better separation and cleaning. This in turn makes sure only evenly cut and spread straw residue are left behind the combine. It also makes it easier for the following tillage passes to prepare a better more uniform seedbed which helps seed establishment and ultimately, higher germination rates.



EXCELLENT CROP FEEDING

The fully fingered top auger ensures consistent feeding of the centre drum in tall, bushy crops. The drum has two speeds and two height positions for different crop types. The standard speed is optimised for high volume crops such as rapeseed and cereals to reduce up to 26% header losses in rapeseed. The lower speed prevents easy shelling crops from being thrown over the top onto the feederhouse.



QUICK FIT SIDE KNIVES

The light weight side knives can be installed in less than 3 minutes by one person, without the need for any tools. With no electrics and no hydraulics they are exceptionally reliable. They also do not need a heavy drive motor at the top which means less vibrations and lower shattering losses.



RESPONSIVE GROUND FOLLOWING

The gauge wheels are fitted with flotation tyres and support 20% of the header's weight. Directly linked to the chassis both mechanically and hydraulically they are fully adjustable from the cab. Together with the header height sensors they guarantee perfect ground contour following even on uneven fields. For harvesting beans, peas and down crops the wheels can be retracted to allow the cutterbar to get closer to the ground.



MASSIVE CAPACITY

HEAVY DUTY FEEDERHOUSE

Wider, longer and stronger, the X9 feederhouse lets you harvest faster in high yielding crops. The design is also fundamentally different from traditional feederhouses with huge lift cylinders and heavy duty components, it's built to run for years.

23%

GREATER WIDTH

45%

MORE VOLUME

20%

FASTER IN DOWN CROP





1,300 mm

6,150 kg

**LIFT CAPACITY
AS STANDARD**

11 Degree

**FORE-/AFT TILT IN
BASE**

950 Nm

SLIP CLUTCH

HANDLES THE BIGGEST HEADERS

You won't be capacity constrained by header size. The X9 will easily handle 15m+ small grain headers and 18+ row corn heads

EXCELLENT TERRAIN FOLLOWING

The independent frame connecting the header to the feederhouse isolates the header movements from the combine.

HIGH FIELD SPEEDS

Travel at speeds of up to 20 km/h across fields to the next patch with a large header attached thanks to the heavy duty construction and high torsional rigidity.

EASY HEADER CONNECTION

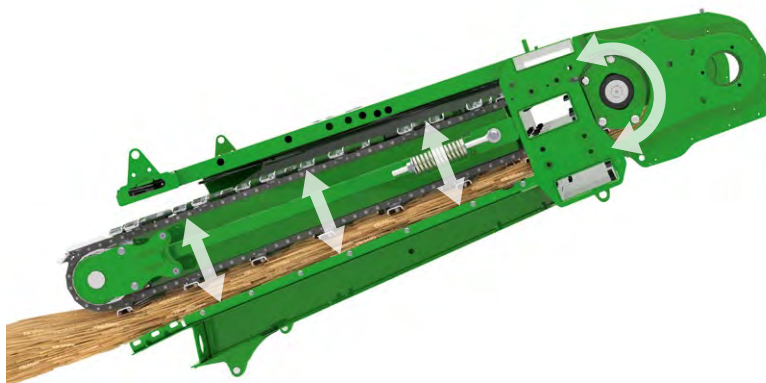
With 1,300 mm lift height you'll have no problem picking-up or dropping-off a header on a trailer, even on uneven ground. It also lets you drive over obstacles and move from field to field without removing the header.

HIGH CROP ENGAGEMENT

We've taken the proven pivoting mid-floor design from the S-Series, which allows the feederhouse components to freely move up and down and ensures better crop engagement.

EVEN CROP TRANSITION

The feederhouse pivots at the feed accelerator. It means whatever the lift height is, the feed accelerator always directs the crop into the rotors at the optimum angle.



EXCELLENT HEADER VISIBILITY

The long feederhouse gives you a clear view of the header feeding. Crop flow is also smoother, reducing grain and straw damage.

AUTOMATIC FEEDERHOUSE CYLINDER LOCKOUT

The feederhouse is automatically locked as soon as you leave the seat. The header can also be locked at any height for easy maintenance e.g. changing a stone damaged knife.

POWERFUL REVERSER

While reversing the header and feederhouse, the separator can run at full rpm. This helps clear blockages fast and effectively as the material can be slowly moved back and forth to carefully feed the rotors.

INSTANT STOP

If you need to stop fast the clutch on the main drive transmission opens and, thanks to their low inertia, all drives stop immediately.

VARIABLE SPEED ADJUSTMENT

The standard 110 kW (150 PS) drive has a fixed speed, while the optional 260 kW (354 PS) variable speed drive offers plenty of power to operate even the largest corn headers with stalk choppers.

CATCHES THE BIGGEST STONES

The wide opening of the stone trap catches large stones before they can do any damage. There's also a quick release mechanism for easy emptying.





LOW ENERGY CROP TRANSITION

8 WING CHEVRON FAST

The crop flow from the feederhouse to the rotors has been streamlined to reduce friction and increase efficiency.



In all rotary combines, the transition from tangential to axial crop flow is a potential pinch point that can consume considerable power. One of the major design innovations of X9 is the 8 wing chevron FAST, which enables a very energy efficient crop flow transition.

As the crop mat emerges from the feederhouse, the stalks are perfectly aligned thanks to the head first draper feeding. Once it reaches the FAST, the central chevron vanes start to evenly divide the crop mat into two separate streams. A divider between the two rotors further smooths the crop path towards the rotors. The space between the FAST and the tips of the rotors allows the crop to gently expand before being drawn into the 270° feeding vanes. This extra space also contributes to the huge throughput of the X9, as the crop is less constrained and the wide body can handle large volumes without overloading.

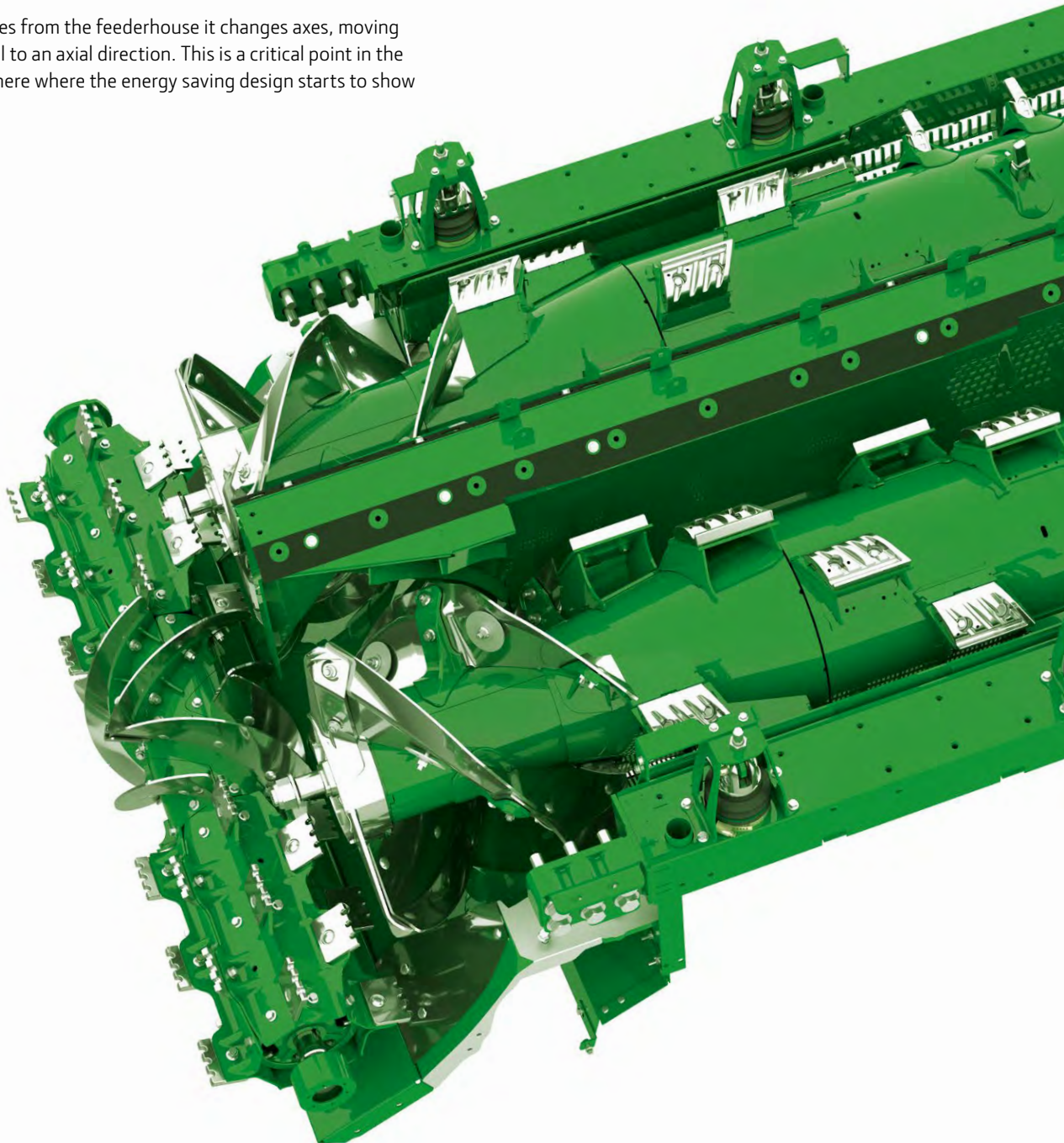
SEPARATES EVERY GRAIN

WIDE BODY X-SERIES DUAL SEPARATOR

The wide body concept produces a thinner crop mat as it is able to spread over a wider surface area. This reduces the crop pressure for easier and more efficient threshing and separation.

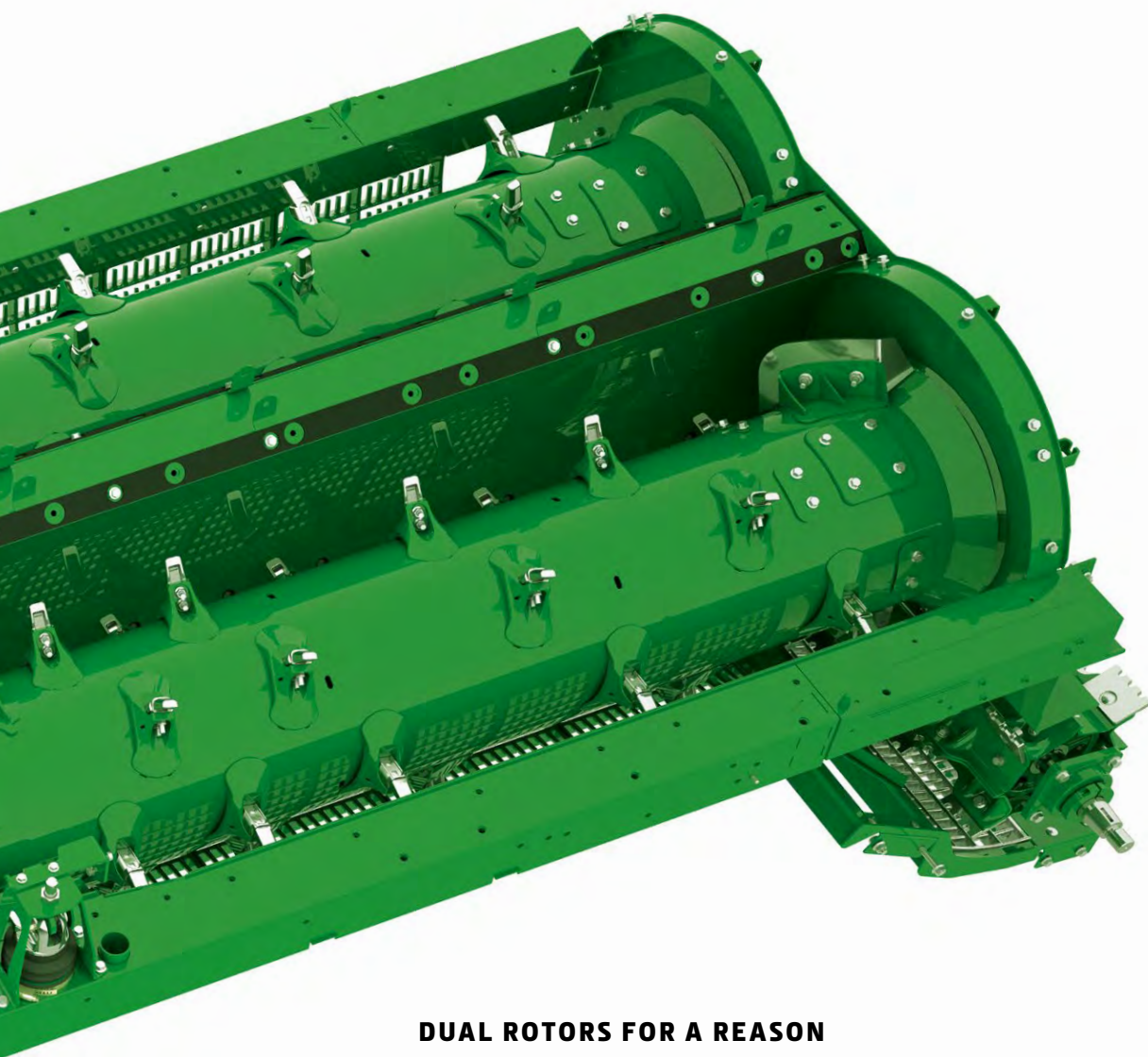
FEEDING MAKES THE DIFFERENCE

As the crop emerges from the feederhouse it changes axes, moving from a longitudinal to an axial direction. This is a critical point in the crop flow and it's here where the energy saving design starts to show its benefits.



EFFICIENCY ON A NEW LEVEL

Thanks to the high efficiency design considerably less power is needed to run the two rotors. This reduces the power requirement on the engine and brings significant fuel savings over other designs. It took thousands of hours of laboratory testing to create the special conical profile of the rotor... the right split between threshing and separation areas for tough European small grain conditions... the right shape and placement of threshing elements... the right amount of spacing and placement of the separation tines... and an additional discharge beater to evenly spread material and feed it into the chopper. The goal was to make the perfect rotor in all conditions and all crops, easy to set and run for even an inexperienced operator to achieve the maximum performance.



DUAL ROTORS FOR A REASON

A dual rotor design was adopted for good reasons. Huge know-how has been gained over many years on how to optimise performance in the S700. Now this design is simply doubled and put into the wide body the X9 for the next level of performance. Our design also produces superior grain quality and offer better crop versatility and accessibility than other concepts. For the X9 we chose a configuration with two, even longer rotors, positioned in a wide channel to create a massive threshing and separation area. This has allowed us to set new performance levels for the industry of more than 100 t/h with less than 1% losses.

3 IN 1 ROTORS

270°

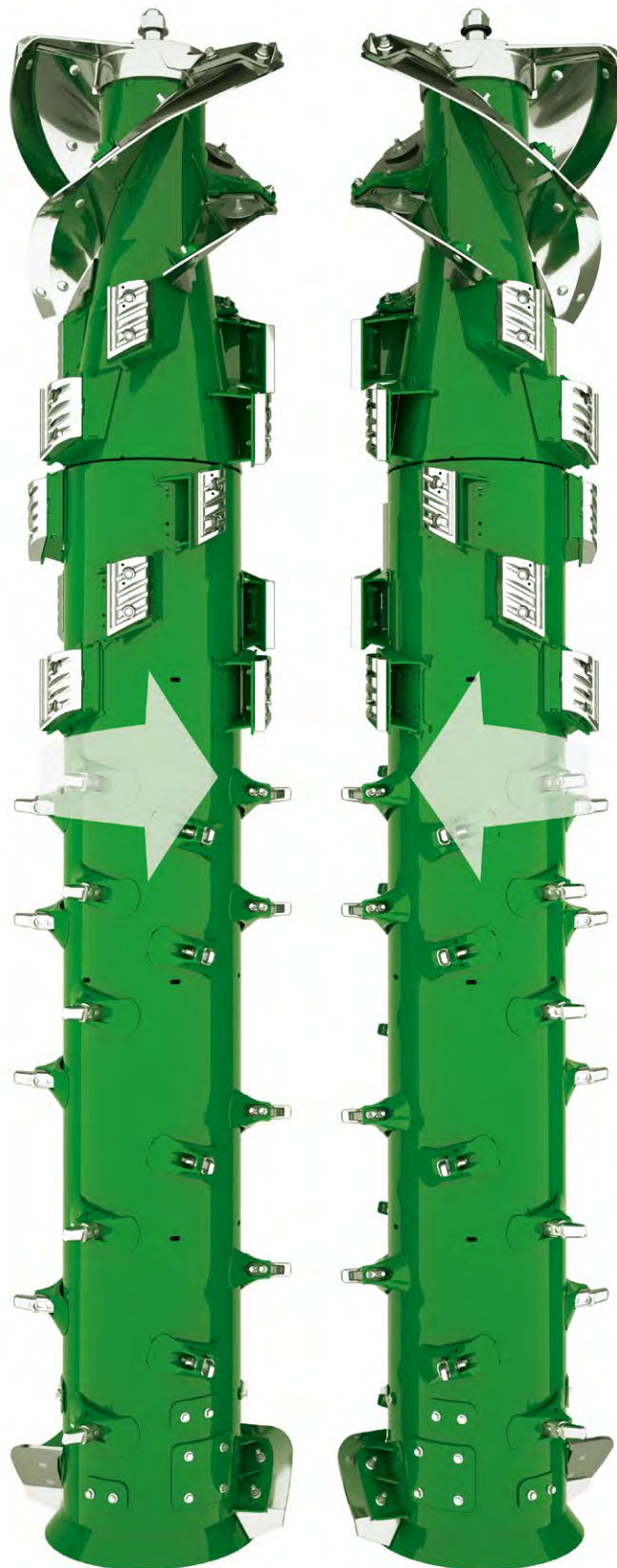
FULL LOADING

4.0 m²

**EFFECTIVE THRESHING
AREA**

22.5 m²

**EFFECTIVE
SEPARATING AREA**



The design of the proven 3 in 1 rotors is the secret to the X9's highly efficient separating performance. Its combination of low power feeding, a gentle pull and release threshing action and energy efficient centrifugal separating is unbeatable.



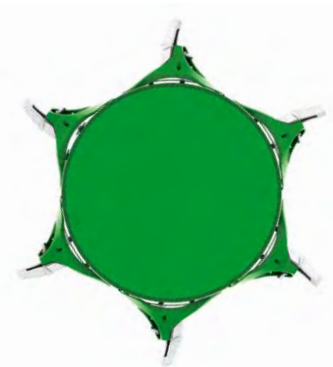
FASTER ROTOR LOADING

The space between the FAST and the rotor makes the transition easier and less power intensive. The 270° degree feeding ensures to load the rotors quickly and evenly to increase performance and efficiency with crop on crop threshing. As the vanes pull the crop along the rotor it has enough space to change direction from tangential to axial movement.



GENTLE CROP-ON-CROP THRESHING

The crop passes 1.6 m² of threshing concave area 2.5 times, adding up to $2.5 \times 1.6 \text{ m}^2 = 4.0 \text{ m}^2$ of pure threshing capacity. This means the concave settings don't have to be tightly set, resulting in low amounts of broken grain. This not only leads to better grain and straw quality, it is more energy efficient delivering helping contribute to the lowest cost of harvest possible.



ENERGY EFFICIENT SEPARATING

The unique separating elements create a combing action to pull apart the crop. They are also staggered in a special way which moves the crop towards the discharge beater as the rotor turns. The crop rotates an average of 7 times in the separation area before reaching the discharge beater. This exposes it to 22.5 m² effective separation area.

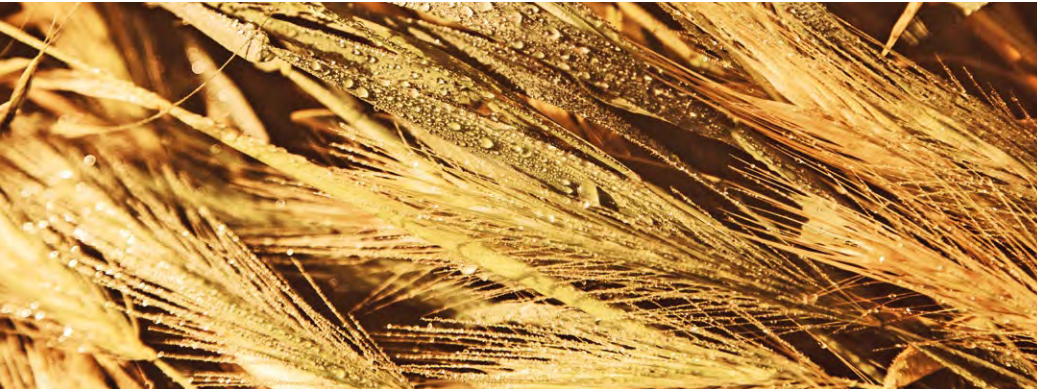
The rotor also creates a highly energy efficient centrifugal separating effect. Its large, 610 mm diameter eccentric rotor produces a bigger separating effect without needing -the energy intensive high speeds of smaller diameter rotors.



Watch the crop flow animation

SEPARATES THE TOUGHEST CROPS

The X9 has been performance optimised in extremely challenging harvest conditions around the world.



PERFORMS IN TOUGH CONDITIONS

The X9 features Active Concave Isolation on both rotors. Hydraulic actuators maintain a uniform concave clearance which ensures consistent threshing clearance even when the crop volume suddenly fluctuates from high to low and back down to low.

It enables the concave to be set much wider if necessary for more crop-on-crop threshing. Another advantage over mechanical systems is non-stop overload protection, which delivers higher output throughout the day.

CHOICE OF CONCAVES

There's a choice of small wire, large wire or round bar concaves. The small wire concaves are ideal for tough threshing conditions while the large wire concaves increase separation capacity even further. The round bar concaves are recommended for coarse grains like corn, beans and peas.

FASTER CHANGEOVER

At less than 10 kg each, X9 concaves are much lighter than traditional concaves. With 6 concaves per rotor, it's possible to mix them to optimise separating for specific crop requirements. The fixing bolts are also easily accessible with a powered impact driver for rapid changeover.



Watch Xtreme Testing videos

VARIABLE ROTOR SPEEDS

Three different rotor speed options can be selected from the platform beside the cab which enable the performance to be optimised for the exact crop conditions. The 1,300 rpm top speed enhances separation under tough and wet harvesting conditions.

SPEED/rpm	CROP
300-520	Corn, beans and peas
420-800	Rape and dry cereals
720-1,300	Tough, wet cereals



76%

LIGHTER

75%

FASTER CHANGEOVER

1,300 rpm

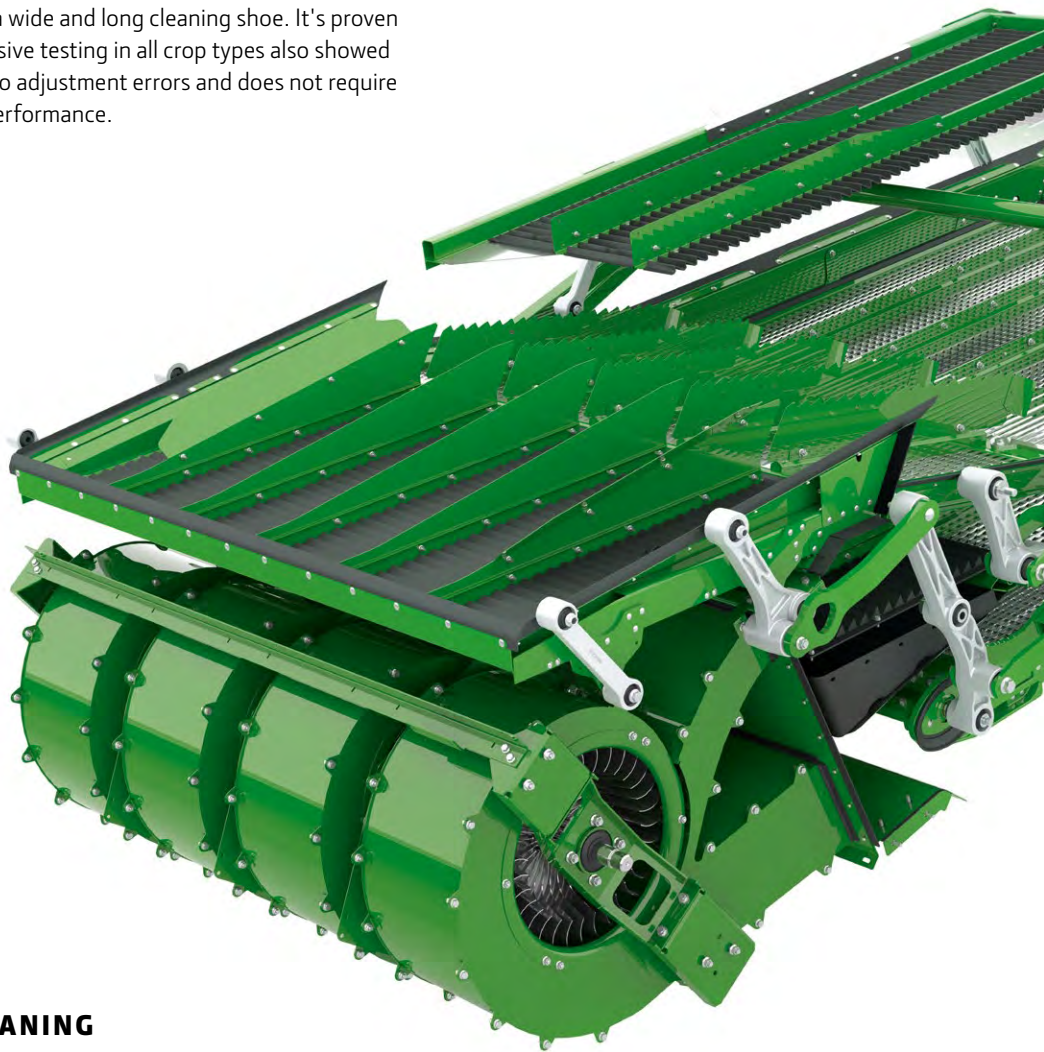
ROTOR SPEED

CLEANS EVERY GRAIN

HIGH PERFORMANCE CLEANING SHOE

The massive 7 m² cleaning shoe delivers high quality grain with minimum losses.

The most efficient way to clean the crop with minimum loss is pure size! The body design means the X9 can accommodate a wide and long cleaning shoe. It's proven to handle well in excess of 100 t/h. Extensive testing in all crop types also showed it is very easy to set and is less sensitive to adjustment errors and does not require constant tweaking to get the optimum performance.



EFFECTIVE CHAFF PRE-CLEANING

The crop cascades over a big 17 cm ventilated step to help pre-clean the chaff. This provides the perfect pre-separation effect and evenly divides the material between the front and rear of the chaffer.

PRE-SORTED GRAIN

The preparation pan is the fourth shaking element of the cleaning shoe. It's designed to handle massive amounts of material coming in from the separator. Its shaking action sorts the grain from the chaff, which is blown out at the earliest opportunity, before it reaches the sieves.

7 m²**CLEANING SHOE AREA****4****HIGH PERFORMANCE
TURBINE FANS****6****LOSS SENSORS****PREVENTING LOSSES**

A return pan is mounted under the rear section of the rotors to guide all late stage separation grains and those from the Active Tailings System to the very front of the cleaning shoe. This ensures maximum opportunity to clean the grain effectively.

ACTIVELY THRESHED TAILINGS

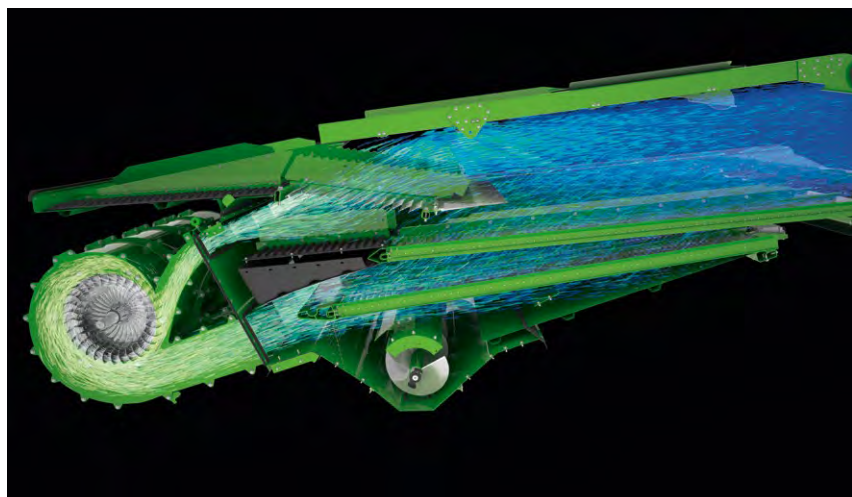
The X9 is also equipped with an Active Tailings System. This is a major performance enhancing addition that separately threshes the tailings. It uses smooth rubber threshing elements to minimise grain damage. Acting as a mini threshing system, with its own drum and concave, it reduces the load on the main rotors. This frees up capacity for more crop throughput, because the tailings are not being returned to the rotors to undergo separation. That means the concaves can be opened wider which lowers the power requirement and improves fuel efficiency.

FULLY AUTOMATED CONTROL

The cleaning shoe has 6 loss sensors spread over the entire width which detect losses wherever they occur. This data is also used by the Combine Advisor™ performance optimisation system, to automatically adjust the cleaning shoe settings and maintain pre-set targets for grain quality.

EVEN AIRFLOW

Four high performance turbine fans generate huge air volumes. Drawing air from underneath the combine and from each side, they provide a constant air flow across the entire cleaning shoe. Part of the airflow is directed upwards to the front chaffer to remove chaff immediately after the pre-preparation pan. A second stream of air gently lifts the crop on the chaffer and sieve with the optimum balance of air pressure, volume and velocity. Extensive field and laboratory testing has shown this helps deliver a superior grain tank sample.



PRACTICAL PERFORMANCE

The cleaning shoe is designed for a long-life and easy maintenance for optimum performance through the harvesting season.

EASY CLEANING

The large vertical distance between the rotors and the cleaning shoe promotes even airflow and excellent access. The sieve mounts can be installed or removed within minutes for easy cleaning.

CHOICE OF SIEVES

Choose from either general purpose or deep tooth sieve elements for different crops and field conditions.

LIGHTWEIGHT DESIGN

Thanks to the extensive use of aircraft alloys with patented rivet construction it's both lightweight and strong. This allowed us to increase the size of the shoe without increasing its weight.

GRASS UPGRADE KIT

A grass seed kit is available which reduces the fan speed range (450-1,100 rpm), ensuring even the lightest crops are not over blown.



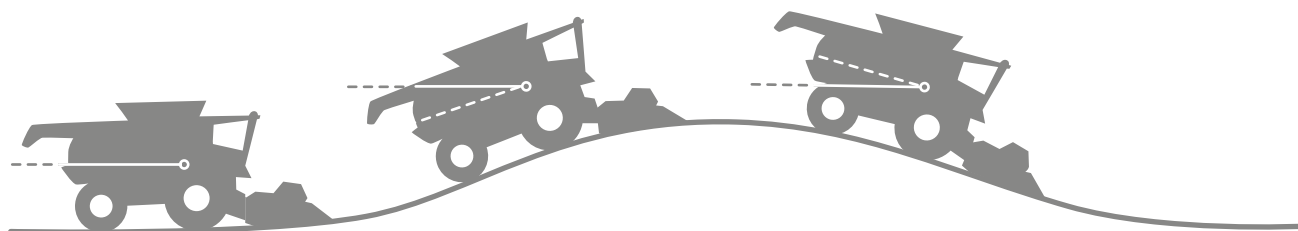
NO COMPROMISES ON HILLS AND SLOPES

You won't have to slow down on slopes or hills, even in high yielding crops thanks to our range of side hill and slope compensation systems.

SLOPE COMPENSATION

In rolling terrain it can be difficult to get the right cleaning shoe settings as you are constantly going up or down slopes. That's where Active Terrain Adjust comes in. It automatically adjusts all the important cleaning shoe settings (fan speed, chaffer and sieve). The software also has an industry exclusive crop matrix which makes specific adjustments for the type of crop that is being harvested. For instance, rapeseed is particularly sensitive to fan speed changes, so the system adjusts the chaffer and sieve settings first, before adjusting the fan speed.

Active Terrain Adjust results in consistently low grain losses on slopes and it also reduces the amount of tailings, delivering cleaner grain to the tank. This saves you from penalties for dirty grain samples when you come to sell.

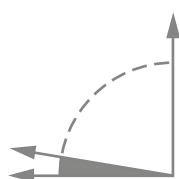


UPHILL SLOPES

Going uphill both the chaffer and sieve are opened while the fan speed is reduced to keep grain from being lost through the rear. This increases the cleaning system performance by up to 50% on inclines of up to 16°.

DOWNHILL SLOPES

On downhill slopes the chaffer and sieve close while the fan speed increases to keep grain from pushing towards the front of the machine. This reduces the volume of tailings by as much as 50%, resulting in a cleaner grain tank sample.



SIDE HILL COMPENSATION

SLOPES UP TO 7%

The cleaning shoe is equipped with 6 divider plates on the preparation pan and chaffer. These ensure material is evenly delivered right across the entire width of the cleaning shoe and there is no chance of it sliding, or moving to one side.

Once the material reaches the cleaning shoe the real advantages of its longer length over other concepts becomes clear. This gives the grain more opportunity to fall through the chaffer and sieve without overloading one side of the shoe.

SIDEHILL PERFORMANCE PACKAGE FOR SLOPES UP TO 14%

The side hill performance package contains chaffer dividers and grain agitators. These prevent grain from accumulating to one side and help to distribute it over the full width of the chaffer. The agitators actively move grain uphill with every stroke while the dividers prevent grain from moving downhill on side slopes. Together with the huge 7m² cleaning area you can be confident of harvesting in slopes of up to 14% without any compromises or grain losses. This reliable solution has no moving parts either, so it's maintenance and wear free.

MAXIMUM QUALITY MINIMUM LOSSES

<1% BROKEN KERNELS

Independent research* has shown that if a combine has 1% broken kernels in the tank, a further 1% broken kernels will have been lost via the cleaning shoe. The X9 is designed to minimise these losses, increasing your profit per hectare.



REDUCING BROKEN KERNELS

Losses in the field can substantially reduce your profit per hectare, and it happens invisibly without you knowing. For example, on 500 ha of wheat with a yield of 8 t/ha and a price of 160 €/t, reducing broken kernels found in the grain tank from 3% to <1% can bring savings of up to €12,800. As broken kernels do not germinate these losses are hidden. They do not leave 'green stripes' from volunteer plants, so you will never know even if you check your field the following year.

Several design innovations contribute to the exceptional grain quality of X9: the low rpm of the large diameter dual rotors; threshing elements and separating tines as well as rubber threshing elements on the active tailings return system which reduce grain to metal contact; crop-on-crop threshing; and a streamlined crop flow with no sharp edges.



All automation functions are controlled from a single screen. You simply set the target outputs and can view real-time video from the different cameras.



This shows the real-time output of the tailings camera. It provides a far more accurate assessment than manual viewing through an inspection window. The detailed analysis function allows you to monitor, for example, the amount of broken grain so you can maximise grain quality.



*Feiffer Consult, Harvest Poll, 2005 www.feiffer-consult.de





The camera in the clean grain elevator allows you to monitor what ends up in the tank even if the view through the rear window in the cab is blocked.



A live picture from the high speed camera in the tailings elevator allows you to monitor the tailings content in real-time.

COMBINE ADVISOR™ PACKAGE

Combine Advisor™ automatically guarantees consistent output whatever the conditions. Digital cameras located in the clean grain and tailings elevators continuously measure grain quality and the amount of foreign material, making real-time automatic adjustments to maintain the pre-set levels with no operator input required.

Combine Advisor™ is linked directly to HarvestSmart™ which controls the combine's harvest speed. If the settings cannot deliver the desired output, the combine's speed is lowered. If conditions improve, the combine's speed is increased.

DESTROYS EVERYTHING

RESIDUE MANAGEMENT

Depending on the required chopping intensity there's a choice of a high performance 124 knife Extra Fine Cut Chopper operating at 3,000 rpm, or a 68 knife Fine Cut Chopper operating at 2,400 rpm.

The Extra Fine Cut Chopper ensures residue is quickly incorporated into the soil, releasing valuable nutrients for the following crop

FAST CONVERSION TIMES

The chopper can be moved electrically from transport to working position. When converting to corn there is no need to change knives and engage a corn cob deflector. All you have to do is lower the chopper speed to 1,600 rpm.

With the Premium Chopper you can also switch from chop to drop at the touch of a button. This is a very useful feature for headland and for parts of the field where the crop needs treating differently, such as green straw.



LOW ENERGY KNIFE DESIGN

The patented new chopper knife design reduces power consumption by up to 20 kW (27 PS) compared to standard wing knives. The knife is just one optimized feature. The secret to its performance are the small dimples on its surface. Similar to the dimples on a golf ball they reduce air resistance over the surface of the knives.

The cutting action also creates a self-sharpening effect, further improving the energy efficiency. Once they are worn, knives can also be turned over to the other side to extend their operating life.

POWER EFFICIENT RESIDUE MANAGEMENT

A combination of direct crop flow and mechanical drives brings big power savings. Superb chopping quality, full width residue distribution and the perfect windrow for baling come as standard.



CHOPPING

As it leaves the rotor, the discharge beater transfers the material directly and efficiently towards the rear of the combine. By spreading out the material over the entire body width it evenly feeds the chopper or forms uniform windrows.

Channeling both straw and chaff through the chopper eliminates the need for a separate chaff spreader, which further reduces the engine power required for residue management. Air is drawn out of the cleaning shoe by the PowerCast™ spreader, which reduces back pressure enabling better airflow across the cleaning shoe and improved capacity.

Uniform square shouldered windrows help the air circulate through the straw for accelerated drying.



DROPPING

When windrowing with the Premium Chopper, the straw makes its way over the top of the chopper unit where flexible guides form it into a uniform rectangular shape swath, even in low throughput and extremely dry conditions. The open, fluffy structure of the windrow facilitates rapid drying and helps form very dense bales.

By separating the chaff and the straw, the windrow sits on top of the stubble. This allows the baler pick-up to be set to a higher position, so it can be operated at faster speeds without the risk of picking up stones. The chaff exits through the chopper and is distributed across the stubble and away from the windrow by the PowerCast™ spreader.

CHOP



EVEN RESIDUE DISTRIBUTION

The PowerCast™ spreader with two mechanically driven enclosed discs is included as standard with both types of chopper. It's mounted low to perfectly spread chopped straw even in windy conditions. The mechanical drive is also durable and extremely efficient, using less power and saving fuel.

The chopped straw is accelerated as it passes through the spreader vanes for even distribution up to 15.5 m wide.

ADJUSTABLE CHOPPING INTENSITY

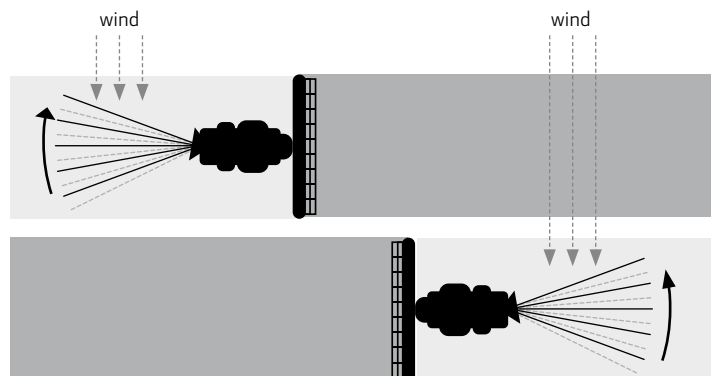
The counter knives can be moved in or out from the comfort of the cab to balance chopping intensity and fuel consumption, according to the prevailing crop and tillage conditions. Alternatively, they can be adjusted manually with a crank without the need for tools. An optional rasp bar can be mounted behind the counter knives to increase chopping intensity in tough conditions.

DROP



AUTOMATIC WIND COMPENSATION

AutoSwap automatically changes the spreading direction of the chopper to compensate for side wind based on GPS data. There's no need to press the swap button at the headland, and no chance of forgetting to change direction and running with the wrong settings.



LOWER SOIL COMPACTION

LARGE FOOTPRINT TRACKS

Our latest tracks with their extra large footprint and exceptional grip will keep you harvesting in muddy conditions.

20%

SMOOTHER RIDE

30%

LARGER FOOTPRINT

50%

LONGER TRACK LIFE





EXCEPTIONAL GRIP

The track treads are deeper with a higher profile for longer wear life. They also provide greater grip and are self-cleaning, thanks to the 55° tread angle which promotes mud release. So when you're about to go on the road after a long day's harvesting, you won't be delayed cleaning out the treads.

EXTREMELY TOUGH POLYMER CONSTRUCTION

Both the rollers and the treads are made from IPX 2000, an Ultra-High-Molecular-Weight (UHMW) polyethylene. It's specially chosen for its abrasion resistance, UV stability and low friction properties which are similar to Teflon – a polymer used on non-stick household appliances.

ZERO MAINTENANCE

Apart from being incredibly tough, a big advantage of the IPX 2000 polymer is its self-lubricating properties. This reduces wear and tear for a longer life. The sealed gearboxes and bearings also remove the need for regular greasing. All that's needed is an oil change every 500 hours.

EASY SWITCHING

Operators that want to change from wheels to tracks during wet harvesting periods can easily switch, providing their X9 is fitted with a track ready axle.

BIG FOOTPRINT

The longer track length creates a bigger footprint without increasing the transport width of the combine. That means less soil compaction, better grip and improved fuel economy over wheeled machines. The footprint of the 610 mm tracks, for instance, is equal to 760 mm tracks offered by other competitors, with the added advantage of a much narrower transport width.



TRACK WIDTH/mm	610 (24")	760 (30")	910 (36")
FOOTPRINT/m ²	1.23	1.54	1.84
TRANSPORT WIDTH/m	3.47	3.77	4.58

EXPRESS TRANSFERS

PRODRIVE™ XL TRANSMISSION

John Deere already has a strong reputation for its tractor transmissions. Now you can enjoy that same reliability and seamless shifting from 0 to 40 km/h with the X9.



FUEL EFFICIENT DUAL MOTORS

ProDrive™ XL uses two smaller motors instead of a larger single motor. When the combine is driven above 20 km/h one of the motors disengages which improves fuel economy by up to 30%. What's more, it's a lot quieter than traditional hydrostatic transmissions.

4WD AND DIFFERENTIAL LOCK FOR MAXIMUM TRACTION

The optional four-wheel drive ensures you'll still be harvesting when others have stopped. Every X9 is also equipped with a front axle differential lock as standard. If you hit really tough conditions all you have to do is push a button on the CommandARM™ to engage.

EASY TO DRIVE

The infinitely variable ProDrive™ XL Transmission is standard on the X9, making it very easy for anyone to drive. It's the next generation of the well-known ProDrive™ transmission, offering 30% more torque throughout the entire speed range. This means you can comfortably pull through muddy areas or uphill slopes with a full grain tank. Even better, you won't notice any gear changes at all!



40 km/h

ROAD SPEED

94%

MORE TORQUE

30%

FUEL SAVINGS



FASTER HEADLAND TURNS

7.15 m

TURNING CIRCLE

TIGHT TURNING CIRCLE

Despite having the widest body in the industry, the overall width of the X9 is 3.5 m. Even when large rear tyres are fitted to reduce compaction and preserve soil structure the simple design of the rear axle, without the need for complicated linkages, enables tight turns*.

*7.15 m turning circle with 500/85 R30 rear tyres

ENERGY EFFICIENT HARVESTMOTION

NEW ENGINES



Welcome to HarvestMotion: a combination of a state-of-the-art engine with optimised performance characteristics, low fuel consumption at reduced rpm and perfect synchronisation with an energy efficient crop flow.

NEW ENGINE TECHNOLOGY

Our Engineers developed completely new engines for the X9, following similar innovations used in the automotive industry, where the trend is towards engines with smaller displacements, higher power density and improved fuel efficiency. The target they set themselves was a 20% improvement in fuel economy per harvested tonne.

All the core components are completely new designs including the cylinders head, turbocharger and Exhaust Gas Recirculation (EGR) system. Self-adjusting valves reduce maintenance requirements and the in-line position of the diesel exhaust filter increases gas flow. High Pressure Common Rail (HPCR) technology produces small fuel droplets with a much higher surface area volume which delivers more complete combustion for better fuel economy and power delivery. Together these modifications have a big impact on the energy efficiency of the entire power pack. They save up to 27 kW (37 PS) which would normally be lost on these core components.

LOWER RPM. LOWER COST

Efficient machines are simply good business. The X9 driveline was specifically designed to deliver optimal crop flow exactly when the engine is operating in its energy efficient 'sweet spot'. That's HarvestMotion.

Power output increases by 65 kW (88 PS) between 1,700-1,900 rpm. The characteristics of the engine torque curve means there is also tremendous reserve capacity, even at low rpm. The torque increases to an impressive 3,000 Nm at 1,500 rpm. It's why this engine practically never dies, no matter how hard it's pushed. At the same time, the low rpm helps the X9 deliver impressive fuel economy, as less revolutions simply mean less fuel is burnt. It all adds up to higher throughput and lower fuel cost per tonne.

On the road, the X9 is just as economical. The engine speed management reduces rpm to 1,700.



700 PS

MAXIMUM POWER

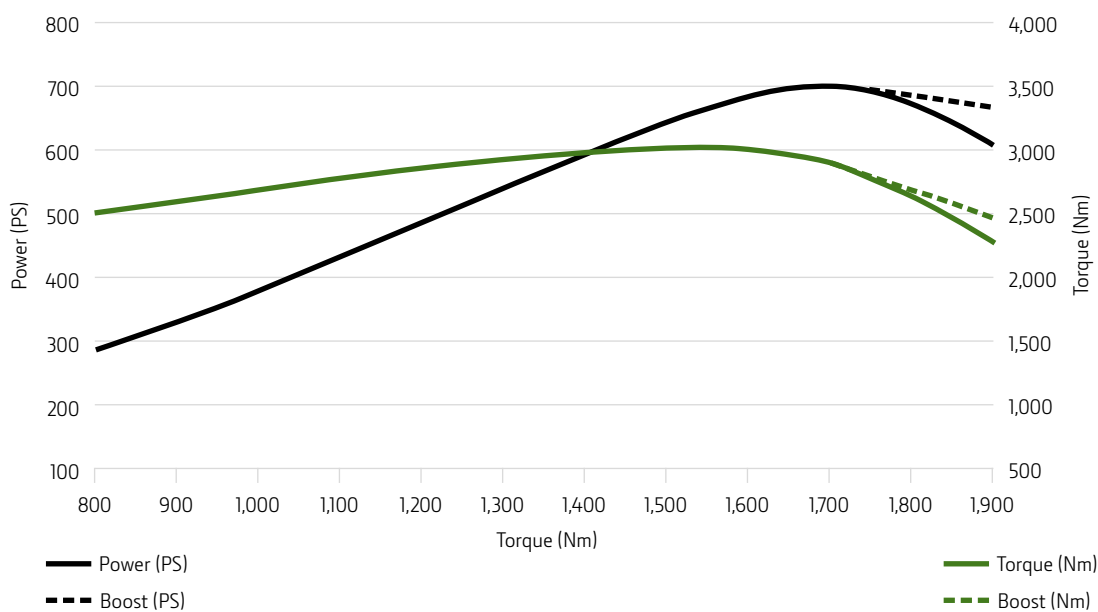
20%

MORE FUEL EFFICIENT

37 PS

SAVED

X9 1100 POWER AND TORQUE CURVES



MODEL	ENGINE SIZE/L	RATED POWER/kW (PS)	MAX POWER/kW (PS)	BOOST /kW (PS)
X9 1000	13.6	410 (557)	470 (639)	40 (54)
X9 1100	13.6	450 (611)	515 (700)	40 (54)

ENGINEERED FOR FUEL ECONOMY

Every single component is designed for efficiency, bringing a massive 86 kW (117 PS) in energy savings. Add to this a lower driveline top speed of 1,900 rpm and the X9 delivers incredible fuel economy for its throughput.

HIGH-EFFICIENCY CROP FLOW

As part of our HarvestMotion design concept, material movement inside the machine has been streamlined with no sharp edges or tight bends.

3 SPEED ROTOR DRIVE

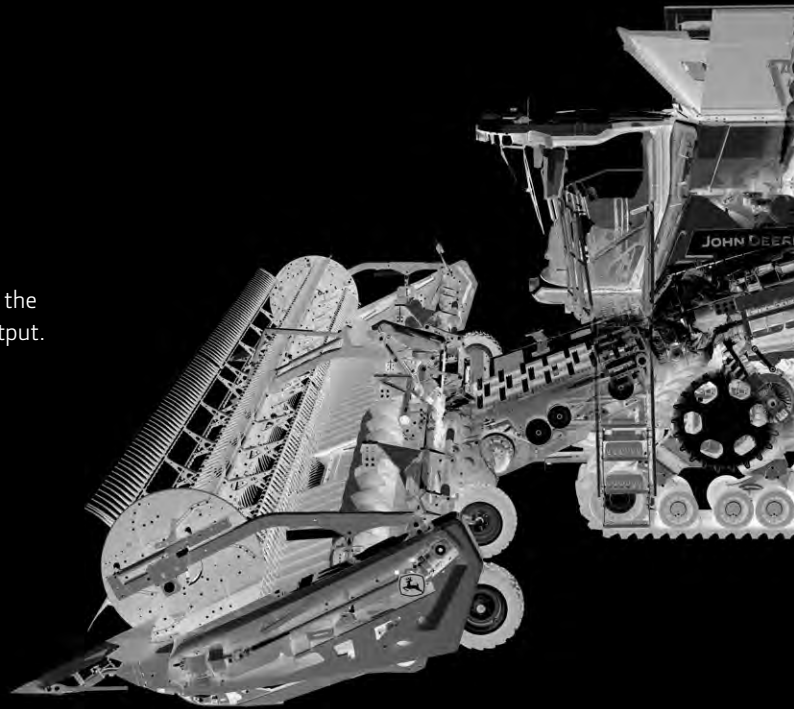
The ability to choose 3 instead of 2 rotor speeds enables better synchronisation of torque and rpm to the crop conditions. This reduces unnecessary energy wastage as the engine is always running at most fuel efficient power output.

OPTIMISED DRIVELINES

Savings of 10 kW (14 PS) were made by reducing windage – resistance between the air and the pulleys and belts.

IMPROVED COMPONENTS

Heavy less efficient gearboxes were replaced with much lighter more efficient belts and there is only one chain drive. Extensive use was also made of aircraft alloys. Together these reduce the X9's gross weight and improve fuel economy.



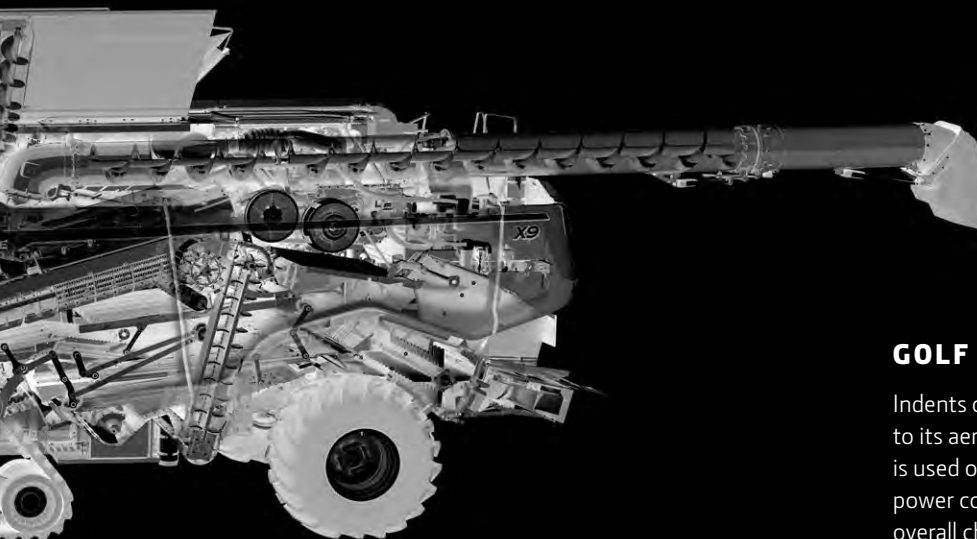
HARVESTMOTION

Our new performance concept uses optimised components for significantly more throughput at lower rpm. This HarvestMotion alignment brings significant fuel savings.



HIGH EFFICIENCY COOLING

The cooling package has a large diameter fan with a variable pitch blade. It provides high airflow at lower power, saving a massive 16 kW (22 PS).



GOLF BALL EFFECT

Indents on a golf ball deliver huge improvements to its aerodynamic performance. The same effect is used on our chopper knives which reduces power consumption. Combined with the new overall chopper design you find an additional 20 kW (27 PS) of power savings. The self-sharpening effect of the knives also keeps them sharper for longer, saving power and fuel.

SWITCHABLE MOTOR DRIVES

ProDrive™ XL Transmission uses two smaller motors instead of a larger single motor. When the combine is driven above 20 km/h one of the motors disengages which improves fuel economy by up to 30%.

LARGE DIAMETER PULLEYS

The all new X9 driveline concept features large pulleys significantly reducing power consumption which has saved an additional 12 kW (16 PS).

JOHN DEERE

X9

**FUEL
ECONOMY**

SPEND MORE TIME HARVESTING

UPTIME

With narrow harvest windows and the need to get more things done quicker, you want the X9 in your team. It's designed to save you time. Solutions like refuelling 1,250 L diesel in less than 3 minutes or a fast crop to crop changeover are just few examples.



STREAMLINED CLEANING

Easy access to all the important components – engine, sieves, grain tank and rotor – makes fast work of cleaning. The in-built compressor also has several connection points around the combine and on the engine deck, so you can easily reach all components for cleaning.



HIGH SPEED TRANSFERS

Travel from field to field in no time thanks to the 40 km/h infinitely variable ProDrive™ XL Transmission.



LESS MAINTENANCE

There are no daily lubrication points and significantly fewer belt drives than many other combines. So you don't need to spend time on maintenance at the end of a long day's harvest.



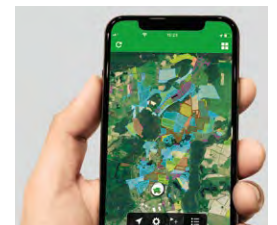
FLEXIBLE HARVESTING LOGISTICS

The massive 16,200 L grain tank lets you harvest more hectares between offloads and enjoy greater flexibility for your harvesting logistics.



MOBILE PRODUCTIVITY APPS

Our range of mobile apps let you monitor and adjust combine settings in real-time from any device. You can also remotely manage your jobs and fleet logistics for better harvesting efficiency and receive alerts on potential issues.





RAPID CROP CHANGEOVER

Most adjustments can be done from inside the cab, with only minor ones from outside, keeping you clean and out of the dust. Rapeseed to wheat takes minutes. Changing concaves from small grains to corn or beans couldn't be easier either, thanks to their light weight and easy access.



RUN ON THE LIMIT

The feederhouse and FAST (Feed Accelerator and Stone Trap) are designed so you can run at the limit without fear of plugging. If the machine is accidentally plugged, thanks to the powerful modulated reversing system you'll be harvesting again in just a few minutes.



PIT STOP REFUELLING IN 3 MINUTES

Our innovative fast-fill option will handle up to 550 L/min. You can be back harvesting in just 3 minutes with a full tank.



FAST OPERATOR TRAINING

Anyone who has driven a John Deere tractor will already be familiar with the GreenStar™ displays. The automated systems and the X9's configuration also guarantee an inexperienced operator can harvest like a pro in no time.



14 HOURS BETWEEN FUEL STOPS

The combination of a 1,250 L fuel tank and high efficiency drive system mean you can harvest for over 14 hours without refilling. Diesel Emission Fluid (DEF) consumption is also low at just 5%.

HIGH SPEED GRAIN HANDLING

HARVEST LOGISTICS



EVEN MORE UPTIME

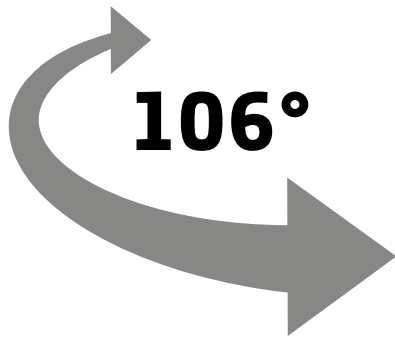
The combination of a huge 16,200 L grain tank and 186 L/s unloading lets you focus on harvesting. All it takes is just 100 seconds to unload 13 tonnes of grain.

BUILT FOR TOUGH CONDITIONS

The grain handling system features a heavy-duty belt driven design that performs equally well in high yielding crops and wet conditions. Tool-free adjustment of the cross auger cover plate in the grain tank also allows the load rate to be adjusted for different crops and conditions.

INNOVATIVE AUGER DESIGN

More control and easier to use, it's designed for a long working life.



106°

EXCELLENT VISIBILITY

The auger swings by up to 106°, giving you an excellent view when unloading. You can also watch the grain unloading on the Gen4 display via a video feed from an optional wireless camera on the auger.

REDUCED RISK OF DAMAGE

The auger has a clearance of up to 5.1 m between the unloading boot and the ground so there's less risk of damage with high sided trailers. It also has a mechanical latch in transport mode which prevents any movement when driving over rough surfaces.

SPACE-SAVING DESIGN

X9 is equipped with a folding auger as standard. It makes storage and manoeuvring in tight spaces easier and is useful for road transport.

LOW STRESS OPERATION

The large diameter of the auger means it can transport massive amounts of grain at lower rpm. Apart from less wear and tear it reduces potential grain damage due to less grain on metal contact.





CROSS AUGER DELAY

The entire auger can be emptied automatically before shut-off. This reduces dribble losses after unloading is complete and lowers stress on the auger components.

Operating is easy too. Simply press the unloading button to start the process. Press the button again and the grain tank cross augers disengage while the unloading auger continues for another 3 seconds to ensure it's completely empty. To stop the entire system immediately just double click the unloading button – a handy feature when you want to top off the grain cart or trailer.

ADJUSTABLE SPOUT

With the adjustable spout you can precisely direct the grain flow by up to 1 metre to fully utilise the available space in the trailer or grain cart. When the auger moves to the park position the adjustable spout moves up and away for improved clearance.



In field



Unloading



On road



STRESS-FREE UNLOADING

MACHINE SYNC

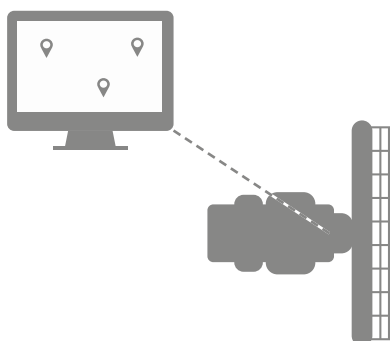
Machine Sync is a powerful machine-to-machine communications application that allows you to connect multiple machines and operate them together.

Imagine harvesting at 8km/h speed with full header width while unloading at the same time! Now even an inexperienced operator can safely unload at full harvesting speed without the risk of grain spillage, or even an accident or delay. And faster and more efficient unloading will also improve the logistics of your harvest operation.



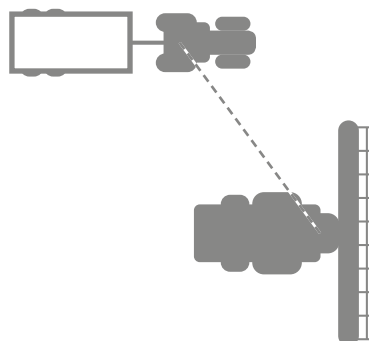
REMOTELY CHECK COMBINE GRAIN FILL LEVEL

Machine Sync allows the grain trailer operator to view the location of all the combines in their network. They can see the direction of travel and grain tank fill level. They can make a decision on which combine to unload next. Alternatively, the combine operator can request a tractor for unloading at the touch of a button. This ensures optimised routing for grain trailers, saving time, fuel and reducing soil compaction.



OPERATOR TAKES CONTROL OF UNLOADING TRACTOR

As the tractor pulling the grain trailer arrives near the combine, the operator activates Machine Sync. The system automatically takes control of the tractor's steering and speed. The tractor driver can then take their hands off the steering wheel.



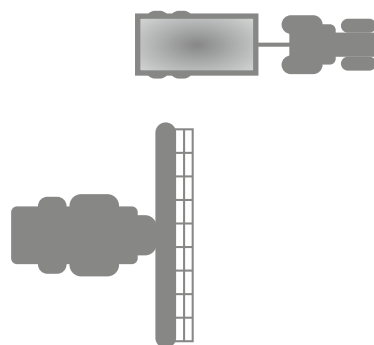
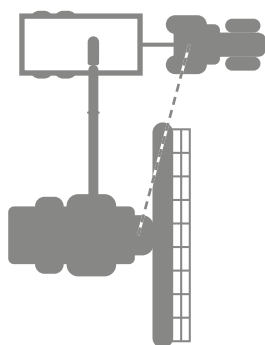


COMBINE OPERATOR STEERS TRACTOR

The combine operator can now control the position of the tractor relative to the combine. If the combine changes direction or speed, the tractor also changes direction or speed – both are synced in perfect harmony.

OPERATOR RELEASES CONTROL OF UNLOADING TRACTOR

When the trailer is fully loaded the tractor operator can take over control simply by turning the steering wheel or by braking. Alternatively the combine operator can also stop the synchronisation from their display.



X9 SERIES PACKAGES

PRECISION AGRICULTURE TECHNOLOGY PACKAGES

	SELECT TECHNOLOGY PACKAGE	PREMIUM TECHNOLOGY PACKAGE	ULTIMATE TECHNOLOGY PACKAGE
StarFire™ 6000 Integrated Receiver	X	X	X
Gen 4 4600 CommandCenter™ Display	X	X	X
AutoTrac™	X	X	X
Harvest Documentation	X	X	X
HarvestSmart™ feedrate control	X	X	X
Interactive Combine Adjustment (ICA)	X	X	X
Connect Mobile ready	X	X	X
JDLink™ hardware			
4G Modular Telematics Gateway (MTG)	X	X	X
JDLink™ Connect – 5 year activation			
Remote Display Access (RDA)	Connectivity subscription required	Connectivity subscription required	Connectivity subscription required
Wireless Data Transfer (WDT)			
Remote view and adjust			
Machine information			
Data Sync			
Active Terrain Adjustment™	–	X	X
Premium Activation			
AutoTrac™ RowSense™	–	X	X
Section Overlap Control			
In-Field Data Sharing			
Enable Connect Mobile Data flow			
Automation 3.0 Activation			
Gen 4 Machine Sync	–	–	X NOTE: In order to use Gen 4 Machine Sync, an MTG antenna is required (code 9xxx).
AutoTrac™ RowSense™			
Section Control			
In-Field Data Sharing			
Enable Connect Mobile Data flow			
Combine Advisor™ bundle			
HarvestSmart™	–	–	X
Active Terrain Adjustment™			
Auto Maintain			

LIGHTING PACKAGE

	PREMIUM VISIBILITY PACKAGE	ULTIMATE VISIBILITY PACKAGE
	LIGHT-EMITTING DIODE (LED)	360-DEGREE LED
Cab roof-mounted LED lights	Six overhead work lights	
	Two high-beam driving lights	
	Two low-beam driving lights	
Vehicle-mounted LED work lights	Two stubble lights	
	Two rear discharge lights	
	One unloading auger light	
	One grain tank light	Two grain tank lights
LED service lights	Six gullwing lights	Ten gullwing lights
	Six engine deck lights	
	Two shoe lights	

VISIBILITY PACKAGE

	PREMIUM VISIBILITY PACKAGE	ULTIMATE VISIBILITY PACKAGE
Mirrors	Electric, heated	Electric, heated
Sunshades	Front	Front
Wipers	Front	Front, right side
Cameras	Backup camera Grain tank camera ready Unloading auger ready Rear hitch camera ready	Backup camera Grain tank camera Unloading auger camera Rear hitch camera

COMFORT AND CONVENIENCE PACKAGES

	SELECT PACKAGE	PREMIUM PACKAGE	ULTIMATE PACKAGE
Seat	Vision cloth Mechanical controls Mechanical lumbar 0-degree left-hand and 16-degree right-hand swivel	Vision cloth Electronic controls Pneumatic lumbar 16-degree left-hand and 16-degree right-hand swivel	Vision leather Electronic controls Pneumatic lumbar 16-degree left-hand and 16-degree right-hand swivel Heated/ventilated Active fatigue prevention Adjustable bolsters
Integrated receiver	AM/FM/WX Digital radio (DAB) Aux and Bluetooth® wireless inputs Two speakers	16.5- cm (6.5- in.) touchscreen app radio Digital radio (DAB) Two speakers with subwoofer	16.5- cm (6.5- in.) touchscreen app radio Digital radio (DAB) Two speakers with subwoofer
Business band ready	X	X	X
Four USB outlets and one 12-V outlet	X	X	X
Dual-tilt column	X	X	X
80-degree display swivel	X	X	X
Footrests	—	X	X
Refrigerator	—	X	X
Carpeted floor mat	—	—	X
Leather-wrapped steering column	—	—	X
Door cinch	—	—	X

HEADER & UNLOADING AUGER COMBINATIONS

HEADER, WIDTH (FT)	26 FT UNLOADING AUGER	27 FT UNLOADING AUGER	28.5 FT UNLOADING AUGER	31 FT UNLOADING AUGER
35	Option 1	Option 1	Option 2	Option 2
40	Option 1	Option 1	Option 1	Option 1
45	N/A	Option 1	Option 1	Option 1
50	N/A	N/A	Option 1	Option 1

3 m wide tractor with grain cart

Option 1
tractor right from swath

Option 2
tractor touch swath partwise

X9 SERIES SPECIFICATION

	X9 1000	X9 1100
ENGINE		
Engine manufacturer	John Deere	John Deere
Emission Level	Stage V	Stage V
Displacement (l)	13.6	13.6
Turbo charger	Single	Dual
Rated speed	1,900	1,900
Rated power ECE R120 (kW / hp / PS)	410 / 549 / 557	450 / 603 / 611
Max Power ECE R120 (kW / hp / PS)	470 / 630 / 639	515 / 690 / 700
Boost (kW / hp / PS)	40 / 53 / 54	40 / 53 / 54
Engine Speed Management	Yes	Yes
Fuel tank capacity (l)	1,250	1,250
DEF tank capacity (l)	83	83
Fast Fuel Fill System	Option	Option
Fuel consumption measurement and documentation	Base	Base
Variable pitch fan	Base	Base
Air Compressor	Option	Option
FEEDER HOUSE		
Number of Feeder House conveyor chains	4	4
Feeder House speed options	2 speeds 18 tooth / 22 tooth	2 speeds 18 tooth / 22 tooth
Modulated feederhouse reverser	Base	Base
Lateral tilt	Base	Base
Fore/aft tilt	Base	Base
Degrees of fore/aft tilt	10.5	10.5
THRESHING & SEPARATION		
Channel width (mm)	1,720	1,720
Chevron type feed roll with stone trap	Base	Base
Feedroll speed range	440 / 990	440 / 990
Dual Rotor technology	Base	Base
Dual Rotor technology with extended wear components (rice)	Option	Option
Rotor length (mm)	3,510	3,510
Rotor diameter (mm)	610	610
Active Concave Isolation	Base	Base
Shiftable rotor speed ranges (rpm)	1,300-720 800-420 520-300	1,300-720 800-420 520-300
Threshing area (m ²)	1.6	1.6
Rotor separation area (m ²)	3.6	3.6
Discharge beater grate area (m ²)	0.45	0.45
Approx. number of revolutions in the threshing area	2.5	2.5
Approx. number of revolutions in the separation area	7	7
Amount of rotor loss sensors	4	4
DYNAFLO XL CLEANING SHOE		
Fan type	Turbine	Turbine
Fan drive range (rpm)	570-1,430	570-1,430
Fan drive speed reduction kit	Available	Available
Front chaffer area (m ²)	1.0	1.0
Chaffer area (m ²)	3.1	3.1
Sieve area (m ²)	2.9	2.9
TOTAL cleaning shoe area including front chaffer (m ²)	7.0	7.0
Sidehill compensation kit	Option	Option
Electric Sieve adjustment	Base	Base
Amount of cleaning shoe loss sensors	6	6
Active tailings return	Base	Base
Active Terrain Adjustment™	Option	Option
Camera to check tailings quantity and content	Option	Option
Camera to check clean grain elevator content	Option	Option

	X9 1000	X9 1100
GRAIN TANK		
Volume (l)	14,800	16,200
Unloading auger swing range (deg.)	106	106
Standard unloading system at peak performance (L/sec)	162	186
Grain tank auger shut-off functionality	Base	Base
Adjustable Spout	Option	Option
Foldable grain tank unloading auger	Base	Base
Grain tank auger cover adjustment without tools	Base	Base
Grain tank sample flap	Base	Base
ActiveYield™ Automatic Yield Sensor Calibration	Option	Option
RESIDUE MANAGEMENT		
Number of knives Deluxe FineCut Chopper	68	68
Number of knives Premium Extra FineCut Chopper	124	124
Number of counter knives	61	61
Integrated Chaff Spreader	Base	Base
Mechanically driven straw and chaff spreader	Base	Base
Xcel chopper knives	Base	Base
In-cab adjustment chopping / dropping straw	Option	Option
In-cab adjustment chopper counter knife	Option	Option
Additional rasp bar	Base	Base
In-cab spreader width and direction	Base	Base
Automatic spread direction change	Base	Base
GROUND DRIVE		
ProDrive™ XL infinitely variable transmission	Base	Base
Manual front axle differential lock	Base	Base
max. speed with wheels or tracks (km/h) *depending on country & homologation	40*	40*
4WD	Option	Option
John Deere Global Tracks including suspension	Option	Option
TRANSPORT WIDTH TIRES		
24" Global Tracks (m)	3.47	3.47
30" Global Tracks (m)	3.77	3.77
36" Global Tracks (m)	4.58	4.58
PRECISION AGRICULTURE TECHNOLOGY PACKAGES		
<i>Package Details see page 96</i>		
Select	Option	Option
Premium	Option	Option
Ultimate	Option	Option
COMFORT AND CONVENIENCE PACKAGES		
<i>Package Details see page 97</i>		
Select	Option	Option
Premium	Option	Option
Ultimate	Option	Option
LIGHTING PACKAGES		
<i>Package Details see page 96</i>		
Premium	Option	Option
Ultimate	Option	Option
VISIBILITY PACKAGES		
<i>Package Details see page 97</i>		
Premium	Option	Option
Ultimate	Option	Option