FR SERIES FORAGE CRUISER SELF-PROPELLED FORAGE HARVESTERS 449 TO 824 PEAK HP

FR450 | FR500 | FR600 | FR700 | FR850

NEW FORAGE CRUISER TOP CHOP QUALITY PAYS

New Holland has been at the forefront of the forage harvesting market for over half a century with a whole host of pioneering industry firsts that have revolutionized the way you forage today. The five-model Forage Cruiser line offers innovation and productivity from 449 horsepower right up to the mighty 824 horsepower of the flagship FR850 model. Industry-leading chopping performance has been married to outstanding operator comfort. Significantly improved capacity and productivity result from better crop flow, and it's wrapped up in a SMART, tapered design which has New Holland written all over it.

SUPERIOR HARVEST QUALITY

The industry's widest crop channel from feedrolls to spout flipper means a thin, controlled crop mat for best-in-class chop quality. HydroLoc™ feedroll drive technology guarantees constant chop length independent of throughput and crop type. When combined with uniform kernel cracking from the most efficient crop processor around, you've got the ingredients for chopping the highest quality cattle feed.

LOWER OPERATING COSTS

Lower operating costs mean higher profits. Efficient engines offer low fuel consumption, saving you money. Advanced MetaLoc™ metal detector technology protects your FR from potentially fatal ferrous metal ingress, saving you lots of money. The patented Variflow™ system can be changed from corn to grass position, or back, in under 5 minutes without the need for tools. Saving time and earning you more money, the new FR Forage Cruiser: a money making machine!

EXACTLY WHAT IT SAYS ON THE SHIELDING

The FR performance is immediately obvious to all users. How? Quite simply it's on the side shielding. The 'FR' stands for forage harvester. The following three numbers, for example '600', refer to the maximum harvesting power rounded up to the nearest 50.

ULTIMATE CAPACITY

New Holland knows that throughput is king where forage harvesters are concerned and that owners dream in tons per hour. The largest cutterhead in the business offers exceptionally high levels of inertia, and when combined with lots of cutting space, throughput and accuracy are guaranteed. The renowned Power Cruise™ II feature ensures your FR's voracious appetite is satisfied in fields of varying crop density, and state-of-the-art headers that eat grass, alfalfa, corn, cereal crops, or even trees complete the capacity picture.

ABSOLUTE DRIVING PLEASURE

Skilled forage harvester operators are like gold nuggets, and when you've found one, you'll want to hang on to him. The FR offers a first-class environment. Front. Back. Side to side. He'll have uninterrupted view whichever way he looks for accurate pick-up and crop discharge. The spacious cab boasts the ultra-wide screen IntelliView™ IV color touch screen monitor and ergonomic armrest to keep all key operating parameters under control. The IntelliFill™ spout guidance option fills the trailer for you so you can concentrate on the serious business of driving. Welcome aboard!

REVOLUTIONIZING FORAGE HARVESTING

In 1961, New Holland revolutionized forage harvesting mechanization: it transformed it's highly successful pull-type forage harvester into a self-propelled unit, the now legendary SP818. With this daring move, New Holland dramatically increased in-field performance. In line with this ambitious philosophy, over the last 50 years, New Holland has introduced a vast range of pioneering industry-firsts to improve the profitability of your forage businesses. Today, the FR Series Forage Cruiser reflects New Holland's continuous and unswerving commitment to offer products that meet your most demanding requirements.

YELLOW-BLOODED ENGINEERS AT THE ZEDELGEM CENTRE OF EXCELLENCE

Today, over half a century after the first SP818 was designed and built in New Holland, Pennsylvania, yellow-blooded engineers based at New Holland's Harvesting Centre of Excellence in Zedelgem, Belgium, are still committed to developing the next generation of forage harvesters. The sophisticated product development process and the extensive knowledge of a dedicated workforce of a World-Class Manufacturing facility ensure the FR line, together with all flagship harvesting products, the CR, CX8000 and BigBaler lines, continue to set the harvesting benchmark.

1961: The SP818, New Holland's very first self-propelled forage harvester, available with a one-row maize header, set to work in the Pennsylvania fields. The forage harvester revolution had begun.

1968: The Model 1880 rolled off the production line. Power was increased and so was productivity.

1975: With the Model 1890 the power race really took off. The very first 200-hp machine was unleashed, and new blowing technology enhanced unloading.

1977: With the space race in full swing, the Model 1895 was the first forage harvester to offer built-in metal detection to protect the machine and valuable cattle.

1979: The Model 2100 saw the introduction of the in-line engine design and upped the power ante to top some 300 hp. Cab visibility was also substantially improved.

1987: Cutterhead protection, automatic knife sharpening, and shearbar adjustment were all some of the pioneering features first introduced on the Model 1915.

1995: The FX5 Series with 450 hp on tap featured the now legendary crop processing system.

1998: Higher horsepower was being demanded for greater capacity, and the FX58 responded, with 571 hp.

2003: The new millennium saw the advent of the FX10 Series with HydroLoc adjustable chop length through hydraulic feed roll drive.

2007: The FR9000 range was unveiled to great acclaim. The five-model series featured a succession of industry leading technology including HydroLoc™, MetaLoc™ and Variflow™ systems.

2007: The FR9000 was awarded the prestigious “Machine of the Year” award at Agritechnica.

2011: Half a century of forage harvester leadership was celebrated by a strictly-limited-edition celebratory model.

2013: The new FR Forage Cruiser range is unveiled, representing the pinnacle of forage harvester technology with industry-leading chop quality and throughput.

2014 THE HISTORY OF SUCCESS CONTINUES!

LEADING FROM THE FRONT

OUTSTANDING PERFORMANCE IN HAY

The old adage ‘you are what you eat’ has never been more relevant than when talking about cattle feed. In order to produce the finest beef and get top production from dairy herds, the highest-quality silage must be fed. In order to deliver this to your customers, you have to harvest at exactly the right moment—you won’t get a second chance. With the all-new 380FP hay pickup, you’ll get it right first time, every time.

A WIDTH TO SUIT YOUR REQUIREMENTS

The 12.5-foot header is the perfect width for almost every operation. It is narrow enough for safe road transport, but it’s open-ended reel design easily processes the widest and densest swaths, making it the ideal partner for your triple mower or merger-equipped windrower.

ROLLER WINDGUARD. SMOOTH FLOW GUARANTEED

The new heavy-duty roller windguard option helps guarantee a smooth, even flow of crop into the feed auger, eliminating any slugs which could lead to plugging. It can be easily adjusted to work with different size windrows. When the feedrolls are reversed, the windguard is automatically raised along with the auger so crop can back all the way out of the header.

Model		380FP
Working width	ft/(m)	12.5 (3.8)
Rake windguard and fixed gauge wheels		●
Paddle type auger with hydraulic lift system		●
Hydraulic reel drive		●
Rear support rollers		●
Roller windguard and hydraulic movable gauge wheels		o

● Standard O Optional

SUPER-FAST PICKUP

Pickup speed has been increased vs. prior models so faster ground speeds can be maintained. New reels feature five HD tine bars with heavy support bearings for greater durability and clean-sweep performance. Pickup bands are reinforced to handle heavy windrows without fail, and new internal tine guides prevent damage when the header is reversed.

STANDARD LATERAL TILT ON EVERY FR

Lateral free float technology uses two heavy-duty springs which are built into the crop attachment frame and are used in conjunction with pickup headers to ensure unrivalled ground contour following. A lock pin fixes the header in the center for transport or when removing or attaching it. Hydraulic lateral tilt is optional on the two smaller models, standard on the three largest models. It allows fingertip control of wide corn heads to ensure the header follows uneven terrain. Optional header sensors make terrain following and stubble height control automatic.

PRODUCTIVE CORN HARVESTING

New Holland offers a complete range of corn headers that have been custom designed for the FR range. Two drum choices meet different harvesting needs, and cutting widths range from 15’ to 30’.

SMALL DISC

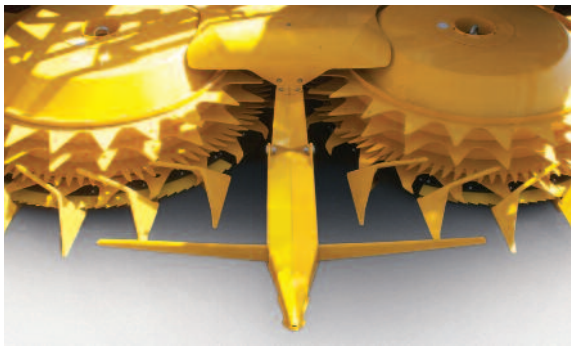
The small disc corn headers, with 25” diameter discs, have been designed to cleanly cut corn with a single drum handling each row when harvesting 30” rows. The stalks are cut cleanly and then held in the gathering drums for transfer to the feed rolls. Small disc headers are available in six-, eight-, ten- and twelve-row versions. These headers also do a great job harvesting other standing crops, like barley, rye, wheat, and sorghum with minimal losses.

BIG DISC

For harvesting tall, high-yielding corn, the large disc corn header is the default choice. Available in eight- or ten-row variants, the 53”-diameter discs cut through the tallest crops. These headers also work very well in wide-spaced corn and heavy-stemmed biomass crops.

Models	450SFI	600SFI	600BFI	750SFI	750BFI	900SFI
Working width ft (m)	15 (4.5)	20 (6)	20 (6)	25 (7.5)	25 (7.5)	30 (9)
Number of corn rows	6	8	8	10	10	12
Disc type	Small	Small	Big	Small	Big	Small
Row guidance	o	o	o	o	o	o
Automatic floatation	–	o	o	o	o	o
Spout extension	–	–	–	o	o	o

● Standard O Optional – Not Available



ULTRA-WIDE FEED TOWERS

The throat area feed towers are widely spaced to feed the wide FR feedrolls evenly across the full width.This ensures the crop mat is held tightly for the best possible chop quality.

ALWAYS PERFECTLY CENTERED

Corn headers can be equipped with row guidance to help keep your FR perfectly on course. Two sensors continuously monitor the position of the standing crop entering the header, and automatically guide the machine through the field. This system is particularly helpful with wider heads or at higher harvesting speeds, and reduces operator fatigue on long days in the seat. (Requires auto-steer option on FR)

WIDE HEADER SELECTION FOR YEAR-ROUND UTILIZATION

The FR forage harvesters can be equipped with a wide range of headers, beyond the common corn and pickup heads usually seen on choppers, to allow harvesting of a wide variety of crops to meet the needs of many different customers. From whole crop to earlage to biomass to trees, New Holland has you covered!

BIOMASS HARVESTING

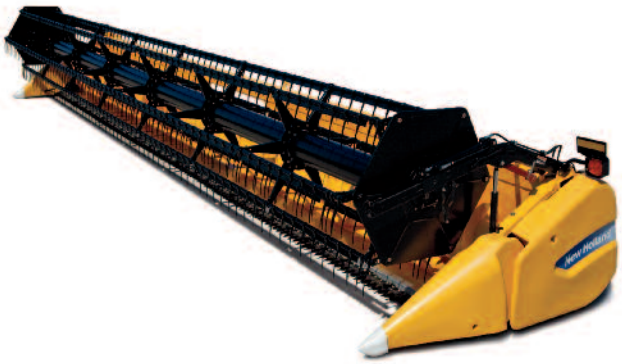
The 130FB coppice header has been designed for short rotation coppice harvesting of softwood trees, such as willow or poplar, planted in rows. The header features saw blades which slice through stems up to 6" in diameter. Heavy duty vertical rolls positively gather and guide the cut stems into the feed rolls for efficient chopping. Wood chips can be used many ways, including burning as a fuel or for cellulosic ethanol production.

COMBINING PERFORMANCE FOR ULTIMATE NUTRITION

High energy food is a key ingredient when fattening and finishing valuable beef cattle, so when only the ears are required, it's time to fit a New Holland combine header to your FR with a simple adapter kit. Compatible models are available in 6-12 row configurations and with or without stalk chopping capability. Earlage can also be a valuable component of a dairy ration.

GRAIN PLATFORMS

The 72C rigid and 740CF flex headers from the New Holland combine line are also fully compatible with the FR line. Uses include harvesting whole cereal crops (barley, oats, or wheat) and for direct cutting winter forage mixtures.



HEADER ATTACHMENT

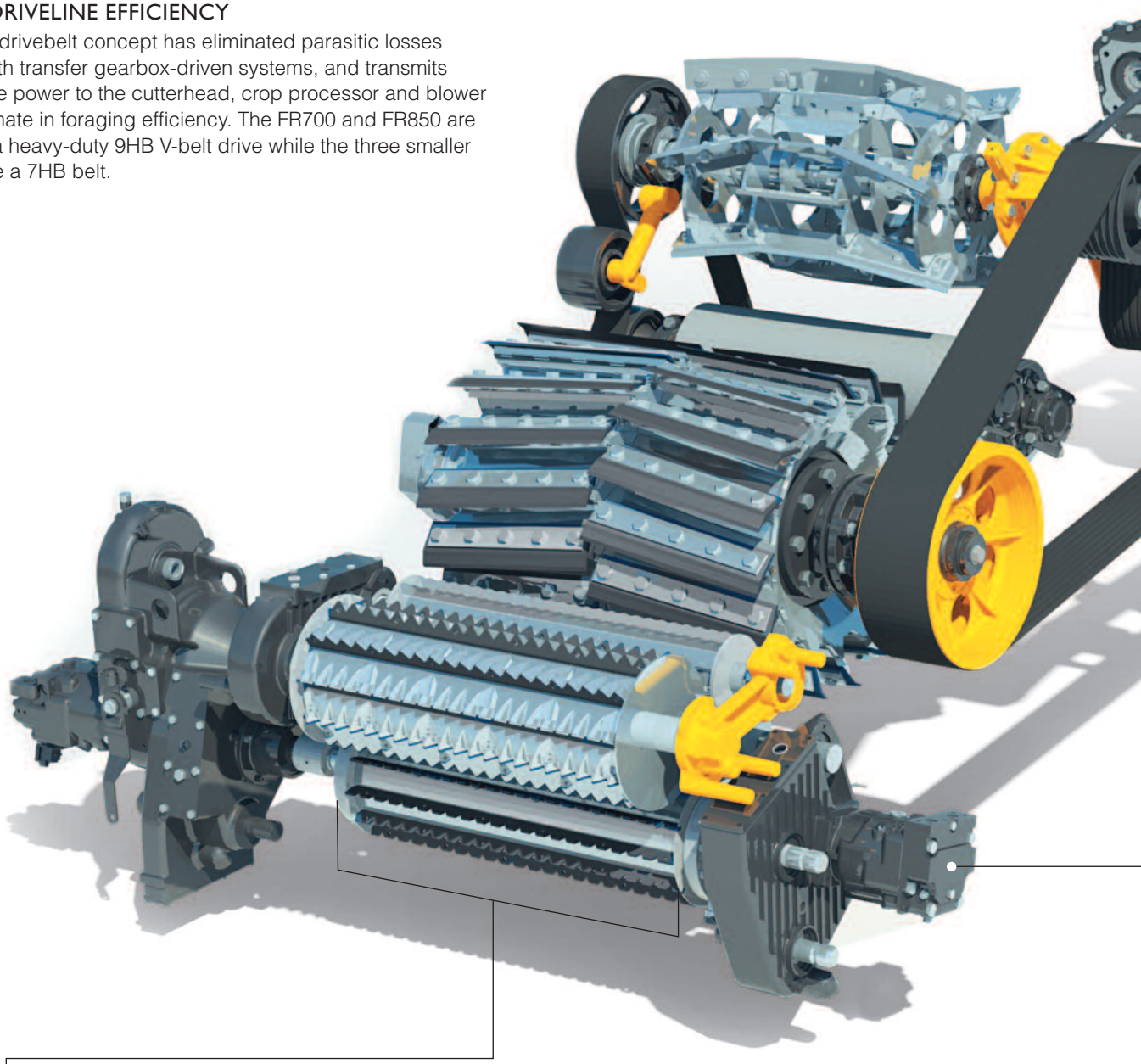
A dedicated module can be quickly and simply attached to the front of the FR to ensure 100% compatibility with combine corn and grain headers. The additional feedroll ensures efficient crop flow over the extra distance for sustained performance and ultimate flexibility.

EFFICIENT POWER DELIVERY

In order to get the very most out of your FR, efficient power transmission from the engine to the driven parts and ultimately to the ground is a must. The FR's in-line concept and direct driveline logic guarantee this and so much more.

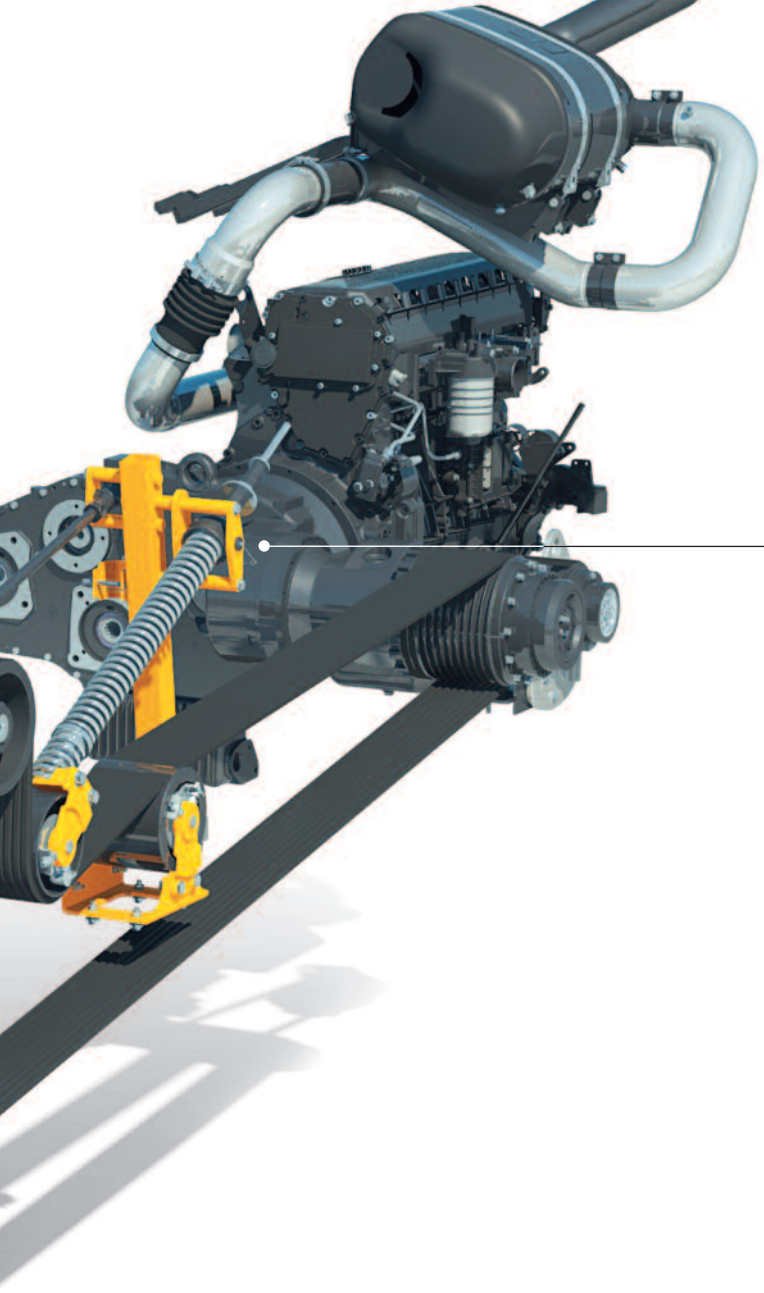
DIRECT DRIVELINE EFFICIENCY

The single drivebelt concept has eliminated parasitic losses inherent with transfer gearbox-driven systems, and transmits 100% of the power to the cutterhead, crop processor and blower for the ultimate in foraging efficiency. The FR700 and FR850 are fitted with a heavy-duty 9HB V-belt drive while the three smaller models use a 7HB belt.



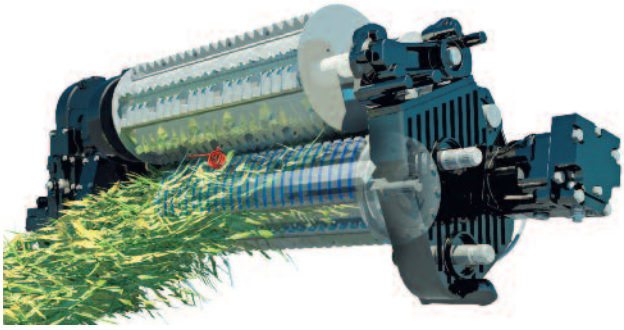
HUGE DIMENSIONS FOR HUGE CAPACITY

The aggressive feedrolls ensure that the cutterhead never goes hungry by pulling crop out of the headers. At 33 ¾" wide, they are the largest in the industry. Crop is evenly distributed over the entire width of the rolls, and chopping performance and quality are enhanced by the wide, thin crop mat. The front feedrolls can be equipped with replaceable wear slats if desired, and the upper feedroll comes with filler plates between the slats.



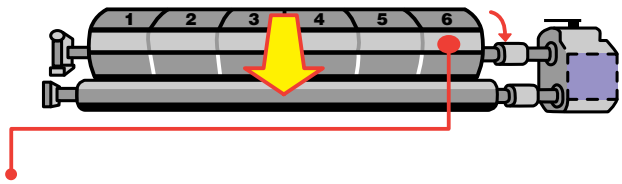
RIGHT ANGLE GEARBOX

The FR's main gearbox design splits the engine's output into the cutterhead drive, hydraulic and hydrostatic systems. This gearbox is pressure-lubricated and cooled to handle the high loads of the larger larger-horsepower models, and offers good durability because it is "overbuilt" to handle up to 1000 hp. The cutterhead drive clutch is externally serviceable.



METALOC™ MACHINE PROTECTION

The state-of-the-art MetaLoc™ metal detection system features six detection zones. Any ferrous metal will bring the feedrolls to a dead halt within 300 milliseconds to protect both your FR and your cattle herd.



The metal's location will be pinpointed on the IntelliView™ IV monitor and the power reverser automatically flips open the pickup windguard and reverses the auger to positively eject the crop. The operator can even adjust the sensitivity of the system.

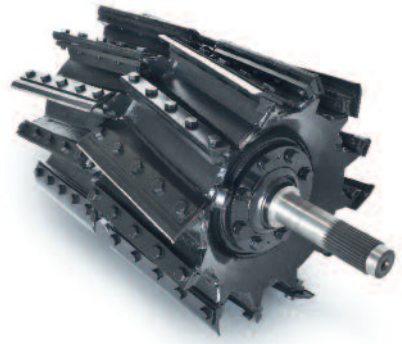
DUAL DRIVE OPTION

When harvesting in demanding crop conditions, the Dual Drive option adds an independent drive system to separate the power flow to the header from that to the feedrolls. Dual Drive also allows you to fine-tune attachment speed independently of the feedrolls, on the go, to maximize header feeding and increase overall machine output. This feature is standard on the FR700 and FR850 models.

BEST-IN-CLASS CHOP QUALITY

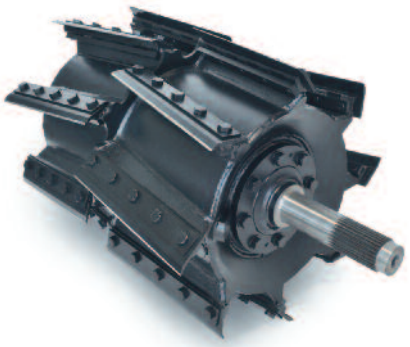
ENJOY INDUSTRY-LEADING CHOP QUALITY WITH THE FR

The above is a bold statement, but the FR can more than live up to this title. Industry-leading HydroLoc™ technology ensures constant chop length regardless of crop type and variations in load. But quality is nothing without throughput, and all FR models can turn standing crop into chopped crop at amazing rates.



UNIFORM CHOPPING

The heart of the FR is the largest cutterhead in the industry—not only wider but also larger in diameter than any competitive unit's. The high rotating mass helps prevent shock loads to the driveline and powers through crop slugs with no problems. A choice of different cutterhead configurations are available to meet any customer chopping need. The chevron design is proven to offer the most uniform chop, and begins the process of converging the crop to pass through the rest of the crop channel. The 2x8 configuration is generally specified for the lower horsepower models, and the 2x12 version for the larger models. However, either configuration can be ordered in any model to provide the desired length-of-cut range. See chart below:



Cutterhead number of knives	**Length of cut range**
2 x 8	in (mm) .25 - 1.3 (6 - 33)
2 x 12	in (mm) .16 - .87 (4 - 22)

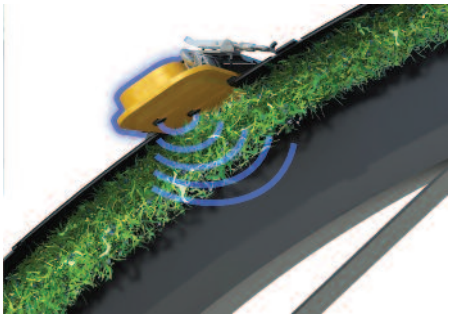
CONSISTENT CHOP LENGTH. ALWAYS

The Industry-leading HydroLoc™ system enables you the precisely regulate chop length on the move from the comfort of the cab. When the chop length is changed, the header speed automatically adjusts to match feedroll speed; likewise, when driveline speed variations are detected, feedrolls automatically adapt, to ensure that no bunching or gaps occur—only smooth even crop flow.

GRASS OR CORN KNIVES AND SHEARBAR

To fine-tune chopping performance, you can equip any FR cutterhead with grass or corn knives and matching shearbar to customize it to the crop and field conditions. Grass (universal) components are great for use in a wide variety of crops. They offer high abrasion resistance and won't easily chip if a small stone is mixed with the crop. Corn knives have a different, thinner profile with a steeper chopping angle to cut more efficiently. Like the corn shearbar, they are made of a harder material that will take a sharper edge and stay that way longer with high crop volumes going through the chopper.

Each knife is secured to the cutterhead drum with 5 bolts, a clamp plate, and a one-piece nut slat. Replacement knives and parts are sold in carefully matched pairs to ensure that the cutterhead remains balanced for vibration-free operation.



ACTIVELOC™ TECHNOLOGY MOISTURE ADAPTED CHOP LENGTH

The FR now offers revolutionary ActiveLoc™ technology. Real time moisture sensing is used in combination with pre-set chop length parameters to control the length of the chop depending on moisture content. This increases bunk density as well as improving silage quality for an enhanced nutritional profile. The operator simply sets a minimum and maximum chop length and also regulates the parameters used to calculate the percentage change in chop length depending on moisture. The result: the perfect chop length for each and every swath. Optional on all models.

ADJUST-O-MATIC™ KNIFE SHARPENING

Sharp knives ensure clean, precise cutting for maximum capacity from less power and fuel. With New Holland Adust-O-Matic™ technology, you can easily sharpen knives and adjust the shearbar from the comfort of the cab. During the sharpening cycle, the cutterhead running direction is reversed and the integrated sharpening stone puts a precise, razor sharp edge on every knife, extending knife life and reducing wear.

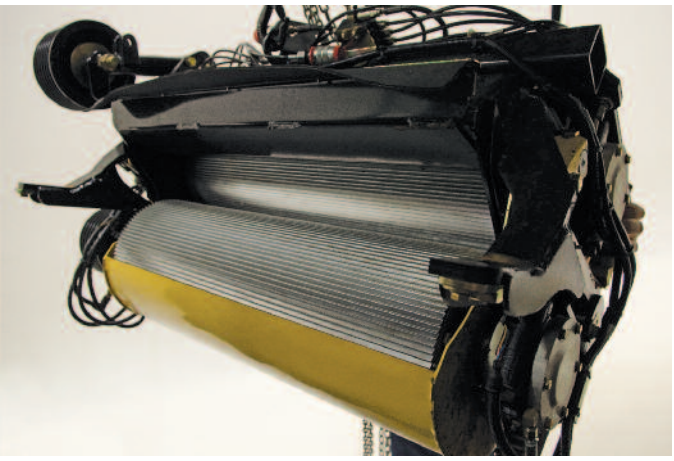
CROP PROCESSING AND VARIFLOW™ SYSTEM

New Holland complements outstanding FR chop quality with unparalleled processing performance to provide your animals the best-quality feed.

Owners also want to quickly change the processor in or out of the crop flow to minimize unprofitable downtime when changing between crops. The FR delivers it courtesy of the industry-leading Variflow™ system.

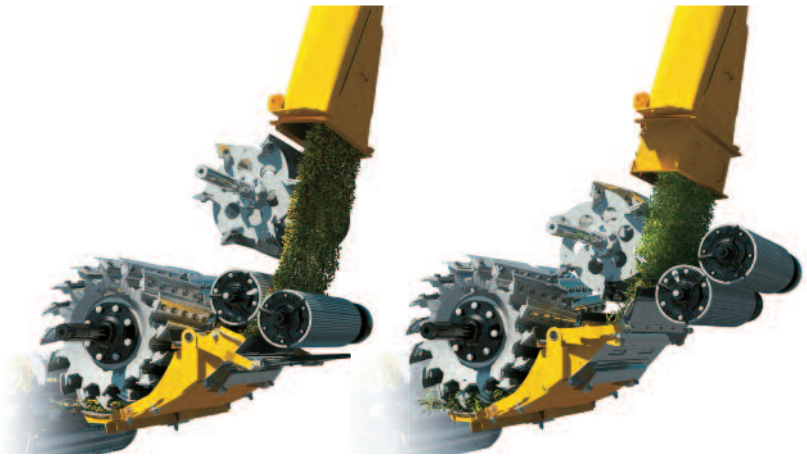
EFFICIENT CROP PROCESSOR

The standard crop processor has large 10” (250mm) rolls that are a full 30” wide—the widest available. The wider rolls mean more crop can fit through the small gap for maximum capacity. Both rolls have 99 saw teeth, and are driven at a 22% speed differential. Roll gap can be quickly set from the cab, and changed on the go if conditions warrant. All processor bearings are constantly lubricated by the automatic greasing system for long life and minimum attention.



HEAVY-DUTY PROCESSING

The FR500, FR600, FR700 and FR850 models can be fitted with an optional heavy-duty processor that improves both processing performance and durability. Both rolls are hard chrome coated to resist abrasion from dirt in the crop mat. Processing improvements come from the staggered tooth count on the rolls (99/126) and a 30% speed differential. The roll gap can be larger for higher throughput and still provide complete kernel processing for maximum feed efficiency.



VARIFLOW™ TECHNOLOGY

Variflow™ system technology has streamlined the crop channel to tailor crop flow to conditions. The Variflow™ system enables the operator to alter the position of the blower depending on the crop being harvested. The system features one corn and two grass settings: one for heavy, first-cut silage and a second for smooth crop flow in lighter second and third cutting silage. In grass-mode, the blower is situated 8" closer to the cutterhead and offers savings of up to 40 hp to enhance overall machine efficiency.

ONE PERSON. FIVE MINUTES. NO TOOLS.

In less time than it takes to change headers, you can change the Variflow™ system from its corn to grass setting without the need for any tools. Perfect when flexibility is of the essence in busy harvesting periods. Furthermore, an exclusive tensioning system ensures correct belt tension in both positions so you don't need to waste time with adjustments. During extended periods of hay chopping, you can remove the crop processor in under 20 minutes with the assistance of a dedicated hoist.

SILKY SMOOTH CROP FLOW

Forage harvesting is a time-sensitive task. Good crop flow through the machine without plugging is important to keep the chopper and support vehicles moving and the harvest coming in. The FR Forage Cruiser has you covered with the Variflow system, adjustable grass door, the high-performance blower, and the widest spout in the industry.

CUTTING-EDGE BLOWING PERFORMANCE

The FR benefits from the latest advances in blower design to ensure efficient crop transfer to the truck or trailer. The full width paddles have increased air flow by a full 40% to transport higher volumes of crop more efficiently. The clearance to the rear plate of the blower is easily adjusted to keep horsepower consumption to a minimum.

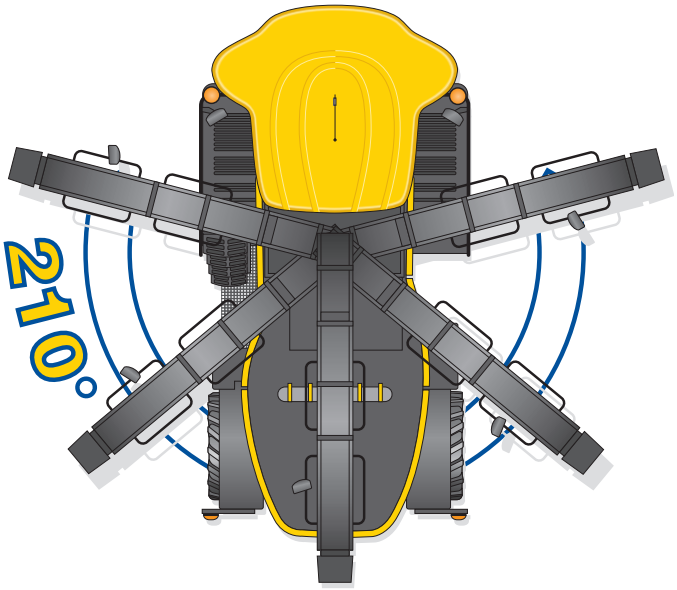
Advanced computational fluid dynamic analysis was conducted on the complete crop channel to establish the smoothest and best possible path for the crop; a more stable air flow means reduced turbulence, less chance of plugging, and greater unloading efficiency. The new FR: blowing performance you can count on!

CROP CHANNEL WEAR LINERS

All high-contact areas of the crop channel feature replaceable wear liners to minimize the inevitable erosion from crop contact. For machines operated in areas with particularly abrasive soil or crops, there are optional heavy-duty liners available for critical contact areas to extend the replacement interval up to 4 times the normal life.

TWO SPOUT CHOICES FIT YOUR SYSTEM

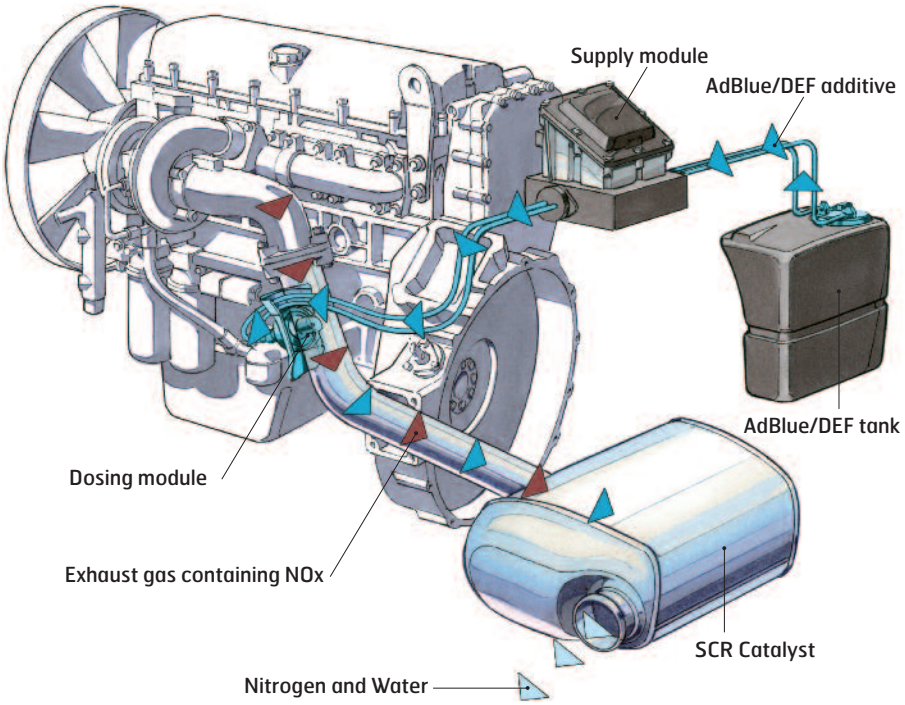
FR models can all be equipped with either the standard, long spout or with a short spout. The long spout is ideal for most applications where trucks or trailers are filled from their open tops. The short spout option is designed to fill enclosed truck or wagon bodies from the side or the front. Both spouts are a full 13" wide and feature a hydraulically operated flipper to put the crop where you want it. Grass (universal) and tapered corn flippers are available.



EXCEPTIONAL 210° OF SPOUT ROTATION

The sleek black spout benefits from a full 210° of rotation, which enables trailers to be filled both on the right and left sides of the harvester. The long spout has a maximum height of 21' which means even the tallest trailers can be used to increase hauling efficiency.

POWERFUL. RESPECT. FOR YOU. FOR YOUR FARM. FOR THE FUTURE.



ECOBlue™ AdBlue®

CLEAN POWER. PURE PERFORMANCE

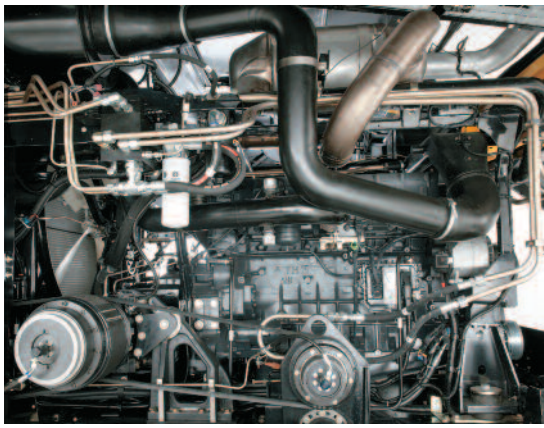
The FR450 and FR500 benefit from the productivity enhancing features of Cursor 9 and 13 engines equipped with ECOBlue™ SCR technology for Tier 4A compliance. Developed in partnership with FPT Industrial, over 210,000 SCR engines have already rolled off the production line. Proven Selective Catalytic Reduction (SCR) technology uses AdBlue® Diesel Exhaust Fluid (DEF) to transform harmful nitrogen oxides contained in the exhaust gas into harmless water and nitrogen. This after-treatment system is separate from the main engine which means only clean, fresh air is fed into the engine. This "breathability" leads to more complete combustion, resulting in more power from less fuel with clean emissions.

TURBO COMPOUND EFFICIENCY

The FR600 features a Cursor 13 Turbo Compound engine which can lower your fuel consumption by up to 8% by using the exhaust gases to power the engine crankshaft. Furthermore, it is 100% biodiesel compliant, so you can power your FR with fuel grown in your fields, not pumped out of the ground.

CLEAN ENERGY LEADER

Sustainable Efficient Technology



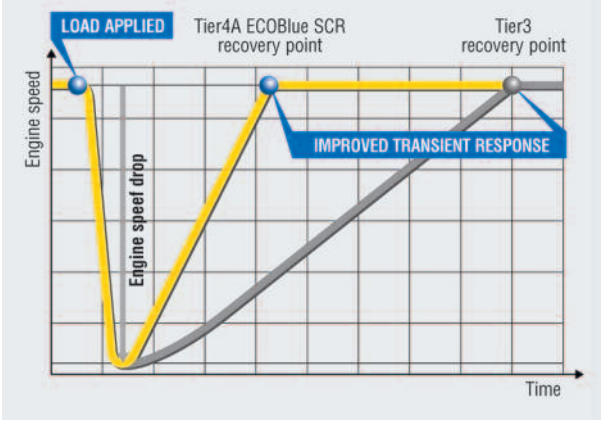
AUTOMATED PRODUCTIVITY— POWERFUL, EFFICIENT PERFORMANCE

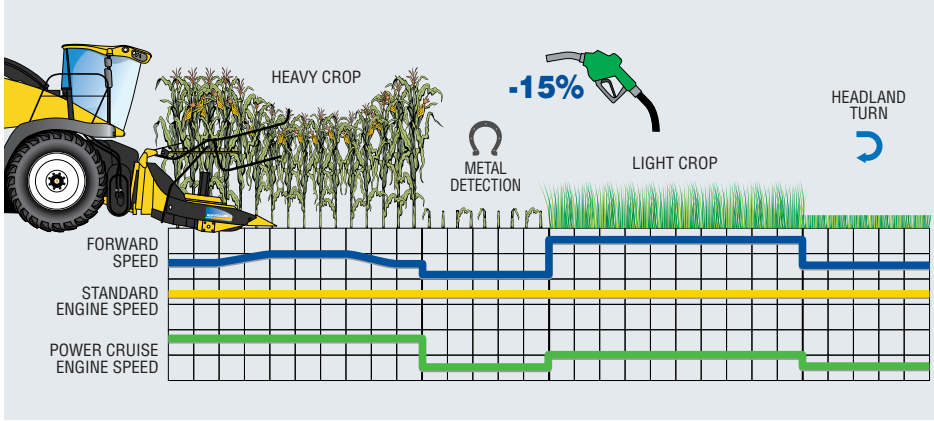
The FR is New Holland's most powerful machine. Ever. Some pretty impressive technology is used to generate up to 824 horsepower of pure chopping power. The entire FR line benefits from single engine technology for reduced complexity for the ultimate in easy maintenance. A large torque rise over the working range enables the FR to effortlessly sail through even the most demanding fields with ease.

Models		FR450	FR500	FR600	FR700	FR850
Engine		FPT Cursor 9* T4i	FPT Cursor 13* T4i	FPT Cursor 13 Turbo Compound*	Caterpillar C18	FPT Vector 20*
Capacity	cu. in. (L)	531 (8.7)	787 (12.9)	787 (12.9)	1105 (18.1)	1227 (20.1)
Injection system		Common rail	Unit injectors	Unit injectors	Unit injectors	Common rail
Maximum engine power @ 1800-2000 rpm	HP (kW)	449 (330)	516 (380)	591 (440)	685 (504)	824 (606)
Maximum Torque @ 1500 rpm ISO 14396 - ECE R120	ft.-lb. (Nm)	1430 (1939)	1675 (2272)	1910 (2590)	2181 (2957)	2643 (3584)
Torque rise (2100 to 1500 rpm)	%	30	37	33	37	36
Approved biodiesel blend**		B5	B5	B100	B20	B5
Power Cruise™ II system		●	●	●	●	●

● Standard O Optional – Not Available * Developed by FPT Industrial

** Biodiesel blend must fully comply with the latest fuel specification, ASTM 6751, and operation is in accordance with operator manual guidelines





TRANSIENT RESPONSE

Here at New Holland we're passionate about transient response. You might think what's that? Quite simply, ECOBlue™ SCR technology enables the FR's engine to react quicker to changing load, so when you encounter a particularly dense area of the field your engine will respond in the blink of an eye so you experience zero harvesting slow-down.

POWER CRUISE

The Power Cruise™ II system automatically adapts engine and ground speed in relation to actual load for fuel savings of up to 15%. During periods of reduced load, like thin spots in the crop or when making headland turns, engine speed is reduced to improve fuel efficiency. When throughput increases, so does engine speed to maintain a higher work rate. When working flat out, the system manages ground speed to maintain constant engine speed for the highest work rate possible with no input necessary from the operator. The FR also features a top transport speed of 25 mph, which can be achieved at a mere 1400 rpm with 20% fuel savings and a quieter operating environment.

PUTTING POWER TO THE GROUND

The FR Series in-line engine concept and direct driveline logic guarantee efficient power transfer from the engine to the ground—and so much more.

LONG AND STABLE

The FR's ultra-long 126" wheelbase ensures ultimate stability in the field and on the road. The low rearward placement of the engine provides lots of effective counterweight to improve stability on hills and during transport. Up to four weight slabs can be added under the bumper to better balance large corn heads if needed.

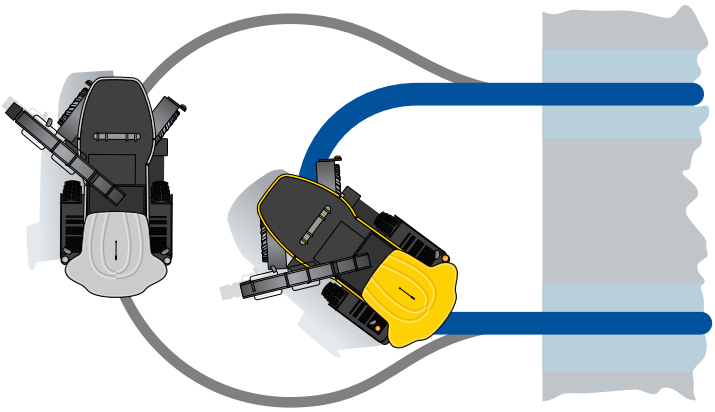
High ground clearance, up to 5.5" more than the competition, reduces grounding and dragging when working in muddy field conditions. Standard differential lock- a New Holland exclusive- is your invaluable partner to keep you going in really tough wet spots.

VAST TIRE OFFERING

The FR can be specified with three drive tire choices to suit your individual needs. High-quality Michelin tires are available in 710/75R34 or 900/60R32 sizes. The large in-field footprint provides good load capacity, low compaction, and enhanced traction. Dual drive tires can also be fitted— the 520/84R42 size means great traction and stability with improved floatation.

SUPER-TIGHT TURNING

The FR's compact design and impressive 55° steering angle give it a turning circle of only 20'. This means smaller headlands for less time turning and more time harvesting. The tapered rear design and short overhang ensures the FR follows its rear wheels closely, making maneuvering and parking easier and safer.



GROUND DRIVE

The FR range shares many components of its robust ground drive system with New Holland combines. The central gearbox and differential features four ranges that are easily selected with a simple cab control. This gearbox is paired with a closed-loop hydrostatic pump/motor combination that provides awesome pulling power for non-stop harvesting. The drive system is completed by outboard reduction boxes bolted firmly to the chopper's main frame. Wheel track can be varied by installing axle spacers to give a wider stance if desired.

ADJUSTABLE REAR AXLE

Two-wheel drive FR units feature a heavy-duty, adjustable steering axle. The double box walled design offers stronger more resilient alternative to the cylindrical axles used on some competitors. Tread width can be set from 104" to 134" in 6" increments.

MECHANICAL 4WD

The 4WD option on the Forage Cruiser line is a fully mechanical New Holland exclusive—and very similar in design to the one used on FWA tractors. It is powered from the central gearbox by a driveshaft, and is engaged via a hydraulic clutch from the cab. The highly efficient mechanical system offers superior durability, lower complexity, and better tractive effort when compared to the hydrostatic assist systems used on other choppers. The FR can power through even the harshest conditions without risk of stalling or sticking.

DAY INTO NIGHT COMFORT AND PERFECT VISIBILITY

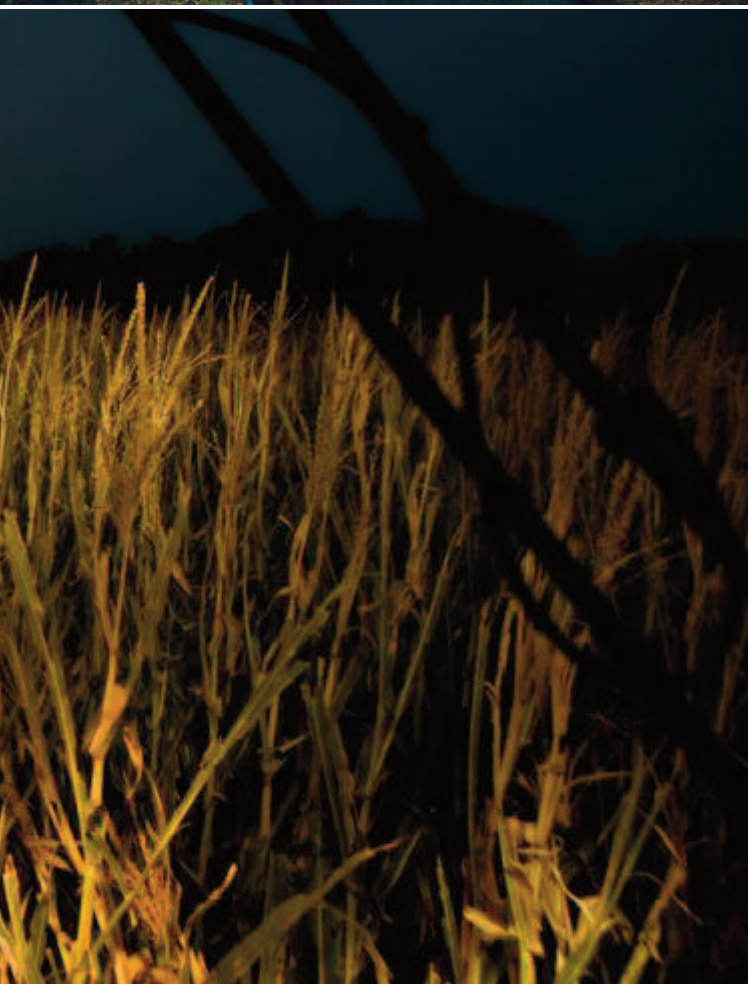
Productivity meets comfort in the FR's quiet and spacious cab. This chopper-specific cab has been laid out to provide it's operator with excellent visibility and access, no matter the time of day. A standard HID work light package illuminates even the darkest nights, allowing operators to go the extra acre for their customers. Automatic climate control and an extensive wiper and mirror package guarantee that the FR's 360-degree visibility is never obstructed.

360° PANORAMIC VISIBILITY

The FR cab's 360° wide curved windows offer a perfect view of the header and spout regardless of their position. The sculpted side-door glazed panels naturally follow the spout's unloading arc for a crystal clear view during side discharge, and the curved rear windshield gives you eyes-in-the-back-of-your-head visibility. The electric mirrors mean you can see in all directions, and they can be easily positioned from the comfort of the cab. Up to three viewing cameras can be managed through the new IntelliView™ IV monitor. When loading, reversing or checking the trailer fill level, they can be your second set of eyes.

BIGGEST AND QUIETEST

FR Series forage harvesters quite simply offer you a home away from home during long foraging days and nights. The cab has more interior volume than its nearest rival, and you can enjoy all of that space in the peace and quiet of the near-silent 76dB(A) cab.



COMFORTABLE OPERATING ENVIRONMENT

The relaxing air-suspended operator's seat features multiple adjustments to conform to most any operator's preferences to guarantee the utmost comfort during long harvesting days. The right-hand console is suspended with the seat so it moves with it, but can also be adjusted fore/aft independently for perfect positioning. All controls lie perfectly within reach. The instructor's seat folds up to allow easy access to the cool box (optional) that keeps your lunch and drinks cold in your home away from home.

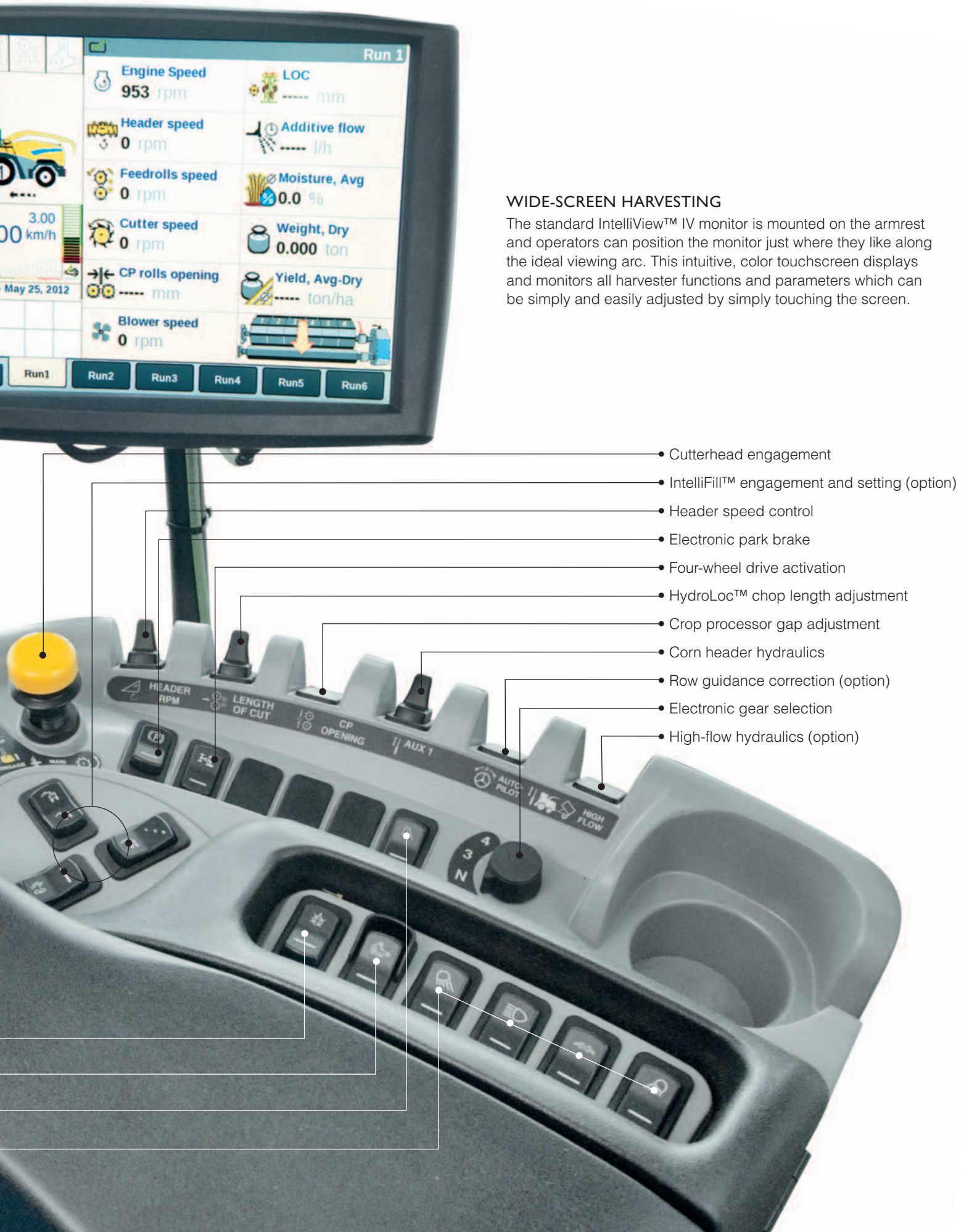
EXPAND YOUR VIEW

Your Forage Cruiser can be fitted with cameras which allow you to expand your visibility beyond the industry-leading sightlines. Cameras can be fitted anywhere on the unit and be programmed to appear in the Intellieview™ IV monitor when performing predetermined functions like backing up.

EFFORTLESSLY MAXIMIZING PERFORMANCE

Intelligent and intuitive automation saves time and enhances foraging performance. The CommandGrip™ multi-function lever is the primary interface that controls your FR. All key machine operating parameters can be managed including header controls, spout engagement and Power Cruise™ activation. The right-hand console contains less frequently used functions, which are laid out in an ergonomic and logical manner. Machine functions can be analyzed at a glance courtesy of the color IntelliView™ IV monitor.

- Header/Feedroll engage and reverse
- Quick stop button
- Spout and flipper control
- Spout setpoint and transport home setting
- Power Cruise™ engagement
- Automatic header height control
- Lateral float control. Header raise and lower
- Emergency stop
- Forward and reverse functionality and speed
- Engine speed control
- Automatic header height mode
- Height and width correction control
- Pick-up speed regulation
- Cutterhead reverse
- Road safety mode
- Work lights

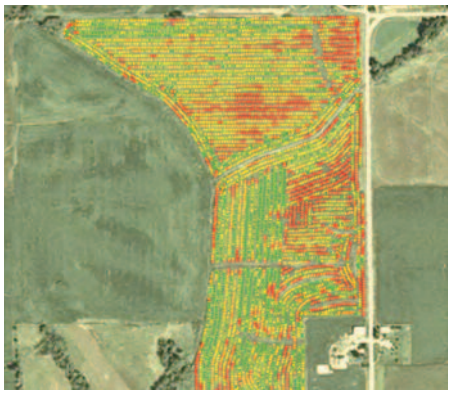


WIDE-SCREEN HARVESTING

The standard IntelliView™ IV monitor is mounted on the armrest and operators can position the monitor just where they like along the ideal viewing arc. This intuitive, color touchscreen displays and monitors all harvester functions and parameters which can be simply and easily adjusted by simply touching the screen.

FARM WITH PRECISION

PRECISION LAND MANAGEMENT™



ACCURATE MOISTURE SENSING

The new, resistive-type moisture-sensing system has been calibrated for both corn and grass crops, and provides the operator with real-time moisture readings on the in-cab IntelliView™ IV monitor. Software for the system interfaces with the yield and inoculant systems for pin-point accuracy and control.

TAILORED INOCULANT APPLICATION

A 100-gallon inoculant system is available on all FR Forage Cruisers. The tank can be filled easily from the ground. Application rate can be varied manually through the IntelliView™ IV monitor, and the level of product remaining can also be displayed. When the optional yield and moisture sensors are installed on the FR, the system can be set to automatically adjust the application rate for precise treatments.

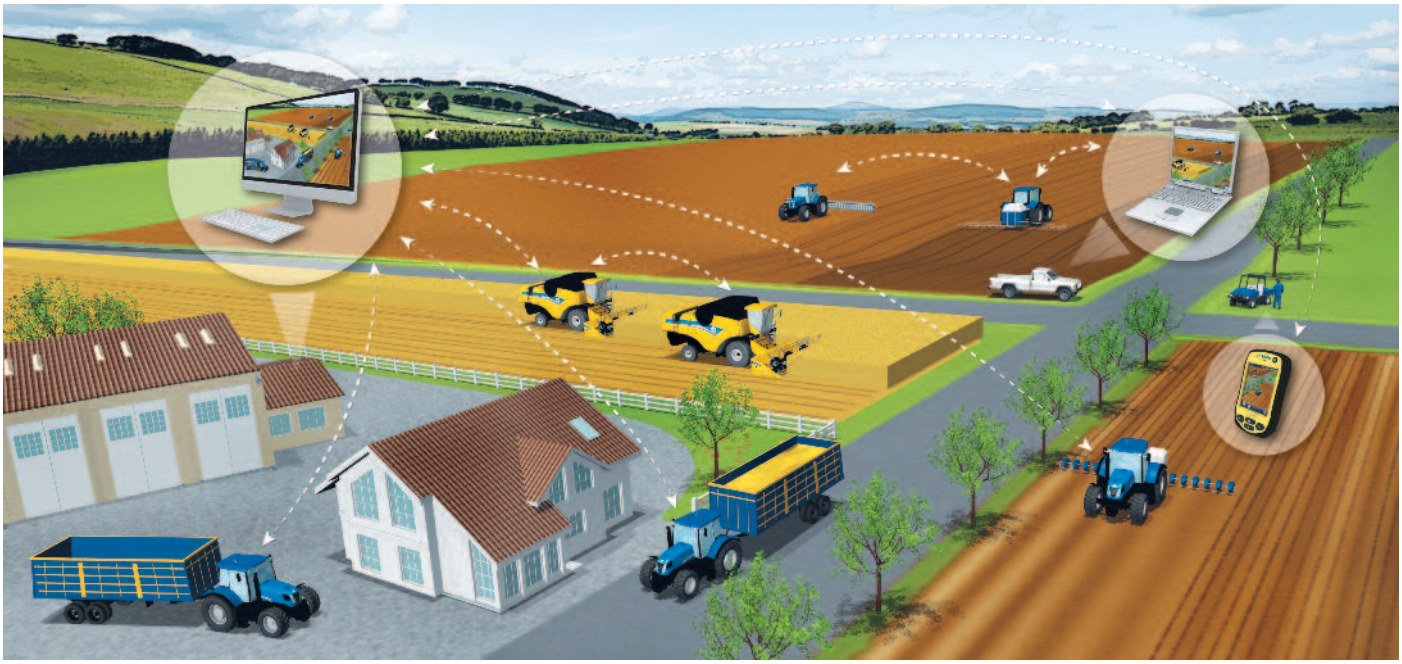
PRECISE YIELD MAPPING

Yield data is provided by sensors that calculate crop throughput and display it in the monitor. It can be stored on a job or field basis for information or customer billing purposes. The records can be printed out with the onboard job printer (option) or stored on a memory stick. The addition of a GPS antenna adds another dimension to the data so it can be analyzed using advanced PLM™ Software to provide customers with precise yield maps to enable them to fine-tune inputs to enhance future profits.

LET THE FR FILL THE TRAILER FOR YOU

Getting maximum capacity from a forage harvester with minimal field losses requires extensive experience and a high level of concentration. To allow the operator to focus on crop flow and field progress, the multi-award winning IntelliFill™ spout guidance system is designed to automatically control spout and flipper movement to perfectly fill right to the truck or trailer's edges without spillage. Whatever the trailer size or shape, it detects the edges and monitors filling using infrared technology. The system works equally well in bright sunlight, dusty conditions, and even at night to ensure full loads with minimum operator worry.

AE50 outstanding innovations



ADVANCED TELEMATICS PACKAGES FOR ENHANCED FLEET CONTROL*

The entry-level PLM™ Connect Essential package features fleet management and mapping functionality. It can track machines and display their current position as well as letting you know when planned maintenance is due. Machine security is enhanced as virtual geo-fences and curfews can be set to control where and when a unit is operated. Upgrading to the PLM™ Connect Professional telematics package will provide enhanced functionality such as fuel consumption reporting, fuel usage analysis and remaining fuel level. Furthermore, each machine can be instantly tracked and location reports sent in real-time to monitor current usage profiles and assist contractors in managing work flows. Ask your New Holland dealer for full details on how this fleet management option can work for your benefit.

PLM CONNECT TELEMATICS

*Available late 2014

PROTECTING YOUR INVESTMENT

New Holland's innovations in machine protection help to keep your machine running years after the competitors' have quit. The FR Forage Cruiser® product line is easy to own, easy to operate, and easy to maintain.

TWO-YEAR COVERAGE IS STANDARD

At New Holland, we believe in the reliability of our forage harvesters.That is why we back up our one-year warranty with a second year of full-coverage, no deductible extended service protection as standard. So sleep soundly knowing that New Holland has you covered, for free.

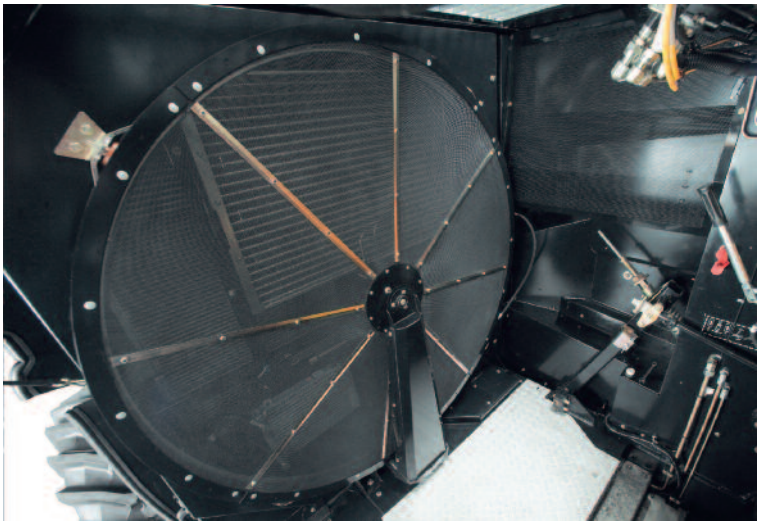
TRIPLE CHECK

In order to help you maintain your FR, New Holland dealers offer a program to make sure that you are ready for the next season. Roll your FR into your nearest Forage Harvester dealership when you are done for the year and they will perform a comprehensive check of your chopper and provide you with a detailed list of repair and replacement recommendations to assure that your forage harvester is running at peak efficiency when crop calls.

TRIPLE CHECK

SERVICE ACCESS

The FR Forage Cruiser was redesigned with accessibility in mind. The ultra-wide service bay allows for complete access to the crop processor and accelerator. A simple but effective two-latch system protects the radiators, intercooler, and oil coolers from dust build-up while allowing the user easy access for cleaning. Revised wheel wells protect the unit during normal operation, but can be removed easily to inspect the gearbox and hydrostatic systems.



UPTIME GUARANTEE

The FR Forage Cruiser is covered as part of New Holland's Top Service program which assures that New Holland will do whatever it takes to get your Forage Cruiser up and running should a break down occur. All parts shipments are automatically expedited during harvest season.

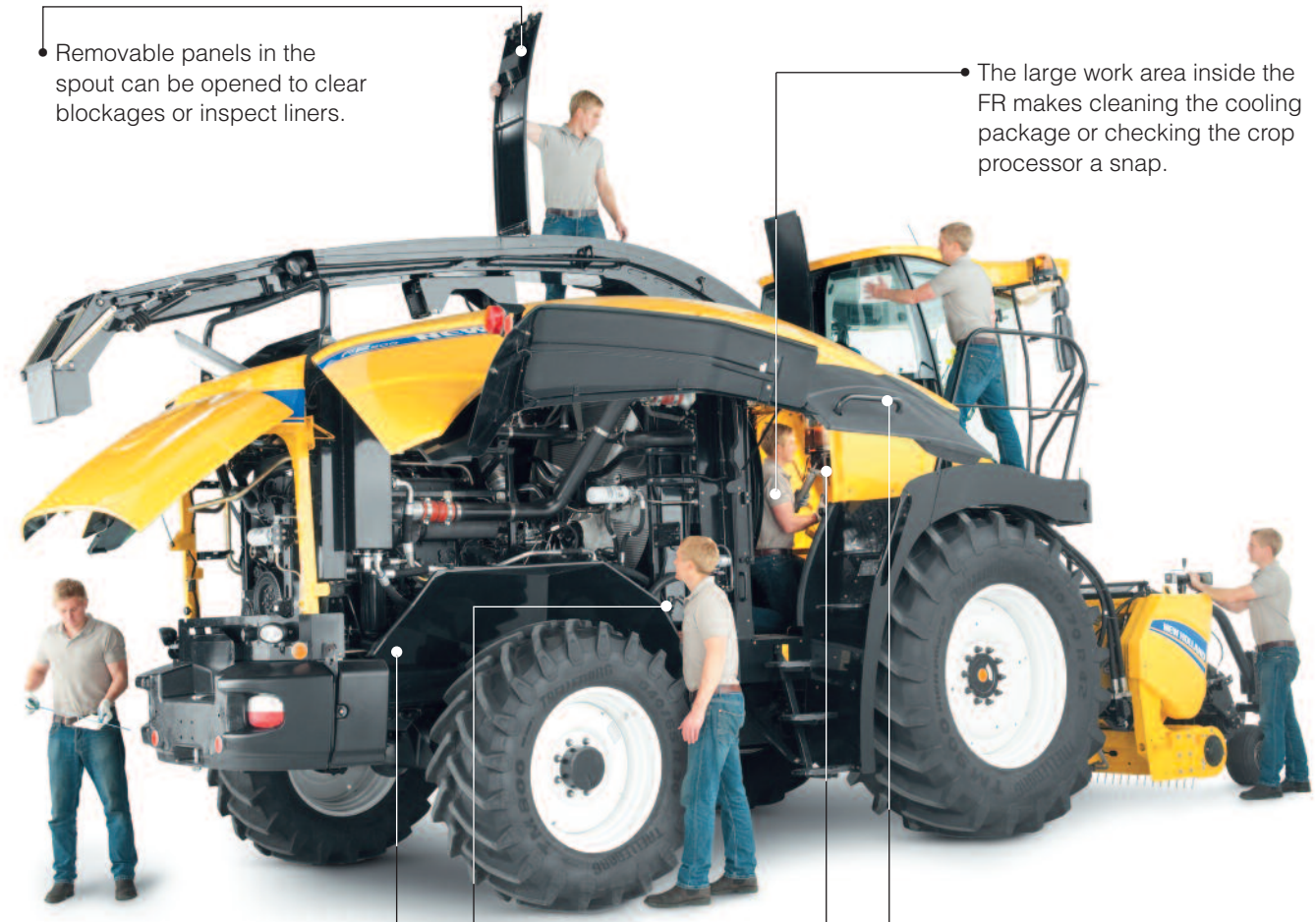
HEAVY DUTY LINER PACKAGE

For extra wear resistance in extreme operating conditions, opt for the HD crop channel liners. These highly wear resistant parts are coated with a thick layer of chrome carbide that will typically provide 3 to 4 times the life of the standard wear liners. Also available through New Holland parts for existing machines.

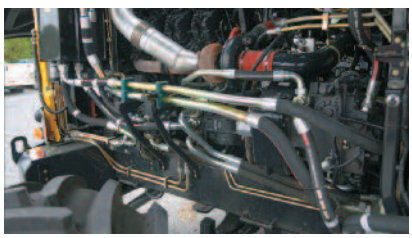
360°: FR

The new FR range has been designed to spend more time working and less time in the yard. After all, we all know how precious time is in the field during short work windows. All service points are easy to access, and extended service intervals mean the FR will spend more time in its natural environment: the field.

The fill openings for the fuel and 40 gallon AdBlue® tanks are conveniently located next to each other under the left side shield.



- Removable panels in the spout can be opened to clear blockages or inspect liners.
- The large work area inside the FR makes cleaning the cooling package or checking the crop processor a snap.
- Self-supporting, fully opening single-piece side shields guarantee full access to all drives and service points.
- Wheel wells are completely removable for excellent hydrostatic access.
- The centralized drain points enable super-fast and clean drainage.
- The automatic greasing system is easy to access.



DEALER INSTALLED ACCESSORIES

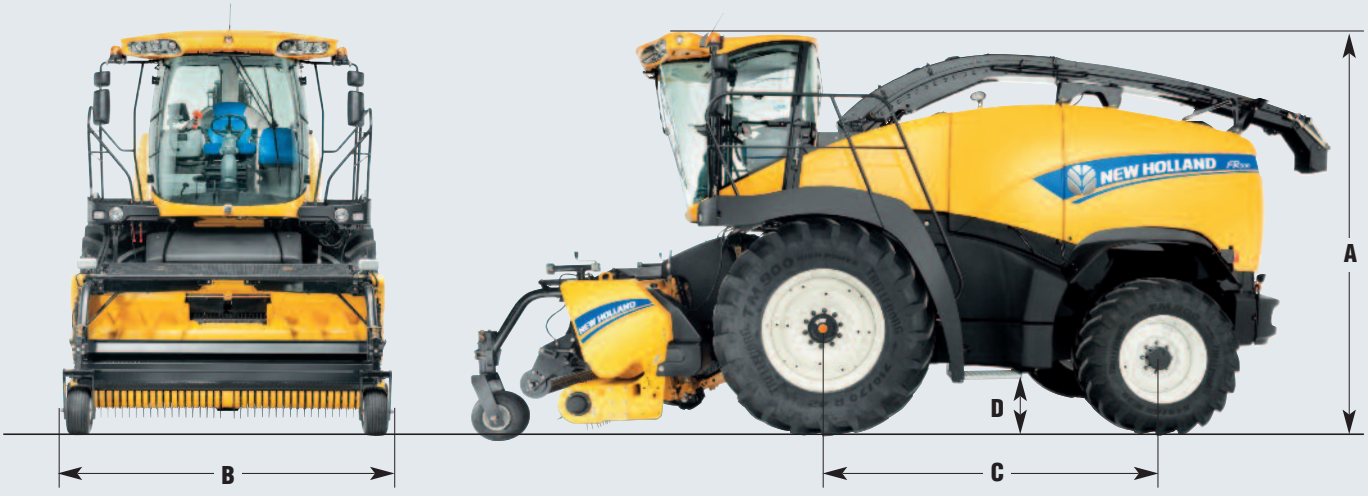
A comprehensive range of approved accessories to optimize machine performance in all conditions can be supplied and fitted by your dealer.

Models		FR450	FR500	FR600	FR700	FR850
Engine		FPT Cursor 9*	FPT Cursor 13*	FPT Cursor 13 TC*	Caterpillar C18	FPT Vector 20*
Engine configuration and number of cylinders		In-line 6	In-line 6	In-line 6	In-line 6	V8
Capacity	cu. in. (L)	531 (8.7)	787 (12.9)	787 (12.9)	1105 (18.1)	1227 (20.1)
Injection system		Common rail	Unit injectors	Unit injectors	Unit injectors	Common rail
Compliant with engine emissions regulations		Tier 4i	Tier 4i	Tier 3	Tier 3	Tier 2
Gross engine power @ 2100 rpm - ISO TR14396 - ECE R120	HP (kW)	409 (300)	475 (350)	544 (400)	639 (470)	768 (565)
Max. engine power @ 1800-2000 rpm - ISO TR14396 - ECE R120	HP (kW)	449 (330)	516 (380)	591 (441)	685 (504)	824 (606)
Torque @ 2100 rpm ISO 14396 - ECE R120	ft.-lb. (Nm)	1104 (1497)	1212 (1643)	1432 (1941)	1593 (2160)	1942 (2633)
Torque @ 1800 rpm ISO 14396 - ECE R120	ft.-lb. (Nm)	1380 (1871)	1542 (2091)	1749 (2371)	1990 (2698)	2374 (3219)
Maximum torque @ 1500 rpm ISO 14396 - ECE R120	ft.-lb. (Nm)	1430 (1939)	1676 (2272)	1910 (2590)	2181 (2957)	2643 (3584)
Torque rise (2100 to 1500 rpm)	%	30	38	33	37	36
Torque rise (2100 to 1800 rpm)	%	25	27	22	25	22
Approved biodiesel blend**		B5	B5	B100	B20	B5
Power Cruise™ II system		●	●	●	●	●
Fuel consumption measuring and read-out on IntelliView™ IV monitor		●	●	●	●	●
Air compressor		○	○	○	●	●
Fuel tank						
Diesel capacity	US gal. (L)	275 (1040)	275 (1040)	322 (1220)	322 (1220)	322 (1220)
AdBlue capacity	US gal. (L)	40 (150)	40 (150)	–	–	–
Feeding		HydroLoc™ drive	HydroLoc™ drive	HydroLoc™ drive	HydroLoc™ drive	HydroLoc™ drive
Length of cut adjustment		Infinite	Infinite	Infinite	Infinite	Infinite
Number of feed-rolls		4	4	4	4	4
Feed opening width	in. (mm)	33.9 (860)				
MetaLoc™ metal detection with position indication		●	●	●	●	●
Dual drive system (header hydrostatic drive)		○	○	○	○	○
Cutterhead						
Cutterhead cylinder type		Chevron-shaped with 2 rows of knives				
Cutterhead frame width	in. (mm)	35.5 (900)	35.5 (900)	35.5 (900)	35.5 (900)	35.5 (900)
Cutterhead cylinder width	in. (mm)	34.8 (844)	34.8 (844)	34.8 (844)	34.8 (844)	34.8 (844)
Cutterhead diameter (max / min)	in. (mm)	28 (710) / 27.2 (690)	28 (710) / 27.2 (690)	28 (710) / 27.2 (690)	28 (710) / 27.2 (690)	28 (710) / 27.2 (690)
Cutterhead speed at 2100 engine rpm	RPM	1130	1130	1130	1130	1130
Cuts per minute (2 x 8 knives)		9060	9060	9060	9060	9060
Length of cut range (2 x 8 knives)	in. (mm)	0.24 (6) - 1.3 (33)	0.24 (6) - 1.3 (33)	0.24 (6) - 1.3 (33)	0.24 (6) - 1.3 (33)	0.24 (6) - 1.3 (33)
Cuts per minute (2 x 12 knives)		13,600	13,600	13,600	13,600	13,600
Length of cut range (2 x 12 knives)	in. (mm)	0.16 (4) - 0.87 (22)	0.16 (4) - 0.87 (22)	0.16 (4) - 0.87 (22)	0.16 (4) - 0.87 (22)	0.16 (4) - 0.87 (22)
Adjust-O-Matic™ shearbar setting		●	●	●	●	●
Automatic knife sharpening system		●	●	●	●	●
Automatic greasing system		●	●	●	●	●
Variflow™ system		Shift between crops in under five minutes				
Crop processor						
Roll diameter	in. (mm)	9.8 (250)	9.8 (250)	9.8 (250)	9.8 (250)	9.8 (250)
Two-roll system with saw tooth profile	teeth	99 / 99	99 / 99	99 / 99	99 / 99	99 / 99
Chrome coated two-roll system with 99/126 Teeth combination		–	○	○	○	○
Width crop processor rolls	in. (mm)	29.5 (750)	29.5 (750)	29.5 (750)	29.5 (750)	29.5 (750)
22% speed differential		●	●	●	●	●
30% speed differential (only with 99 / 126 teeth combination)		–	○	○	○	○
Roll clearance range (electro-hydraulic adjustment)	(mm)	1-6	1-6	1-6	1-6	1-6
Blower						
Blower rotor diameter	in. (mm)	20.7 (525)	20.7 (525)	20.7 (525)	20.7 (525)	20.7 (525)
Blower rotor width	in. (mm)	29.5 (750)	29.5 (750)	29.5 (750)	29.5 (750)	29.5 (750)
Blower speed at 2100 engine rpm	rpm	2119	2119	2119	2119	2119
Spout						
Spout maximum height	ft. (m)	21.0 (6.4)	21.0 (6.4)	21.0 (6.4)	21.0 (6.4)	21.0 (6.4)
Rotation angle	(°)	210	210	210	210	210
Spout extension (10-row header)		○	○	○	○	○
Spout extension (12-row header)		○	○	○	○	○
Automatic spout functions (home and work positions)		●	●	●	●	●
Spout side collision protection		●	●	●	●	●
HD Wear liners		○	○	○	○	○
Electrical						
12 volt alternator Standard / Optional	(Amps)	185	185	185	185	185
Battery capacity	# x CCA / Ah	3 x 800 / 107	3 x 800 / 107	3 x 800 / 107	3 x 800 / 107	4 x 800 / 107
Transmission						
Hydrostatic		●	●	●	●	●
Gearbox		4-speed	4-speed	4-speed	4-speed	4-speed
Remote gearshifting		●	●	●	●	●
Differential lock		●	●	●	●	●
Mechanical powered rear wheels		○	○	○	○	○
Maximum road speed @ 1400 rpm	mph (kph)	25 (40)	25 (40)	25 (40)	25 (40)	25 (40)

Models		FR450	FR500	FR600	FR700	FR850
Header control systems						
Automatic stubble height control		●	●	●	●	●
Pressure compensation mode		●	●	●	●	●
Autofloat™ system		○	○	○	○	○
Mechanical lateral flotation		●	●	●	●	●
Power Reverse™ hydraulic header reverser		●	●	●	●	●
Hydraulic quick coupler (single location)		●	●	●	●	●
Automatic header speed synchronisation to forward speed		●	●	●	●	●
Cab glass area	ft.² (m²)	73.2 (6.8)	73.2 (6.8)	73.2 (6.8)	73.2 (6.8)	73.2 (6.8)
HID lighting pack		●	●	●	●	●
Air-suspension seat		●	●	●	●	●
Instructor's seat		●	●	●	●	●
IntelliView™ IV monitor with adjustable position		●	●	●	●	●
3 viewing camera's		○	○	○	○	○
Automatic climate control and coolbox		●	●	●	●	●
Optimum cab noise level - ISO 5131	dB(A)	76	76	76	76	76
New Holland Precision Land Management systems						
Guidance systems						
Automatic row guidance system for corn headers		○	○	○	○	○
IntelliFill™ Spout Guidance system		○	○	○	○	○
Precision farming						
Additive tank (with adjustable flow) capacity 105 gal.		●	●	●	●	●
Moisture measuring		○	○	○	○	○
Yield measuring		○	○	○	○	○
Yield measuring and moisture measuring with mapping		○	○	○	○	○
Approx Shipping Weight	lbs. (kg)	31,400 (14240)	32,800 (14880)	33,000 (14970)	33,700 (15285)	34,500 (15650)

● Standard ○ Option – Not available * Developed by FPT Industrial

** Biodiesel blend must fully comply with the latest fuel specification, ASTM 6751, and operation is in accordance with operator manual guidelines



Dimensions

With traction wheels/tires		710/75R34	900/60R32	540/80R42 Duals
Turning radius	ft. (m)	20 (6.10)	20 (6.10)	20 (6.10)
A - Maximum height in transport position	ft. (m)	12.4 (3.78)	12.5 (3.81)	12.6 (3.84)
B - Maximum width - transport	ft. (m)	12.2 (3.72)	12.7 (3.87)	16.6 (5.06)
C - Wheelbase	ft. (m)	10.5 (3.20)	10.5 (3.20)	10.5 (3.20)
D - Ground clearance	in. (mm)	22 (560)	22.5 (570)	24 (610)

VALUE, SERVICE AND SOLUTIONS

There's a certain way of thinking that comes from living on a farm. Farming takes equal parts brain and brawn. Not to mention thick skin, calloused hands and a fair share of know how. Seasoned farmers know it helps to have equipment that's built by farmers, sold by farmers and used by farmers. You might call that instinct, but we call it fieldSMART™.

Support at every step. When you place your confidence in New Holland agricultural equipment, you get the finest in local support. Your New Holland dealer understands the many challenges you face and stands behind you at every step with the equipment, parts, service and financial solutions to make your job easier. Look to New Holland for a complete selection of equipment, including a full line of tractors, hay & forage equipment, harvesting, crop production, and material handling equipment.

Quality parts and service. Turn to your New Holland dealer after the sale for expert, factory-trained service and genuine New Holland–branded parts. Your dealer has the very latest service updates and training to ensure your equipment keeps working productively season after season.

Financing solutions. Your New Holland dealer can tell you about smart ways to turn your financial challenges into opportunities with a portfolio of innovative financial services available through CNH Capital, including customized financing, leasing, insurance and the purchasing convenience of a Commercial Revolving Account.

For reliable equipment, parts and service — or just honest advice on farming and finance — turn to New Holland and your trusted New Holland dealer. We know. We're farmers, too.

NEW HOLLAND TOP SERVICE℠

TOTAL SUPPORT, TIMELY INFORMATION FOR NEW HOLLAND CUSTOMERS.

NEW HOLLAND TOP SERVICE℠ 866-NEW-HLND (866-639-4563)

TOP AVAILABILITY
Year-round support and information — just by calling one toll-free number.

TOP SPEED
Express parts delivery when and where you need it.

TOP PRIORITY
Fast-track solutions maximize your productivity — because your harvest can't wait.

TOP SATISFACTION
We drive and track the solution you need, keeping you informed — until you are back to work.

TOP SERVICE IS MANAGED IN CLOSE PARTNERSHIP WITH NEW HOLLAND DEALERS AND SERVICE TEAMS.

We are proud to support the FFA.

Learn more at **www.newholland.com/na**

Design, materials and/or specifications are subject to change without notice and without liability therefor. Specifications are applicable to units sold in Canada, the United States, its territories and possessions, and may vary outside these areas.

© 2013 CNH America LLC. All rights reserved. New Holland and CNH Capital are registered trademarks of CNH America LLC. Any trademarks referred to herein, in association with goods and/or services of companies other than CNH America LLC, are the property of those respective companies.

THINK SAFETY

Safety begins with a thorough understanding of the equipment. Always make sure you and your operators read the Operator's Manual before using the equipment. Pay close attention to all safety and operating decals and never operate machinery without all shields, protective devices and structures in place.

NH31045052 • 12137.5 • PP • PRINTED IN U.S.A.