

# HarvesTimes

The journal for agricultural professionals

11.19



CLAAS and product news  
Customer stories

**CLAAS**





# ENGINEER YOUR CAREER

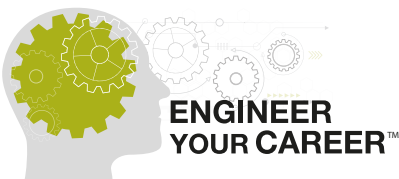


Excellent people build great companies, so make CLAAS your next move, whether you are a school leaver or skilled service technician, we have a career path to suit you.

We are looking for committed individuals with the determination to succeed. In return we can offer an industry leading package including ongoing training, job security and flexibility.

Our service engineers are amongst the most skilled in their profession today and if working for a premier CLAAS dealership appeals to you we'd love to hear from you.

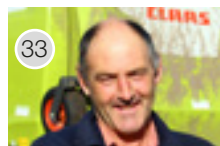
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**CLAAS**

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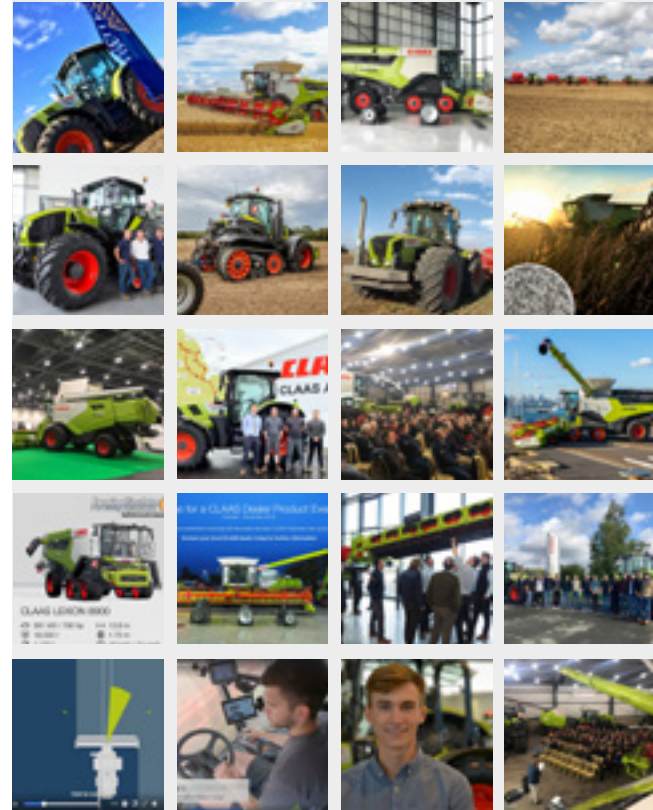
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## Three silver medals

The DLG, organisers of Agritechnica, has awarded CLAAS three silver medal innovation awards. Awards are for the APS SYNFLOW WALKER and CEMOS AUTO CHOPPING systems on the new LEXION combine and CEMOS AUTO PERFORMANCE controls on the JAGUAR forage harvester.

### APS SYNFLOW WALKER

With the APS SYNFLOW WALKER, the LEXION 6000 and 5000, which are due to be launched in the UK next year, set new standards for the threshing and separation performance of straw-walker combine harvesters. As with the LEXION 8000/7000 HYBRID, the all-new threshing unit features a 755 mm threshing drum with ten rasp bars, but has an additional 600mm separator drum ahead of the impeller.

All the threshing concave segments are adjusted hydraulically and in parallel in CEBIS. An overload protection system provides protection against blockages and a concave bar can be pivoted into the crop flow ahead of the threshing drum for harder to thresh crops.

### CEMOS AUTO CHOPPING

CEMOS AUTO CHOPPING continuously determines the moisture content and quantity of straw and automatically adjusts the positions of the counter knife and friction base in the straw chopper to the current conditions.

### CEMOS AUTO PERFORMANCE

CEMOS AUTO PERFORMANCE keeps the set speed of the JAGUAR constant and regulates engine power and driving speed according to the crop mass. As the crop mass increases, the engine power is first increased and then the driving speed is reduced. If the crop mass is lower, the engine power is reduced automatically. This keeps the engine speed constant and eliminates abrupt load changes, resulting in an even crop flow and lower fuel consumption.

## Saxham building work continues

Following the completion and move into the first phase of the new MANNS and CLAAS UK headquarters building at Saxham in the Spring, the second phase of construction is well under way and on course for completion early next year.

The multi-million pound project to completely redevelop the Saxham site provides both CLAAS UK and MANNS with a modern purpose-built building, that will especially improve the customer experience for MANNS. It will also provide the two companies with a superb working environment for their employees.

In addition to offices for CLAAS and MANNS, the Phase 1 development includes a new, full height TECHNOPARK showroom area for MANNS and a state-of-the-art 10 bay 'fire station' type workshop building, giving the dealership arguably one of the most modern workshop facilities in the UK.

Phase 2, which is due to be completed in April 2020, will house further offices, a second TECHNOPARC tractor showroom with retail area for MANNS, an on-site restaurant 'Seasons' and a new Parts Warehouse. This will clear the way for the demolition of the current warehouse building and the construction of the final phase of development to complete the landmark project.

Designed by architects Barber.Casanovas.Ruffles of Cambridge, the building uses solar passive design techniques. Energy for the building is sourced from the neighbouring Symonds Farm 1.4MW AD plant, supplemented by a solar panel array on the roof of the new parts warehouse. Rainwater from the building's large roof area is also harvested and stored in large underground tanks for use in a dedicated machinery washdown bay.



## New CLAAS CEO

On October 1st CLAAS changed its management structure and for the first time has introduced the position of Chief Executive Officer (CEO).

Taking on the new role is Thomas Böck, who is responsible for the Technology and Systems Division within the Group Executive Board.

"This important change serves to achieve even better and faster decision-making processes at CLAAS and increase our flexibility in a time of rapid change", explains Cathrina Claas-Mühlhäuser, Chairwoman of the CLAAS Supervisory Board. "With Thomas Böck as the new Chief Executive Officer, we have filled the new position internally with a dynamic personality, who brings a serious passion for technology and team spirit to this role."

Thomas Böck is a qualified engineer specialising in electrical engineering. He began his professional career as a vehicle systems developer. From 1996 to 2006, he worked in leadership roles with well-known agricultural and commercial vehicles manufacturers, where he was responsible for the development of electronic and hydraulic systems for utility and commercial vehicles.

Thomas Böck joined the CLAAS Group in 2006 and has proved himself in management positions, including as Technology Manager at CLAAS Saulgau GmbH, and represents the company in various associations. He was appointed to the CLAAS Group Executive Board in 2014, which he will now chair while simultaneously leading the Division of Technology and Systems.



# Training goes digital



Instead of service personnel having to come to CLAAS for their product training, thanks to high speed broadband, service engineers can now much of their training remotely. This not only has environmental benefits, but saves time and cost, allowing more time for servicing and maintaining customers' machinery to the highest standards, while still expanding and enhancing their skills.

Providing a high level of service and parts support to customers lies at the heart of the CLAAS business and the reason it retains strong customer loyalty and market leading sales for its range of machinery.

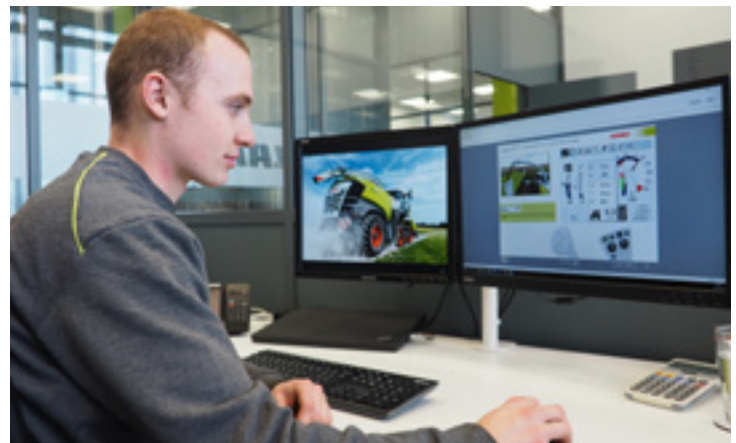
Opened in 2017, the new CLAAS ACADEMY training school employs a total of 11 staff, has the capacity to offer over 5,000 training days a year and utilises over £6 million worth of machinery and training tools. Each year, dealer staff can expect to receive around 100 hours of training not only on CLAAS product, but also to OEM level on third party products such as engines.

While there will still be a need for service engineers to attend traditional hands-on training, by combining this with e-learning via a virtual classroom, service staff will spend less time away from the dealership and more time putting their skills into practice.

Using two-way audio and screen-sharing technology, the trainer can guide the group through exercises using supporting media. In addition, a series of self-guided e-learning modules have been developed that are available 24/7 which the service engineer can access when it suits them. To ensure that quality levels are maintained, trainees are assessed both during and after training.

Within the e-learning programme, CLAAS has developed a series of courses relative to engineer experience. For new starters, typically these could cover the fundamentals of electronics and hydraulics or the use of diagnostic software. More experienced engineers have access to more in-depth updates in addition to new product training. For trainees from outside the industry, there are also introductory courses such as 'Tractor basics' or 'Wheel loader fundamentals'.

By adopting this diverse training approach using a combination of hands-on and remote learning, that CLAAS can ensure that dealer personnel are trained to the highest standards to meet the exacting levels of service and support that CLAAS customers expect and deserve.





# New apprentices commence their training



## REASEHEATH COLLEGE 2019 CLAAS APPRENTICE INTAKE

Adam Cross	EASTERN, Brigg (Parts)
Jack Swift	EASTERN, Catfoss
Willem Jefferson	EASTERN, Sinderby
Charles Smith	EASTERN, Sleaford
Sebastian Moore	WESTERN, Cirencester
Max Swain	WESTERN, Frome
James Stickells	MANNS, Kent
Obi Brinkley	MANNS, Saxham
Nicolas Searle	MANNS, Saxham
Jack Arnold	MANNS, Thursford
Jack Sainsbury	HAMBLYS, Redruth
Ryan Fleet	MORRIS CORFIELD, Chester
March Chisholm-Renals	OLIVERS, Luton
Toby Willmer	OLIVERS, Petworth
Archie Jenkins	OLIVERS, Winchester

Twenty one students recently attended Induction Days at Reaseheath College in Cheshire and SRUC Barony near Dumfries having gained places on the CLAAS Agricultural Apprenticeship scheme.

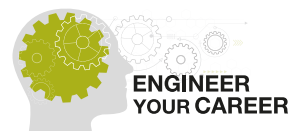
Of the new intake, 20 are training to be machinery service technicians, with one joining the CLAAS Parts Apprenticeship. Of these, six students from dealerships in Scotland and Ireland will study at SRUC Barony with the remainder training at Reaseheath.

For the 20 students joining the Landbased Service Engineering Apprenticeship courses at Reaseheath and Barony, their time will be split between blocks at college, where they will receive comprehensive technical training, and working for their sponsoring dealership gaining experience in the field. Apprentices also attend additional CLAAS Product training delivered across the whole four years at the CLAAS Academy in Saxham.

The CLAAS Parts Sales & Marketing Apprenticeship based at Reaseheath is a three-year course, again with the student's time split between formal block training at the college, balanced with practical time back at their supporting dealership. Upon completion of the course, successful students will be awarded a Level 3 Diploma in Vehicle Parts Operations, which is the equivalent of three 'A' Levels.

For all the students, the completion of their apprenticeship is just the start of their training with CLAAS. Following graduation, working with their dealership and CLAAS UK, they will have access to ongoing training and development, with the opportunity to move into more senior management roles within their dealerships should they so wish.

Contact us today if you would like further information on our Apprenticeship Schemes.



## SRUC BARONY 2019 CLAAS APPRENTICE INTAKE

Scott Briggs	RICKERBY, Cornhill
Sam Dixon	RICKERBY, Dunbar
Martin Young	SELLARS, Old Meldrum
Iain Scougall	SELLARS, Perth
Leon Cleary	BREEN, Ennis
Padraig Fitzgerald	McCARTHY, Cork



# 2019 Graduates

Sixteen apprentices have started their careers with CLAAS dealerships in the UK and Ireland, having graduated this autumn from the CLAAS Apprenticeship Scheme.

15 have spent the last four years studying for the CLAAS Agricultural Technician apprenticeship, splitting their time between formal training blocks at either Reaseheath College in Cheshire or SRUC Barony Campus at Dumfries. Combined with time spent gaining practical experience with their supporting dealer, they have gained an IMI National Diploma in Agricultural Engineering, which is the equivalent of three 'A' Levels.

The final student has been studying for the three year CLAAS Parts Sales & Marketing apprenticeship also based at Reaseheath College, working towards a Level 3 Diploma in Vehicle Parts Operations, also the equivalent of three 'A' Levels.

Following their graduation, all the apprentices were invited to join the Apprentice Graduation Celebration Trip. Over the course of four days they travelled through France and Germany, visiting the CLAAS Tractor factory at Le Mans, the worldwide parts centre at Hamm and the CLAAS Group headquarters at Harsewinkel, to gain an insight to CLAAS as a global company.

## SRUC BARONY 2019 CLAAS APPRENTICE GRADUATES

Jamie Stewart	ERWIN
Ben Hyslop	GORDONS, Dumfries
Lawrence Ewart	RICKERBY, Carlisle
Alexander Watson	RICKERBY, Cornhill
Scott McLaren	SELLARS, Oldmeldrum



## REASEHEATH COLLEGE 2019 CLAAS APPRENTICE GRADUATES

Robbie Spurgeon	MANNS, Braintree
James Walsh	MANNS, Halesworth
Jack Brinkley	MANNS, Saxham
Toby Gardiner	MANNS, Saxham
Nick Corcoran	MANNS, Kent
Benjamin Harper	MORRIS CORFIELD, Broseley
Tobias Peissel	OLIVERS, Tingewick
Connor Heath	SHARNFORD TRACTORS * unable to attend graduation
Tobias Weeks Baker	CLAAS WESTERN, Frome
Robert Wheeler	CLAAS WESTERN, Cirencester

## PARTS GRADUATE:

Dean Jarvis	MANNS, Thursford
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## First direct cloud-to-cloud solution for ag industry

In an industry first, CLAAS, 365FarmNet and John Deere have come together to create a direct, manufacturer independent cloud-to-cloud data sharing solution. In a similar way to ISOBUS, using DataConnect customers can now exchange their data via a common interface as well as monitor their entire machinery fleet using their favourite system.

Until now farmers and contractors operating a mixed machinery fleet have only been able to record and process their data using the individual manufacturers' equipment and web portals.

Now with DataConnect, it's now possible to transmit data from other machines via the new interface on their preferred platform. The data is still available in the John Deere Operations Centre, CLAAS

TELEMATICS or 365FarmNet portals, but can be exchanged in real time from one to the other.

This means that individual machine configurations and important machinery data, including current and historical machine location, fuel tank level, current working status and forward speed can all be viewed using just one platform. At present job data transfer is not possible, but is planned for the future.

Going forward, it is planned that DataConnect will be opened up for use with other ongoing Agricultural Industry Electronics Foundation (AEF) projects and the new interface is designed to support existing industry standards.

## Yield data analysis made easier

Growers with yield mapping equipped CLAAS combines can now analyse their yield maps instantly during or after harvest thanks to a link up between the CLAAS TELEMATICS system and MySOYL (part of MyFarm, Frontier's farm management platform).

As each field is harvested, yield and position data is uploaded to the TELEMATICS server. The new link developed together by SOYL and CLAAS, and set to go live this October, allows this data to be instantly synchronised at any time during or after harvest. For the farmer this means simpler and quicker access to their data and allows the interpretation process to start much earlier.

Previously, in order for this data to be analysed using third party precision data management tools, it had to firstly be downloaded from the TELEMATICS server, which typically would be done after harvest.

"As farmers are often drilling oilseed rape crops straight after harvesting the preceding crop, there is little time to review yield

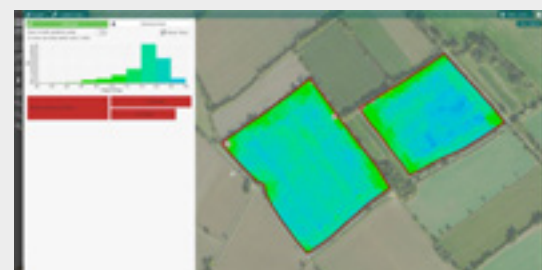
performance. This new link allows a review to take place seconds after harvesting the field," explains SOYL's Commercial Director, Simon Parrington.

MySOYL contains a range of analysis tools to help growers and advisors gain value from yield maps. Simon

continues, "Anything we can do to make the data transfer process simpler, makes it easier to access the benefits gained from detailed production data. Customers control the data exchange and the link between MySOYL and CLAAS TELEMATICS can be enabled and disabled at any time using our Connections control panel."

"We want customers who buy a CLAAS combine to have every possible opportunity to use the data our machines produce, and this type of link delivers just that," concludes CLAAS UK's EASY Product Manager, Edward Miller.

The new software link will go live as part of an update to MySOYL this October, following development and testing during harvest 2019.



Yield maps in MySOYL



# High number of CLAAS dealers receive Dealer Excellence Awards at the Dealer Council Meeting in October.



## Welcome to Ardagh Agri Services

We are delighted to announce that the CLAAS dealer network in Ireland has expanded following the appointment of Ardagh Agri Services as a new CLAAS dealer for Co Mayo in the north west of Ireland.

Based at Ballina, David Breslin and his team will be offering full sales, service and parts support for the CLAAS Tractor and Green Harvest product range. David is focused on ensuring his employees are well trained, in order to provide customers with the highest level of service. Over the coming weeks and months, team members will be travelling to the CLAAS ACADEMY at Saxham to receive full Product, Parts and After Sales training.



Michael Erwin of ERWIN receives platinum. Award presented by Christian Radons (President Western Europe, CLAAS Service & Sales).



Ken Conley, RICKERBY receives platinum. Award presented by Christian Radons (President Western Europe, CLAAS Service & Sales).



Richard Vaughan receives platinum on behalf of CLAAS EASTERN. Award presented by Christian Radons (President Western Europe, CLAAS Service & Sales).



Neil Montgomerie, GORDONS receives gold. Award presented by Christian Radons (President Western Europe, CLAAS Service & Sales).



Steve Barrett, HAMBLYS receives gold. Award presented by Christian Radons (President Western Europe, CLAAS Service & Sales).

# New HYBRID LEXION 7000



July

## INTERNATIONAL PRESS EVENT

– France, 15th and 16th July, 2019

Watch the video: <https://youtu.be/MvKJjfYnf3g>

November

**AGRI  
TECHNICA**®  
THE WORLD'S NO. 1



## EARLY ACTION PROGRAMME

finishes 30th November 2019.

## VIP CUSTOMER VISIT TO AGRITECHNICA

CLAAS UK will take 360 customers to this international agricultural Show, with CLAAS having one of the largest stands at the event.

Show runs from 10th-16th November.



October

**DEALER PRESENTATION EVENINGS** – Static displays and presentations of all new CLAAS products for the 2020 season, with 29 events scheduled around the UK. Call your local dealer for more details.





# and 8000 Launch



**CLAAS UK SALES LAUNCH AT SAXHAM,**  
**220 SALES PERSONNEL ATTENDED**  
 24th and 25th July, 2019

Watch the video:  
<https://youtu.be/XGOkmLgCljl>

August



Watch the video:  
<https://www.youtube.com/watch?v=-ujSTCpcZ5s>



**CLAAS UK COMBINE DEMONSTRATION PROGRAMME**  
 The new LEXION 8900 demonstrated across the UK throughout August and September and over 1,000 customers saw the new combine being put through its paces.

September



# New 2nd generation LEXION

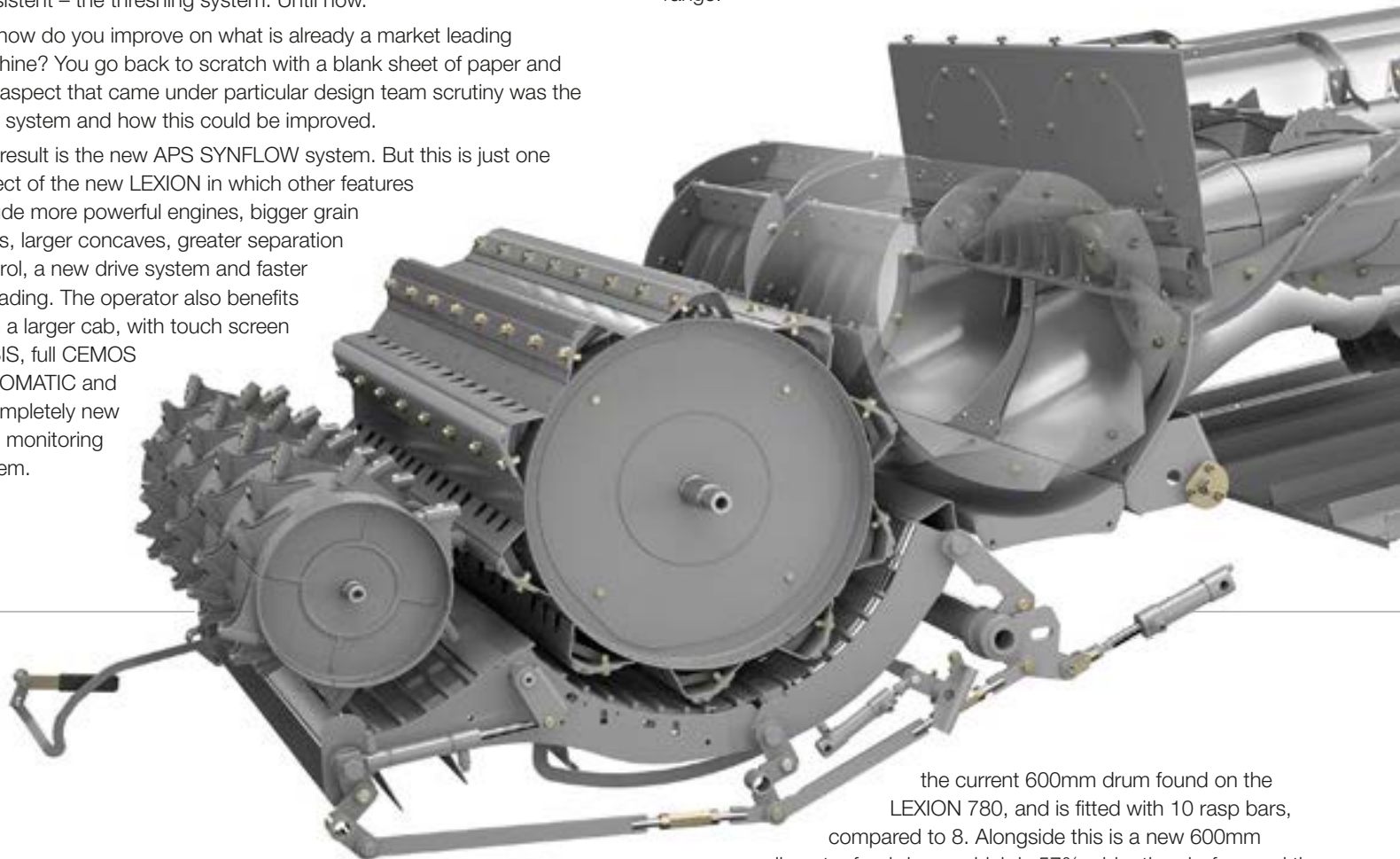
When first launched in 1995, the LEXION revolutionised the way that arable crops are harvested and became the benchmark for cost efficient, high output harvesting of cereals and other crops.

Over the intervening 24 years, the LEXION has changed considerably, but throughout all of these changes one thing has remained consistent – the threshing system. Until now.

So, how do you improve on what is already a market leading machine? You go back to scratch with a blank sheet of paper and one aspect that came under particular design team scrutiny was the APS system and how this could be improved.

The result is the new APS SYNFLOW system. But this is just one aspect of the new LEXION in which other features include more powerful engines, bigger grain tanks, larger concaves, greater separation control, a new drive system and faster unloading. The operator also benefits from a larger cab, with touch screen CEBIS, full CEMOS AUTOMATIC and a completely new yield monitoring system.

Two versions of the LEXION APS SYNFLOW HYBRID are available. The LEXION 8000 is a wide body machine that comprises three models, including a new flagship LEXION 8900 model, which at 790hp is the most powerful production combine on the market, plus there are a further five models in the new narrow body LEXION 7000 range.



## THE APS SYNFLOW THRESHING SYSTEM

As with current HYBRID models, the new APS SYNFLOW primary threshing system is designed to thresh out 70% of grain, leaving 30% to be removed by the ROTO PLUS secondary separation system.

Central to the APS SYNFLOW primary system is a massive 755mm diameter threshing drum. This is some 26% larger than

the current 600mm drum found on the LEXION 780, and is fitted with 10 rasp bars, compared to 8. Alongside this is a new 600mm diameter feed drum, which is 57% wider than before and the same size as the current main drum.

This increase in the threshing drum's diameter has a number of advantages. Firstly the concave wrap angle is shallower (132° compared to 142°) but the concave area has been considerably increased. As a result, on even the smallest LEXION 7400, at 1.30m<sup>2</sup> this has a larger concave area than the current top-of-the-range LEXION 780 (1.26m<sup>2</sup>), while in the wide-bodied LEXION 8000 models it's a massive 1.55m<sup>2</sup>.

## EASY CHANGES BETWEEN CROPS

The concave is now easier to change between crops and 40% of the

## The LEXION APS SYNFLOW HYBRID in figures:

**10 years**  
in  
development

**1 million**  
man-hours  
of time

**6,000**  
hours of  
endurance testing

**231**  
patents

**66%**  
of parts  
are new



# N HYBRID



main concave segments can now be easily pulled out sideways and changed for different crops, such as beans. For ease of maintenance, the stone trap now incorporates a self-cleaning mechanism.

## INFINITELY ADJUSTABLE CONCAVES IN CEBIS

The operator also has greater control over the threshing area and can hydraulically engage the main concave flaps from the cab. In harder to thresh crops, a new hydraulic pivoting concave bar between the pre-separation concave and main concave can be engaged via CEBIS for more aggressive threshing. As before the concaves are all adjusted in parallel, are infinitely adjustable in CEBIS and fully integrated into AUTO CROP FLOW and CEMOS AUTOMATIC.

By increasing the diameter of the main threshing and feed drums, material flow through the APS SYNFLOW units is smoother and virtually in a straight line. Not only is power and fuel use reduced, but there is less straw damage, improved grain quality and increased throughput.

## INFINITELY VARIABLE DRUM SPEED

Due to the higher centrifugal speed of the rasp bars around the outside of the bigger drum, to maintain the same rasp bar velocity the drum speed has been reduced, so typically can be run at 550rpm compared to 750rpm. Drum speed is infinitely variable using CEBIS from 330rpm to 930rpm, compared to a range of 450rpm to 1050rpm currently, and is fully synchronised with the accelerator and feed drums.

## ROTO PLUS HIGHER THROUGHPUT

By increasing the size of the feed drum, the flow of material into the ROTO PLUS secondary separation system is more positive and the nose separating crop flow into the two rotors has been extended. The angle of the ROTO PLUS rotors themselves has been flattened for higher throughput and reduced straw damage. The rotor concaves have also been redesigned and the number of rotor cover plates (bomb doors) increased, to provide improved grain separation and reduced losses with more control, yet easier to clean.

Over **54,000**  
components

**220**  
pre-series machines working  
in 10 countries worldwide

**18**  
pre-series  
machines in UK

**10%**  
increase in output on  
like-for-like basis



### GRAIN TANKS UP TO 18,500 LITRES

To handle this increase in throughput, grain tank capacity on the LEXION 8000/7000 has been increased, up to 18,000 litres on the new LEXION 8900. Tank access has also been improved, including a ladder into the tank.

With a maximum tank unloading speed of 180 litres/second, unloading time in all models is just 100 seconds. But where this is too much or for topping off trailers, at the press of a button flow rate can be reduced to 90 litres/second. The pivot angle of the unloading auger has been changed to 105 degrees, making it easier to see from the cab.



### ENHANCED OPERATOR COMFORT

In the cab, the driver benefits from more operator space and comfort. Incorporated into the cab is improved sound proofing and a new grain tank window, and the seat can be moved further back for greater legroom. Even the cool box now has active cooling, enabling the operator's sandwiches and drink to be cooled from 22° to 5° in just 30 minutes.

The latest CEBIS touch screen terminal can be adjusted independent of the armrest or even swung out of the way for improved visibility. Where CEMOS AUTOMATIC is specified this information is now fully integrated into the CEBIS terminal and the CMOTION control incorporates a new favourites management system.

Depending on operator preference, the LEXION can be set-up and adjusted in three different ways. Firstly they can use the CEBIS touch screen terminal, or alternatively the rotary push switch on the CEBIS control panel. Finally there are direct switches on the new LEXION armrest which open a dialogue box in CEBIS to show the level of adjustment. The armrest is fully adjustable for reach and height and also includes radio and telephone controls and a USB charger socket.



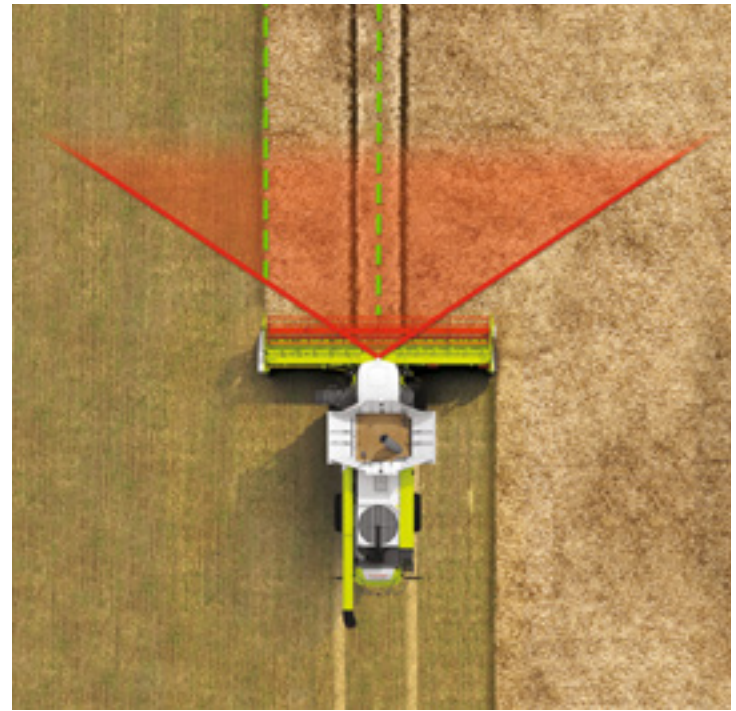
### GREATER ENGINE POWER

The LEXION 8000/7000 is powered by either MAN or Mercedes-Benz engines with power outputs up to a new high of 790hp for the flagship LEXION 8900.

All models are fitted with the DYNAMIC POWER to automatically adjust engine power output relative to load and DYNAMIC COOLING variable fan cooling, drawing clean air in from above the combine and blowing it out down the sides.

The LEXION also has a completely new drive system, similar to that on the JAGUAR. This provides a more positive, smooth engagement of the threshing and auger systems, with reduced power loss and fewer belts. A new clutch system engages and tensions the belts, resulting in improved belt life. This helps ease maintenance, and has resulted in fewer ledges and angles on which dust can gather, so improving overall cleanliness.





### FIELD SCANNER

The new FIELD SCANNER automatic steering system developed for the LEXION HYBRID 8000/7000 uses a radar scanner designed by Audi. Mounted on the top of the cab, FIELD SCANNER can scan over an arc of 145 degrees to both the left and the right, and is capable of recognising both standing crops higher than 10cm and tramlines. FIELD SCANNER requires no calibration, is easy to set-up and because it can follow tramlines is suitable for use within a reduced traffic system.



### OTHER NEW FEATURES

- Option of 30 or 40kph road speed on both TERRA TRAC or wheeled models
- Differential lock on all wheeled machines
- Option of larger tyre sizes up to 42 inches and a diameter of 2.15m on the front axle and 34 inches with a diameter up to 1.75m on the rear
- Enhanced lighting package, including lights in back of the cutterbar
- New feeder housing dust extraction system

### LEXION SYNFLOW HYBRID RANGE

Model		Threshing drum (mm)	Feed(mm) drum	ROTO PLUS rotors (mm)	Grain tank	Max. hp
LEXION 8900	Wide body	1700 x 755	1700x600	2x 4200x445	15,000/18,000	790
LEXION 8800		1700 x 755	1700x600	2x 4200x445	13,500/15,000	653
LEXION 8700		1700 x 755	1700x600	2x 4200x445	12,500/13,500	585
LEXION 7700	Narrow body	1420 x 755	1700x600	2x 4200x445	12,500/13,500	549
LEXION 7600		1420 x 755	1700x600	2x 4200x445	11,000/12,500	570
LEXION 7500		1420 x 755	1700x600	2x 4200x445	10,000/11,000	462
LEXION 7400		1420 x 755	1700x600	2x 4200x445	10,000	408

# “A massive increase in capacity...

Tucked well up into the wilds of north Norfolk, as a business LF Papworth has long looked to added value markets for its produce. While root crops often achieve this, extended distances from mills and processing plants mean it's not quite as simple for combinable crops.

To counter this over the last few decades Kit and Tim Papworth have concentrated their arable enterprise's efforts on seed production. While this generates a premium over standard commodity prices, it requires a great deal of attention to detail and an assurance that crops are cut at the optimum time.

To achieve this the company has always run two LEXION combines, giving a guaranteed capacity that has seen every acre cut in good time.

“Running two combines has given us the output we require to ensure we clear crops at their best and importantly before we see any impact on germination rates,” explains Kit Papworth.

“But there's a cost to running a pair of machines and the associated trailers and infrastructure. Over the last few years I've done a lot of spreadsheet-bashing to see if we could streamline the job with a move to a single harvester.

“Hearing that CLAAS had a new generation of high-output LEXION on the way, I was keen to put our name down to have a pre-production machine and test the theory.”

## HOW HAS THE 8700 PERFORMED?

“With this new combine we have seen a massive increase in capacity.

“Previously with our 750 and 760 running together we'd be averaging 50 tonnes an hour coming into store. With the 8700 running solo it's closer to 60 tonnes an hour. I'll admit I was initially nervous about switching from two machines to one, but the new combine has completely blown my expectations out of the water.

“Of course much of this extra output is down to having more horsepower and much bigger threshing gear, but it's the technology that really makes the difference.

“CEMOS AUTOMATIC knows what's best for the machine and how to reach the targets you have set for it.”

## GRAIN TANK AND UNLOADING AUGER

“All this extra output wouldn't be possible if the new combine didn't have a bigger tank and spout.

“At 13,500-litres it sounds a lot, but it doesn't take long to fill up. Without the extra capacity you'd have to have a trailer alongside you all the time.

“It's a completely different mindset to running two combines. The tractor drivers need to be under the spout the minute the lights start flashing and there's no hanging about to top off the trailers – if they're close to the gateway they need to be gone to get back in time for another load. With just one harvester running it's all about keeping going without any stoppages – that proved to be the key in maintaining maximum efficiency.”

## HEADER

“The AUTO CONTOUR cutterbar float is superb – it's reacts so much faster than before so that even with a 12m header working on uneven ground the stubble height is level.

“Being able to hydraulically adjust the forward pitch of the whole table is really useful. In laid crops it angles the lifters right forward so that they just scoop up whatever is there whereas normally they'd tend to bung up.

“The auto blockage stop is another big plus-point. By cutting drive to the header the second it senses crop loading getting close to a stuff-up, it avoids hours of downtime unblocking rotors and gives me the confidence to push the machine to its limits.”

## WHY CLAAS?

“Having run CLAAS combines for the last 40-odd years we have ultimate faith in the brand,” says Kit.

“All equipment breaks down at some point, but it's all about the people who mend it – their attitude and ability makes all the difference and that's where we have the belief in our dealer MANNES.

“If they're prepared to invest in a new depot on our doorstep then that gives us the confidence to invest with them.”





# ...with a single harvester to do all the work.”



The LEXION featured in this image is a Pre-Series 8700 badged as a 770.



“The new combine has completely blown my expectations out of the water.”

Kit Papworth







The LEXION featured in this image is a Pre-Series 7500 badged as a 750.



“I’ve cut over 800 hectares with the 7500 this harvest and haven’t once altered a setting on the machine.”

James Burton





# “The 7500 has really taken us by surprise.”



With a business that mixes contract farming, stubble-to-stubble contracting and in-house arable operations, D&B Farming has a seemingly ever-increasing workload.

“Each year I kid myself that we’ll sit still for a minute and consolidate what we do, but we constantly get asked to take on more ground,” says James Burton who farms in partnership with brother Simon.

“The arable acreage we cut has grown from 200 hectares six years ago to well over 2200 hectares today and so inevitably we’ve had to up our combine capacity accordingly.

“The first CLAAS combine we bought was a two-year-old LEXION 780 in 2015 which is still with us today. The minute we got it in the field it blew us away both in terms of capacity and reliability.” So when more ground landed in their laps two years ago and extra harvesting capacity was required, another LEXION was the obvious choice, this time a smaller straw walker 650.

But last season the brothers were asked to take on yet more ground and it became obvious more capacity would be required.

“We wanted to go for another hybrid rotary purely for capacity and were initially looking at another second-hand 780. But when we sat down and did the maths it became obvious that it made sense to have a slightly smaller brand new machine.

“At that point CLAAS revealed that they’d be running a number of pre-production LEXION in the UK and asked if we’d be interested. We leapt at the chance and put our name down for a narrow-bodied 7500.”

## HOW HAS IT PERFORMED?

“The 7500 has really taken us by surprise. It’ll happily average 50-55t/hour in wheat – more than the demo 760 we had.

“In fact it’s not far off the 780 which will generally chomp along at 65-70t/hour. The only time it really drops behind it when we’re chopping straw.

## SPEED AND FUEL

“At first the 7500 came with a 30ft VARIO 930 header. It had a bit of teething trouble so CLAAS EASTERN lent us their 35ft 1080 which we were initially concerned would be too much for it.

“Far from it, the extra 5ft of cutterbar means we’re now travelling at a more sensible forward speed – generally around 5-7kph in wheat. It’s not going back!”

“When it comes to fuel usage the 7500 is quite phenomenal. Dropping green-strawed spring barley in the swath it burnt diesel at two-thirds of the rate of the 780 on a like-for-like, acre-for-acre basis.”

## QUANTIMETER

“The new weigh-cell QUANTIMETER is phenomenally accurate. We tested it repeatedly against the weighbridge at the beginning of harvest and the furthest it was out was 80kg across a 20ha field.

“It’s meant we no longer have to run every trailer over the weighbridge which represents a massive time saving for us. We can be confident we’re accurately recording what’s coming off every field.”

## CEMOS AUTOMATIC

“I’ve cut over 800ha with the 7500 this harvest and haven’t once altered a setting on the machine. I just punch in the crop type when we change fields and let CEMOS AUTOMATIC set the combine up as it sees best.

“Before I had this new machine I wouldn’t have bothered with it because I felt I could do a pretty good job of setting the combine up right. Early on I would try and tweak things myself, but every time I did I saw performance drop off. I’ve been blown away by how good CEMOS is. You just start it up and drive.

“When my relief driver took over it was a struggle to get him out of the seat. He was blown away by how easy it was to drive and sent me a text saying he wasn’t going to let me have the combine back!”

## GRAIN QUALITY CAMERA

“The sample the 7500 produces is unbelievably good. Pretty much all the way through harvest I’ve had CEMOS set to maximum throughput because there’s literally not a spec of muck in the tank.

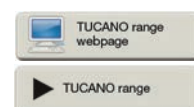
“At one point in really dry wheat the grain quality camera started to spot a few cracked grains and suggested moving to smoother threshing. I wasn’t sure about it, but went with it and sure enough the broken grains disappeared. After my initial scepticism, I’m 100% certain now that it can do a better job of setting the machine up than I can.”





The TUCANO arrived on the farm ready for this season, equipped with wider 800 tyres to help preserve the soil structure.

# Investment in combine capacity buys time



In the tricky combine cost versus capacity equation, it's important not to overlook the value of the time that can be saved from increasing output, as one Somerset farmer explains.

While Chris Day wasn't looking to change his four-year old CLAAS TUCANO 420 combine, an offer to replace it with the latest TUCANO 560 APS HYBRID, coming at a very busy time for the business, got him thinking.

It wasn't as if his existing combine couldn't cope with the combinable arable area that includes 134ha of winter wheat as well as spring barley, at Perry Green Farms', Henfields Farm, Cannington in Somerset. But, he explains, under pressure from other enterprises based on the farm he realised it was a deal worth considering.

"I looked at it as simply an opportunity to buy more time. With more capacity we could harvest more quickly, when we were ready and save money on drying by cutting only when the crops were fit," he explains.

The combine replacement offer came just when the family was launching Henfields Farm Country Retreats, after investing in a range of lodges installed on a 12ha site, as well having to cope with a distressing illness in the family.

Henfields Farm is also the base for Anode Feeds, a partnership that supplies specialist blends, feed ingredients and other products to the trade. This involves running a state-of-the-art mill and mix system, which requires daily management.

"When I bought the original straw-walker TUCANO I viewed it as a

long term investment and that's how I also consider the move to the HYBRID 560 model. With the trade-in, the cost to change was relatively affordable when spread across ten years," he says.

His dealer, HAMBLYS at Bishops Lydeard, also played a key role in his decision to change. "I have always received great service – I can't fault them," Chris adds.

This season the combine coped well in the wheat, regularly harvesting 30t/hr in Skyfall and Graham varieties, yielding 11.75t/ha (over the weighbridge). The combine also copes well with the farm's high straw yields and leaves it in good condition for baling. "I would love to chop all the straw to help improve the soils - but it's not very neighbourly. I can't do that when they are buying in stocks from the east of England," he says.

Chris shares the combine driving with Jake Bridgeman, and both operators like the cab and new controls. "The new CEBIS touch-screen is easy to use and set-up. It shows a view of the combine and you simply touch the element you want to adjust – it's simple," says Jake.

Jake has noticed the combine works at much faster forward speeds the previous model, adding the latest VARIO header also plays its part in increasing output. "We had some quite laid barley and it coped extremely well," he adds.

Apart from the wider tyres, the only option the farm specified was the LED lighting package, which Jake says has made an enormous difference.

In its first season working for Perry Green Farms the combine has performed well and, importantly delivered on its promise to cut the time spent harvesting. "It was a good move – particularly as the holiday lodges have been virtually fully booked since we opened," adds Chris.



# Making the most of the weather



Changing make of combine in 2017 to a LEXION 660 TERRA TRAC has proved a wise investment for the Marmion family, giving them the ability to make the most of available weather windows.

Brian and Ronan Marmion are now the fifth generation of the Marmion family on their farm at Ashbourne in County Meath, where the whole farm is down to cereals.

In addition to TERRA TRACS, the LEXION 660 was specified with a VARIO 770 cutterbar. It also has the optional 3XL spout so as to avoid trailers driving on the swath and damaging the straw, which with no livestock on the farm (other than those three dogs) is all baled and sold for bedding or mushroom compost.

## IMPRESSED WITH NEW VARIO

“When we initially looked at the LEXION in 2016, one of the biggest plusses was the new VARIO cutterbar. It’s very impressive and the ease with which you can alter the knife distance in different crops and conditions, and push it right out for oilseed rape without adding filler plates, means that you can always get the head to fall right for feeding into the combine. This then helps the flow right the way through the machine. Also putting on or taking off the side knife is so simple and just a five minute job.

“Thanks to the APS system the flow through the combine is far smoother and we get none of the ‘woofing’ or surging that we used to with our previous combine.”

The only time the chopper is engaged is for oilseed rape, but here again the SPECIAL CUT II chopper has proved a considerable

improvement on what they had before. “The feed into the chopper on the old combine was just not big enough, which was a huge problem and forever blocking. The chopper on the LEXION is brilliant and we just never get a blockage now.”

## CLEAN SAMPLE

The Marmion’s also opted for TM6 sieves in place of the standard sieves. “These have been a huge help. They definitely help in keeping the sample cleaner and we are not getting the problems we used to have,” says Ronan.

## NARROW ROAD WIDTH

“The TERRA TRACs make a great difference when going down the road. Our old combine was about 4.2m wide on the road, but the LEXION, which has 600-55 R26.5 tyres on the back, is just 3.5m, so it’s far easier to move around.

“We look to get the most out of the straw and cut as low as possible, so the tracks provide a very stable platform for the cutterbar and leave an even stubble.”

## WHY CLAAS?

“Our harvest is well spread out, and the Irish weather at times doesn’t help,” states Ronan. “With LEINSTER FARM MACHINES we know they will be straight out if there is a problem.”

“This was the LEXION 660’s third harvest and it has now done over 850 hours, but we have never had to touch it. Overall it gives us the capacity to comfortably clear 24ha a day. The LEXION is easy to set up and operate, lack of power is never an issue and the fuel consumption is better, with a tank lasting at least 40ha in the right conditions.”

# New CONVIO draper cutterbar



A new range of CONVIO draper type cutterbars is now available for LEXION combines in five widths from 7.70m up to 13.8m.

Two models are available. On the CONVIO the knife and cutterbar table are rigid and is suitable for cereals and other tall crops. On the CONVIO FLEX both these components, plus the side belts are flexible with the knife bar moving over a range of 225mm, from 90mm upwards and 135mm downwards, so ideal for crops close to the ground such as peas or herbage seed.

Both use the well proven AUTO CONTOUR system for precise ground contour following, while ACTIVE FLOAT allows the operator to alter the ground pressure of the cutterbar depending on ground conditions.

CONVIO FLEX has four operating modes.

- In Cereal mode, the cutterbar table and knife bar are rigid
- In Laid Crop mode, the knife bar is rigid but at the press of a button can be changed to flexible mode while on the move, for instance in areas where the crop is laid
- In Manual Flex mode, the knife bar uses information from the sensors to follow the ground contours, but exerts no ground pressure
- In Auto Flex mode, the cutterbar uses the information from the sensors to automatically determine the best position for crop flow and ground contour following, while maintaining the lowest possible cutting height.

Both feature a new design of reel with an adjustable cam track, which allows the reel to be set so that it picks the crop up ahead of the knife bar, for instance in laid crops.

The reel is hydraulically driven and features an automatic torque control system and automatic height control to prevent the tines

digging into the ground. AUTOMATIC BELT SPEED adjusts the belt speed relative to the forward speed of the combine to ensure an even crop flow into the machine and includes driver warning for belt slippage or a stopped belt. The operator can also reverse just the side belts while the machine is on the move, and the reel, centre belt and feeder housing can all be reversed.

## NEW WIDER 13.8M VARIO CUTTERBAR

A new 13.8m (45ft) wide version of the VARIO cutterbar is now available for the new top-of-the-range LEXION APS SYNFLOW HYBRID models.

As on the VARIO 1230 and 1080, the VARIO 1380 features a split knife, reel and 660mm header auger, with the header auger and knife mechanically driven from each side. The two knife sections overlap and are powered by synchronous motors that give a cutting speed of 1344 strokes/minute via drive shafts that extend to allow the knives to be moved.

Integrated filler plates allows the table to be infinitely extended over a 70cm range from -10cm to +60cm. Even when fully extended and with the rapeseed plates in place, the knives can still be moved over a 20cm range.

Side knives simply slot into place in a matter of minutes, with the hydraulics also connected using two flat-sealing couplers.

## AUTOMATIC CUTTERBAR DETECTION

All VARIO and CERIO range are compatible with the front attachment module on the new LEXION 8000/7000, which automatically detects the cutterbar type, its width, number of sections, the previous work and AUTO CONTOUR settings and the parking position of the reel, plus it also records the working hours.





# AVERO POWER BOOST



Updates for the AVERO 240 for 2020 include a more powerful Tier V compliant engine. In addition, the revised layout of the emission control equipment in the engine compartment improves access for maintenance.

Power for the AVERO 240 now comes from a 6.7 litre Cummins engine, which develops 213hp, an increase of 8hp on the current model. To comply with Tier V, the engine uses SCR and DPF technology with a urea tank capacity of 49 litres and without the need for exhaust gas recirculation.

Because the exhaust gas aftertreatment system for the new engine takes up significantly less space, this has allowed access for maintenance to be improved. Externally, this change is reflected in the reduced height of the engine cover, which is now at the same level as the closed grain tank.

In addition to the primary APS threshing system, the AVERO has four straw walkers with four steps, with agitator tines to ensure maximum separation of the residual grains. The 5,600 litre grain tank volume can be unloaded in less than two minutes.

## FLEXIBLE CUTTERBAR OPTIONS

The AVERO uses the same cutterbar mount interface as the LEXION and a central multicoupler. This allows all CLAAS standard cutterbars from the CERIO C660 to the C370 to be mounted, as well as the VARIO V540 or V600 cutterbar.

All the main cutterbar and threshing system adjustments can be easily controlled and monitored from the cab. The CLAAS INFORMATION SYSTEM (CIS) keeps the operator informed about key machine data from the fuel level and temperature display to figures for the throughput speed, fan speed and threshing drum speed.



# New range topping 925hp

The addition of a new top-of-the-range model, the JAGUAR 990, is at the forefront of a number of updates and new features available across the JAGUAR 900 and 800 ranges for next year.

Under the bonnet, the Type 502 designated JAGUAR 900 is powered by more powerful, higher torque Tier V engines and adopt the latest CEBIS touch screen based control concept. Other changes include a new additive system and a 42-knife chopping cylinder, plus the availability of dynamic steering.

The new top-of-the-range JAGUAR 990 is powered by a 925hp MAN engine with a displacement of 24 litres and a 850hp version will now power the JAGUAR 980. The best selling JAGUAR 970 moves to a MAN straight six, which develops 790hp from its displacement of some 16 litres.

Unlike the V8 MAN used in the Type 496 models which hit peak torque at 1500rpm and then tailed off, on the Type 502 the MAN straight 6 has a peak torque of 3,400Nm which it holds from 1600 to 1350rpm. At a typical working speed of 1,700rpm, this means that when a lump or heavier crop is encountered, the engine then has that long, flat period of maximum torque to just hang on and pull through.

With a displacement of almost 3 litres per cylinder and a stable power curve with sustained torque, this gives the new JAGUAR 970 potentially the best figures in its class with regard to fuel consumption per tonne of harvested material. The power output of the JAGUAR 960 and 940 models has also increased.

Service interval is also increased to 1,000 hours, so for many machines will mean they can go through the whole season without incurring servicing downtime.

## JAGUAR 900 AND 800 RANGE OVERVIEW FOR 2020

Model	Power (HP)	Engine / Exhaust	Engine size / Type
<b>JAGUAR 990</b>	925	MAN / Tier 5	24.2 litre / V12
<b>JAGUAR 980</b>	850	MAN / Tier 5	24.2 litre / V12
<b>JAGUAR 970</b>	790	MAN / Tier 5	16.2 litre / Straight 6
<b>JAGUAR 960</b>	653	Mercedes / Tier 5	15.6 litre / Straight 6
<b>JAGUAR 950</b>	585	Mercedes / Tier 5	15.6 litre / Straight 6
<b>JAGUAR 940</b>	530	Mercedes / Tier 5	12.8 litre / Straight 6
<b>JAGUAR 930</b>	462	Mercedes / Tier 5	12.8 litre / Straight 6
<b>JAGUAR 880</b>	626	Mercedes / Tier 4F	15.6 litre / Straight 6
<b>JAGUAR 870</b>	585	Mercedes / Tier 4F	15.6 litre / Straight 6
<b>JAGUAR 860</b>	516	Mercedes / Tier 4F	12.8 litre / Straight 6
<b>JAGUAR 850</b>	462	Mercedes / Tier 4F	12.8 litre / Straight 6
<b>JAGUAR 840</b>	406	Mercedes / Tier 4F	10.6 litre / Straight 6





# JAGUAR 990

-  JAGUAR 990  
webpage
-  JAGUAR 990
-  JAGUAR 970  
and CEMOS  
PERFORMANCE



## TOUCH SCREEN CEBIS

Using the new CEBIS touch screen terminal, the operator has fast and easy access to all the machine functions. Depending on individual preference, they have four options for setting up and adjusting the JAGUAR:

- A simple tap on the touch screen and the new CEBIS terminal reacts by providing direct access to all machine functions.
- Seven settings can be programmed as favourites and accessed by rocker switches on the CMOTION control lever, which is now standard on all machines.
- CEBIS rotary/push switch and push button
- Direct adjustment via switches in the armrest

A big benefit for operators when using the new armrest and CMOTION control lever is that it's possible to adjust the machine on the move from the joystick using the new favourite settings. For instance, using the CMOTION joystick it's possible to operate or adjust:

- Roller crop press
- Spout up and down
- STOP ROCK sensitivity
- CRUISE CONTROL
- Stubble height
- Horn
- Partial working width



Depending on conditions and operator preference, instead of its normal position in the operator's field of vision, the screen can be pivoted to the right, next to the armrest, making it easy to see the entire front attachment, for instance when harvesting laid maize.

Another new feature on the JAGUAR 900 is the availability of dynamic steering, allowing the operator to reduce the number of turns to go from lock to lock. Instead of the usual 5 turns, at up to 10 km/h, the operator only needs 1¼ turns of the wheel to go from full left lock to full right. From 10 to 20 km/h, the steering wheel turns required are increased dynamically. From 20 km/h, for the sake of safe driving at higher speeds, the full number of steering

wheel turns is available again. Dynamic steering is activated in CEBIS and it's possible to adjust the number of steering wheel turns required at any time.

Another new feature is CEMOS AUTO PERFORMANCE. Once the required engine speed has been set by the operator, CEMOS AUTO PERFORMANCE will automatically adjust the forward speed and engine power relative to the crop volume. The greater the crop mass, so engine power will be increased and forward speed reduced and vice-versa in lighter crop areas. This keeps the engine speed constant and avoids abrupt load changes, so helping maintain an even crop flow and reduces fuel consumption.

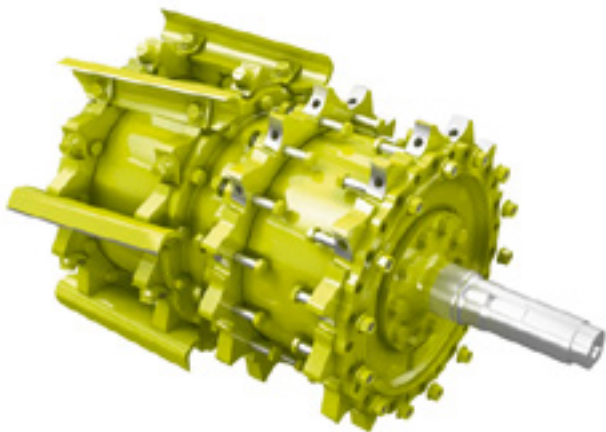


## NEW GROUND DRIVE AND TYRE OPTIONS FOR JAGUAR 800

The JAGUAR 800 series now has an updated hydrostatic ground drive giving the machine more pulling power both in the field and on the road.

A 620/55 R26 rear tyre is also available which offers an increased footprint and improved traction due its construction tread design over the previous 600/55 R26.5 rear tyres.

For the time being the JAGUAR 800 range will continue to be powered by Stage 4 compliant engines, and will make the move to Tier V engines in time for the 2020 maize harvest. At the same time, they will also adopt the CEBIS touchscreen and new armrest.



## NEW 42-BLADE V-MAX DRUM

A new option for JAGUAR 990/980/970 models is the 42-blade V-MAX chopping cylinder, which gives a cutting frequency of 25,200 cuts/min. This is designed to deliver particularly high throughput, providing top-quality chopped material at chop lengths from 3.5 to 12.5 mm. Where a longer chop length is required in grass or for SHREDLAGE, the chopping cylinder can be run with just 14 blades.

A new hydraulic pre-compression system is also standard in all JAGUAR 900 models. Acting on pre-programmed control characteristics, hydraulic rams with pressure reservoirs automatically adjust the pre-compression pressure applied, in order to accommodate different crops and changes in the thickness of the crop flow. As a result, this ensures that a uniformly high level of chop quality is maintained, even under difficult conditions.

The feeder housing now features a reinforced feed roller designed for maximum throughput, and larger wear plates on the sides of the pre-compression rollers reduce dirt and noise. Maintenance has been made easier by the use of clamps to secure the rollers.

The sealing of the chopping cylinder sharpening system has been improved to help reduce dirt ingress and noise. The service life of the chopping cylinder bearings has been extended and a flat-face coupling makes for easier maintenance of the feeder housing and knife drum housing.



## NEW ACTISILER 37

Capable of applying a precise dosage from 0.2-20 l/h, or, based on throughput, 10-50 ml/t, the ACTISILER 37 features a double-wall tank to protect the silage additive concentrate by keeping the additive cool to ensure it works effectively. The new system has a built in flushing feature, fed from a 20 litre hand wash tank, to clean the additive out once finished to reduce contamination of different types. A circulation function also helps keep the additive in suspension.

As an option, dry matter content value can be determined using the latest near infrared sensor (NIR), which can then be used as a reference for setting the chop length and the amount of additive required.

In addition to measuring dry matter content, the NIR sensor can also be used to determine constituents such as starch and protein levels which vary depending on the crop concerned. The values measured can be printed using the optional on board printer or downloaded into a map of the field or farm. CEBIS provides the operator with a clear overview of the automatic interplay between the length of cut and the silage additive dosage applied on the basis of the measured dry matter content.

# New 4.5m ORBIS maize header



A 4.5m-wide ORBIS maize header is now available which shares many of the features initially introduced on the larger ORBIS 600SD and 750 last year.

As on the two larger models, the ORBIS 450 incorporates the new tilting frame concept and redesigned T panels, which reduces weight and increases wear resistance.

Newly designed fingers ahead of the knives ensure low-loss crop collection and feature points which can be removed for harvesting laid maize. The new design also adds significant strength to the fingers which will help especially in weedy conditions. The central crop feeding tower rotors have been repositioned to improve crop flow and are now angled forward to aid crop feed. They have also been moved further apart, so increasing the feed channel width to allow crop to be fed into the full width of the feed rollers and chopping cylinder. The augers on the side of the ORBIS have also been redesigned to help feed the crop into the header especially when the crop is laid or flat and are hydraulically driven.

## TILTING FRAME WITH T-PANELS

The new roller pendulum frame concept has lifted the crop flow to the centre of the JAGUAR's pre-compression rollers which improves the crop flow, even when the header is at full oscillation in uneven fields.

Depending on the field conditions, the mounting angle of the pendulum frame can be set to two different positions. The advantage of this arrangement, especially in wet conditions, is that the cutting angle of the header can be maintained even when the front wheels of the forage harvester start sinking into the soil.

The new frame of the ORBIS provides a much shallower cutting angle, giving the benefit of a shorter stubble height. This allows the

crop to be cut at less than 100mm off the ground if required. AUTO CONTOUR provides active control of the lateral compensation and ensures a precise stubble height across the entire working width.

Newly designed, modular T-panels support the drive train and the discs. In combination with the new frame design they enable a low and even cut without dirt adhesion. The T-panels are press-hardened and rounded, dimensionally stable, wear-resistant and protect the transmission elements against wear and structural loads.

For road transport, the new ORBIS 450 rapidly folds down to just 3.0m and the compact folding system means the operator has an unhindered view for road travel.

## DRIVE CONCEPT FOR PERFECT CHOP QUALITY

Suitable for use with both the JAGUAR 900, including the variable front attachment drive, and the JAGUAR 800, a two-speed gearbox is used to adjust the overall speed of the ORBIS while a three-speed gearbox controlling the feed drums makes for perfect coordination of the crop flow. An automatic function for the variable front attachment drive allows the crop flow to be optimised conveniently from the cab.

The reduced number of gear units and the effective power transmission keep the power requirements low and maximise efficiency. And in a positive development with regard to maintenance costs, it has been possible to extend the oil change intervals to 2,500 hours or 5 years.

Every ORBIS is equipped as standard with a communication module which transmits data from the front attachment to the forage harvester and saves JAGUAR settings. Even after a change of front attachment, the settings are not lost, a feature which saves time and avoids operating errors.





# “The straight-six is a definite improvement”

This season Andrew Long has been running a pre-series Type 502 790hp straight-six powered JAGUAR 970.

Andrew Long is no stranger to running pre-series JAGUAR foragers. He has been running a pre-series Type 502 790hp straight-six powered JAGUAR 970 alongside his 2018 V8 powered 775hp Type 498 JAGUAR 970.

“It’s noticeable that the new straight-six has far more low-end power and just holds on. The characteristics are very similar to the engines of a few years ago in the JAGUAR 800,” he says. “Initially I thought there wasn’t a lot between the two 970s, but as the season went on and the engineers did a few software upgrades and fine-tuned the straight-six, the engine just got better and better.

“The straight-six is a definite improvement and it was especially noticeable in maize that it had far more ‘grunt’. Unlike the V8, the power doesn’t drop off; it just keeps holding on. It gives you the confidence to really push the engine, load it up and work it hard and that it will take it. With the V8 I would always been wary to push it too hard knowing that it would reach a point where the power would just suddenly drop-off.

“The extended service interval to 1,000 hours all helps to keep downtime and cost down and it will be good if the forager can go the whole season without having to be stopped.”

Away from the engine, Andrew has also been impressed with the new cab and the ease with which the JAGUAR can be set-up and operated using the new CEBIS touch-screen and the CMOTION controller.

“I like the fact that while the touch screen is easy to use, that’s not the only option. What may suit one operator may not suit another, so they have other options as to how they control the forager.

“Our 2018 JAGUAR 970 also has the CMOTION control and it’s a definite improvement over the old joystick. The CMOTION just falls comfortably to hand and it doesn’t take long to get used to it. On the new machine I also like having the flexibility to be able to select what you do with the favourites, such as spout up/down, depending on the crop or conditions.

## EASIER DAILY MAINTENANCE

“The pick-up also keeps on improving. The auger clutch slip is virtually a thing of the past and not a problem; you have got to be doing something pretty drastic to set that off. The control of the chopper feed rollers also gives a more consistent chop length.

“But it’s also the small things that just keep on being improved. The changes to the spout turret pivot so it’s more responsive, improvements to make daily maintenance easier and even the fact that the indicator stalk now moves with the steering wheel when you adjust it. It’s the little things that help make the JAGUAR so easy to use.”

# Using technology to boost productivity



Investing in their own JAGUAR 970 forager is the first step taken by Bubney Farms to fully maximise homegrown forage for their high yielding herd.

Based near Whitchurch in Shropshire, making high quality silage is of prime importance to Andrew Evans and his team at Bubney. Looking after a milking herd of 2,150 cows, 1,850 can be in milk at any one time, yielding 12,500 litres. In addition, there are a further 1,400 followers that also need their winter feed.

Until now, Andrew has relied on contractors for harvesting the 376ha of grass, mainly 3-4 year leys, and 640ha of maize they grow, with a further 280ha of maize grown under contract. But it was in order to gain more control over the harvesting operation that he took the decision to invest in his own forager, buying an ex-demo JAGUAR 970 through local dealer MORRIS CORFIELD. One of the attractions of the machine was the fact that it is fully equipped with TELEMATICS, yield mapping and QUANTIMETER throughput monitoring.

## OUR OWN FORAGING TEAM

"By having our own foraging team, the aim is that we will take up to five cuts of silage over the 376ha of grass on a regular 35 day cycle. With the best will in the world, a contractor would not be able to give you that commitment.

"Before buying we looked at all options and hired a machine in. Ultimately it came down to the support I know we will get from MORRIS CORFIELD, which is important, and the fact that the JAGUAR 970 was available and specified to a high standard. Another major influence was the eventual resale value of the forager and also that Simon, who drives it, has past experience of operating JAGUAR.

"The technology on board the JAGUAR will enable me to gain a far better idea of harvesting and production cost, but also give a far better picture of the crops, how they are performing and areas we need to look at in order to fully maximise production."

The QUANTIMETER throughput monitoring system records the deflection of the upper rear precompression roller, in combination with the intake speed and width, to measure crop flow. "Overall it's surprisingly accurate," says machinery manager Simon Hankey, who operates the forager. "I calibrate it in the morning and afternoon and check it against our weighbridge, but it's usually within 100kg."

Another reason for regularly calibrating the QUANTIMETER is that this allows Simon to apply additive at a tonnage rather than an hourly rate. "By having the combination of the QUANTIMETER and TELEMATICS, application is far more accurate and I can be confident that the 1 litre per tonne rate is being accurately applied and always spot on. Having to previously apply additives on an hourly rate was always a bit vague."

Andrew adds that with contract crops being bought by the tonne, another big advantage of having TELEMATICS and the QUANTIMETER is that this provides an exact record of what has been harvested, and ultimately the total tonnage in the clamps.

"It makes it all so easy having all that data being automatically recorded, stored and immediately available through TELEMATICS, so that we can come back to it later in the year. We have tried in the past but with a paper based system it was just impossible to achieve.

"By using the yield map and all the other data that TELEMATICS records, I can then use this information to sit down with the agronomist and start identifying fields or parts of fields that are not performing. We can then look at how we subsequently manage them in order to maximise yield and boost performance so as to get the most out of what's there."





**“By having the combination of the QUANTIMETER and TELEMATICS, application is far more accurate and I can be confident that the 1 litre per tonne rate is being accurately applied and always spot on.”**

Simon Hankey

Andrew Evans (left) and operator Simon Hankey look to make the most of the technology fitted to their JAGUAR 970





# ROLLANT 520

## Reliable in all conditions

[ROLLANT balers webpage](#)
[▶ ROLLANT 520](#)


A new entry level fixed chamber round baler, the ROLLANT 520, has been introduced which incorporates many of the features first seen in the ROLLANT 540, launched last year.

The ROLLANT 520 produces bales with a diameter of 1.25 m and width of 1.20 m. The bale chamber has 16 rollers in all, eight of which are made from 3-mm-thick sheet steel, and the other eight from 4-mm-thick sheet steel. The ribbed profile of the rollers ensures precise rotation of the bale, even under moist conditions.

The rollers are supported by hardened stub shafts, that are flanged to the roller body and can be individually replaced if necessary, like the rollers themselves. The baling rollers are driven on both sides. The rotor, main drive and tailgate rollers are fitted with Zubakki 1.0-inch drive chains. The oil lubricating the chain is pumped from a 4-litre tank with an adjustable eccentric pump. Lubrication is not tied to throughput – the oil is distributed as needed, directly onto the chain link pivot points.

The baling pressure is controlled via the tailgate closing rams. For maximum bale density, pressure of up to 150 bar can be applied to the rams. The MPS II system, whereby three of the compression rollers pivot into the chamber for additional bale compaction, early bale rotation and a perfectly uniform bale shape, is available as an option.

The ROLLANT 520 is available with either the ROTOFEED feed rotor or with an assister feed rake. An optional crop guard is available for the 2.10m pick-up, which improves crop flow in lighter crops, and helps to produce a uniform bale shape. Two lateral feed augers ensure the crop material is conveyed efficiently and reliably to the intake rotor.

The user has a choice of net or twine wrapping, with no tools required to change the wrapping mode. A ramp on the right side of the machine simplifies loading the wrapping system, and a spare roll of either film or net can also be carried here.

The baler is operated with the CLAAS OPERATOR terminal.





# “Produces a good, solid bale.”

“It’s restored my faith in the ROLLANT,” states Barrie Clayton of his pre-series ROLLANT 520RF.

Barrie’s only other experience with a CLAAS baler was back in the early 1990s with a ROLLANT 46. Having used a different make of baler until very recently, Huw Brown of RIVERLEA suggested trying the pre-series ROLLANT 520 as he felt it would be a good alternative and the ideal baler for Barrie.

“I have been very impressed with the ROLLANT and fair play to it, it really does make a good dense bale. Between what I do for my own suckler cattle and sheep and some contract work I now only do about 3,500 bales a year,” explains Barrie. “So I don’t need anything fancy and in that respect the ROLLANT 520 is ideal. My last three balers have had chopping systems and drop floors, but after a few years the customers who want their bales chopped often say not to bother, and chopping does use more fuel, so it’s good to go back to a straightforward baler.

## PRESSURE TAILGATE

“I’ve not had a baler with a pressure tailgate before, but the bales that come out are definitely hard and solid. Loading the net using the chute is straightforward and net feed has been reliable. Because the bales are so dense, I like to put four layers of net on just to avoid any risk of the net pulling apart and the bale collapsing when moved. It may be slightly more expensive, but it’s better than a collapsed bale.

“Setting the baler up using the (OPERATOR) terminal is very easy and I particularly like the fact that it counts every bale that’s wrapped, even if you manually trip the wrapping, which my old baler didn’t. It’s well designed, the flow into the baler is very good and I like the fact that all the roller bearings are in flanges, so easily replaceable - not that I am expecting to have to do that for quite a while!”

“The ROLLANT produces a well filled, solid bale. I can’t fault it, have got on well with it and been extremely pleased with what it does. I look forward to doing the next 30,000 bales with it, and if it does that then it will have done all right.”



John Warne (left) and operator Sean Frost.

“By the end of August  
the first QUADRANT had  
already baled over  
**7,000 bales**”

Changing to a QUADRANT 5300 with APC pressure control has enabled John Warne to confidently increase bale weights by up to 11%.



The vast majority of the straw John bales goes direct to the 44MW Snetterton Renewable Energy Plant, which he has been supplying since it opened three years ago. The plant has an annual straw requirement of around 250,000 tonnes.

Delivered by MANNES at the start of the season, the new QUADRANT 5300 replaced a four-year-old QUADRANT 3300. But such has been the increase in workload this year, it was soon joined by a second QUADRANT 5300. Both are run behind AXION 850 tractors, one also new this year and the second hired in for the newest baler.

“By the end of August the first QUADRANT had already baled over 7,000 bales and in just its first week the second did 2,500,” says John, who is based at Cockfield near Bury St Edmunds. “The new AUTOMATIC PRESSURE CONTROL (APC) system on the baler is absolutely fantastic. It means I can consistently maintain maximum bale size and specification, and confidently push bale weights to the limit, so benefiting from bale weight bonuses.”

APC ensures that the required bale density is maintained by automatically monitoring the knotters and the stress on the drive system, having entered the required density and the quality of the baling string used.

Working mainly behind 30-40ft cut combines, John bales over 500 bales in a good 12 hour day. Compared to his previous QUADRANT 3300 where bale weights would typically be in the range of 425 – 450kg, the QUADRANT 5300 provides bale weights between 450-500kg – an increase of between 6% and 11%.

For most of the season, John was using Cordex Xtreme twine, but changed to CLAAS QUADOTEX at the end of the season to see if he could push bale weights even further.

One of the QUADRANT's is fitted with the optional bale weigher, which John says has so far worked well. With an additional bonus available for moisture contents below 15%, an on-board moisture meter system is also fitted. He regularly spears bales to just double check.

“The new knotter design seems to work well so far. Its early days but we have not had any issues or breakages. However the new TURBO FAN system has done a very good job of keeping the knotters clean, and now having a seal around the twine box helps keep that clean, which is a great improvement.”

“The changes to the ejection system and the fact that you can now alter the height of the hooks means that bale ejection is far more positive. I also like how the pick-up wheels now simply fold in, which is far easier and simpler when moving around between fields.”

“Although I did originally look at a couple of other makes, realistically I don't think I would have got the back-up that I do with MANNES,” he says. “In addition the 120x90cm bale size is good for both livestock and the power station, and the ideal size for transport. If I can get a load of over 22-24 tonnes from 48 bales on a lorry I'm happy, and I have certainly had comments back from drivers on the weight and how well shaped the bales are.”





# Greater functionality for ARION tractors



For 2020, all ARION 600/500 tractors will be powered by the latest Tier V compliant engines. Power outputs remain the same as currently, but the torque curve at lower revs has increased by between +6% and +14%, giving more low down torque.

Externally, the 6-cylinder ARION 600 now shares the same smaller SCR catalyst mounted on the front right hand 'A' pillar as the 4-cylinder ARION 500, so improving visibility.

As standard ISOBUS UT is now integrated within CEBIS, so allowing the CEBIS touch screen to be used as a universal terminal. A terminal such as the CLAAS S10 will still be needed for more advanced ISOBUS functions, such as TC Geo (mapping and variable applications) and TC SC (section control). In addition, front and rear ISOBUS sockets are optionally available.

Other updates include the ability to view camera's through the CEBIS screen, and these automatically activate when reversing. An engine speed memo button can also be linked to an external PTO button through CEBIS.

All models now have an air connection at the top of the left hand steps, making it easy to connect an airline for cleaning down or inflating tyres. The poles on the battery have also been redesigned and extended so that it's easier to connect jump leads or power leads for fuel pumps.



# Power in a compact frame



Josh Phillips

GB Phillips & Son had a good look at other options on the market, before Replacing their 7,000 hour ARION 640 with a ARION 660 CMATIC.

“Out of the tractors we looked at and had on demo, one was ruled out very quickly as we just didn’t like it, so it just came down to the ARION and one other,” explains Josh Phillips. “What finally swung it in the ARION’s favour is the fact that it has plenty of power, but in a compact frame, so it’s very manoeuvrable. It’s also very comfortable to operate, the cab specification is right, the suspension’s very good and visibility excellent. It’s got it all and is very good on the road, and the back-up and support from RIVERLEA is brilliant. It’s done all we want of it and is well on top of the job.”

With its 185hp engine, which has a power boost to 205hp for PTO and transport work, the new ARION 660 has the latest CMATIC CVT transmission, the new PROACTIV front axle suspension. The Phillips’ also opted for the CEBIS specification level with the new 12inch colour touch screen terminal.

Based near Haverfordwest in Pembrokeshire the ARION 660, which has clocked up over 2,700 hours already in its first year, is used for a wide range of jobs, from mowing, tanker work and fertiliser spreading, through to more specialist work such as bedforming for potatoes and harvesting daffodils.

“Once you find out what the CMATIC transmission can do, it’s really good and great that it just keeps pulling through without needing to stop and change ranges,” says Josh. “Most of the time in the field I will use it in the ‘stick’ mode and only leave it in automatic when on

the road. Having the cruise control is great, just to set the speed and leave the tractor to look after itself.

## ALL THE FUNCTIONS IN THE RIGHT PLACES

“I really like the CMOTION control and how everything you need is right there at your fingertips. All the functions are in just the right place and it makes it easy to set up the tractor how you want. Everything I need – mowers, trailing shoe, even trailer tipping are all set-up on ‘F’ keys.

“The new touch screen for CEBIS also makes life so quick and easy. At the touch of the screen everything you need can be set from there, making operating the tractor relaxing and allows you to just get on with the job.”

On the advice of RIVERLEA the new ARION was supplied with the latest S10 ISOBUS terminal, giving them full RTK accuracy.

“For jobs such as bedforming you have to be spot-on and it allows us to also match up exactly with the customer’s settings. By setting up a field to avoid short work, for instance when mowing, it means that we can make full use of the tractor and implement. With the trailing shoe we can also leave an exact gap with no overlaps, leaving a professional finish to the job. Also being an ISOBUS terminal both the main tractors are ready to go to that next stage, as our baler and spreader are next up for changing.”

# Higher torque for powerful XERION



Together with a move to Tier V engines, the XERION ranges sees the addition of a new model and adoption of the CEBIS touch screen terminal.

The new 462hp XERION 4200 replaces the 435hp XERION 4000 and as previously is available in fixed cab TRAC, rotating cab TRAC VC and front cab SADDLE TRAC variants.

Power outputs for the more powerful 490hp XERION 4500 and 530hp XERION 5000 remain the same, but peak torque increases to 2200Nm for the XERION 4200, rising to 2400Nm and 2600Nm for the XERION 4500 and XERION 5000 respectively.

Engine idling speed is reduced to 730rpm from 800rpm, reducing both noise and fuel consumption when idling. The service interval has also now been increased from 500 hours up to 1000 hours.

## CEBIS TOUCH SCREEN

In the cab, there is now the option of a new premium heated and ventilated leather seat. Alongside this, the new armrest includes the latest CEBIS touch screen terminal giving direct access to many functions, such as the engine, PTO, spool valve or steering settings. All the CEBIS functions can also be adjusted using the rotary/push switch and ESC button on the armrest. Up to three menu levels can be displayed alongside each other and in open windows, settings can be altered by means of either of a dial or a +/- slider.

Up to 20 different implements can be saved and directly accessed within CEBIS, which also includes a total of 10 different 'F' function buttons, which can be freely configured. A number of cameras can be linked into the CEBIS screen that can be set to automatically appear on the screen when reverse is engaged.





# Smooth spreading XERION

‘It’s a hell of a machine’ states operator James Allison of AWSM Farming’s new XERION 4000 SADDLETRAC.

From their base near Richmond in North Yorkshire, AWSM are responsible for uploading, hauling, storing and spreading around 350,000 tonnes of digestate a year from six AD plants ranging from Hull up to Gateshead.

Supplied by CLAAS EASTERN at Sinderby, the 435hp XERION, which is fitted with a 16m<sup>3</sup> Kaweco tank and 18m Bomech trailing shoe, replaced a 2015, 6,000-hour XERION 4000 SADDLETRAC. This was fitted with a same size tank but mainly used a 7.7m wide trailing shoe for spreading.

## MORE THAN UP TO THE JOB

“The advantage of the XERION is that it is a one-man machine that can be used all-year round,” explains Adam Metcalfe. “I initially changed to the XERION because the old self-propelled machine was just not up to the job and I didn’t get the support, which was one of the reasons for buying the XERION as CLAAS EASTERN are excellent.

“The XERION is basically a tractor with a large tank on the back, so more than up to the job. With the new XERION, it’s noticeable that due to the new mounting system for the 8,000 l/min pump, it is far better balanced than the old machine.

“The drawback of the previous 7.7m shoe was that James had to travel at over 15kph to get the output. By changing to an 18m trailing shoe, this fits in well with 36m tramlines but output has increased even though forward speed is slower, which is far better for both man and machine.”

Typically the XERION will apply 1000 tonnes of digestate a day. To achieve this, the company runs a fleet of lorries with D-Tech tankers, ideally offloading into 1,200m<sup>3</sup> SFS Mesh Silo in-field above ground tanks supplied by AWSM, which then allows the XERION to be completely self-contained.

The XERION was specified with an S10 terminal for auto-steering using Egnos and Glonass and is set-up for auto shut-off at the headland using the headland control function. “The auto-steering seems a lot better and more accurate than the old system, and it’s very easy to map an 18m boundary around fields to automatically shut off half or all the trailing shoe to avoid any over application, and then lift it at headland.”



Adam Metcalfe



“The new front mounting system for the pump not only makes access easier, but it is also 1.5 tonnes lighter, so the ride is far better with no rocking, and the 900-wide MITAS SFT floatation tyres hardly leave a mark,” states James Allison.

## SIMPLE SET UP

“Everything is just so much smoother and the hydraulic system is also far more reactive. Even though I am now typically travelling at 10kph instead of up to 20, it seems to cover the ground quicker. Cab comfort is spot on, but having touch screens for CEBIS and the S10 makes it so simple to set everything up or to call up your stored information and change it. The CMOTION control is so easy to use and being able to use it to access functions such as the headland control and CRUISE PILOT makes a big difference.”



# High reach SCORPION



For 2020, the SCORPION telescopic handler range will benefit from a number of upgrades and new features, in addition to the availability of a new 9.0m reach model.

The new SCORPION 960 completes the large platform SCORPION range and joins the current SCORPION 756 and 746 models. The five model small platform SCORPION range remains unchanged.

Capable of lifting 6000kg at 600mm load centre, rising to 6500kg at 500mm load centre, the SCORPION 960 has a maximum lift height of 8.79m. These maximum rated lift capacities are a full 1000kg (20%) greater compared to the previous generation Kramer-built SCORPION 9055.

The SCORPION 960 is powered by a Stage 4, 4.1 litre Deutz engine developing 156hp. Drive is through a three-speed 40kph VARIPOWER PLUS transmission which, in addition to the main 45° wide-angle hydrostatic pump, incorporates a second 32° swivelling variable displacement pump to provide greater tractive and pulling power.

## SMART ROADING

The drive system also benefits from the CLAAS SMART ROADING system which automatically adjusts the engine speed when accelerating and once maximum road speed is reached. DYNAMIC POWER is also an option, whereby the engine speed is automatically regulated depending on joystick movement. The use of both these systems in tandem ensures that optimum engine speed is used for the operation in hand, so saving fuel and noise.

A 4-wheel drive lock-out is also available on both the SCORPION 960 and the 756, which for road-work allows the 4-wheel drive to be switched off, so reducing tyre wear and saving fuel.

The SCORPION 960 uses the CLAAS DYNAMIC COOLING concept, which automatically controls the fan speed and guarantees demand-driven cooling of the engine, plus an automatically activated reversing fan.

The 200 litre/minute load sensing hydraulic system, rated at 270 bar, uses the CLAAS SMART LOADING control system in combination with automatic overload protection.

A new standard feature on SCORPION 960/756/746 is a bucket shake function. Having initially moved the joystick from side to side to shake the bucket, if the joystick is then held to just one side, the bucket will continue to shake. The SCORPION 960 is also fitted with a hydraulic levelling system between the front axle and the chassis. Activated by a switch in the cab and using an inbuilt spirit level, this ensures greater stability when working at height on uneven ground.

## 2020 UPGRADES FOR THE SCORPION RANGE

In order to meet Mother Regulation 2 compliance, all SCORPION machines are now fitted with side marker lights and reflectors. In addition, all machines now have plastic fuel tanks, which for small platform models has helped improve the filling angle, resulting in easier filling and less chance of spillage. A free-flow return hydraulic pipe is also now available on all models.

On small platform SCORPION 1033-635 models, the pressure in the 160 litre/minute hydraulic system has been increased from 200 bar to 240 bar, plus a new load hold valve is also now fitted. Between them, these will provide improved fine control of the machine and boom, which is also now available with a JCB Q-Fit headstock.



# AXION 900 TERRA TRAC enters full production



Since the initial announcement of its development in 2017, the AXION 900 TERRA TRAC has been subjected to over 35,000 hours of testing before entering full production.

Two TERRA TRAC models will be available – the 445hp AXION 960 and the 355hp AXION 930. These will be the first half-track tractors on the market to have a fully suspended track system and the TERRA TRAC system developed by CLAAS for the AXION calls upon the company's wide experience gained over 30 years of rubber track development for the LEXION combine.

To meet the specific power transfer needs of a tractor and to handle the high levels of torque, the drive wheel on the AXION TERRA TRAC unit is larger than that found on the LEXION and has spokes with attached rubber blocks to aid self-cleaning. The tracks use a force-locking drive and are maintained at a higher tension for even pressure distribution.

## FULL SUSPENSION

The AXION TERRA TRAC is the first half-track unit to have full suspension. Combined with the PROACTIV front axle and 4-point cab suspension on the AXION, this not only aids ground contact and reduces wheelslip, but gives the operator an unprecedented level of comfort compared to other tracked tractors.

Drive to the TERRA TRAC unit is through a standard CMATIC transmission, but in place of the trumpet housings there are 'saxophones', which bridge the differences in height and length. The actual drive is through a cardan shaft between the PTO shaft and the TERRA TRAC intake shaft.

Unlike other track units, the AXION TERRA TRAC unit is able to pivot over a range from +8° to -15°. Compared to full track or rigidly mounted half-track systems, this ensures that optimum ground contact is maintained at all times.

Tracks are available in widths of 635mm, 735mm and 890mm and all have transport widths similar to tyres and below 3.0m. Total footprint

on the widest 890mm track is 3.87m<sup>2</sup>, which is 35% larger when compared to a 900/60 R42 tyre. As a result, tractive power from TERRA TRAC is some 15% greater and ground pressure is reduced by 50%, so reducing compaction. This in turn avoids the need for deeper cultivations to remove panning.

To avoid scuffing when turning, the AXION TERRA TRAC features a unique intelligent steering system which gives the AXION TERRA TRAC similar driving characteristics to a wheeled tractor. At speeds below 12kph, this will automatically bias the inner TERRA TRAC brake and to aid this steering assistance, within CEBIS the operator is able to select from either Strong, Medium or Small pre-set levels.

The AXION TERRA TRAC also incorporates a height adjustment system. By being able to select either a low, medium or upper position for the track units, the operator is able to select the optimum height for the implement being used behind the tractor, or increase ground clearance when baling or grain carting.



Andrew Long purchasing the new AXION 960TT at CLAAS UK, Saxham with Jeremy Wiggins Sales and Marketing Manager.



# New compact



Two compact models have been added to the TORION wheel loader range. The new TORION 639 and 535 have a low overall height of less than 2.5m, making them ideal for use on livestock and dairy farms, or for smaller re-handling facilities.

Both the TORION 639 and 535 are powered by Yanmar 3.3 litre, 4-cylinder engines with power outputs of 68hp and 63hp respectively. These are Stage 3B compliant using the combination of a Diesel Oxidation Catalytic convertor (DOC) and Diesel Particulate Filter (DPF), without the need for Selective Catalytic Reduction (SCR). Drive is through a 20kph hydrostatic transmission with two speed ranges of 0-6kph and 0-20kph, which are selected at the flick of a switch.

The articulated joint incorporates a double-acting steering ram. Articulation angle is 10° and the steering angle is 40°, resulting in a tight inner turning circle of just 2.5m on standard tyres.

At maximum articulation, the TORION 535 has a Full Turn Tipping Load (FTTL) of 3450kg,

rising to 3850kg for the TORION 639. In common with many other wheel loaders of this size, both machines are fitted with a Zettlemeyer Wide (TPZ Wide) headstock. As with other models in the TORION range, the boom has Z kinematics, which provides true parallel lift when used with buckets or pallet forks and a high tear-out force.

## QUICK AND ACCURATE LOADING

The hydraulic system on the TORION 639/535 has a maximum capacity of 77 litres/minute and 70 litres/minute respectively, both with an operating pressure of 230 bar, so ensuring a fast response for quick and accurate loading.

The cab features a full height front windscreen, giving excellent visibility over the front wheels and attachments fitted to the tapered boom. A rounded rear window provides clear rearward visibility.

The steering column is infinitely adjustable for ease of operation and access, with all the main controls easily accessible and colour coded on the operator's right hand side, alongside the joystick.







Martin Lewis (centre) with sons Matthew and Thomas.

# “The TORION is in a different league.”

Taking loan of a TORION 1511 proved a revelation to Martin Lewis.

“We have dealt with RIVERLEA for about 30 years, so when we had a puncture on our loader during early second cut, knowing that RIVERLEA had a demo TORION, I gave Paul (Rogers) a call to see if I could borrow it for the weekend, says Martin.

“When it arrived in June the TORION had just 180 hours on the clock, but in three months we are already now up to 560 hours.”

The TORION 1511 is the largest of the mid-range models. Powered by a 4-cylinder 167hp DPS engine, driving through a VARIPOWER transmission, the low mounting position of the engine gives the 1511 a fully articulated tipping load of 9.75 tonnes, without needing additional ballast. In the cab, a 7” touch screen serves as a central information hub, and the TORION also features SMART LOADING, including programmable bucket height return and lift/lower limits.

Based near Carmarthen in South Wales, Martin Lewis and his seven strong team, including sons Thomas, Matthew and Jack, harvest around 1400ha of grass silage and 100ha of whole crop, taking up to four cuts on some farms. Previously to keep on top of the clamp work, in addition to a wheeled loader, this often had to be supported by a tractor and buckrake, this year using their 14-month old ARION 650.

“In good going we can be clearing 10ha an hour, which made Philip sweat a bit and need help as he’d no time to roll and we have also looked at using compacting rollers. But that’s totally changed now with the TORION. It’s a hell of a machine and saves the cost of an extra tractor and man on the job,” states Martin. “It’s pushing power

is phenomenal and will clear a trailer load in two and a bit goes, so he has plenty of time for compacting. On one farm we were working alongside the customer’s own forager, with seven trailers on the go and the TORION was still on top of the job.

## MORE FUEL EFFICIENT

“The TORION is 4.5 tonnes heavier than our old machine and on wider tyres, so for consolidation it’s ideal. But despite the extra weight and the fact that it’s a 4-cylinder compared to a 6-cylinder in our previous machine, it’s far more fuel efficient. Our old machine had to be refilled about every eight hours, but we have had the TORION running up to 21 hours and still had fuel left in the tank.

“Philip loves it. He’s far more relaxed and we would certainly never go back to what we had before. It’s built like a tank. The build quality and even the paint finish is so much better. You see Liebherr’s in quarries with 40,000 hours on them, and that’s certainly reflected in the TORION. The lift capacity and manoeuvrability are brilliant; for muck handling it will be excellent.

“Driver comfort is very important and the cab is very comfortable. The air con is brilliant and everything’s to hand. The touchscreen and functions such as the bucket return function or automatic fan reverse to clear the air vents make it very easy to use.

“What we do in four to five hours affects the farmer for four months, so it’s important we do a good job and compact the clamp properly. A lot of it is down to having a good driver, but also giving him the right machine for the job. It may have been a bit of a surprise to Philip when it first arrived, but he now says it’s the best machine he has ever driven.”



# LEXION the revolution.

## CEMOS AUTOMATIC

“The LEXION 8700 is generally churning out 10% more grain in a day, even with the green damp straw we inevitably end up in here in north Northumberland.

“In my mind that extra capacity has got to be down to the technology – the new version of CEMOS is just very clever.”

Neil Armstrong, JE Armstrong and Sons,  
Northumberland, LEXION 8700.



The all-new  
LEXION 7000-8000  
series featuring:

**NEW APS SYNFLOW HYBRID**  
**NEW Larger Grain Tank**  
**NEW Larger Concaves**  
**NEW FIELD SCANNER**

**NEW CEBIS**  
**NEW Engines**  
**NEW Ground Drives**

**NEW QUANTIMETER**  
**NEW CEMOS AUTOMATIC**  
**NEW Cab**

The **NEW** 7000 and 8000 LEXION HYBRID series, revolutionising harvesting efficiency.  
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