



Tractors

## ARION

660 650 630 610

550 530 510

**CLAAS**



Intelligence gets more done.

ARION 600 / 500



ARION 600 / 500. Assisting you, wherever it is needed.

One of our most popular tractors has just got even better thanks to a host of new functions developed by our engineers in consultation with ARION drivers. After all, they work in the field every day, so they know exactly what they want.

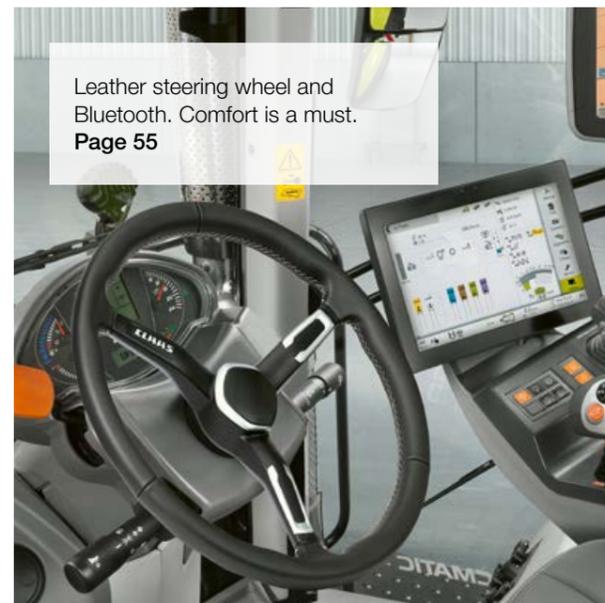
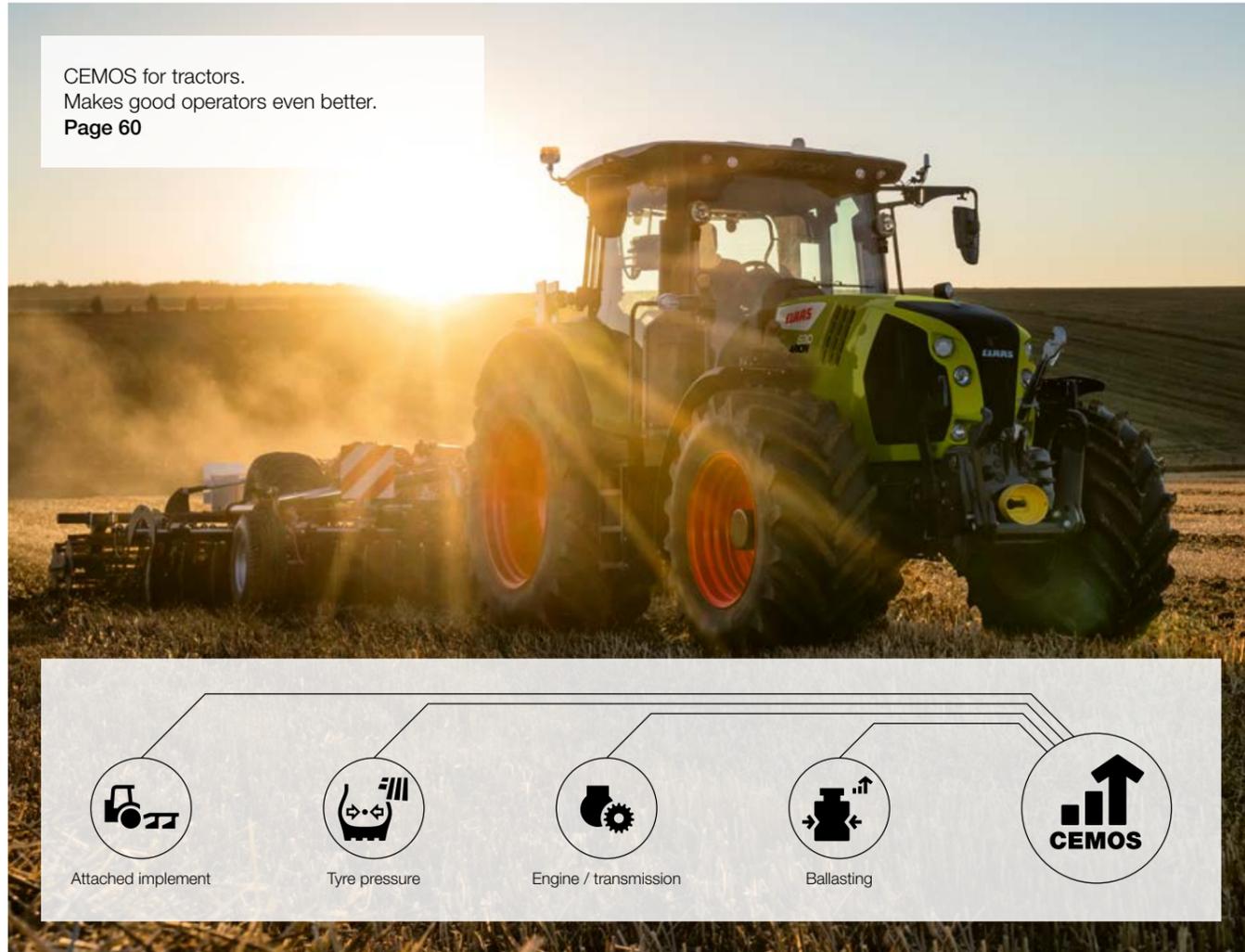
**More of everything.**

- More help: the self-learning operator assistance system CEMOS makes your job so much easier
- More flexibility: with CEBIS you can view two cameras and control ISOBUS implements
- More efficiency: the engine speed limiter reduces fuel consumption
- More accuracy: a press of the button is all it takes to switch on the rear PTO and then activate the engine speed memory
- More comfort: a leather steering wheel, hands-free system and rear-opening roof hatch makes for a more enjoyable working environment



CLAAS tractors:  
from the idea to  
the machine.

[tractors-making-of.claas.com](http://tractors-making-of.claas.com)



|  |           |
|--|-----------|
| <b>Innovations</b>   | <b>4</b>  |
| <b>CLAAS POWER SYSTEMS</b>                                 | <b>6</b>  |
| Engine   | 8         |
| CMATIC   | 10        |
| HEXASHIFT  | 18        |
| Construction   | 24        |
| PTO  | 28        |
| Hydraulics   | 30        |
| Rear linkage   | 32        |
| Front linkage  | 34        |
| Front loaders  | 36        |
| <b>Cab and comfort</b>                                     | <b>38</b> |
| Versions   | 40        |
| CEBIS  | 42        |
| CIS+   | 48        |
| CIS  | 50        |
| CIS displays   | 52        |
| Comfort  | 54        |
| <b>Operator assistance systems<br/>and data management</b> | <b>58</b> |
| CEMOS  | 60        |
| CSM headland management                                    | 62        |
| ISOBUS   | 64        |
| Steering systems   | 66        |
| Job management,<br>TELEMATICS                              | 68        |
| Maintenance  | 70        |
| CLAAS Service & Parts                                      | 72        |
| Features   | 74        |
| Specifications   | 75        |



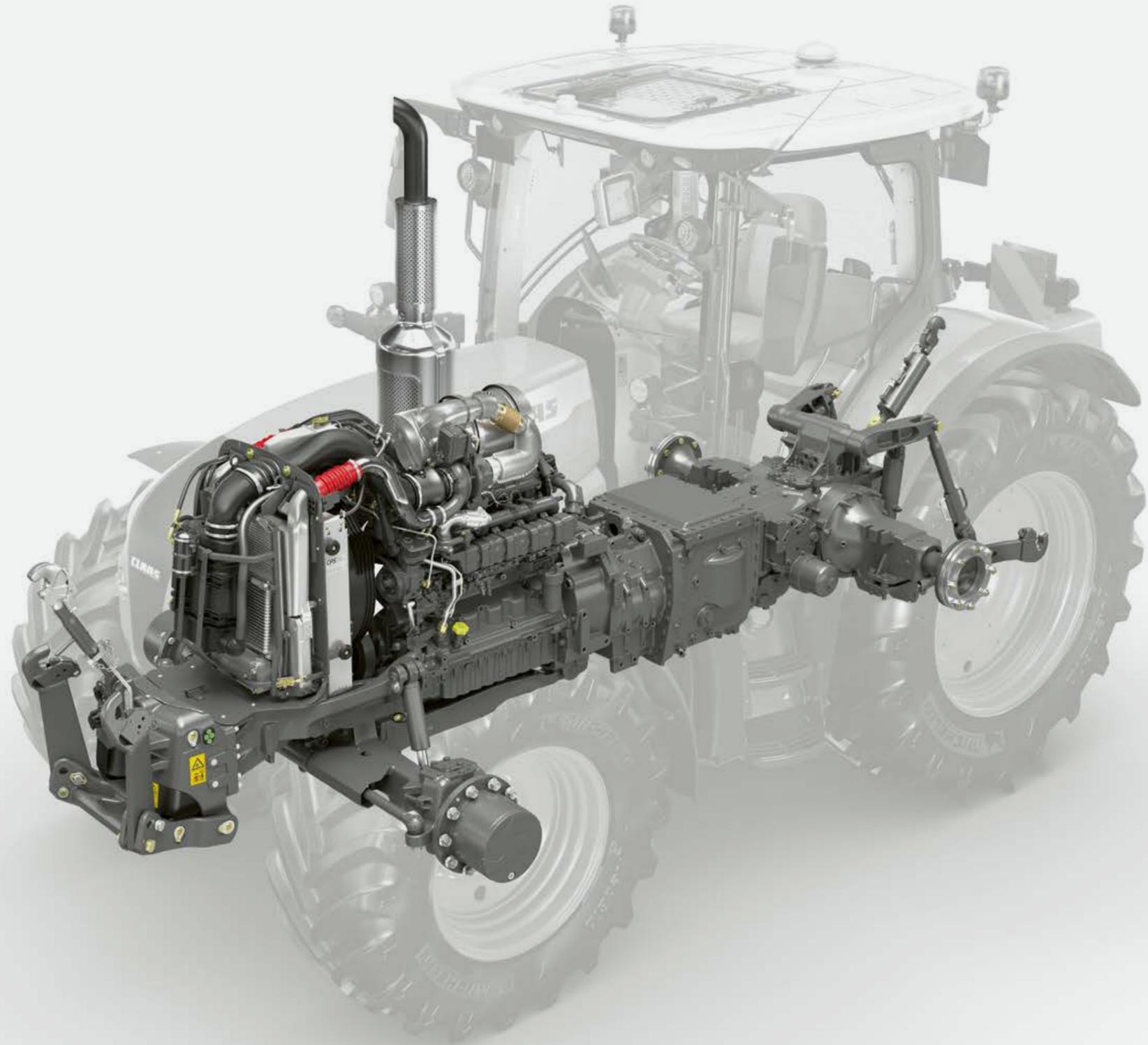
More innovation:  
more details here.

[arion600-500.claas.com](http://arion600-500.claas.com)

Our drive system: the perfect interplay between optimal components.

Your CLAAS machine is much more than the sum of its individual parts. Top performance is only possible when all the parts are ideally matched and work together optimally.

In CLAAS POWER SYSTEMS (CPS), we have brought together top-quality components to create an intelligent drive system that sets new standards. Full engine output only when you need it. Drives that are suited to the way your machines are used. Fuel-saving technology which quickly pays off.



# Constant output is just as important as pure power.

## Strong at heart.

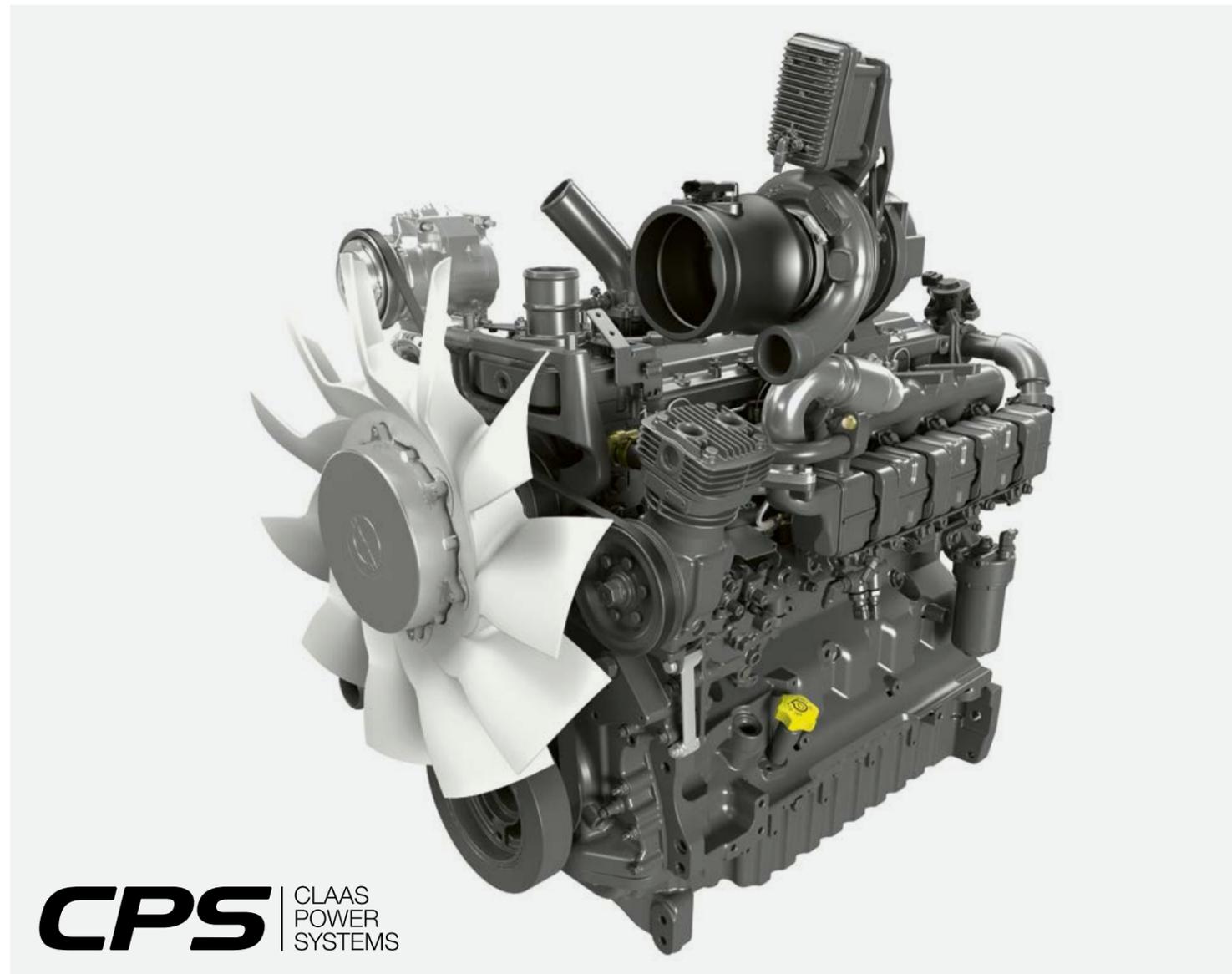
- DPS Powertech engines with 4.5 or 6.8 l cubic capacity
- ARION 500: 4-cylinder engines with staged turbocharger (a smaller turbocharger with an extremely fast response time and a wastegate turbocharger)
- ARION 600: 6-cylinder engines with VGT turbocharger
- Common rail injection (1,800 bar)
- 4-valve technology and intercooler
- ARION 600: two engine idling speeds (650 and 800 rpm) with automatic adjustment to reduce fuel consumption when stationary
- Visctronic fan control

The CLAAS-specific engine performance curve provides full torque in a wide engine speed range, guaranteeing constant output and power delivery when they are needed. This makes it easy to save fuel while working at a low engine speed and maximum torque with the ECO PTO, or to work at rated speed with a full reserve.

## Powerful turbocharger.

The VGT turbocharger in the ARION 600 provides the optimum charge pressure at all engine speeds by automatically adjusting the paddle angle. In the ARION 500 the rapid response time of a small turbocharger at low speeds has been combined with the performance of a larger wastegate turbocharger to give torque and performance throughout the entire rev band.

Thanks to load- and speed-dependent control, the 6-cylinder and 4-cylinder engines all deliver high torque even at a low engine speed.



## ARION 660 CMATIC.

The ARION 660 CMATIC delivers up to 205 hp thanks to the intelligent CLAAS POWER MANAGEMENT (CPM) electronic control system. 20 hp of additional boost power is available for PTO and transport work, and also for the fan drive, significantly increasing the performance and versatility of the ARION 660 CMATIC.

| ARION | Maximum output (hp) ECE R 120  |
|-------|--------------------------------|
| 660   | 185 + 20 with CPM <sup>1</sup> |
| 650   | 185                            |
| 630   | 165                            |
| 610   | 145                            |
| 550   | 165                            |
| 530   | 145                            |
| 510   | 125                            |

<sup>1</sup> CPM (CLAAS POWER MANAGEMENT)



## Stage V thanks to exhaust gas filter and urea.

Exhaust gas recirculation (EGR) works by mixing a portion of the engine exhaust gases with the incoming air. This reduces the speed and temperature of combustion in the engine. The proven combination of diesel oxidation catalyst (DOC) and maintenance-free diesel particulate filter (DPF) reduces the level of hydrocarbons and soot in the exhaust gas.

SCR stands for selective catalytic reduction. This system uses a synthetic urea solution (AdBlue<sup>2</sup>) to convert nitrogen oxides remaining in the exhaust gas to water and pure nitrogen.

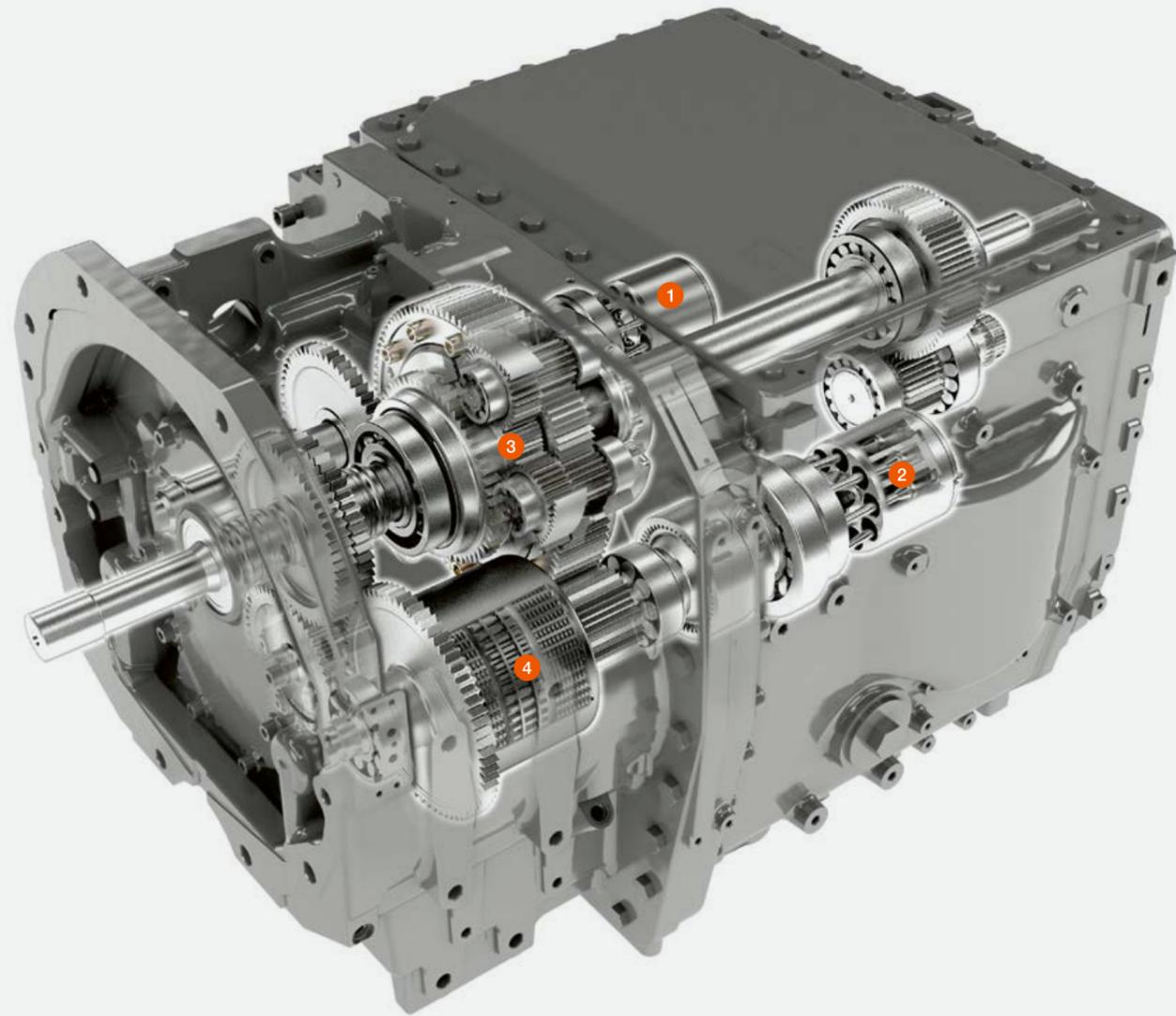
## Visctronic – efficient fan control.

The Visctronic electronic fan control system precisely adjusts the fan speed based on engine, intake air and transmission temperature values as well as the engine speed and operating status of the air conditioning compressor. The reduced fan speed lowers the noise level and saves valuable fuel.

<sup>2</sup> AdBlue is a registered trademark of the VDA.

# CMATIC.

Simple, convenient and continuously variable.

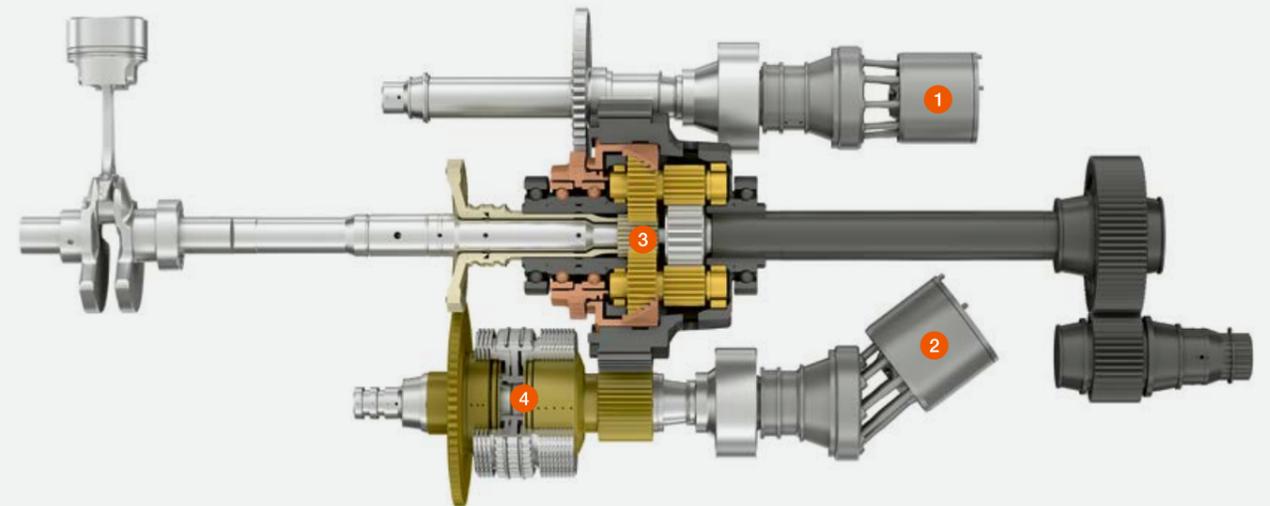


- 1 Hydrostat 1
- 2 Hydrostat 2
- 3 Stepped planetary transmission
- 4 Clutches for changing ratio

**CPS** | CLAAS  
POWER  
SYSTEMS

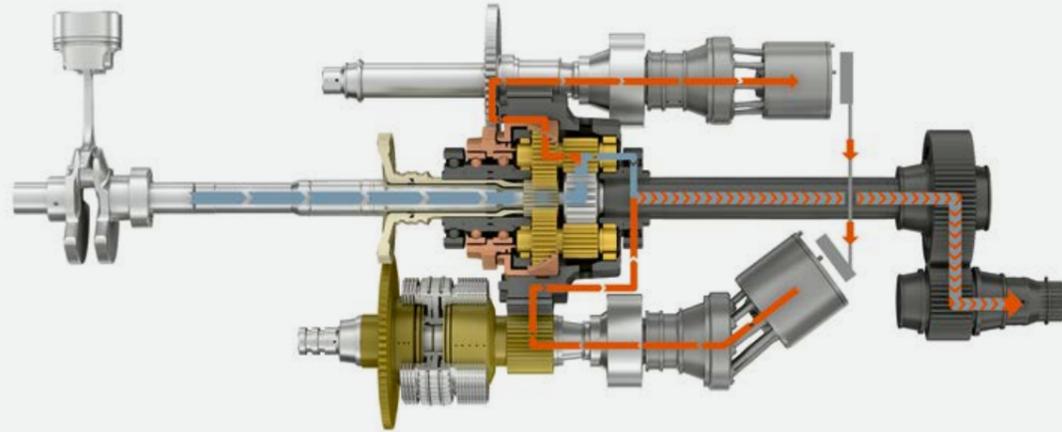
The continuously variable EQ transmission from CLAAS.

The ARION 600 / 500 CMATIC come with the continuously variable EQ 200 / 220, developed and built by CLAAS. This intelligent combination of stepped planetary gearbox, clutch unit and two hydrostatic units guarantees optimum power flow. The transmission is very simple in structure, with two automatically shifted drive ratios.



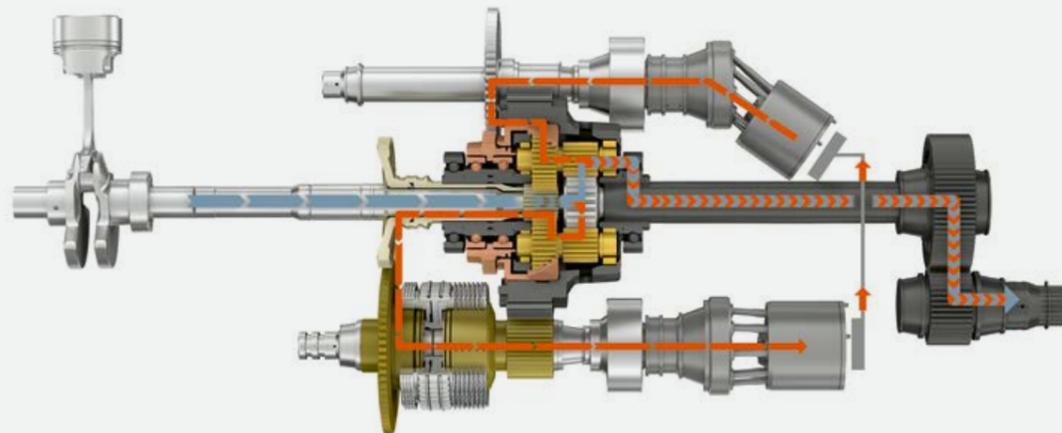
# CMATIC. The technology.

## Drive ratio 1



Hydrostat 1: pump, hydrostat 2: engine

## Drive ratio 2



Hydrostat 1: engine, hydrostat 2: pump

- Mechanical power flow from the engine
- Hydraulic power flow
- Combined power flow (mechanical + hydraulic to transmission output)



CMATIC.  
Driving has never been easier.

## Drive ratio 1:

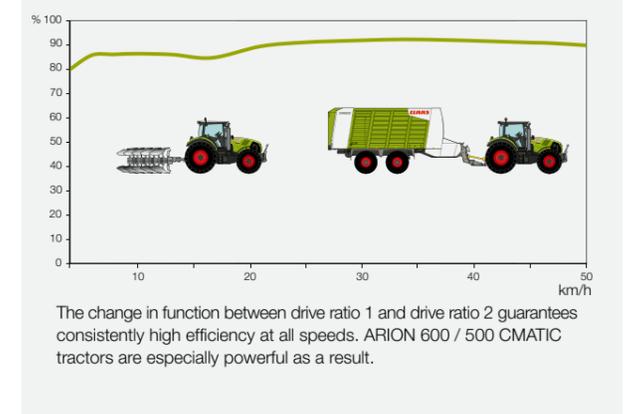
In the first drive ratio the tractor can start up, reverse or remain stationary in powered zero mode. (There are no mechanical shifting operations in the transmission.) The stepped planetary transmission splits the power coming from the engine (from the left) into a mechanical component and a variable, hydrostatic component. When the tractor accelerates, the rotational speeds of the two clutch shafts become closer and closer until they are the same. The drive ratio changes automatically at this point without the driver noticing.

## Drive ratio 2:

In the second drive ratio the power flow and functions in the transmission change. The hydrostats switch function. The stepped planetary transmission is intelligently connected with the hydrostats by means of the clutches. As a result, the stepped planetary transmission splits the power coming from the engine (from the left), then combines it again downstream of the hydrostats.

## Superior transmission control.

Powerful acceleration, smooth deceleration and a fast response to changes in load: CMATIC powertrain management shows its capabilities in all conditions and for every task. Stay relaxed and focused throughout the working day so you can concentrate on more important things – CMATIC does the rest for you.



## Efficient and user-friendly.

With engine speeds of 1,500 rpm at a top speed of 50 km/h and 1,400 rpm at 40 km/h, ARION 600 / 500 tractors also demonstrate their full capabilities in transport operations. If the accelerator is not depressed, the transmission is in powered zero mode and maintains its position reliably without creeping or rolling. This means that the tractor can start up safely and easily at steep field entrances or road junctions, even with a full load.

## The benefits for you:

- Completely smooth acceleration from 0 to 50 km/h (or 40 km/h), even under maximum load
- Low fuel consumption on the road as maximum forward speed is reached at just 1,500 rpm
- Powered zero mode makes it easy to stop on slopes and start off again without using the service brake
- Drive ratio changes smoothly and automatically
- You are always in the right drive ratio
- Two drive ratios, which change the power flow and processes within the transmission – consistently high efficiency levels for low fuel consumption and maximum versatility in all applications

# CMATIC. Optimised settings.

Simple, straightforward operation.

The CMATIC transmission has three operating modes: accelerator pedal, drive lever and manual mode.

In the first two modes, forward speed can be controlled by the accelerator pedal or drive lever. The engine speed and transmission ratio are adjusted automatically – for optimum efficiency and optimised fuel consumption. In manual mode, the driver chooses the engine speed and transmission ratio. Automatic engine and transmission control is disabled.

Accelerator pedal or drive lever.

You can switch between accelerator pedal and drive lever mode while the tractor is moving by pressing a button on the armrest. The active mode is displayed in the CEBIS or CIS.

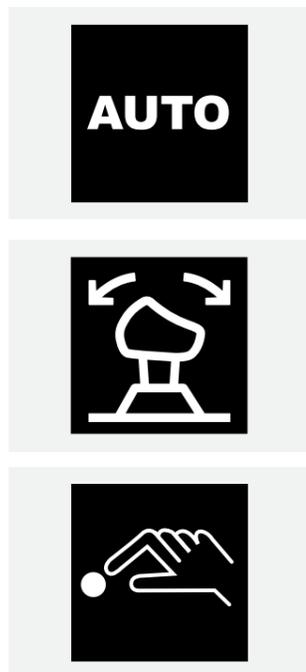


Engine droop at the push of a button.

The engine droop value can be used for quick and easy regulation of the engine speed under full load. The CEBIS or CIS terminal clearly displays the engine speed at which the transmission reduces the speed.

When the engine speed memory is active, e.g. for PTO work, you can specify the difference from the saved engine speed at which the transmission ratio is reduced.

Two engine droop values can be saved for engine droop in accelerator pedal and drive lever mode. They are retrieved by the quick-access facility using the F buttons. With these values, known as "Eco" and "Power", the droop can be rapidly adjusted to the task in hand, e.g. when moving from the road to the field. The engine droop for the engine speed memory is defined separately.

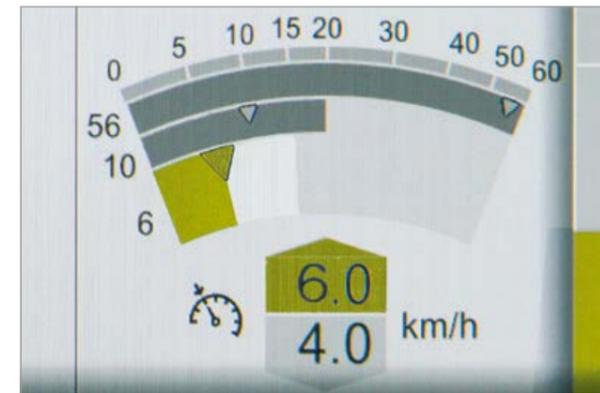


The current driving mode is shown on the CEBIS or CIS display.



Engine droop setting for "Eco" and "Power", and the engine speed memory.

# CMATIC. No need to stop.



## Tailor-made speed ranges.

With the CMATIC transmission, three speed ranges can be pre-selected in both directions of travel. The active range is displayed in the CEBIS or CIS and can be changed while the tractor is in motion using two buttons. The lower the maximum preset value for the range, the more accurately the forward speed can be controlled.

A cruise control speed can be saved for all the ranges while the tractor is moving by pressing the button on the drive lever. The cruise control speeds can also be pre-set on the CEBIS or CIS terminal.

CMATIC allows drivers to create their own profiles according to the job in hand. Intelligent CMATIC transmission technology enables you to use the full power of your ARION economically and productively – with maximum operator comfort.

## Stopping power.

In accelerator pedal mode, the CMATIC transmission offers different ways of adapting braking to the job in hand.

### Increase the engine braking effect:

When the accelerator pedal is released and the multifunction control lever is pulled back, the transmission ratio is reduced, causing the engine speed to increase. This reduces brake wear.

### Anti-jackknife brake:

When the trailer is braked with the service brake, you can accelerate at the same time using the accelerator pedal or by pressing the multifunction control lever. This maintains the distance between the tractor and trailer on steep hills and increases safety. These functions can be used whether the tractor is stationary or moving.

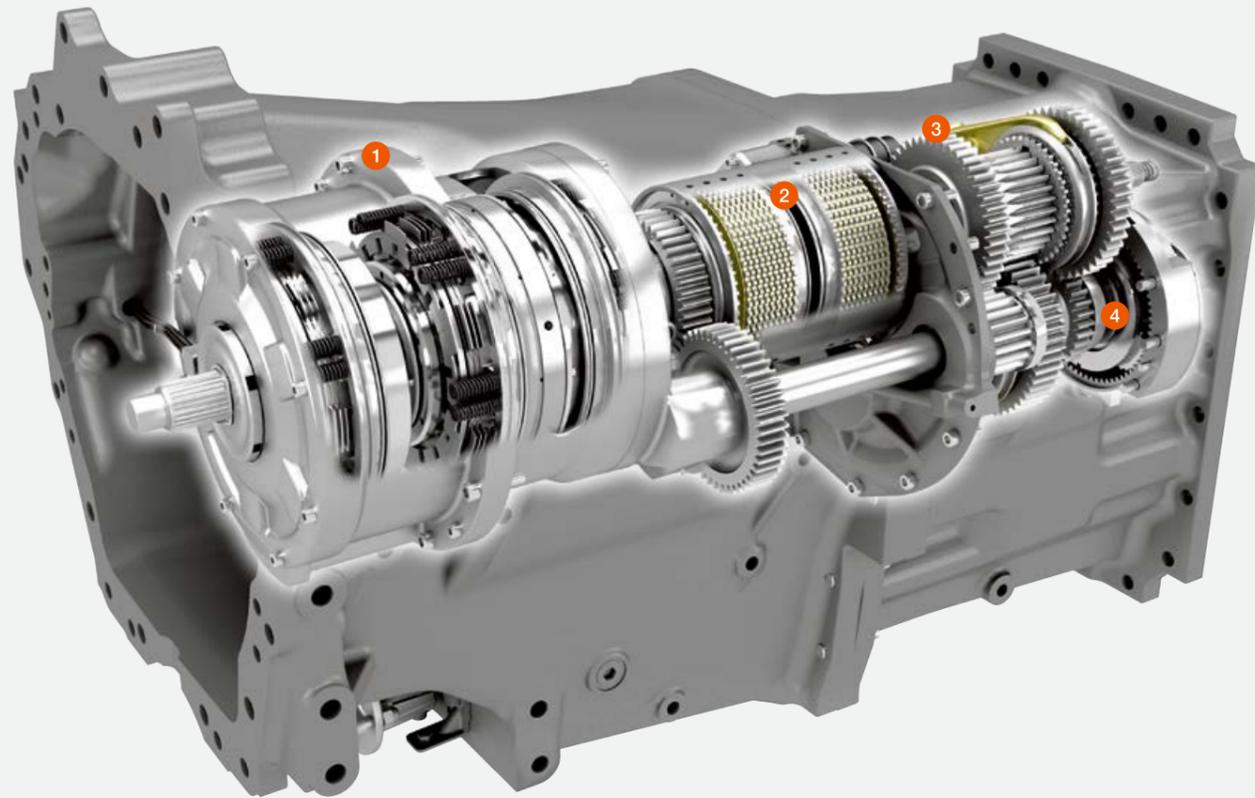
CIS+ operation

- 1 Change range
- 2 Activate cruise control



# HEXASHIFT.

Efficient powershift transmission.



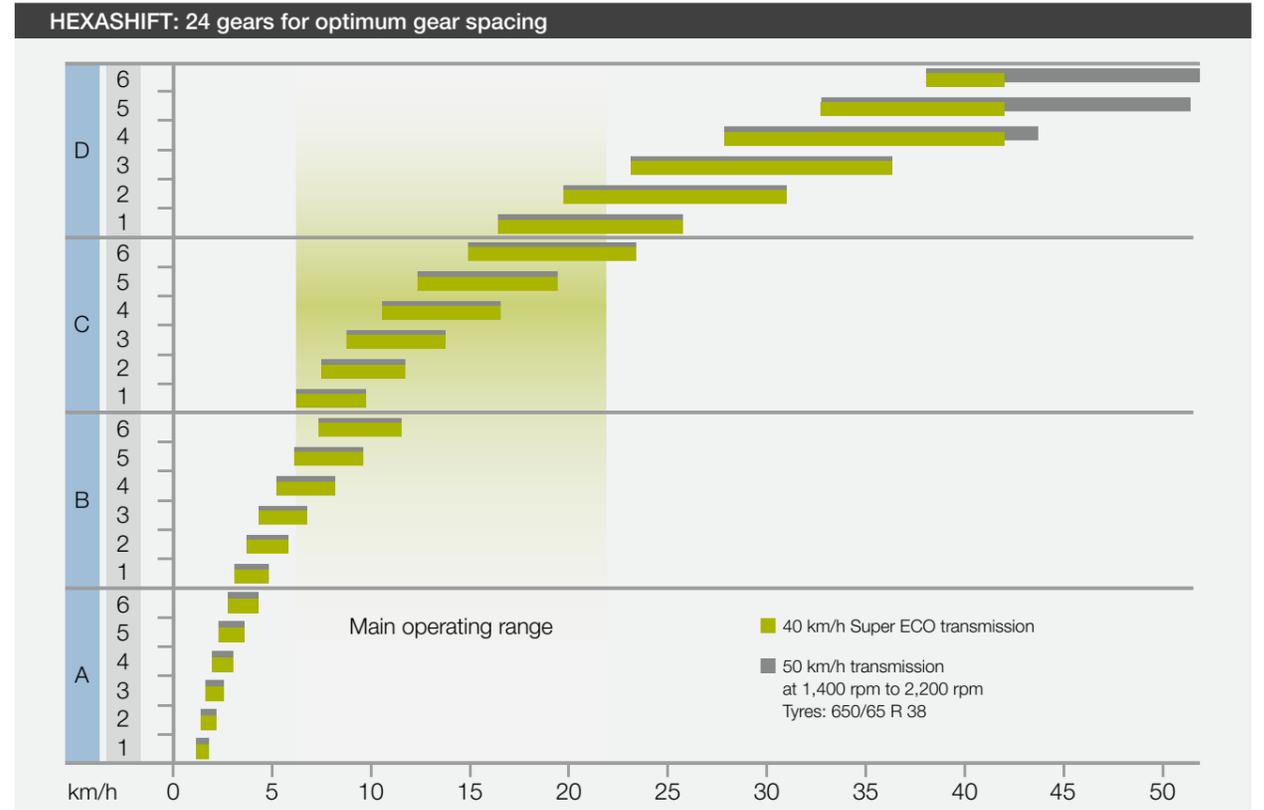
- 1 HEXASHIFT 6-speed powershift module
- 2 REVERSHIFT hydraulic reverser
- 3 Electrohydraulically actuated 4-speed range shift
- 4 Optional creep gears



The HEXASHIFT powershift transmission from CLAAS.

With HEXASHIFT you can shift effortlessly through all six powershift speeds and the four automatic ranges using your fingertips, or you can shift automatically using the HEXACTIV auto-shift function.

Overlapping powershift speeds allow the full output potential of the engine to be utilised and provide smooth range shifting on the road.

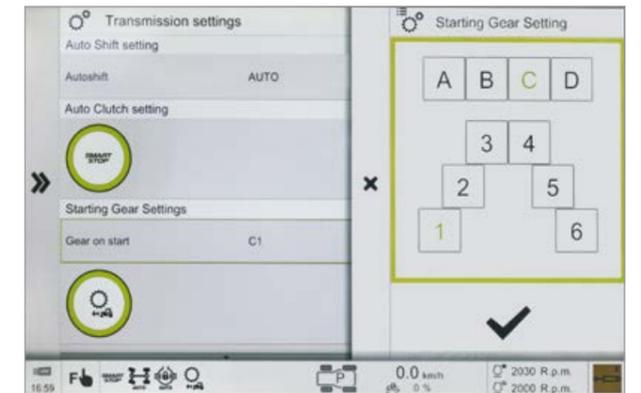
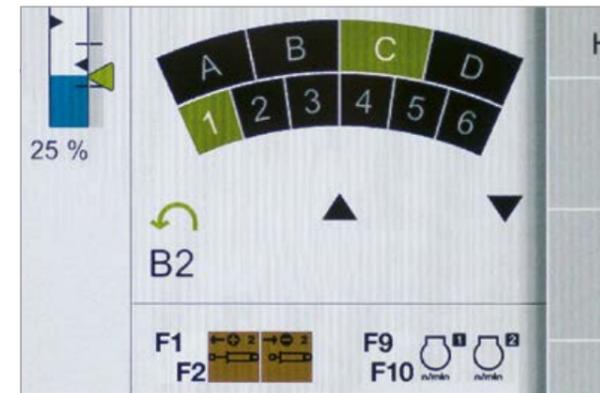


### Clear benefits.

- No need to use the clutch when changing range
  - Good gear spacing in all ranges
  - Excellent efficiency in the field and on the road for low fuel consumption
  - Creep gear options down to 110 m/h
  - Convenient adjustment options with CIS or CEBIS
  - High operating comfort with the DRIVESTICK or CMOTION
  - CLAAS powertrain management for smooth changes in range and powershift operations
  - SMART STOP: stop with the brake pedal without using the clutch
  - HEXACTIV auto-shift function with cruise control
  - Disable cruise control and engine speed memory using the throttle pedal
  - REVERSHIFT clutchless reverser with electronic parking brake
  - REVERSHIFT reversing function on the ELECTROPILOT four-way control lever
- HEXASHIFT is available in three different versions:
- Super ECO 40 km/h at 1,650 rpm
  - ECO 40 km/h at 1,950 rpm
  - ECO 50 km/h at 2,000 rpm

# HEXASHIFT.

Always in the right gear.



### Intelligent transmission settings.

When using the clutchless reverser, you can even change gear automatically when you want the forward speed to be different from the reverse speed. At the headland, you can also engage a pre-selected gear simply by pressing a button. This means that you are always moving at the same speed on the headland. The aggressiveness of the REVERSHIFT clutchless reverser is also adjustable in nine steps (-4 to +4), providing optimum ride comfort in all situations.

### HEXACTIV start-up and approach gears.

The start-up gear engaged when starting the engine is freely selectable between A1 and D1. The specified start-up gear is engaged every time you start the engine. A separate approach gear can also be selected when operating with the HEXACTIV auto-shift function activated. This gear is automatically engaged as soon as the tractor comes to a standstill.

### Automatic transmission control.

There's no need to move through every gear (as in a conventional powershift transmission) when shifting between ranges – the HEXASHIFT transmission automatically selects the most appropriate gear depending on forward speed and load, regardless of whether you are driving manually or automatically. If you press the clutch in range D, the transmission automatically adjusts the powershift speed when the clutch is re-engaged. This can be very useful, e.g. when approaching a junction.



Intelligent gear selection on the A-pillar display in the CIS version.



REVERSHIFT progressivity in the CIS.

### SMART STOP and cruise control.

With the SMART STOP function, ARION 600 / 500 tractors can be brought to a standstill by pressing the brake, without needing to use the clutch pedal. This lightens the driver's workload considerably, especially during tasks which involve a lot of stopping and starting such as making round bales and front loader work. SMART STOP is easily activated in the CEBIS or CIS. The HEXACTIV auto-shift function can be equipped with a cruise control function. Instead of a fixed engine speed, a target forward speed is specified by pressing a button and the tractor maintains this speed by adjusting the engine speed and gear ratio.

### NEW: Engine speed limiter.

The engine speed limiter is a great help when it comes to saving fuel. Simply set the maximum engine speed in advance and then you can focus fully on your work. The engine maintains the set speed regardless of how hard you depress the accelerator. This allows you to cut fuel consumption significantly.

# HEXASHIFT. HEXACTIV changes gear for you.



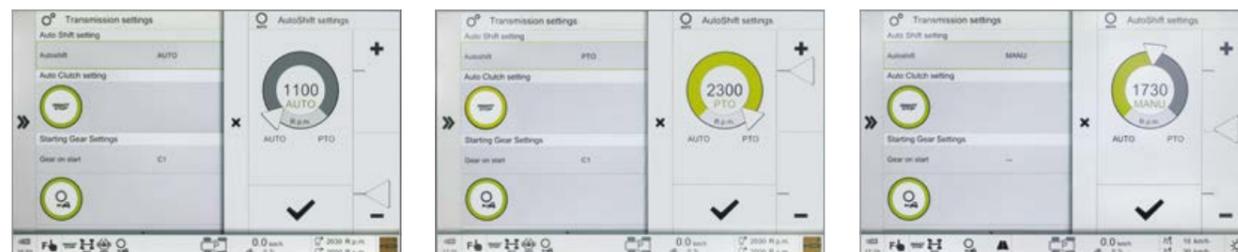
## HEXACTIV auto-shift function.

Because you've got more important things to do, you can leave HEXACTIV to change gear automatically. You can configure the HEXACTIV auto-shift function with a wide range of well-designed functions according to your preferences and the job in hand.

- Fully automatic: HEXACTIV shifts for variations in engine speed depending on engine load, vehicle speed and the driver's preference/accelerator position
- PTO mode: HEXACTIV shifts so as to ensure that the engine speed/PTO speed remain as constant as possible
- Manual mode: HEXACTIV shifts according to a fixed engine speed which is programmable by the driver

You can choose between three modes for the auto-shift function in CEBIS or CIS.

## Setting the three modes in CEBIS:



Fully automatic mode.

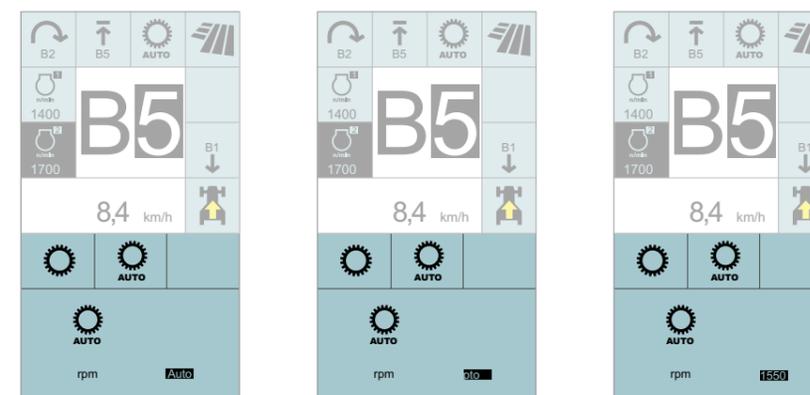
PTO mode.

Manual mode.

| Manual shifting                                 | Driving strategies                          | Mode  | Shifting  |
|---|---|---|---|
|   | <p><b>Manual shifting in field mode</b></p> |   | <ul style="list-style-type: none"> <li>- Range shifting (A-D) by pressing the DRIVESTICK or CMOTION through the stop</li> <li>- Powershift shifting (1-6) by tapping the DRIVESTICK or CMOTION</li> </ul> |
| <p><b>Manual shifting in transport mode</b></p> |   | <ul style="list-style-type: none"> <li>- Shift through all 24 gears (A1-D6) by tapping the DRIVESTICK or CMOTION</li> </ul> |   |

| HEXACTIV auto-shift function                       | Driving strategies                             | Mode   | Shifting   |
|--|--|--|--|
|  | <p><b>Automatic shifting in field mode</b></p> |  | <ul style="list-style-type: none"> <li>- Range shifting (A-D) by pressing the DRIVESTICK or CMOTION through the stop</li> <li>- Automatic powershift shifting (1-6)</li> </ul> |
| <p><b>Automatic shifting in transport mode</b></p> |  | <ul style="list-style-type: none"> <li>- Shift all 24 gears (A1-D6) automatically</li> </ul> |  |

## Setting the three modes in the colour CIS:



Fully automatic mode.

PTO mode.

Manual mode.

# CLAAS tractor concept for greater flexibility.

Smart ideas throughout.

CLAAS offers a range of factory-installed pre-fittings and equipment specially designed for ARION 600 / 500 tractors to make the tractor as versatile as possible.

With suitable pre-fittings, a front loader or front linkage can be retrofitted at any time. As an option, a robust half frame can be fitted along the engine between the front axle carrier and transmission. This frame absorbs forces as they arise and, at the same time, can be used as a coupling point for the front loader brackets. These are simply bolted to the half frame and can therefore be retrofitted at any time. If the ARION comes with a factory-fitted front linkage or a front loader, the half frame is included in the scope of delivery. Naturally, access to all maintenance points is guaranteed whatever equipment is fitted.



## CLAAS tractor concept:

A long wheelbase combined with optimum weight distribution (50% front / 50% rear) and a compact overall length guarantee superb flexibility and performance.

Long wheelbase and excellent weight distribution:

- High driving comfort
- Good and safe road handling
- High tractive power and performance due to low ballast requirement

- Higher lifting capacity thanks to improved stability
- Optimises fuel consumption
- Lower ballast requirement protects the soil and guarantees dynamic road transport

Short overall length:

- Good manoeuvrability
- Short trailer combination on the road
- Good visibility
- Good guidance of front-mounted implements



REVERSHIFT clutchless reverser with electronic parking brake available.



Air brakes with air drier.



Wheel spacers to adjust the track and quick-release axle available as an option.



### Fully balanced.

With so many front and rear axle ballast options, the ARION can easily be adapted to every application. Its full performance potential can then be exploited without unnecessary losses. If you need to carry out heavy work at low speeds, the ballasting on the ARION can easily be increased. Weight that is no longer required can be removed just as easily.

| Wheel weight per wheel, rear axle |        |         |        |
|-----------------------------------|--------|---------|--------|
| 38" rim                           |        | 42" rim |        |
| 259 kg                            | 337 kg | 220 kg  | 409 kg |

### Front ballasting for every situation.

The factory-fitted fixed 110 kg weight carrier can be fitted with 28 kg, 35 kg or 50 kg weight plates. A 600 kg block weight can also be mounted on the 110 kg weight carrier.

The following factory-fitted combinations are available for flexible ballasting using the front hydraulics:

- 600 kg
- 900 kg
- 1,200 kg (600 + 600)
- 1,500 kg (900 + 600)

### Safe braking.

Due to their design, all ARION models in the 40 and 50 km/h version have the same permissible gross weight. This is up to 12.5 t in the ARION 600.

In the 50 km/h version the front axles have suspension and disc brakes as standard. Both these features are available as options in the 40 km/h version. The braking system on the front and rear axle provides maximum safety and stability on braking. During braking, the front axle suspension automatically adjusts to the change in load. The tractor therefore retains its normal stability and safety even during sharp braking manoeuvres.

### Any size up to 710 mm.

The ARION can be supplied with a wide variety of tyres. All models can be fitted with MICHELIN XeoBib tyres. Nokian industrial tyres are available for municipal work. The ARION 660-630 models can also be fitted with tyres up to 42" / 1.95 m in diameter to increase the contact area and traction.

# Powerful and economical at the push of a button.

## Four speed ranges:

- 540 rpm and 1,000 rpm as standard
- 540/540 ECO and 1000/1000 ECO optional
- Ground speed PTO available for both PTO options

The PTO speed is easily pre-selected at the touch of a button. Another button on the armrest activates the PTO.

Automatic PTO engagement/disengagement can be adjusted continuously based on rear linkage height. Simply move the rear linkage to the position required and press and hold the automatic PTO button. The required engagement/disengagement position is now saved.

Implement attachment is very straightforward as the PTO stub rotates freely.

## Standing start.

The ARION transfers its full power to the PTO from a standing start and at low forward speeds.

## Rotational speeds:

- 1000 ECO at 1,570 rpm
- 540 ECO at 1,530 rpm

In ECO mode the engine runs at a low speed, reducing noise levels and saving valuable fuel.



## PTO with the right engine speed.

A press of a button on the rear mudguard is all it takes to switch on the rear PTO and then activate the engine speed memory. Just set the right engine speed for the attached implements in CEBIS in advance. This is recommended for all operations when you routinely use the external PTO switch. It saves time and makes your job easier and safer.



External controls for rear PTO.



The PTO stub can be changed easily.

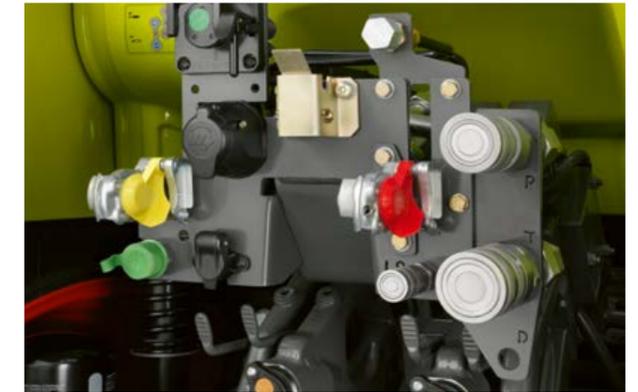
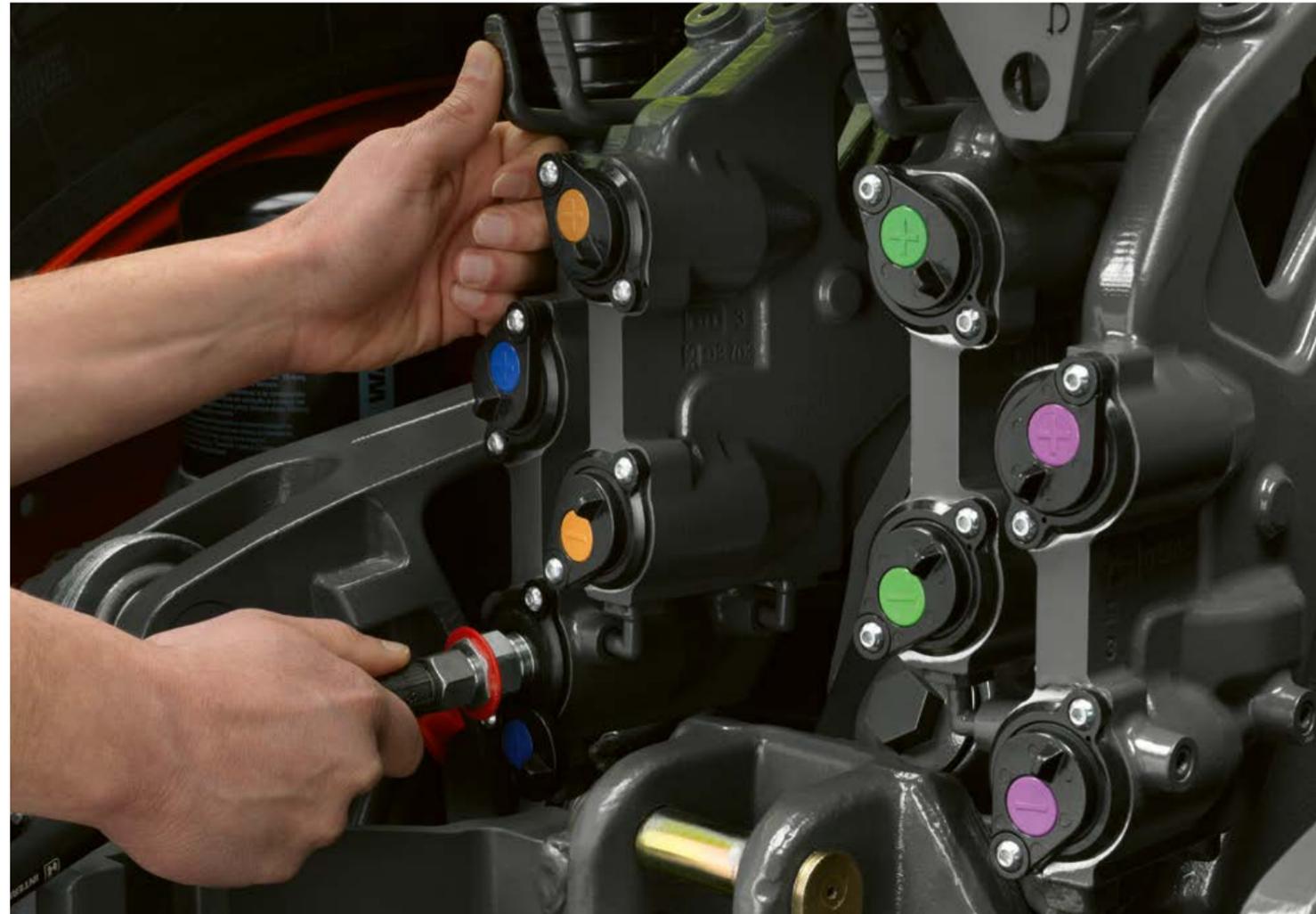
# Powerful hydraulics. Simple connections.



The front linkage has connections for one spool valve and one free-flow return line.

## Pressure-free connections and no mess.

All eight hydraulic couplings at the rear of the ARION have release levers, so they can be connected and disconnected even under pressure. The colour-coding on the inlet and outlet sides make it easier to attach implements correctly. Oil leakage lines collect the oil from the couplings when attaching and removing connectors.



## Hydraulic power throughout.

Power Beyond connections are provided at the rear for implements which have their own control units.

### The benefits of this are:

- Hydraulic oil is supplied to the attached implement as required
- Large-diameter pipes, flat-seal hydraulic couplings and non-pressurised return flow reduce power losses

## Hydraulics that get the job done.

- Load-sensing hydraulic system for all ARION 600 / 500 models with 110 or 150 l/min output
- In the CIS version: four mechanical spool valves on the right side console and ELECTROPILOT built into the armrest to operate two electronic spool valves
- In the CEBIS or CIS+ version: up to six electronic spool valves can be operated from the armrest – up to four of these with the ELECTROPILOT. Spool valve operation can be assigned to the F buttons on the CMOTION, multifunction armrest or ELECTROPILOT to make combined operating processes easier.

- Additionally in the CEBIS version: thanks to free assignment and prioritisation of the spool valves, every driver can configure CEBIS to suit their personal preferences and the task in hand. The frequently-used hydraulic functions are positioned side by side for smooth operation.

| Equipment  | CIS | CIS+ | CEBIS |
|--|-----|------|-------|
| Max. number of mechanical spool valves, rear   | 4   | –    | –     |
| Max. number of electronic spool valves, rear   | –   | 4    | 4     |
| Max. number of electronic spool valves, centre, e.g. for front loader or front linkage; operated from ELECTROPILOT | 2   | 2    | 2     |
| Spool valve prioritisation   | –   | –    | □     |
| Free spool valve assignment  | –   | –    | □     |

□ available – not available

The rear linkage handles even the heaviest of implements.



### The rear linkage.

With a maximum lifting capacity of 7.5 and 8.0 t, ARION 600 / 500 tractors can carry the heaviest of implements. The rear linkage configuration can be tailored to individual requirements:

- Manual or automatic lower link stabilisers
- Wheel slip control
- Hydraulic top link
- Robust and simple top link holder
- Practical ball holder at the rear
- External controls on both mudguards for the rear linkage, PTO and electronic spool valve (depends on installed equipment)
- Wide range of hitching options such as drawbar with hitch ball, automatic clevis, pickup hitch, CUNA

### Direct adjustment.

The main rear linkage functions are directly accessed via push buttons and dials on the right-hand B-pillar:

- Raise and lower
- Vibration damping on / off
- Lock rear linkage
- Activate slip control
- Lifting height limiter
- Lowering speed
- Draught and position control
- Adjustment of wheel slip control

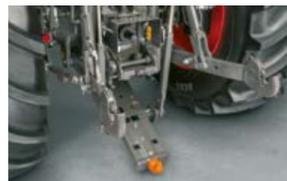
The convex rear window and swivelling seat provide an excellent view of the implement and unimpeded operation of the rear linkage controls. The conveniently located controls enable the driver to optimise the rear linkage settings while work is in progress.



External controls for the rear linkage, PTO and one freely selectable spool valve (CEBIS only).



Ball holder at rear.



Pick-up hitch.

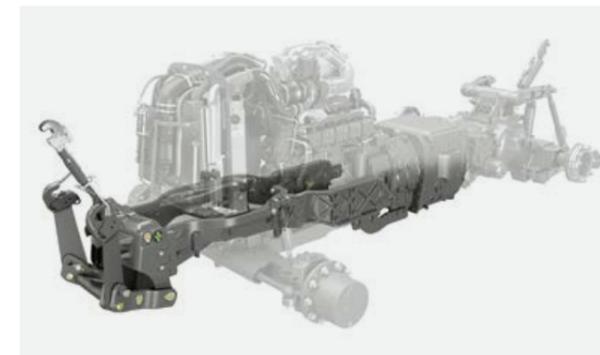


Automatic lower link stabilisers.

More versatility.  
More applications.



External controls for the front linkage and one spool valve (depends on installed equipment).



### Front linkage.

All ARION models can be supplied with two different front linkages:

- 3.0 t max. lifting capacity
- 4.0 t max. lifting capacity

The modular construction makes retrofitting straightforward. The half frame along the engine is included in the scope of delivery. The rear axle support is a standard component of every ARION, even if it has no front linkage or front loader.

### Front linkage and front PTO.

All ARION models feature a front linkage and front PTO:

- Three positions for the front lower links: folded up, fixed working position and float position in slotted hole
- Double-acting lift rams as standard
- Short distance between front axle and mounting points for improved guidance of front attachments
- 1,000 rpm PTO
- External control of the front linkage and double-acting spool valve in the CEBIS version if fitted.



### Precise work.

The optional front linkage position control system for the CEBIS versions enables front-mounted implements to work extremely accurately. The working position is adjusted via a rotary knob on the armrest, while the lifting height can be limited and the lifting and lowering speed can be set using CEBIS. The front linkage can be used in single- or double-acting mode.



### Always connected.

Optional hydraulic and electronic interfaces for many applications are incorporated into the front linkage:

- Double-acting spool valve
- Free-flow return line
- 7-pin socket
- 12-V / 25-A socket or ISOBUS socket

# A perfect fit. CLAAS front loaders.



## Strong plus points.

- Front loader brackets can be factory-fitted
- Large FOPS (Falling Object Protective Structure) transparent sunroof
- Choice of three convenient control options: Factory-fitted ELECTROPILOT, PROPILOT and FLEXPILLOT as retrofit options
- REVERSHIFT reversing function on the ELECTROPILOT four-way control lever
- Option of PCH hydraulic self-levelling linkage on FL front loaders or PCM mechanical self-levelling linkage on FL C models
- FITLOCK system for quick and convenient fitting / removal
- MACH quick-attachment coupler for electric and hydraulic circuits
- FASTLOCK hydraulic locking for implements
- SPEEDLINK for automatic locking and connection of all hydraulic and electric connectors on the implement
- SHOCK ELIMINATOR vibration damping system
- And not forgetting the full CLAAS service

## No compromises. Even in front loader work.

For front loaders in particular, the connection to the tractor is extremely important in order to guarantee safe, fast loading operations. When developing the ARION 600 / 500 series, it was therefore very important for the attachment brackets to be fully integrated into the complete tractor concept. The brackets are positioned a long way back, providing stability during heavy work. The design of the attachment bracket allows a CLAAS front loader to be retrofitted easily at a later date.



With a choice of over 18 front loader models in three series, you'll be ideally equipped whatever the job.

[frontloader.claas.com](http://frontloader.claas.com)

| ARION            | FL 150 | FL 140 /<br>FL 140 C | FL 120 /<br>FL 120 C | FL 100 /<br>FL 100 C |
|------------------|--------|----------------------|----------------------|----------------------|
| 660              | □      | □                    | □                    | -                    |
| 650              | □      | □                    | □                    | -                    |
| 630              | □      | □                    | □                    | -                    |
| 610              | □      | □                    | □                    | -                    |
| 550              | -      | □                    | □                    | -                    |
| 530              | -      | □                    | □                    | -                    |
| 510              | -      | □                    | □                    | □                    |
| Lifting height m | 4.60   | 4.50                 | 4.15                 | 4.00                 |

□ available - not available

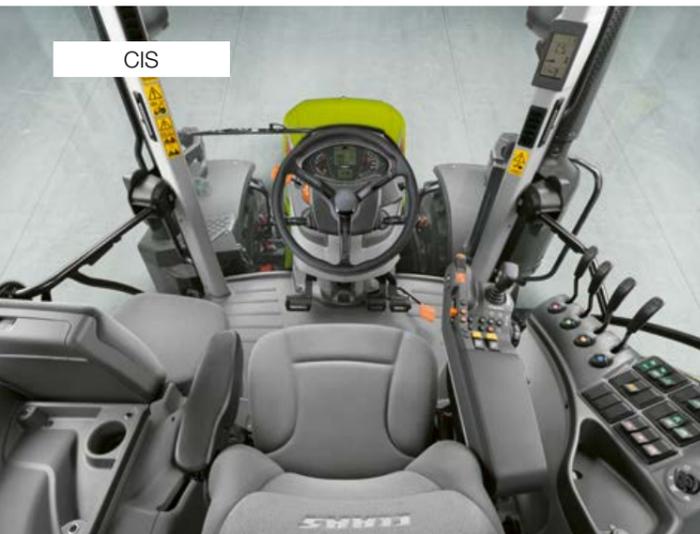
Greater comfort  
means higher productivity.

Spacious and quiet, with large windows and full suspension. The cabs on ARION 600 / 500 tractors guarantee maximum comfort throughout long working days and are available in two versions with a 5- or 4-pillar design.

- CEBIS version with touchscreen display and the innovative CMOTION multifunction control lever
- CIS+ version with colour display, multifunction armrest and DRIVESTICK
- CIS version with mechanical spool valves, multifunction armrest and DRIVESTICK



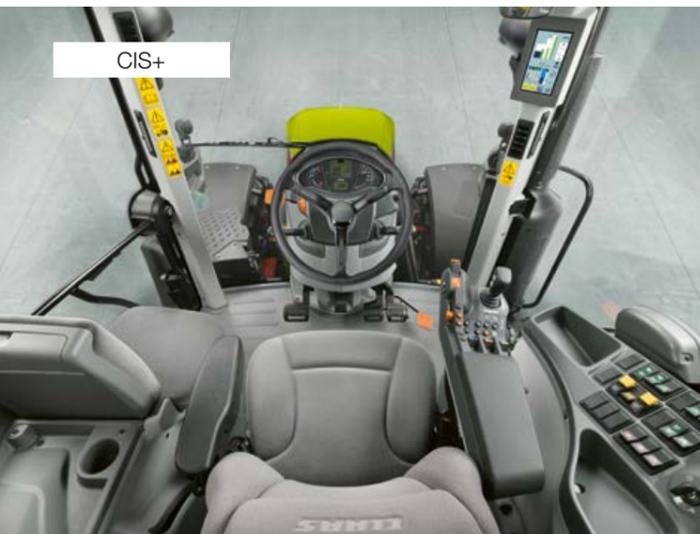
# A clear view. The cab.



CIS

## CIS. Simply good.

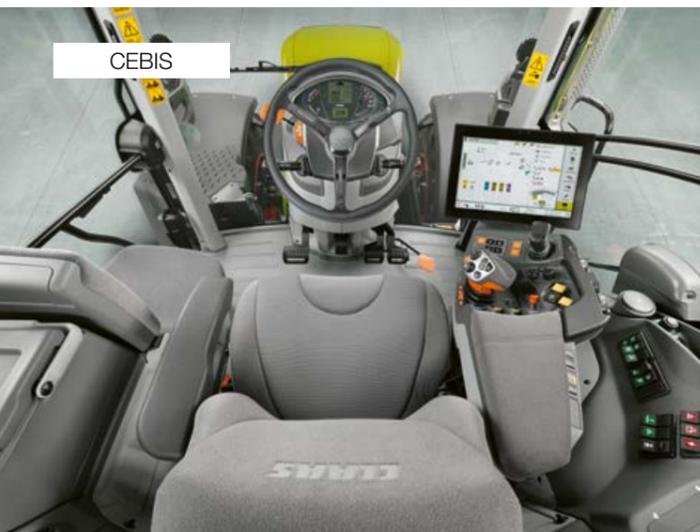
In the basic version, the ARION has mechanical spool valves and the CLAAS INFORMATION SYSTEM (CIS). The CIS display features a compact design and outstanding control ergonomics: all settings are easily activated using a rotary/push switch and the ESC button. Two electronic spool valves for the front loader are also available as an option in the CIS version and are operated via the ELECTROPILOT on the armrest.



CIS+

## CIS+. Simply more.

CIS+ affords impressive ease of use and an intuitive design. Despite its pleasing simplicity, it has all the necessary functionality and the automatic functions needed for effective, effortless operation. CIS+ is also available with a continuously variable CMATIC or HEXASHIFT powershift transmission. The 7" CIS colour display built into the A-pillar combines display and setting options for the transmission, electronic spool valves, F buttons and CSM headland management.



CEBIS

## CEBIS. Simply everything.

With the HEXASHIFT or CMATIC transmission, the CEBIS version features electronic spool valves and the superb CEBIS terminal with a 12" touchscreen display. As well as enhanced automatic functions such as CSM headland management, camera image, ISOBUS implement control, CEMOS for tractors and spool valve prioritisation, it also offers many other functions – CEBIS meets your every need. All settings can be entered in seconds thanks to touchscreen operation and logical menu navigation.

## Outstanding visibility and accessibility.

Tractors in this performance class are used for all sorts of work. Constant climbing in and out of the cab while working in the yard and implements with a large working width are part of everyday life, so the cab must be designed accordingly. CLAAS has developed a cab which is available in a 5- or 4-pillar version to meet these needs.

### Benefits:

- Large-volume cab creates an extremely spacious working environment
- Clear view of the full working width
- Continuous windscreen
- 5-pillar cab: wide access, the open door protrudes a short distance only
- 4-pillar cab: continuous visibility on the left-hand side of the cab



The cleverly positioned rear cab pillars and convex rear window give the driver an excellent view of the implement and hitch area.

| ARION features   | CIS | CIS+ | CEBIS |
|--|-----|------|-------|
| CIS display in the A-pillar, DRIVESTICK and multifunction armrest                              | ●   | –    | –     |
| CIS colour display in the A-pillar, DRIVESTICK and multifunction armrest                       | □   | ●    | –     |
| CEBIS terminal with touchscreen, CMOTION multifunction control lever and multifunction armrest | –   | –    | ●     |
| CMATIC transmission  | –   | □    | □     |
| HEXASHIFT transmission   | ●   | □    | □     |
| PTO shaft management   | ●   | ●    | ●     |
| Max. number of mechanical spool valves   | 4   | –    | –     |
| Max. number of electronic spool valves   | 2   | 6    | 6     |
| Max. number of electronic spool valves operated by ELECTROPILOT                                | 2   | 4    | 4     |
| CSM headland management  | –   | □    | –     |
| CSM headland management with edit function   | –   | –    | ●     |
| On-board computer functions  | □   | ●    | ●     |
| Implement management   | –   | –    | ●     |
| Job management   | –   | –    | ●     |
| Camera image   | –   | –    | □     |
| ISOBUS implement control   | –   | –    | ●     |
| CEMOS for tractors   | –   | –    | □     |
| TELEMATICS   | □   | □    | □     |
| ICT (Implement Controls Tractor)   | –   | □    | □     |

● standard □ optional □ available – not available

# CEBIS version. Simply everything.

An armrest that sets new standards.

All the main controls are integrated into the right-hand armrest:

- 1 CMOTION multifunction control lever
- 2 Control panel for drive mode, range changing and two engine speed memories with fine adjustment
- 3 CEBIS terminal with 12" touchscreen
- 4 ELECTROPILOT with two double-acting spool valves and two F buttons
- 5 CEBIS control panel
- 6 Working depth adjustment for front and rear linkage
- 7 Activate front and rear PTO
- 8 Hand throttle
- 9 Transmission in neutral, activate front linkage
- 10 Electronic spool valves
- 11 Four-wheel drive, differential lock, automatic PTO engagement/disengagement, front axle suspension
- 12 Main switch: battery, electronic spool valves, CSM, steering system

The height and position of the armrest can easily be adjusted to the driver's requirements.

Functions that are used less frequently, such as PTO speed preselection and the main switches, are located to the right of the driver's seat. When the driver's seat is rotated, the electronic linkage control system can be operated comfortably with an excellent view of the attached implement. Fine adjustment of the settings can then take place while work is in progress. Two additional buttons enable you to raise and lower the rear linkage manually for easier implement attachment.



Clear, logical layout.

In all versions, many functions can be controlled directly using the rotary switches and buttons on the B-pillar:

- A PTO speed selection
- B Rear linkage settings
- C Rear linkage status display
- D Controls for electronic rear linkage control system

# CMOTION multifunction control lever. Everything in hand.



## CMOTION multifunction control lever.

The CMOTION is a CLAAS concept which makes using the main functions of the ARION easier and more efficient. Functions are controlled using your thumb and forefingers, allowing your hand to stay in one place for the majority of time and preventing fatigue.



## Operating the HEXASHIFT or CMATIC.

All HEXASHIFT shifting operations are carried out using the CMOTION. A slight push activates the powershift speeds.

By pushing the CMOTION further forwards or backwards, it is possible to select ranges directly and skip powershift speeds. With the CMATIC, the forward speed can be adjusted precisely and continuously using the CMOTION.



Progressive operation with CMATIC continuously variable transmission technology.



Shifting operation Powershift speeds + / -      Shifting operation Range + / -

## At the push of a button.

The free assignment option for the ten function buttons on the CMOTION means that there is no longer any need to reposition your hands while you work. All implement-specific ISOBUS functions are easily controlled using the CMOTION:

- ISOBUS functions
- Event counter on/off
- Spool valves

Rear linkage functions on the CMOTION:

- Lower to preset working position
- Raise to the preset lift height position
- Manual activation: lift and lower at two speeds (slow/fast)
- Quick implement entry

- 1 Start up/change direction
- 2 Rear linkage
- 3 GPS PILOT activation
- 4 CSM headland management
- 5 Function buttons F7 / F8 / F9 / F10
- 6 Activate cruise control
- 7 Function buttons F1 / F2
- 8 Function buttons F5 / F6

# CEBIS terminal. Everything under control.

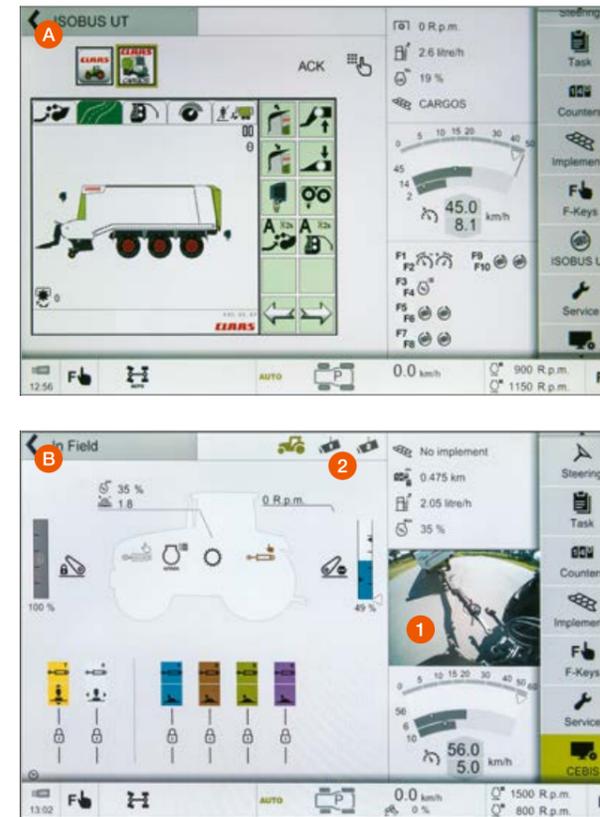


## Clear layout and fast operation.

The 12" CEBIS screen uses self-explanatory symbols and colour coding to give a clear picture of the settings and operating statuses. Thanks to the CEBIS menu structure and touchscreen, all settings can be entered in just a few steps. A particularly attractive feature is the DIRECT ACCESS function with the machine silhouette. Just tap the relevant area to get straight to the right dialogue window.

## An eye-catching 12" screen.

- 1 Machine silhouette for DIRECT ACCESS and status display
- 2 Spool valve status
- 3 Vehicle information
- 4 Top sub-field: performance monitor
- 5 Middle sub-field: function button assignment
- 6 Bottom sub-field: transmission information
- 7 Menu
- 8 DIRECT ACCESS via CEBIS touch button or button on the armrest
- 9 Dialogue-based system for optimum settings



## CEBIS – simply better:

- Fast and intuitive navigation using the CEBIS touchscreen
- Rapid access to the sub-menus with the DIRECT ACCESS touch button on the CEBIS or button on the armrest
- Tap the machine silhouette, main field or sub-field
- Navigate using the rotary/push switch and ESC button on the armrest – ideal when driving on rough terrain
- Two different screen layouts available (road travel and field work)
- ISOBUS function
- Specify the user type: limit the scope of CEBIS settings to suit driver experience
- Freely assign the three sub-fields, e.g. for transmission, front and rear linkage, function buttons, headland sequences, camera or performance monitor

As well as screen-based operation with the CEBIS, there is a set of buttons in the armrest. Full CEBIS operation is available using the rotary/push switch and ESC button if uneven ground reduces the accuracy of fingertip operation. The DIRECT ACCESS button takes you straight to the settings for the last used tractor function.

## NEW: integrated ISOBUS implement control (A).

- In CEBIS intuitively switch between ISOBUS implements, road travel and field work screen layouts
- Clear view of ISOBUS implements in main field
- Simply connect ISOBUS cable at the front or rear and off you go
- Assign up to ten ISOBUS functions to CMOTION function buttons for direct operation

## New: camera image display function (B).

- 1 Display up to two camera images in the sub-field
- 2 Toggle between machine silhouette, Camera 1 and Camera 2 in the main field



- 1 Menu navigation
- 2 Select
- 3 ESC button
- 4 DIRECT ACCESS button



### Everything to hand.

The height and position of the armrest can easily be adjusted to the driver's requirements.



- 1 DRIVESTICK to operate the CMATIC or HEXASHIFT transmission
- 2 Controls for rear linkage and two F buttons, e.g. to activate CSM headland management
- 3 Hand throttle, two engine speed memories, GPS PILOT, four-wheel drive and differential lock
- 4 ELECTROPILOT four-way control lever with two F buttons and buttons to change direction
- 5 Control panel for transmission and hydraulic function activation
- 6 Electronic spool valves
- 7 Set working depth of rear linkage
- 8 Activate front and rear PTO plus automatic engagement/disengagement of rear PTO
- 9 Activate front axle suspension



### The perfectly ergonomic armrest.

The multifunction armrest has been designed for optimum ergonomics and is the key to relaxed and effective working. It's the result of extensive analyses of the operating processes in the cab: frequently required functions are located on the multifunction armrest, while those required less frequently are located on the right-hand side console.

### An instinct for excellence – CMATIC operation.

The unique DRIVESTICK with handrest on the side handles intuitively and gives full control of the HEXASHIFT or CMATIC transmission.

Unlike conventional drive levers, the DRIVESTICK comes with proportional control of a CMATIC transmission. This means that the further it is pushed or pulled when in drive lever mode, the faster the transmission accelerates or brakes the tractor.

This functionality is not needed so often in accelerator pedal mode as the driver controls the speed with the foot pedal. However, it is still very useful, for example to manually increase or reduce the engine braking effect.

When the DRIVESTICK is used in conjunction with the CMATIC transmission, it also has a cruise control button. Just press the button briefly to activate cruise control, or press and hold to save the current speed. If cruise control is active, the speed can be changed simply by moving the DRIVESTICK forwards or backwards.

CIS+. Simply more.

### CEBIS does it, so does CIS+.

- Set or activate individual flow and time control for individual spool valves
- Continuously variable PTO engagement/disengagement settings based on rear linkage height
- Record and run four CSM headland management sequences
- ISOBUS implements can be operated using the F buttons on the tractor
- Implement controls tractor (ICT): with QUADRANT square balers or CARGOS loader wagons



The PTO speed and electronic rear linkage control system can be adjusted on the B-pillar.



Everything to hand.

The height and position of the armrest can easily be adjusted to the driver's requirements. All frequently used functions are located on the armrest.

- 1 DRIVESTICK to operate the HEXASHIFT transmission
- 2 Controls for rear linkage and two F buttons
- 3 GPS PILOT and two engine speed memories
- 4 Hand throttle
- 5 Fine tuning of engine speed memory
- 6 Control panel for transmission, HEXACTIV auto-shift function
- 7 ELECTROPILOT
- 8 Set working depth of rear linkage
- 9 Activate front and rear PTO
- 10 Mechanical spool valves



An instinct for excellence – HEXASHIFT operation.

The unique DRIVESTICK handles intuitively and gives full control of the HEXASHIFT transmission. Complex and cumbersome shifting operations are a thing of the past. All you need is nimble fingers to shift as you please.

The perfectly ergonomic armrest.

The multifunction armrest has been designed for optimum ergonomics and is the key to relaxed and effective working. It's the result of extensive analyses of the operating processes in the cab: frequently required functions are located on the multifunction armrest, while those required less frequently are located on the right-hand side console.



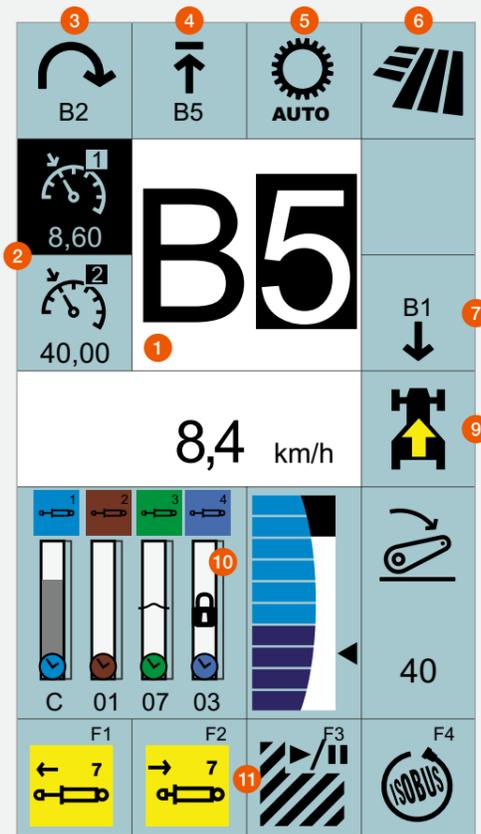
A question of settings.

Each spool valve has its own rotary switch. The function options for each spool valve are selected using the rotary switch allocated to it:

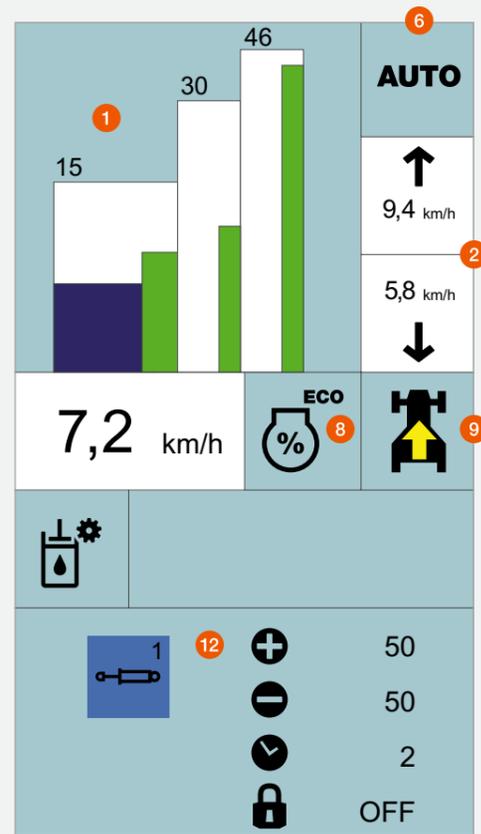
- Rotary switch in position III: Pressure – / Neutral / Pressure + / Float position
- Rotary switch in position III: Pressure – / Neutral / Pressure +
- Rotary switch in lock position: Spool valve locked in pressure position for permanent operation or in neutral position



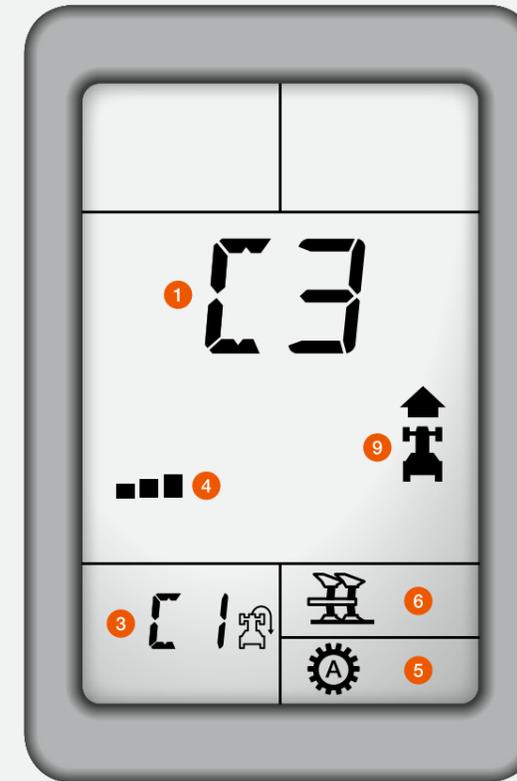
The PTO speed and electronic rear linkage control system can be adjusted on the B-pillar.



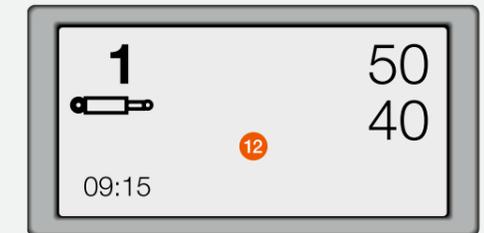
CIS colour display on the A-pillar with HEXASHIFT transmission.



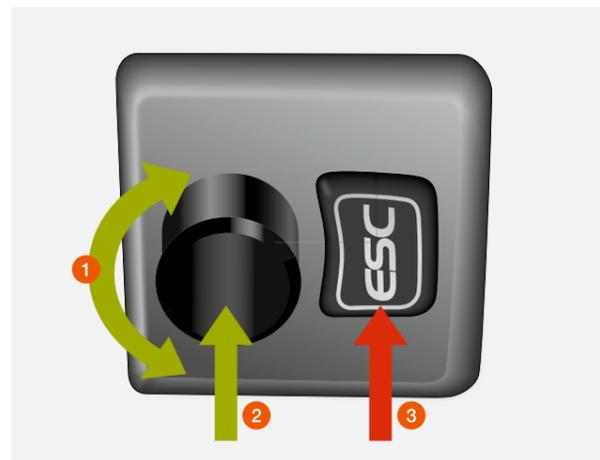
CIS colour display with CMATIC transmission and settings menu.



CIS display on the instrument panel and HEXASHIFT transmission display on the A-pillar.



- 1 Current gear / CMATIC range
- 2 Cruise control and engine speed memory values
- 3 Selected headland gear
- 4 HEXACTIV auto-shift limiter
- 5 HEXACTIV mode
- 6 Current driving mode
- 7 Reverse gear
- 8 Selected engine droop
- 9 Direction of travel or transmission in neutral
- 10 Status of rear linkage and spool valves
- 11 Function button assignment
- 12 Settings menu



- 1 Navigation in the menu
- 2 Select
- 3 ESC button

### The CLAAS INFORMATION SYSTEM (CIS).

In the CIS version, the display is built into the instrument panel. The additional HEXASHIFT display on the A-pillar shows all the information relating to the transmission at a glance.

#### CIS+:

The modern design of the 7" colour CIS display on the A-pillar provides the driver with full information about the transmission, electronic spool valves and F buttons. This colour CIS display shows the settings in the lower part of the screen. The logical, menu-guided interface and clear symbols make navigation very simple.

In both versions, all settings are easily activated using a rotary/push switch and the ESC button on the steering wheel.

The following functions can be set using the CIS:

- CMATIC or HEXASHIFT transmission settings
- Additional functions e.g. SMART STOP or dynamic steering
- Progressivity of the REVERSHIFT clutchless reverser
- Time and volume settings for the electronic spool valves
- On-board computer functions such as area worked, fuel consumption, area output
- Maintenance interval display

# Ergonomics and comfort for optimum working conditions.



## First-class comfort.

The ARION has several practical features which make it the ideal choice for long working days. A large number of storage options means that the driver can always find space for a mobile phone or documents. Under the passenger seat there is a cooler compartment which has room for two 1.5 litre bottles and snacks. Perfect for your lunch break.

## LED headlights for perfect illumination.

If you're still working when it goes dark, the work lights will light up the whole of the area around the machine, so you can see exactly what you're doing. For even more demanding situations, up to 14 LED work lights and four LED road lights can illuminate the entire surroundings of the ARION almost as brightly as daylight.

## A pleasant working environment.

All ARION models are fitted as standard with air conditioning and, optionally, with a category 3 filter. All components are built into the double-insulated cab floor to ensure quiet operation.



As well as the manually controlled air-conditioning system, a fully automated version is available which provides a pleasant flow of air through the cab.



## Clear and logical layout.

The instrumental panel is mounted on a fully adjustable steering column. It pivots with the column to give an unimpeded view of the controls at all times.



## Illuminated interior.

When the road lights are switched on, all the controls and the symbols on all the switches are illuminated. You have the option to select a darker colour scheme in CEBIS.



## Leather on request.

The driver and passenger seat are available with modern, non-slip fabric or elegant, easy-care leather upholstery.



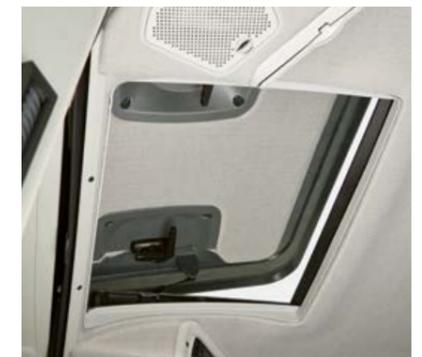
## Sockets in easy reach.

All the sockets for the power supply as well as ISOBUS sockets for additional terminals are located under the right console.



## NEW: Bluetooth connection.

The built-in Bluetooth handsfree device with external microphone allows you to make clear calls from the comfort of your cab.



## NEW: more fresh air.

Choose between a front-opening transparent sunroof or a rear-opening roof hatch.



## Wide-angle for better visibility.

As well as the large standard mirror, a wide-angle mirror for improved road safety is supplied as standard.



## NEW: non-slip leather steering wheel.

The robust leather steering wheel provides a secure grip and an uninterrupted view of the instrument panel whatever position it's in.



## NEW: tinted rear window.

Tinted rear window (optional) help maintain a comfortable cab environment and reduces glare when you're working in the low evening sun.

# Suspension that protects both operator and machine.



## Full four-way suspension.

Four suspension points mean that the cab is fully isolated from the chassis, preventing impacts and vibration from reaching the driver. Longitudinal and lateral struts join the suspension points and keep the cab stable when turning corners or braking. An adjustable torsion strut makes it possible to choose between three different suspension hardnesses. The entire suspension system is completely maintenance-free.



## Ventilated and warm: the premium seat.

Five Sears and Grammer seats are available, including a ventilated premium seat.

- Active seat ventilation makes the seat feel good whatever the weather
- Suspension automatically adjusts to the driver's weight



## PROACTIV front axle suspension.

The CLAAS suspension kinematics in ARION 600 / 500 tractors produce outstanding drive characteristics. Widely spaced suspension cylinders and active roll stabilisation on bends guarantee vehicle stability and safety, while the double-acting suspension with load change compensation and 100 mm suspension travel deliver outstanding ride comfort.



## Vibration damping.

Heavy implements mounted on the front put a strain on the tractor as well as the driver. The front and rear linkage are both equipped with vibration damping to compensate for peak loads during transport operations and when the attached implement is raised at the headland.



Switch to activate front axle suspension.

## Operator assistance systems.

There is no substitute for your experience. It's what allows you to respond quickly and appropriately to the challenges you face in your daily work. When you're dealing with difficult terrain or changing soil conditions, you have to make decisions very quickly to get the job done to the right standard. That's why it's good to be able to count on a tractor with CEMOS to reduce your workload.

## Data management.

Data have long since become an indispensable resource. To profit from their full potential, you should take good care of them, just as you would your machinery fleet. All systems, machines and work processes have to be meaningfully connected, and data generated must be sent to many different places for analysis.



# CEMOS for tractors. Makes good operators even better.



CEMOS for tractors was awarded a silver medal at Agritechnica 2017.



## Phase 1. Preparation in the farmyard.

CEMOS recommends the required ballasting and optimum tyre pressure to suit the selected implement and task before the driver has left the farmyard. The dynamic learning system gathers more measurements while work is under way, and adapts its recommendations accordingly next time around.



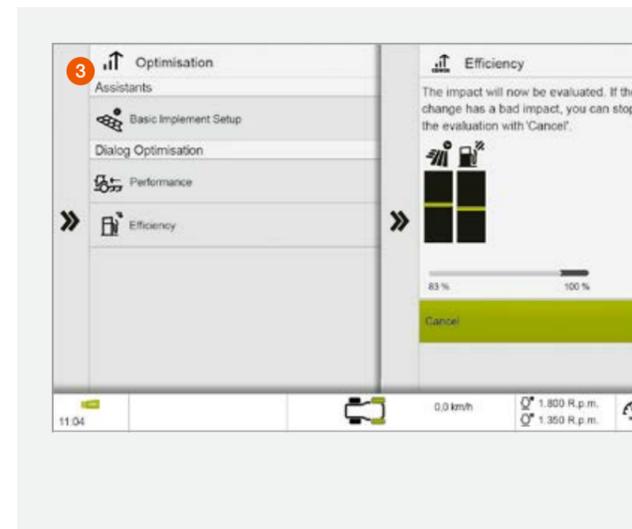
## Phase 2. Basic setting in the field.

The integrated CEMOS knowledge database provides step-by-step instructions on basic settings for implements, with illustrations. Assist systems are now available for all ploughs. Further implements will follow in the near future. These provide valuable assistance for drivers working with new or unfamiliar implements.



## CEMOS teaches itself and trains the user.

The CEMOS self-learning operator assistance system is the only one of its kind on the market to optimise the performance of both the tractor and attached implements such as ploughs and cultivators. This enables the driver to set the correct ballast and tyre pressure for the tractor/implement combination and the task. CEMOS uses a dialogue-based interface to make recommendations for all the important settings, e.g. for engine, transmission and implement. This helps to ensure optimum traction and soil protection at all times. With CEMOS you can increase your work rate, improve the quality of your work and reduce your fuel consumption by 12%.



## Phase 3. Optimisation while work is under way.

The driver opens the optimisation dialogue in the field. CEMOS checks all the basic settings, and offers suggestions for improving "performance" and "efficiency", which the driver can accept or reject. After each change of setting, CEMOS recalculates and shows whether the work rate and diesel consumption have improved, and by how much.

# Precision at the headland with CSM.



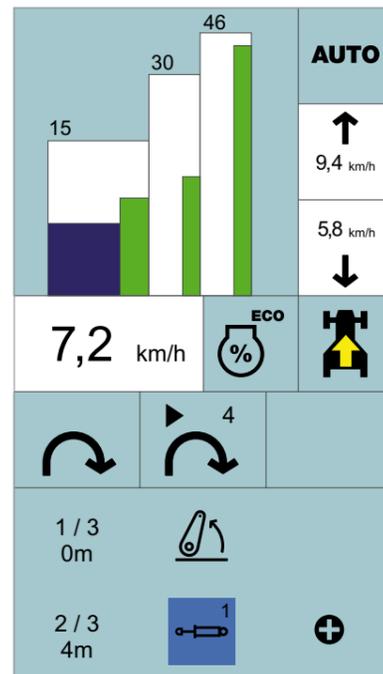
## CLAAS SEQUENCE MANAGEMENT.

CSM headland management takes the load off you whenever you need to manoeuvre at the headland. By pressing a button, you can run any of the previously recorded functions.

|                              | With CIS+      | With CEBIS                                    |
|------------------------------|----------------|---|
| Number of storable sequences | Four           | Four per implement, up to 20 implements       |
| Sequence activation          | F buttons      | CMOTION and F buttons                         |
| Sequence display             | On CIS display | On CEBIS display                              |
| Recording mode               | Time-related   | Time- or distance-related                     |
| Edit function                | –              | Subsequent sequence optimisation in the CEBIS |

The following functions can be combined in any order:

- Spool valves with time and flow control
- Four-wheel drive, differential lock and front axle suspension
- Front and rear linkage
- Cruise control
- Front and rear PTO
- Engine speed memory

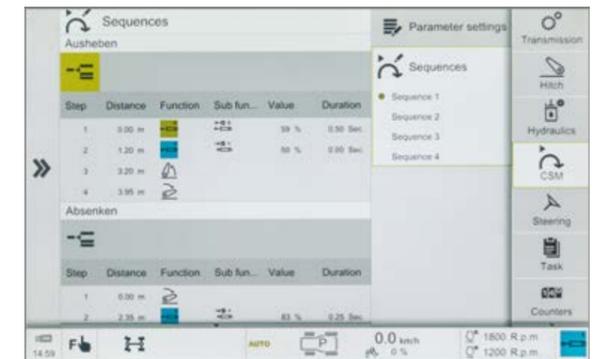


The sequence flow is shown in the lower area of the CIS colour display.



Easy to record and run.

Sequences can be recorded on a distance- or time-related basis. During recording, clear symbols allow the driver to follow the creation of the sequence step-by-step on the CEBIS or CIS colour display. A sequence that is running can be paused and restarted by simply pressing a button.



Non-stop optimisation with CEBIS.

Recorded sequences can be changed and optimised in the CEBIS at a later date. Steps can be added and deleted or changed and adapted in minute detail, allowing times, distances and flow volumes to be tailored to current conditions. Once a sequence has been recorded, it can be refined down to the last detail in just a few steps.

# Even better control with ISOBUS and ICT.



## The way you want it.

With the CEBIS version of the ARION, you can use the integrated terminal to control ISOBUS-compatible implements. Alternatively, portable displays from CLAAS offer flexible control options for ISOBUS and steering systems for all cab versions. You can also transfer the terminal from a tractor or self-propelled harvester to another machine, depending on the season or job in hand. Fit your ARION with the equipment you need straight from the factory or as a retrofit option.

### S10 terminal:

- High-resolution 10.4" touchscreen terminal
- Steering and ISOBUS functions
- Up to four cameras can be displayed

### S7 terminal:

- High-resolution 7" touchscreen terminal
- Steering functions

## EASY on board app.

With the new EASY on board app, all ISOBUS-compatible implements can be controlled from a tablet<sup>1</sup>. For even greater convenience, various functions can be assigned to the F buttons as with any other ISOBUS terminal.

## ISOBUS implement control.

Sockets are provided at the front and rear to connect ISOBUS-compatible implements to the tractor. The ISOBUS-enabled terminal can be connected using another socket in the cab. The attached implement is operated by means of a machine-specific screen. ISOBUS compatibility means that implements from other manufacturers can also be operated using the S10 or CEBIS terminal.

## Function buttons.

ARION tractors have up to ten F buttons to which different functions can be assigned in the CEBIS or CIS colour display. The current assignment can be viewed at any time in the CEBIS or CIS display window. The buttons are assigned to the corresponding function using the S10 or other ISOBUS terminals, enabling each driver to customise tractor operation to suit individual requirements.



F button assignment in CEBIS.

## ARION 600 / 500 – AEF-compliant.

The Agricultural Industry Electronics Foundation (AEF) is a partnership between approximately 150 companies, associations and organisations. Its aim is to harmonise development standards in electronic systems for agriculture, such as ISOBUS components. These systems comply with the ISO 11783 standard, but more detailed AEF guidelines are also developed. The ARION 600 / 500 was developed according to these requirements and supports the ISOBUS functionality specifications ISO UT 1.0, TECU 1.0, AUX-O and AUX-N for ISOBUS implements.

## ICT (Implement Controls Tractor).

Thanks to ISOBUS, when the ARION is used in combination with the QUADRANT square baler or CARGOS loader wagon, two ARION CMATIC functions can be automatically controlled by the implement:

### ICT CRUISE CONTROL:

Optimises the performance and work quality of the implement by controlling the tractor's forward speed. The speed is continuously adjusted to suit the current conditions, enabling you to get the best out of your machine combination.

### ICT AUTO STOP:

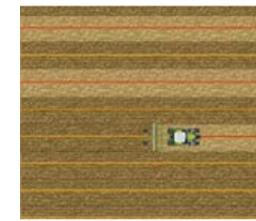
If an overload is detected in the implement, the ICT AUTO STOP function automatically switches off the PTO. This protects the entire drive train throughout long working days and reduces the driver's workload.



ICT CRUISE CONTROL and AUTO STOP were awarded a silver medal at Agritechnica 2013.

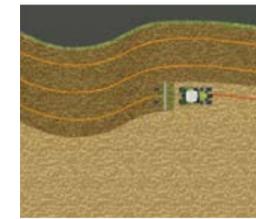
<sup>1</sup> Apple iPad devices from iOS 9. A specific list of devices is provided in the description of the EASY on board app in the Apple App Store. A CWI (CLAAS Wireless Interface) is needed to connect to the in-cab ISOBUS connection.

# Always on the right track. CLAAS steering systems.



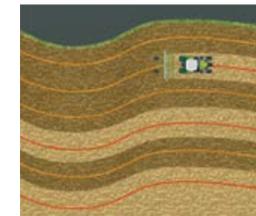
#### RTK NET (accuracy $\pm$ 2-3 cm)

- Correction signal via mobile phone network
- Unrestricted working radius



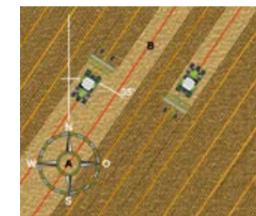
#### RTK FARM BASE LINK (accuracy $\pm$ 2-3 cm)

- Base station
- Station data transmitted via the mobile phone network (NTRIP)
- Operating radius 30 km



#### RTK FARM BASE (accuracy $\pm$ 2-3 cm)

- Base station with digital and analog radio can be used
- Range up to 15 km



#### RTK FIELD BASE (accuracy $\pm$ 2-3 cm)

- Mobile reference station
- Range 3-5 km

#### SATCOR

- Satellite-based correction signal from CLAAS
- Virtually worldwide coverage

#### SATCOR 15 (accuracy $\pm$ 15 cm)

- Improved basic accuracy
- Quick signal availability
- Good signal suitable for many applications from soil cultivation to harvesting

#### SATCOR 5 (accuracy $\pm$ 5 cm)

- Ideal in areas where RTK and mobile phone coverage is patchy
- Longer initialisation period than SATCOR 15 but more accurate

#### EGNOS / E-DIF (accuracy $\pm$ 30 cm)

- No licence fee
- Basic accuracy

## Improve the quality of your work.

CLAAS steering systems take the pressure off the driver. They show in advance which direction to take, or automatically steer the tractor along the best possible path. Mistakes and overlapping are eliminated. Studies have shown that a modern parallel guidance system can save up to 7% on diesel fuel, machine costs, fertiliser and crop protection products.

The GPS PILOT automatic steering system is controlled by the S10 and S7 touchscreen terminals (see pages 64 / 65) which feature a very simple and user-friendly menu-guided interface.

## Automatic steering at the headland.

The AUTO TURN function takes care of turning manoeuvres at the headland. The direction of the turn and the next track to be worked are pre-selected on the terminal. The steering system does the rest.

## Correction signal to meet individual needs.

The design of the CLAAS range enables you to extend your system easily at any time. This applies just as much to the terminal technology as to the use of today's essential correction signals.

CLAAS steering systems can be used with GPS and GLONASS satellite systems to enhance their flexibility and operational capabilities.



With AUTO TURN the tractor turns automatically at the headland.



Cutting your costs per hectare with more precision.  
[steeringsystems.claas.com](http://steeringsystems.claas.com)

# Keep track of all machines and jobs. All the time.

## Field management with CEBIS.

Up to 20 jobs can be set up and stored in CEBIS in order to produce documentation for the work done. First you enter the working width, then you can start area calculation and the fuel consumption display per hectare. To get the most accurate results, the speed can be measured by radar.



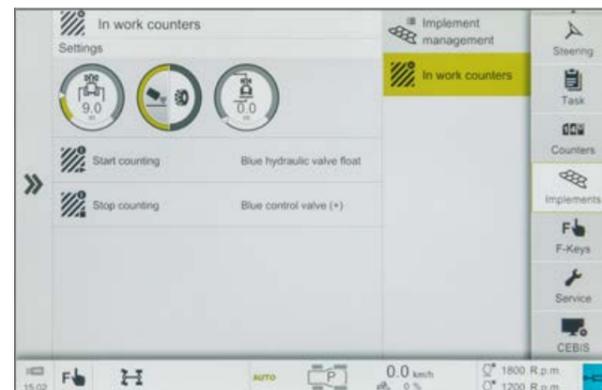
## Implement management with CEBIS.

With CEBIS, details of up to 20 implements can be recorded. All the preset values are permanently assigned to the specific implement.



- Settings for transmission and hydraulic spool valves
- Four CSM sequences
- Area calculation – mode and activation
- Working width of attached implement
- Transfer settings from one tractor to another via USB stick

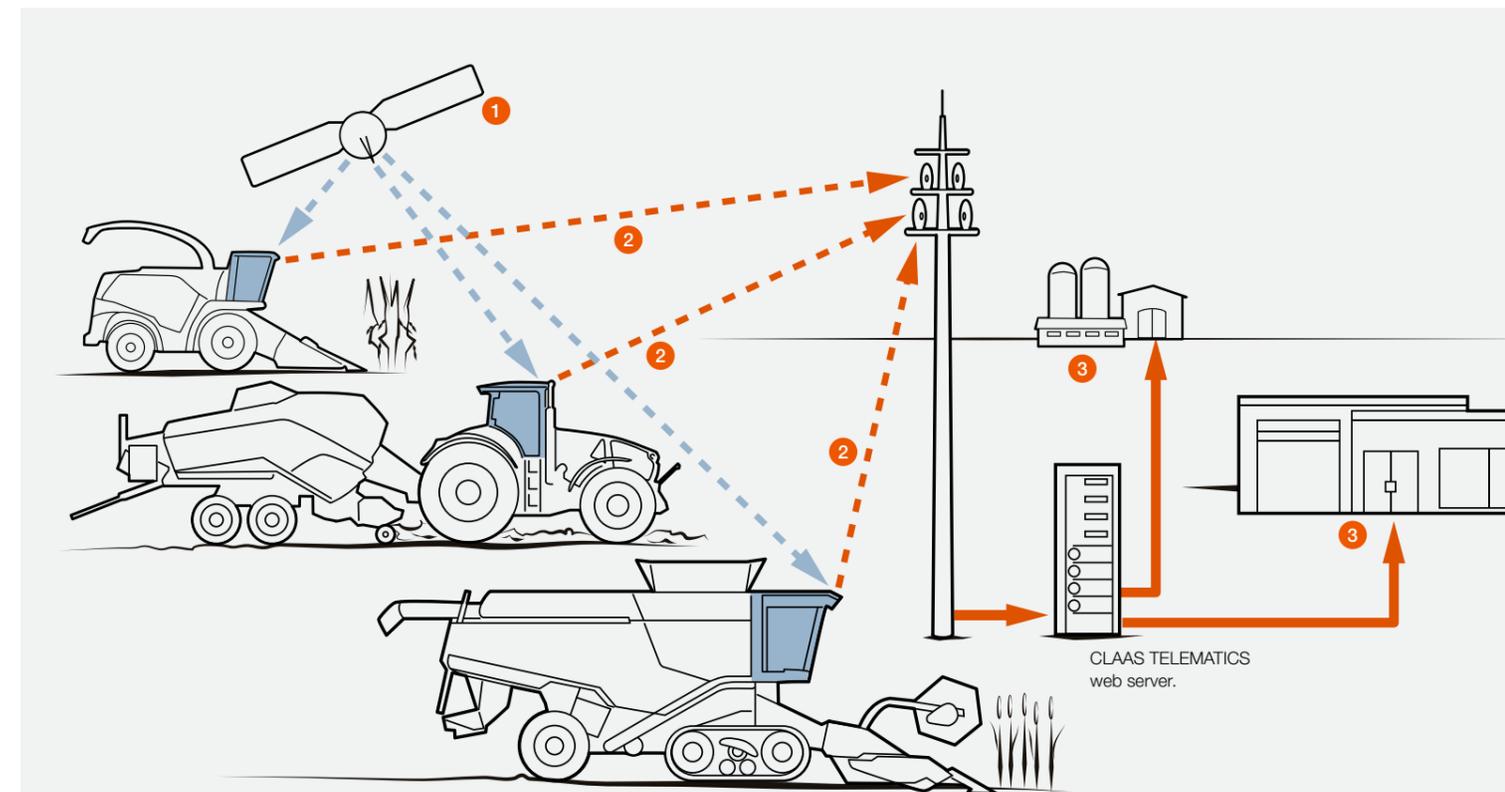
This saves on unnecessary adjustment tasks when changing implement or driver. Just attach the implement, load the implement in CEBIS and start work. Tablet-type operation makes creating new implements child's play.



## CLAAS TELEMATICS.

- Improve work processes: operating time analysis
- Optimise settings: remote monitoring
- Simplify documentation: data collection
- Faster servicing: remote diagnostics.

TELEMATICS allows you to call up any information about your machine at any time from any location. The data collected are sent to the TELEMATICS web server at regular intervals via the mobile phone network. This enables you or an authorised service partner to access and evaluate the relevant information via the internet.



- 1 Machines receive signals transmitted by GPS satellites.
- 2 Machines send the GPS coordinates, machine-related performance data and reports to the TELEMATICS web server via the mobile phone network.
- 3 These data are directly accessible to farms or service partners via the internet.

## The functions.

### Operating time analysis

- Working time analysis
- Reduce downtime
- Review machine settings
- Optimise fuel consumption

### Remote monitoring

- Position displayed in Google Earth®
- Current activity

### Data collection

- Automatic data collection for documentation
- Secure storage on central server
- Standard interfaces for data export from TELEMATICS

### Remote diagnostics

- Maintenance planning
- Remote diagnostics with CDS



Connect your machines.  
Optimise your jobs.  
[Connected-machines.claas.com](http://Connected-machines.claas.com)

# Fast, straightforward maintenance.



## Fast maintenance.

Daily maintenance work should be as straightforward as possible – because we know from experience that nobody enjoys doing things that are complicated or inconvenient.

- The large, one-piece bonnet opens at the press of a button, providing access to all the engine maintenance points
- The oil can be checked and topped up on the left-hand side of the ARION when the bonnet is closed
- All daily maintenance tasks can be carried out without tools

Long oil-change intervals (engine 500 h, transmission and hydraulics 1,500 h) save a great deal of time and money. This means that less valuable working time is lost during the season and the tractor is where it should be – at work.

## Fresh air for full power.

The large intake panels in the bonnet provide plenty of fresh air for cooling and for the engine air filter. Low flow rates at the intake panels help them to stay clean and permeable at all times.

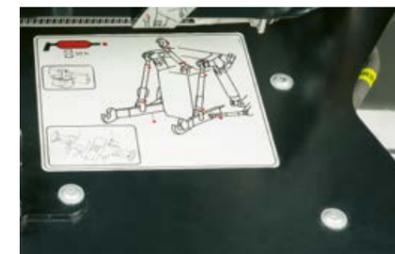
The radiator assemblies are supported by a robust frame and gas-filled shock absorbers open the radiator panels to two positions for thorough cleaning. Cleaning can therefore be carried out safely and conveniently as required.

The air filter is in an accessible location in the cool zone in front of the radiator panels so there are no obstacles to removing it. The generously sized air filter is designed for a long service life. Coarse dirt particles are removed in the filter housing, further extending the cleaning interval.



The battery and a tool storage compartment are handily located in the access steps on the right-hand side.

The oil can be checked and topped up when the bonnet is closed.



A lubrication chart under the bonnet simplifies maintenance.



Easy access to the cab air filter on the cab roof.



NEW: Compressed air connection on the left side of the access steps.

# Whatever it takes. CLAAS Service & Parts.



### Safeguard your machine's reliability.

Increase your operating reliability, minimise the repair and breakdown risk. MAXI CARE offers you predictable costs. Create your own individual service package to meet your particular requirements.



CLAAS Service & Parts  
is there for you 24/7.  
[service.claas.com](http://service.claas.com)



### Specially matched to your machine.

Precision-manufactured parts, high-quality consumables and useful accessories. Choose our comprehensive product range to be certain of receiving exactly the right solution to ensure 100% operating reliability for your machine.



### For your business: CLAAS FARM PARTS.

CLAAS FARM PARTS offers one of the most comprehensive ranges of multi-brand parts and accessories for all agricultural applications on your farm.



### Global supply.

The CLAAS Parts Logistics Center in Hamm, Germany, stocks almost 200,000 different parts and has a warehouse area of over 140,000 m<sup>2</sup>. This central spare parts warehouse delivers all ORIGINAL parts quickly and reliably all over the world. This means that your local CLAAS partner can supply the right solution for your harvest or your business within a very short time.



### Your local CLAAS distributor.

Wherever you are, you can count on us to always provide you with the service and the contact persons you need. Your CLAAS partners are on hand in your local area, ready to support you and your machine around the clock. With know-how, experience, commitment and the best technical equipment. Whatever it takes.

# Simply convincing. An impressive list of features.



## CPS.

- Half frame concept, designed for extreme loads and great flexibility
- Lively 4-cylinder engines from 125 to 165 hp
- Powerful 6-cylinder engines from 145 to 185 hp and even up to 205 hp with CPM
- Front loader fully integrated into the tractor for high stability and optimum handling
- Long wheelbase and balanced weight distribution
- Versatility on the move with 1.95 m diameter tyres (42" rim) from ARION 630
- Compact design with integral front linkage – fully road-compatible
- Fully powershifted HEXASHIFT transmission with HEXACTIV auto-shift function, cruise control and SMART STOP
- Continuously variable CMATIC transmission in all models with CEBIS or CIS+
- Up to four PTO speeds available (540/540 ECO / 1000/1000 ECO)

## Comfort and convenience.

- 5-pillar cab: wide access, the open door protrudes a short distance only
- 4-pillar cab: continuous visibility on the left-hand side of the cab
- Three equipment options available: CEBIS, CIS+ or CIS:
  - CMOTION multifunction control lever in the CEBIS version
  - Multifunction armrest with DRIVESTICK in the CIS+ and CIS version
- 4-point cab suspension
- Driver's seats with active suspension and ventilation
- PROACTIV front axle suspension with CLAAS suspension kinematics
- Front and rear linkage with vibration damping
- Optimum access to all maintenance points
- Integrated storage compartments and toolbox
- GPS PILOT with S10 and S7 touchscreen terminal
- CSM headland management
- CEMOS for tractors
- Implement management
- TELEMATICS
- ISOBUS implement control via CEBIS or S10 terminal

| ARION   |                 | 660         | 650         | 630         | 610         | 550         | 530         | 510         |
|---|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Engine</b>   |                 |             |             |             |             |             |             |             |
| Manufacturer  |                 | DPS         |
| Number of cylinders   |                 | 6           | 6           | 6           | 6           | 4           | 4           | 4           |
| Cubic capacity  | cm <sup>3</sup> | 6788        | 6788        | 6788        | 6788        | 4525        | 4525        | 4525        |
| Variable geometry turbo   |                 | ●           | ●           | ●           | ●           | –           | –           | –           |
| Staged turbo (two fixed geometry turbochargers, including one with wastegate) |                 | –           | –           | –           | –           | ●           | ●           | ●           |
| Rated output (ECE R 120) <sup>1</sup>   | kW/hp           | 129/175     | 129/175     | 114/155     | 99/135      | 114/155     | 99/135      | 85/115      |
| Max. output (ECE R 120) <sup>1</sup>  | kW/hp           | 136/185     | 136/185     | 121/165     | 107/145     | 121/165     | 107/145     | 92/125      |
| Max. output with CPM (ECE R 120) <sup>1</sup>                                 | kW/hp           | 151/205     | –           | –           | –           | –           | –           | –           |
| Engine speed at maximum output  | rpm             | 2000        | 2000        | 2000        | 2000        | 2000        | 2000        | 2100        |
| Type approval value for CMATIC models <sup>2</sup>                            | kW              | 144         | 128         | 115         | 102         | 117         | 106         | 91          |
| Type approval value for HEXASHIFT models <sup>2</sup>                         | kW              | –           | 141         | 115         | 102         | 117         | 106         | 91          |
| Max. torque (ECE R 120) <sup>1</sup>  | Nm              | 849         | 754         | 703         | 640         | 697         | 619         | 562         |
|   |                 | (with CPM)  |             |             |             |             |             |             |
| Engine speed at max. torque   | rpm             | 1500        | 1500        | 1500        | 1500        | 1500        | 1500        | 1500        |
| Max. fuel tank capacity   | l               | 370         | 370         | 370         | 370         | 245         | 245         | 245         |
| Oil-change interval   | h               | 500         | 500         | 500         | 500         | 500         | 500         | 500         |
| <b>CMATIC continuously variable transmission</b>                              |                 |             |             |             |             |             |             |             |
| Transmission  |                 | EQ 220      | EQ 200      |
| Speeds (min.-max.)  | km/h            | 0.05-50/40  | 0.05-50/40  | 0.05-50/40  | 0.05-50/40  | 0.05-50/40  | 0.05-50/40  | 0.05-50/40  |
| REVERSHIFT clutchless reverser  |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| <b>HEXASHIFT powershift transmission</b>                                      |                 |             |             |             |             |             |             |             |
| Ratios F/R  |                 | –           | 24 / 24     | 24 / 24     | 24 / 24     | 24 / 24     | 24 / 24     | 24 / 24     |
| Min. speed at 2200 rpm  | km/h            | –           | 1.58        | 1.58        | 1.73        | 1.58        | 1.73        | 1.68        |
| Max. speed  | km/h            | –           | 40/50       | 40/50       | 40/50       | 40/50       | 40/50       | 40/50       |
| REVERSHIFT clutchless reverser  |                 | –           | ●           | ●           | ●           | ●           | ●           | ●           |
| Powershift speeds   |                 | –           | 6           | 6           | 6           | 6           | 6           | 6           |
| Electrohydraulically controlled ranges  |                 | –           | 4           | 4           | 4           | 4           | 4           | 4           |
| Min. speed with creep gear at 2200 rpm  | km/h            | –           | 0.40        | 0.40        | 0.43        | 0.40        | 0.43        | 0.42        |
| Min. speed with super-creep gear at 2200 rpm                                  | km/h            | –           | 0.11        | 0.11        | 0.12        | 0.11        | 0.12        | 0.12        |
| <b>Rear axle</b>  |                 |             |             |             |             |             |             |             |
| Flanged axle  |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| Quick-release axle  |                 | ○           | ○           | ○           | –           | ○           | –           | –           |
| Electrohydraulically activated differential locks                             |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| Automatic differential lock   |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| Park-lock   |                 | ○           | ○           | ○           | ○           | ○           | ○           | ○           |
| Max. rear tyres   |                 | 710/60 R 42 | 710/60 R 42 | 710/60 R 42 | 710/60 R 38 | 650/65 R 38 | 650/65 R 38 | 650/60 R 38 |
| Max. diameter of rear tyres   | m               | 1.95        | 1.95        | 1.95/1.85   | 1.85        | 1.85        | 1.85        | 1.75        |
| Oil-change interval   | h               | 1500        | 1500        | 1500        | 1500        | 1500        | 1500        | 1500        |
| <b>PTO</b>  |                 |             |             |             |             |             |             |             |
| Wet multi-disc clutch   |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| Remote control of engagement and emergency stop                               |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| 540/1000  |                 | ○           | ○           | ○           | ○           | ○           | ○           | ○           |
| 540/540 ECO / 1000/1000 ECO   |                 | ○           | ○           | ○           | ○           | ○           | ○           | ○           |
| Changeable PTO stub   |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| 1 3/8" PTO stub: 6, 8 and 21 splines  |                 | □           | □           | □           | □           | □           | □           | □           |
| Automatic PTO engagement / disengagement                                      |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| <b>Four-wheel drive front axle</b>  |                 |             |             |             |             |             |             |             |
| Rigid front axle  |                 | –           | –           | ●           | ●           | ●           | ●           | ●           |
| Rigid and braked front axle   |                 | ●           | ●           | –           | –           | –           | –           | –           |
| PROACTIV front axle suspension  |                 | –           | –           | □           | □           | □           | □           | □           |
| PROACTIV front axle suspension with braked front axle                         |                 | □           | □           | □           | □           | □           | □           | □           |
| Automatic 4-wheel drive   |                 | ●           | ●           | ●           | ●           | ●           | ●           | ●           |
| Optimum turning radius  | m               | 5.5         | 5.5         | 5.5         | 5.5         | 5.35        | 4.95        | 4.95        |

| ARION   |     | 660  | 650  | 630  | 610  | 550  | 530  | 510  |
|---|-----|------|------|------|------|------|------|------|
| <b>Hydraulics</b>   |     |      |      |      |      |      |      |      |
| Load-sensing circuit 110 l/min                                  |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Load-sensing circuit 150 l/min                                  |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| Max. operating pressure   | bar | 200  | 200  | 200  | 200  | 200  | 200  | 200  |
| Number of mechanical spool valves (CIS)                         |     | 2-4  | 2-4  | 2-4  | 2-4  | 2-4  | 2-4  | 2-4  |
| Number of electronic spool valves (CEBIS / CIS+)                |     | 2-4  | 2-4  | 2-4  | 2-4  | 2-4  | 2-4  | 2-4  |
| Two central electronic spool valves, operated from ELECTROPILOT |     | □    | □    | □    | □    | □    | □    | □    |
| Flow rate control   |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| <b>Rear linkage</b>   |     |      |      |      |      |      |      |      |
| Max. lifting capacity at ball ends                              | kg  | 8000 | 8000 | 8000 | 7500 | 8000 | 7500 | 7500 |
| Continuous lifting power at 610 mm                              | kg  | 5100 | 5100 | 5100 | 5100 | 5100 | 5100 | 5100 |
| Vibration damping   |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| External controls   |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Active wheel slip control                                       |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| ISOBUS socket   |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| 25 amp socket   |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| <b>Front linkage</b>  |     |      |      |      |      |      |      |      |
| Lifting capacity  | t   | 3/4  | 3/4  | 3/4  | 3/4  | 3/4  | 3/4  | 3/4  |
| Front PTO 1000 rpm  |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| Vibration damping   |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Position control for CEBIS version                              |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| External operation  |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| Additional hydraulic connections                                |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| External operation of additional connections                    |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| ISOBUS socket   |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| Trailer socket  |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| 25 amp socket   |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| <b>Cab</b>  |     |      |      |      |      |      |      |      |
| CIS version   |     | –    | ●    | ●    | ●    | ●    | ●    | ●    |
| CIS+ version  |     | ●    | ○    | ○    | ○    | ○    | ○    | ○    |
| CEBIS version   |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| 4-pillar cab  |     | ●    | ●    | ●    | ●    | ○    | ○    | ○    |
| 5-pillar cab  |     | ○    | ○    | ○    | ○    | ●    | ●    | ●    |
| 4-point suspension  |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Air conditioning  |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |
| Automatic climate control                                       |     | ○    | ○    | ○    | ○    | ○    | ○    | ○    |
| Passenger seat with integral cool box                           |     | ●    | ●    | ●    | ●    | ●    | ●    | ●    |

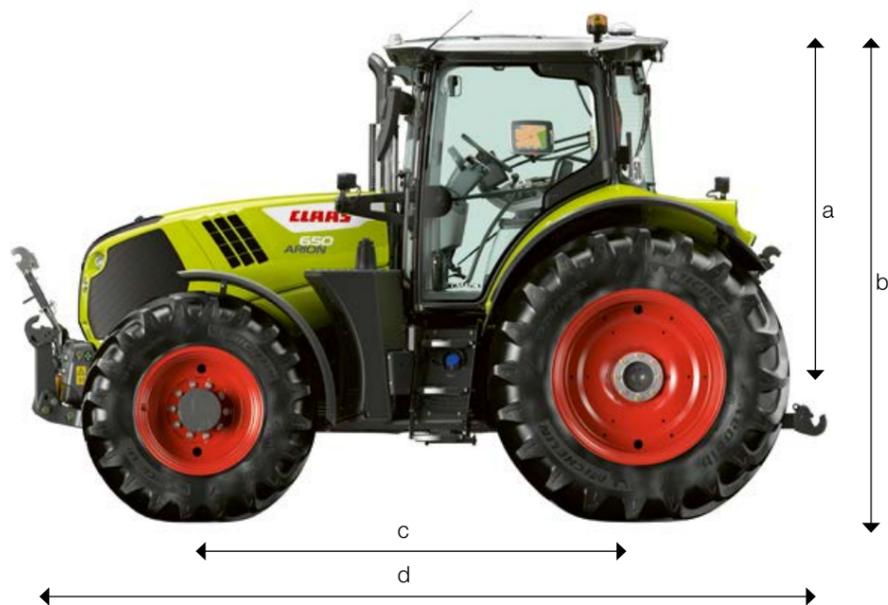
<sup>1</sup> Meets ISO TR 14396

<sup>2</sup> Performance data fit criteria for admissibility

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| ARION  |    | 660       | 650       | 630       | 610       | 550       | 530       | 510       |
|--|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Dimensions and weights</b>                              |    |           |           |           |           |           |           |           |
| Height: centre of rear axle to cab roof (a)                | mm | 2166      | 2166      | 2166      | 2166      | 2166      | 2166      | 2166      |
| Overall height (b)   | mm | 3050      | 3050      | 3050      | 3050      | 3000      | 3000      | 3000      |
| Rear tyres   |    | 20.8 R 38 | 18.4 R 38 | 18.4 R 38 |
| Wheelbase (c)  | mm | 2820      | 2820      | 2820      | 2820      | 2564      | 2564      | 2564      |
| Length (from front weight carrier to rear lower links) (d) | mm | 4818      | 4818      | 4764      | 4759      | 4508      | 4503      | 4443      |
| Weight   | kg | 7860-8335 | 6980-7830 | 6740-7600 | 6530-7470 | 6410-7260 | 6000-6940 | 5950-6890 |
| Max. permissible total weight (40/50 km/h versions)        | kg | 12500     | 12500     | 11000     | 10250     | 11000     | 10250     | 10250     |



Ensuring a better **harvest**.

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