

AGROTRON K



GERMAN ENGINEERING

AGROTRON K: THE COMPACT TRACTOR THAT MOVES MOUNTAINS.



Arable and grass farms make high demands on a modern tractor – essential attributes are: versatility, flexibility, manoeuvrability, compactness and last but not least specification with optional equipment to meet special requirements. At the same time comfort and maximum ergonomics should not be ignored. The Agrotron K meets these demands with its unique design that provides an excellent view of all mounted

implements and features a complete range of standard equipment.

Unique cab concept

The cab of the Agrotron K ensures that the driver has an excellent all-round view and a great deal of freedom of movement for such a compact tractor. Ergonomic controls and an excellent cab atmosphere guarantee relaxed and productive working conditions.

Economical and powerful engines

The latest generation of economical, powerful and electronically controlled DEUTZ engines with wide torque and constant power ranges ensure flexible performance with minimum fuel consumption under all load conditions.

Perfectly coordinated transmission

Reliable, easy-shift 3-stage Powershift

transmission with electro-hydraulic "comfort clutch" and Powershuttle provide practical close ratios for all jobs. With the optional "ProfiLine" package the Agrotron K is also equipped with an automatic Powershift (APS) as well as the "PowerComS" operating lever and the "Comfortip" function management feature.

Standard feature 4-stage PTO

Four standard speeds – 540, 540E, 1,000, 1,000E – enhance utility and productivity while lowering fuel consumption. All in all the Agrotron K is the culmination of the rich experience of more than 80 years of major technological leadership in the agricultural machinery industry. The concept, the styling and the cab of the Agrotron K are unmistakable. The Agro-

tron K is the ideal all-round tractor for all agricultural businesses. It ensures that, as its owner, you enjoy productivity, value stability and economic success.

WE WANT YOU TO BE RELAXED – AND PRODUCTIVE.

ADVANTAGES

- Large-area cab glazing with 6.1 m² for a panoramic view of 330°
- Up to 10 working lamps
- Transparent glass roof hatch for best view of front loader
- Perfect, ergonomically designed workplace
- Safe working with non-confusing control elements
- Cable lead-in when rear windscreens is closed
- Pressurised cab with two filters for dust and other contaminants
- Low noise levels due to all-round silencing measures



Compact tractor. Spacious cab. Relaxed and productive work requires room for movement and a clear arrangement of all working elements. The cab of the Agrotron K is one of the largest in its class and, apart from an excellent view of working areas, also gives the driver the necessary comfort he needs for long and productive working days.

Optimum lighting

The cab and entrance area are illuminated automatically when the doors are opened, allowing you to mount and dismount safely in the dark. The effective Agrotron K lighting also enhances safety and confidence and increases productivity with improved external lighting for night work. The maximum option of 14 headlights and working lamps can effectively illuminate an area of 500 m².

Efficient noise reduction

The Agrotron K is one of the quietest tractors in its class. This is achieved with basic design features such as engines with reduced noise emission and thorough exclusion of all noise-emitting and noise-transferring components from the cab. An additional insulating wall between the engine compartment and the single-cell, full-body cab considerably improves noise insulation.



The cab has all-round visibility of 300° and an opening panoramic glass roof – which makes it ideal for all jobs, not just for using a front loader.



The large and spacious cab of the Agrotron K is easy to enter via its anti-slip steps.



The standard co-driver seat: Upholstered, comfortable and equipped with an automatic lap belt.



Efficiently organised multi-storage options.



The controls for the heating and air conditioning system are installed in the roof. The air conditioning system is a standard feature. An optional electronically controlled automatic air conditioner is standard for the "ProfiLine" version.



A total of 17 air nozzles ensure excellent cab ventilation and quick demisting.

documents plus food and drink for long working days.

Impressive air conditioning

The powerful 4-stage heating and ventilation fan with up to 17 air nozzles in the cab has a capacity of up to 740 m³/h and ensures a constant and pleasant working atmosphere in no time at all. Tinted windows and a front windscreens sunblind protect the driver against

excessive sunlight. A high flow air conditioning unit is standard. This also cools the large beverage compartment for cool drinks at all times.

EXCELLENT OPERATION.



The Infocenter displays maintenance and fault messages in digital text.

Everything in sight: The central display in the A-post shows the activated Powershift stage.



Colour-coded and ergonomically arranged according to frequency of use. All drivers find their way around immediately in the Agrotron K.



Unique in this tractor class – the new "PowerComS" armrest combines all the functions of the Agrotron K in one control unit for productive work. (Profiline)

There are many operating concepts on the market. However, in practice few are simple, self-explanatory and easy to learn. For this reason the DEUTZ-FAHR development engineers focused all their attention on **functionality and operating simplicity**.

Every driver should, in practice, be able to use the tractor reliably and productively without extra training and after only a short period of familiarisation.

All levers and switches in the Agrotron K vary in shape and colour and are logically and clearly arranged. They are combined according to frequency of use in functional groups on an operating panel at the driver's right hand. Drivers find their way around immediately. This workplace is optimally designed for reliable and confusion-free operation that enhances the driver's productivity.

The "PowerComS" armrest ("ProfiLine" version)

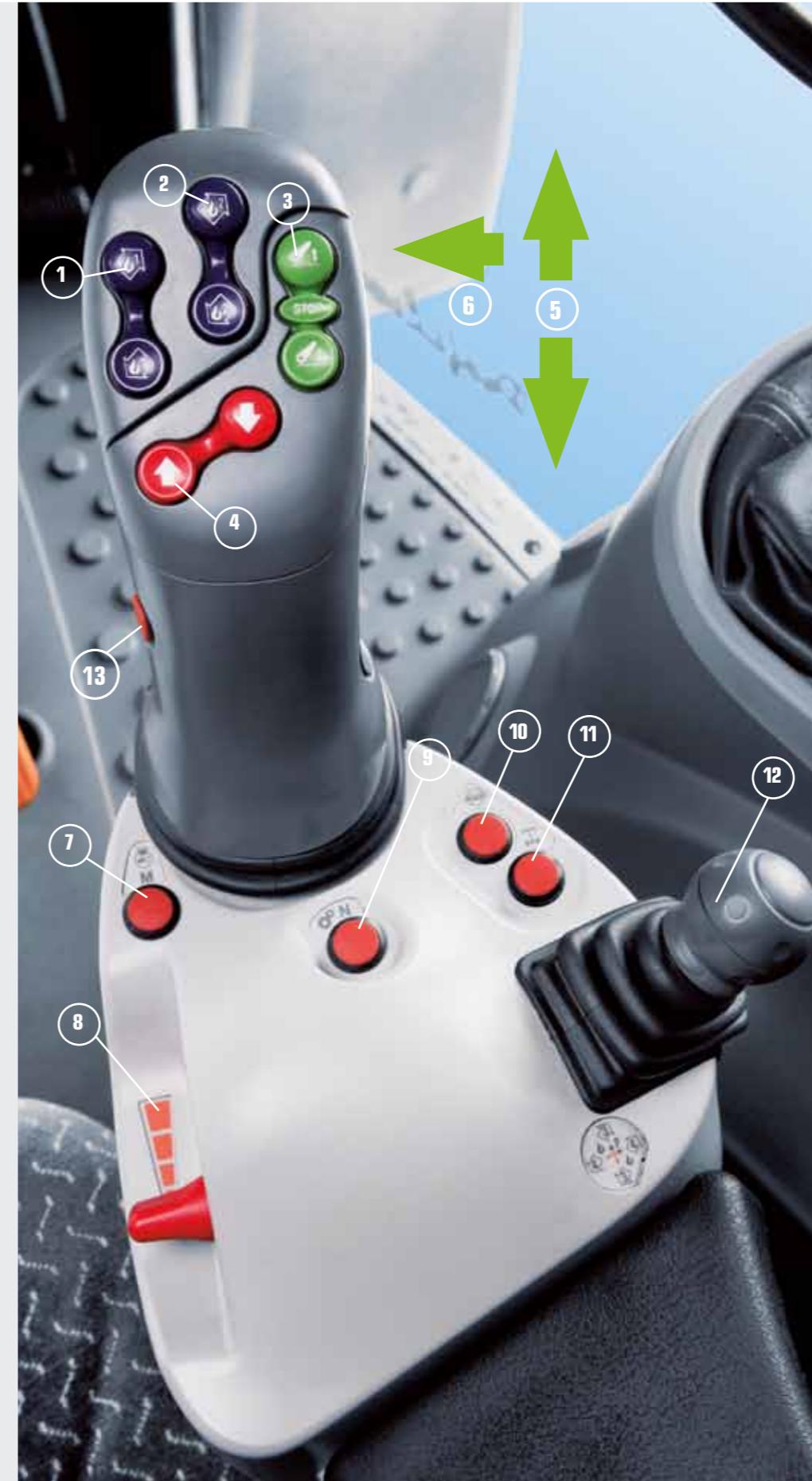
All functions of the Agrotron K are conveniently integrated in the "PowerComS" armrest for easy access. Both engine and transmission control and also flow and time settings for the electrical remote valves are integrated into the folding armrest.

The performance monitor ("ProfiLine" version)

The performance monitor enables the driver to monitor the major data relating to a job (PTO shaft on/off; powerlift adjustment; manual) in two separate memories: Working time, total area and area completed per hour, distance traveled, average speed and the average tractor load. This gives the driver an up to date summary of his productivity at all times.

ADVANTAGES

- All operating groups are colour-coded
- The self-explanatory symbols ensure fast, intuitive operation
- Workplace with perfect ergonomic design for safe work
- Fast, individual driver customisation due to adjustable steering wheel, driver's seat and multifunction armrest
- Fast recognition of all operating conditions with easily read displays from an unobstructed view of the instrument panel.
- Practical operating management
- Low noise levels due to all-round silencing measures
- Pneumatic suspension seat with different functions and individual adjustment options



PowerComS operating lever with Comfortip (Profiline)

- 1 Actuation of the electro hydraulic remote valve 1
- 2 Actuation of the electro hydraulic remote valve 2
- 3 Lifting/lowering the rear lift, activating the EHR, stop and fast penetration
- 4 Powershuttle forwards/reverse
- 5 Actuation of the Powershift stages (rocking forwards/backwards)
- 6 "Comfortip" operating management
- 7 EMC (Electronic Motor Control)
- 8 Electronic throttle
- 9 Transmission neutral
- 10 Differential lock
- 11 Front axle drive
- 12 Joystick electronic remote valves 3+4
- 13 Activation APS

ALL FUNCTIONS UNDER CONTROL.



Can standardised tractor management programmes really do justice to varying applications in practical agricultural hands-on situations? Or would it not be better if the driver could automate the functions that he requires for the job in hand? Ideally these could be reactivated by a simple operating lever gesture.

Simple programming

This is exactly the concept of DEUTZ-FAHR with the "PowerComS" operating lever and the "Comfortip" function (standard feature in the "ProfiLine" version). Individual operating sequences can be programmed by the driver and reactivated by simply moving or pushing the

operating lever. The operating sequences are centrally and consecutively displayed in the Infocenter. The next programmed function is highlighted on the display so that the driver can see at all times which function he will activate next.

To prepare the system for programming operating sequences – this is possible when the tractor is stationary or moving – the "PowerComS" operating lever only has to be moved to the left, whilst simultaneously pressing the locking button. An acoustic signal is then sounded and the digital display on the instrument panel is activated to accept the command function.

For programming all you have to do is press the respective buttons on the PowerComS operating lever or on the multi-function armrest. The programmed functions are of course stored in the memory when the tractor is switched off. This is the ultimate in simplicity and practicality

Increase in productivity ensured

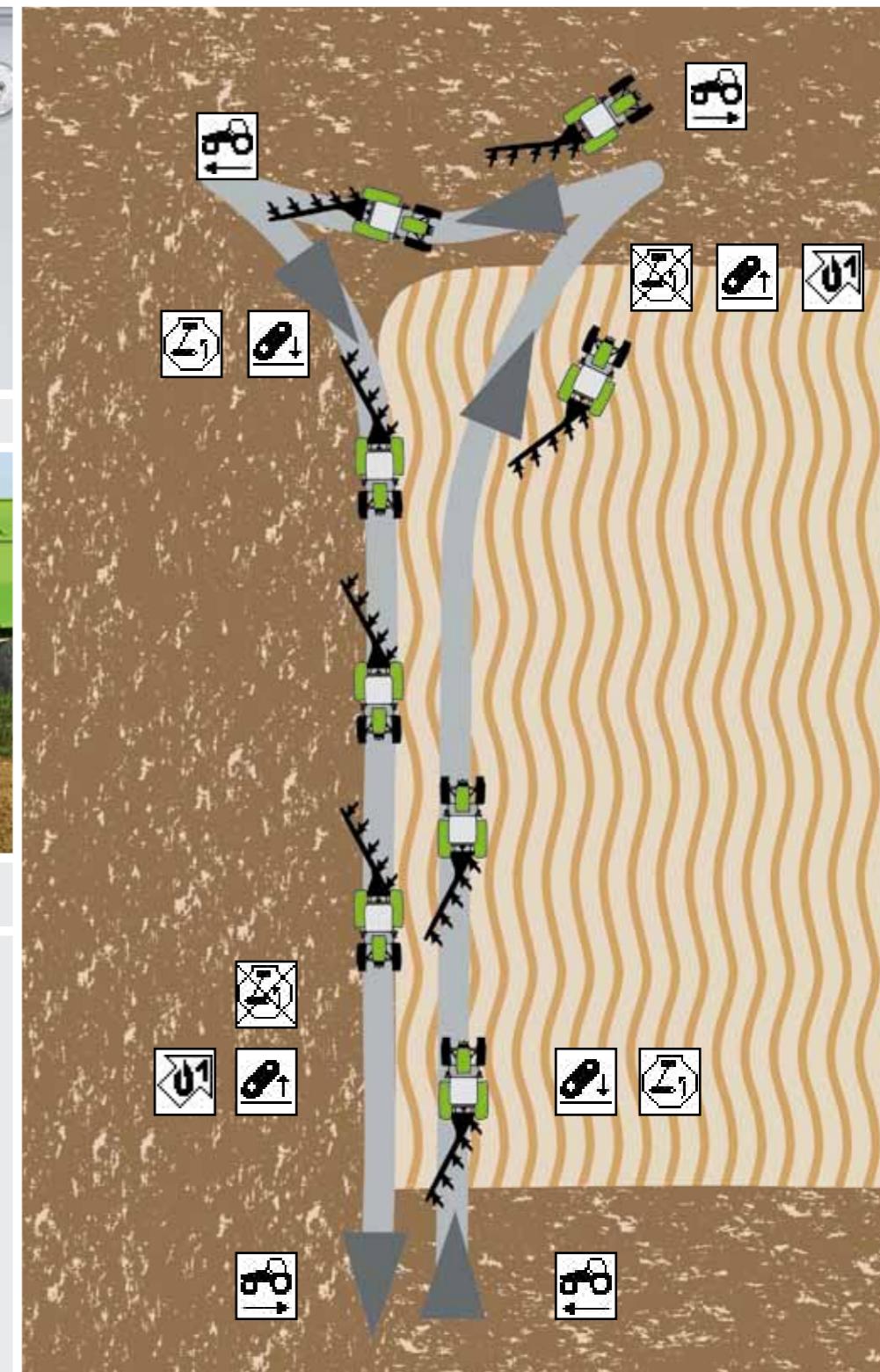
In this manner different operating sequences with up to 16 functions can be saved and reactivated. The driver customises his Agrotron for each job and considerably increases productivity with one-hand operation of the tractor functions. Operating sequences also enhance operating safety.

ADVANTAGES

- Simple and logical programming of the individual functions and parameters by the driver and customisation for specific jobs
- Individual operation by the driver
- Maximum operative safety – no irritating grasping at controls
- Enhanced productivity
- Prevention of operating errors
- Manual intervention possible at all times



Road transport. The advantages of ASM: Speed above 15 km/h – 4wheel drive disengaged; Speed below 14 km/h – 4wheel drive engaged.



Forward speed

Recall the memorized engine working speed

Lift the plough

Engage reverse gear

Lower plough

Recall the manoeuvring speed

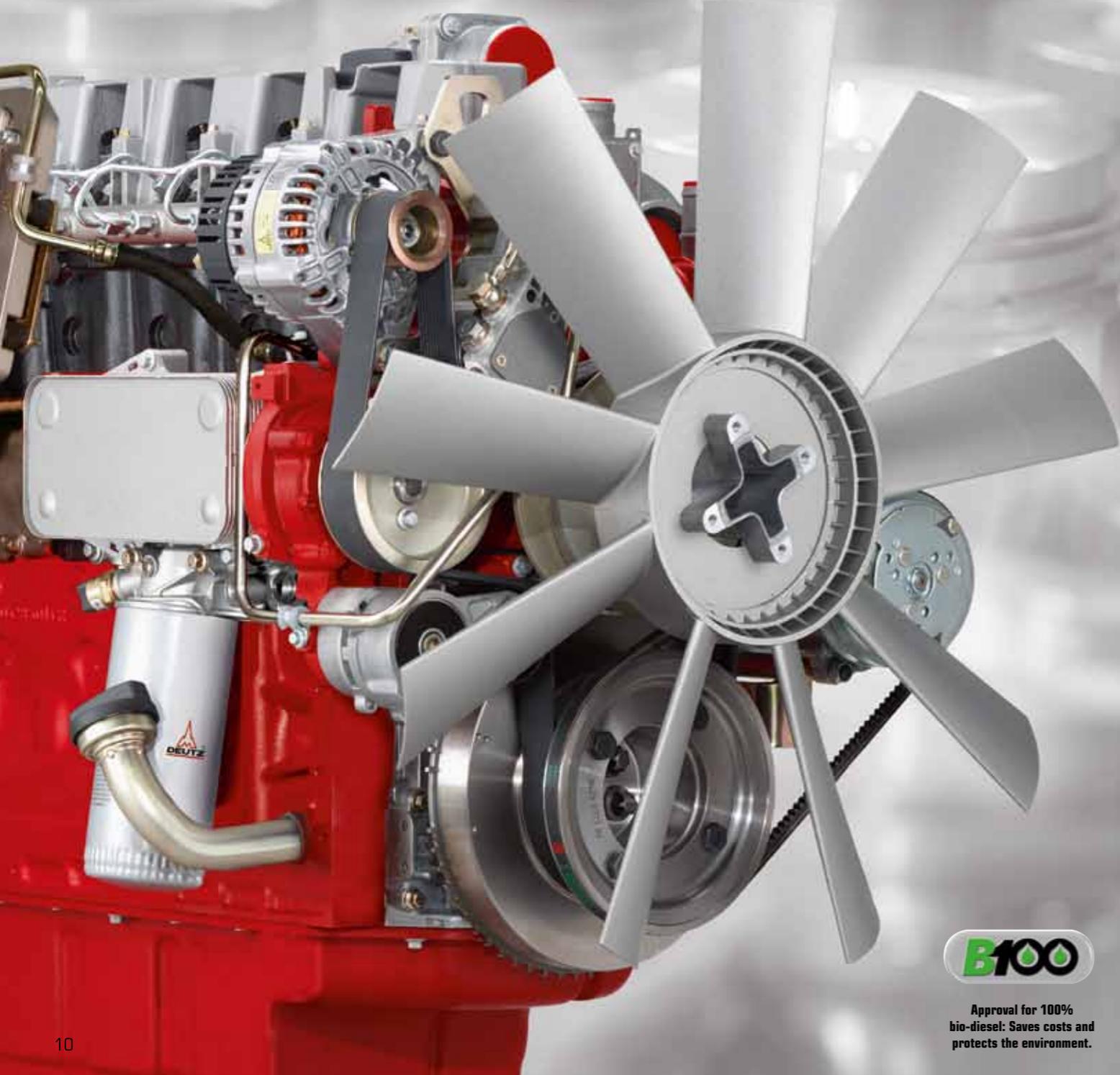
Turn the plough (Control valve 1)

POWER AND ECONOMY TO LIGHT UP YOUR DAY.



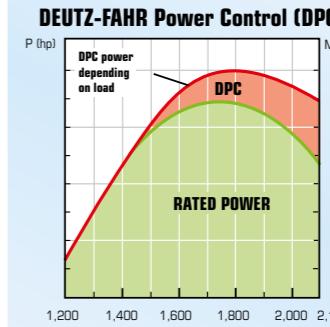
DEUTZ Common-Rail:
The exclusive technology
for minimal fuel
consumption and the
quickest possible
response characteristics.

Fuel-efficiency even at
40 km/h thanks to the
reduced engine speed.



ADVANTAGES

- High-propulsion, economical and reliable DEUTZ common rail (DCR) turbo diesel engines with fully electronic engine control (EMC)
- The correct power and economy for any situation using the innovative DPC system (DEUTZ-FAHR Power Control)
- High-pressure injection with a maximum injection pressure of up to 1,600 bar for rapid response and low fuel consumption
- Air filter with ejector dust separation and long maintenance intervals reduce operating costs
- DEUTZ-FAHR is the first manufacturer granting approval for bio-diesel fuel (B100) Expensive after sales solutions or additional assurances are not necessary. Savings from the first moment on.



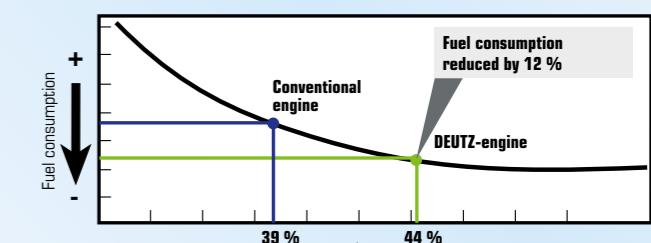
DEUTZ-FAHR Power Control (DPC). The innovative DPC technology delivers the highest and most economically efficient power at all times depending on the load situation. Strong torque, quick response characteristics and sufficient traction are therefore guaranteed even under the most difficult operating conditions.



Every litre of bio-diesel saves hard cash. At a fuel consumption rate of 30,000 l/year and an average price saving of 15 ct/l, the overall saving over five years would be 22,000 Euro.

Low fuel consumption

Low fuel consumption



Powerful, economic and environmentally friendly

Many can construct engines. But the real task is to build strong and efficient engines which comply with the effective emission standards and still set their own trend. The DEUTZ engine philosophy comes down to power, economy and environmentally friendliness.

We develop for agriculture

DEUTZ-FAHR uses a whole host of intelligent technologies for this, aimed at increasing performance, lowering fuel consumption and reducing harmful emissions. This bio diesel initiative is only one of several forward-looking projects.

The changing needs of agriculture require special expertise and lots of experience in building engines. But there

is one thing all those applications have in common: power has to be available when it's needed. And the consumption has to be reduced at the same time. Although this sounds paradoxical, the engineers at DEUTZ-FAHR have managed to achieve it with the innovative DPC (DEUTZ-FAHR Power Control). The combination of the fully electronic engine management system (EMC) and DEUTZ high pressure injection system has resulted in a complex, but extremely efficient engine management system.

Powerful, strong, efficient

The 6 cylinder high-tech DEUTZ turbo diesel engines in the Agrotron K 610 comes with innovative DEUTZ Common Rail Technology (DCR)® as standard. And thanks to the DPC the engines deliver constant power, high overpow

and maximum torque. The driver can therefore relax while working with minimal gearshift changes because the engine offers sufficient reserves of power, good elasticity values and reduced fuel consumption at all times.

Quiet for both the driver and the environment

The reduction of noise emissions has also been given special attention. Potential noise sources are eliminated during the very design of the engines. For example, a rigid, ribbed crank housing, soft combustion thanks to 6-hole injection nozzles, reliable waste gate turbo chargers on the Common Rail models, double casing silencers and a flexible intake and exhaust pipe mounting system reduce noise where it arises.

TAKING THE BURDEN OUT OF SHIFTING.



High-torque engines and a robust transmission with 3-stage Powershift and standard Powershuttle create a drive train for outstanding performance and power with minimal shifting. The practical close ratio transmission comprises a 4-speed transmission with 2 electro-hydraulically shifted groups (road and field). A 4-speed creeper gear group is available as an option.

Due to the position of the large-dimensioned wet multi-plate clutch between the main and Powershift transmission, wear on the clutch and the shifting forces are reduced considerably.

This results in smooth and fluid shifting with maximum clutch reliability. The mechanical torsion dampers enhance smooth start-off and reduce the load peaks when the Powershift stages are actuated.

Practical graduation

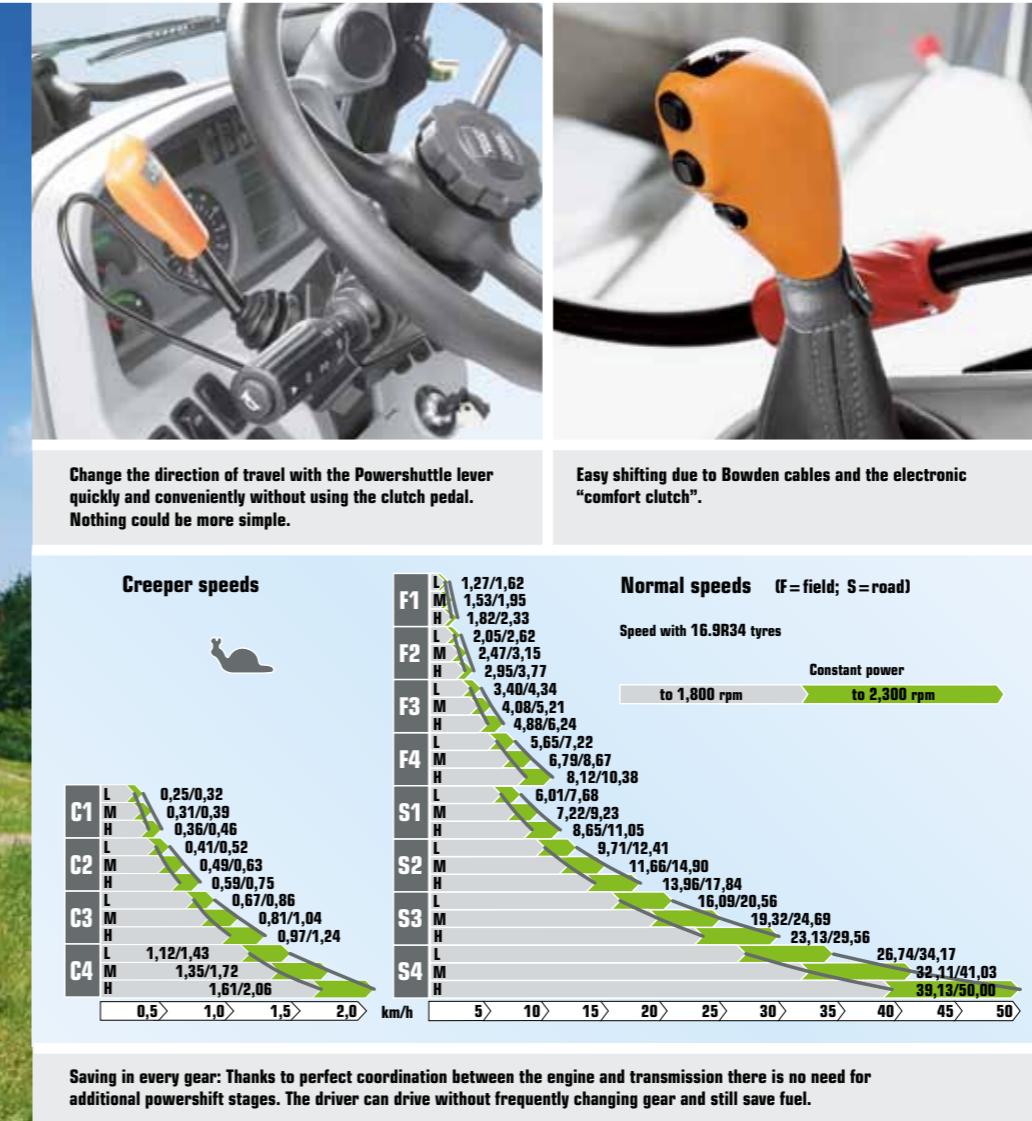
Depending on the version and tyres the overall speeds range from 320 metres per hour to 50 km/h, and there are ten speeds in the main working range of 4-12 km/h. When a maximum speed of 40 km/h is mandatory this is achieved by simple electronic reduction of the rated

engine speed in the 4th gear (road group) saving fuel and lowering noise emission. The right speed is always available for all jobs, each with three Powershift stages. The Powershift stage is automatically adjusted when changing gears (3-4 or 4-3) and when changing ranges. Powershift speeds are increased by approximately 20% or lowered by approximately 17%. The driver can, for example, use the tractor economically and flexibly solely by utilisation of the constant power range and the three Powershift stages with a full engine performance from 5.0 to 10 km/h without having to change gear.

ADVANTAGES

- ZF 7100 series transmission: Simple and reliable transmission design for speeds up to 50 km/h
- Easy shifting with compact arrangement due to Bowden cables
- Electrohydraulic shifting of field and road group
- "Comfort clutch" in all Agrotron K as standard feature
- Transmission ratios optimally coordinated with the engine performance therefore no unnecessary additional Powershift stages
- APS standard feature on the "ProfiLine"

- Fast, clear information for the driver with integrated diagnosis
- One speed with three Powershift stages for all typical jobs
- No power train interruption in the Powershift range



Comfort clutch

Shifting is made easier by the standard feature, electrohydraulically actuated "comfort clutch". The shifting lever features a pushbutton that permits gear shifting without actuating the clutch pedal. The clutch can be controlled using the pedal or a knob in the gearshift lever. The driver can select 12 gears without using the clutch pedal.

More than just a Powershift: Automatic Powershift (APS)

As an exclusive feature of the "ProfiLine" version the three Powershift stages are

automatically shifted, depending on the load conditions of the tractor, with the newly-developed APS feature. The load of the engine and the engine speed are used as a control impulse. The driver can infinitely vary the sensitivity of the system with a rotary switch. The clutch is actuated with either the foot pedal or with a button on the gearshift lever. The driver can shift 24 speeds without using the clutch pedal.

As an additional feature the APS automatically adapts the Powershift stages to the travelling and engine speed during shifting.

Convenient reversing transmission

With the Powershuttle reversing transmission it is possible to pull off from a stationary position or change the direction of travel (reverse/forwards) up to a speed of 12.5 km/h without actuating the clutch. The Powershuttle is of particular benefit when working on the headland or with the front loader. The driver's right hand is free to operate other function controls.

GROWN-UP HYDRAULIC SYSTEM.

ADVANTAGES

- ▶ Powerful hydraulics with a high degree of efficiency, high flow capacity and tremendous lifting force
- ▶ Three versions available: Open-center with a delivery rate 75 l/min and load-sensing with 83 l/min
- ▶ Rear PTO shaft with four speeds (540, 540 E, 1,000 and 1,000 E) as standard
- ▶ Simple adaptation to different cardan shaft profiles
- ▶ Automatic activation and deactivation when lifting and lowering the rear powerlift



A powerful hydraulic system is also a must in the compact tractor range due to the varied hydraulic consumers. The Agrotron K is fitted as standard with an open-center hydraulic system with a delivery rate of 75 l/min and has a removable oil volume of 26 liters. A separate gear pump with a delivery rate of 26 l/min supplies the steering system.

Even more hydraulic power (ProfiLine)

To meet the requirements of implements that demand higher flow rates and more accurate control, the ProfiLine models come with a pressure and volume-controlled hydraulic system (load-sensing) that offers a delivery rate of up to 83 l/min and a removable oil volume of

35 liters. The system runs with an axial piston variable displacement pump that is controlled by the respective implement. When the consumer draws off oil, the system pressure drops; the variable displacement pump instantly provides more oil so that the pressure required by the consumers is maintained.

No vibration for driver and implement

During fast road travel vibrations and shock waves can occur in the hydraulic system that are caused by "pitching" of the implement. These can have a considerable detrimental effect on driving safety and comfort. When vibration damping is activated (automatically from 8 km/h onwards), vibration is detected

by the electronic components on the load sensing pins and compensated with selective and fast counteraction by the powerlift. Geared to the future for reliable and safe driving in all situations.

Tremendous lifting power

Large-dimensioned lifting cylinders provide a lifting force of up to 6.2 t which means that there is plenty of lifting power even for heavy implement combinations. Externally we have additional actuation of the powerlift on both rear mudguards giving us an alternative fast, reliable and safe implement coupling and uncoupling.

Best electronic control

Electronic powerlift control (EHR) is

standard. The following functions are automatically monitored: Draft control, position control, mix control, free floating, fast penetration, slip control (with fitted radar sensor), transport locking, external control switches, lifting height limitation and lowering speed control.

Remote valves

The Agrotron K is equipped as standard with 3 double-acting mechanical remote valves, each with 4 functions operating in the lift and float positions and which can also be used for single or double action. All remote connections at the rear can be coupled under pressure and are equipped with a rapid emergency breakaway function and an oil collector. With an easy-

reach cross-gate lever the driver is able to simply and accurately operate two remote valves. The third remote valve is actuated with an individual lever. The ProfiLine models have four electrical remote valves. Two are activated with the "PowerCom S" operating lever (flow rates and times are adjustable); two others are operated with the joystick (flow rate is adjustable).

Four speeds

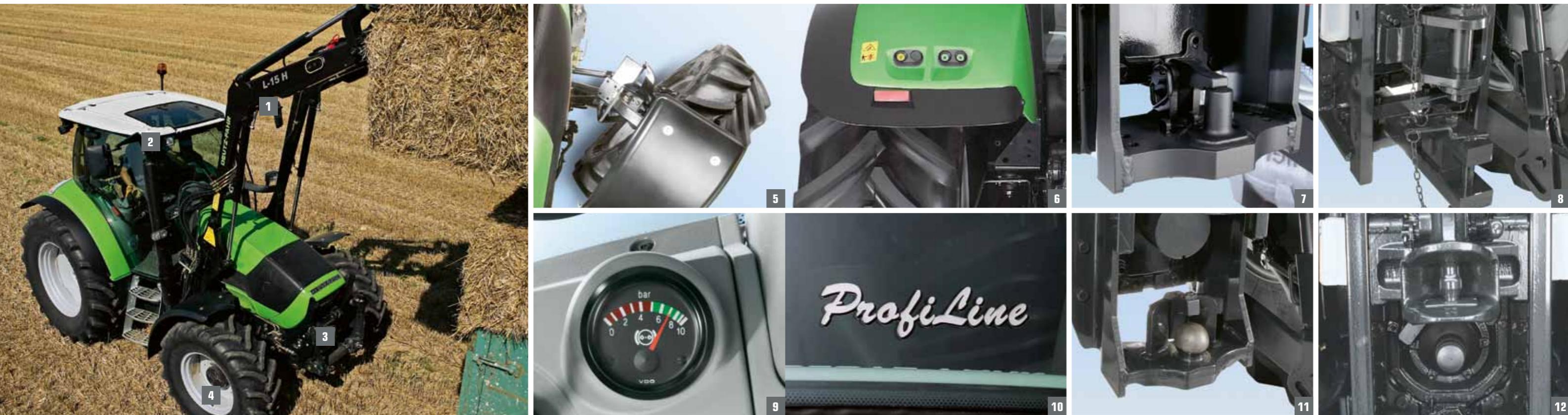
Ahead of most tractors in its class the Agrotron K features, as standard, a rear PTO with 4 speeds (540, 540 E, 1,000 and 1,000 E). A number of economical uses are therefore possible. Due to perfect coordination with the engine characteristics the economy

PTOs optimise fuel consumption while maintaining a high performance and torque potential. A standard automatic PTO feature switches the rear PTO on and off depending on the lifting height of the rear powerlift. Operating errors are prevented and mounted implements protected from damage.

Powerful front PTO (opt)

The 1,000 rpm front PTO is driven directly by the engine and electrohydraulically activated by pressing a button. Due to the modulation provided by the wet plate clutch, implement start-up is always smooth and independent of the load, even with heavy implements.

WHAT MORE COULD YOU NEED?



Although the standard features on the Agrotron K are already very comprehensive, individual needs may require individual solutions. DEUTZ-FAHR supplies a coordinated range of perfectly adapted additional and special equipment for all ranges and assemblies. Contact your DEUTZ-FAHR dealer. They will be pleased to be of assistance.

1 DEUTZ-FAHR front loader (opt)

The Agrotron K can be fitted with front loaders with mechanical and hydraulic parallel control as well as a wide range of practical implements.

2 Working lamps

Up to 10 working lamps illuminate the implement areas, permitting safe use at dusk and during the night.

3 Front hydraulic system and front PTO (opt)

The Agrotron reveals its true versatility when equipped with mounted front implements. The integrated front powerlift has a lifting force of up to 2,500kg. The front PTO turns clockwise at a speed of 1000rpm.

4 Front axle with suspension

More driving safety and comfort for all Agrotron K models. Front axle suspension is a standard feature on the 50km/h models.

5 Articulated mudguards (std)

These mudguards enable a reduced turning circle of 4.65m.

6 Widened mudguards (std)

Available for the corresponding tyres in three different widths.

7 Piton-Fix: (opt)

With a pin diameter of 45mm and a maximum drawbar load of 3,000kg.

8 Swinging, adjustable drawbar: (std)

The drawbar can be mounted either in a central fixed position or allowed to swing. Its length can be simply adjusted as required.

9 Pneumatic braking systems (opt)

Indispensable for road transport with trailers. Available as a 2-line braking system and as a 1 and 2-line braking system as an option. Hydraulic trailer braking systems are also available.

10 "ProfiLine" package

This turns the Agrotron K into a high-tech tractor. Comprising: Air conditioning system (automatic upon request) "PowerComS" operating lever with "Comfortip", four electrical remote valves, "comfort clutch" and APS.

11 The welded ball head mounting (opt)
has a nose weight capacity of up to 4,000 kg.

12 Trailer hitch: (opt)

The automatic trailer hitch can be fitted optionally with a bolt with a diameter of either 32 or 38 mm. Remote control is also available on request.

13 Ballast carrier: (opt)

Optimum weight distribution with ballast carriers and a range of front weights.

Aeromat comfort seat (std)

Pneumatic suspension, seat angle adjustment, automatic adaptation to driver's weight, rotation adapter to left and right (20°), double lumbar support, horizontal suspension and adjustable shock absorber.



NO NEED FOR LENGTHY SERVICING.

ADVANTAGES

- Long maintenance intervals for oil and filters considerably lower operating costs
- Tool-free access to all important maintenance points
- Engine oil change every 500 hours; transmission oil change every 1,000 hours
- Tappet clearance check every 1,500 hours
- Simple cleaning of the compact cooling system
- Standard diagnosis feature



Fast daily maintenance

Daily maintenance is simple and completed in next to no time with the rearward opening angle of the engine cowling. Pneumatic springs keep the cowling in the open position. All important components and assemblies are easily accessible for simple maintenance work without tools. The engine oil level can be checked without opening the cowling. On

the transmission a large, easily visible sight glass indicates the transmission and hydraulic oil levels.

Long maintenance intervals

The regular engine maintenance intervals are long – in fact uniquely long. The engine oil only requires changing every 500 hours of operation and the tappet separation the filter maintenance intervals are very long.

1,500 hours. The transmission oil and its filters only require changing every 1,000 hours of operation. The operating costs for an Agrotron K are therefore satisfactorily low.

1 The engine air filter is easily accessible. Due to the ejector dust separation the filter maintenance intervals are very long.



2 Best diagnosis. DEUTZ-FAHR service centres can perform fast electronic system diagnostic checks on the tractor via a single plug connection.

3 All fuses and switching relays are easily accessible and well-protected in the cab on the right-hand rear mudguard.

4 Both cab filters are easily accessible in the roof. The filters can be cleaned and replaced without tools. Active carbon, Aerosol filters are available upon request.

5 The oil filler inlet and dipstick are easily accessible. Long maintenance intervals lower operating costs for maintenance and service.

6 The transmission and hydraulic oil levels are easily visible in a large sight glass.

SURE AND SAFE WITH ORIGINAL DEUTZ-FAHR.



Original service is wise.

Without doubt – many can repair much. But only your DEUTZ-FAHR specialist dealer knows your tractor inside and out. Only your dealer has regularly trained mechanics and experts on call. Only dealers have the special tools and diagnostic equipment required for competent diagnosis and inspection. All this gives you peace of mind – without doubt.

Original parts make good sense.

As you placed your trust in the original tractor, we recommend you use original parts when required. Only these comply with the high quality and safety standards of DEUTZ-FAHR and ensure correct function and operation without problems – guaranteed.

DEUTZ-FAHR lubricants

We recommend new genuine DEUTZ-FAHR lubricants. The outstanding quality of this product range, which is made exclusively for DEUTZ-FAHR, ensures that your tractor always receives exactly what it needs.



Have a word with your DEUTZ-FAHR dealer – he will be pleased to answer your questions:

This printed material is designed for international use. The illustrations it contains show both special equipment and incomplete standard equipment. The availability of some illustrated models, standard and special equipment can vary from country to country. Only the dealer's price list stipulates whether such illustrated equipment is included as a standard feature or whether it is a special accessory. In addition the illustrated mounted implements and special accessories may not always comply with the respective statutory regulations. It is the responsibility of the customer – after consultation with the dealer – to verify this, taking the operating instructions into account. All information and illustrations in this brochure are subject to correction; errors excepted. Furthermore all information contained in this brochure is not binding and is subject to modifications of a technical and commercial nature or those resulting from statutory regulations. No claims whatsoever can be derived from these. SAME DEUTZ-FAHR DEUTSCHLAND GmbH reserves the right to make any changes to the design and technical construction and also the scope of standard equipment at any time and without prior notice.

Version 001

 **PFG AUSTRALIA**
PFG Australia Pty Ltd

P +61 (03) 9368 8888 **F** +61 (03) 9368 8899
W www.deutztractors.com.au
1/539 Mt Derrimut Road, Derrimut Victoria 3030



GERMAN ENGINEERING