

AGROPLUS S/V



DEUTZ-FAHR
AGROPLUS S/V
320-330-410-420-430





THE FIRST COMPACT TRACTOR
WITH FULLY INDEPENDENT FRONT
SUSPENSION.



The Agroplus S/V offers the kind of driving comfort, stability and manoeuvrability that only more powerful tractors could have provided before, in both the field and on the road. Available with a soundproofed and air-conditioned cab or a simple driver's platform, with gearbox options available in LS version with mechanical shuttle

or a GS version with PowerShuttle. There are models available for orchard and vineyard work – the S version for orchards and narrow rows or the V version for Vineyards. With a standard front axle or a front axle with independent suspension, the Agroplus S/V offers the ideal equipment for every operation to ensure maximum efficiency.



AGROPLUS.
AS SAFE AND COMFORTABLE
AS THE BIG ONES.



The Self-Levelling, Anti-Roll and Anti-Dive controls are always active. When the system is activated, the Damping and DTC also come into play, providing 100% functionality of the system.



Impressive steering angle and improved turning radius for optimised agility.

The Agropius S/V is specially designed for viticulturists and fruit farmers. Its suspended front axle with independent suspension is unique in the world of compact tractors.

A new geometry allows the two front wheels to travel vertically independently of each other, while allowing a low front hood profile and without compromising the compact dimensions of the tractor. It also improves weight distribution which, together with the lower centre of gravity, contributes to maximising grip and traction. Independent suspension arms are connected to the front axle carrier with an all-new linkage geometry. This is sustained by a pair of hydraulic cylinders equipped with a position and speed sensors, 3 nitrogen reservoirs and steering angle sensors. The independent front suspension system uses hydraulic oil, which allows the damping action of the entire system to be continuously varied.

All the elements of the front suspension are managed precisely by an advanced electronic control system to keep the machine ideally levelled in all conditions.

The particularly compact dimensions of the suspension system combined with the extremely narrow forms of the axle carrier have made it possible to achieve a steering angle of 53°. The geometry of the suspension allows for very tight turning circles, maximising agility and manoeuvrability even in the narrowest spaces and with limited head-land area.

The suspension geometry also keeps the front wheels vertical throughout the entire movement of the suspension, for constant grip in all conditions.



ANTI-DIVE, ANTI-ROLL SYSTEMS.
THE NEW FRONT AXLE IS
EQUIPPED WITH INTELLIGENCE.



With advanced electronics and innovative control software, Agropius S/V tractors also boast Anti-dive and Anti-roll functions. Anti-dive improves stability and safety under braking by countering sudden front suspension compression and the subsequent shift in load towards the front axle, while Anti-roll automatically adjusts the movement speed of the system in relation to steering angle and ground speed to maximise stability and traction. The Anti-roll system uses the inner and outer cylinders to generate system pressure to counter the rolling motion of the tractor, increasing stability and active safety.

The permanently active self-levelling function optimises suspension comfort at all times by keeping the cylinders as close to their mid-stroke positions as possible, maximising available suspension travel in all operating conditions. The damping control system, however, can be activated by the driver with a button in the cab.

With a low centre of gravity and ideal weight distribution over the front and rear axles, maximum traction is available even in the most

difficult terrain conditions, supported further by the Auto 4WD function. The front differential lock is also controlled automatically: the system uses two speed sensors on the front wheels to progressively engage and disengage the differential lock, saving the driver from having to perform tiresome repetitive operations to maximise comfort and productivity. Last but not least, the traction control system ensures sure-footed traction even in varying ground conditions by controlling the front differential lock proportionally.

The Agropius S/V frontaxle is equipped with the highly innovative Differential Traction Control (DTC) – an electronically controlled locking differential with a pressurized multi-plate clutch. The electronic management is able to identify the wheelspin automatically and transfers in a progressive way the torque where there is more grip. The DTC is very useful as there is improved traction, driveability and maneuverability in tight and steep areas, improved handling on the road without understeering and it provides full locking capacity when it is needed.



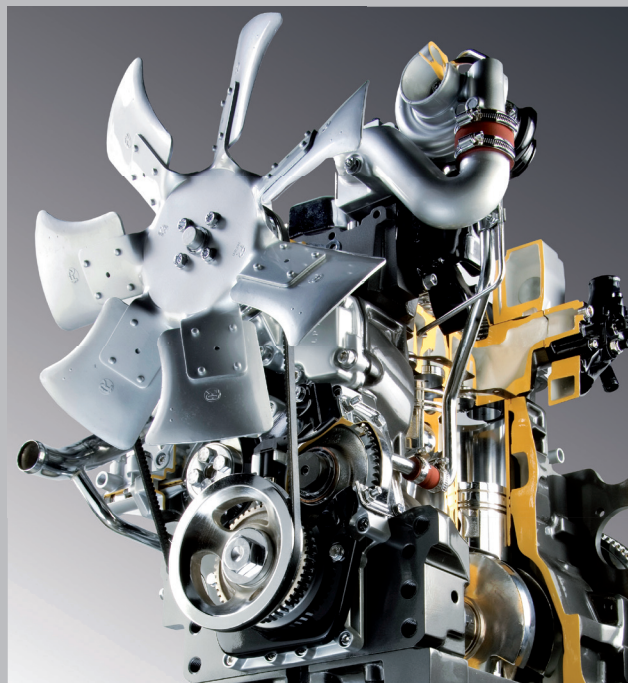
3 AND 4 CYLINDER ENGINES.
MAXIMIZED POWER, MINIMIZED
FUEL CONSUMPTION.



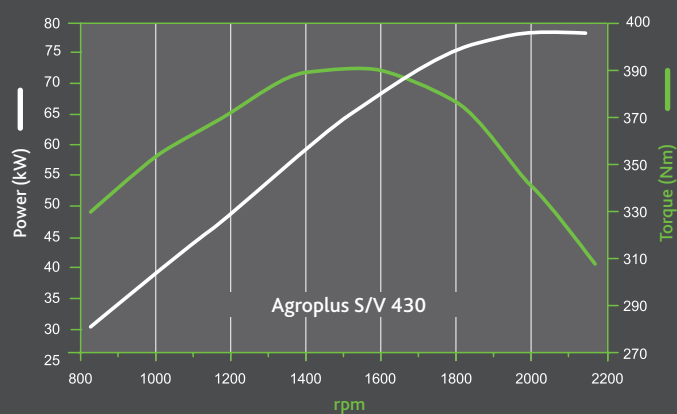
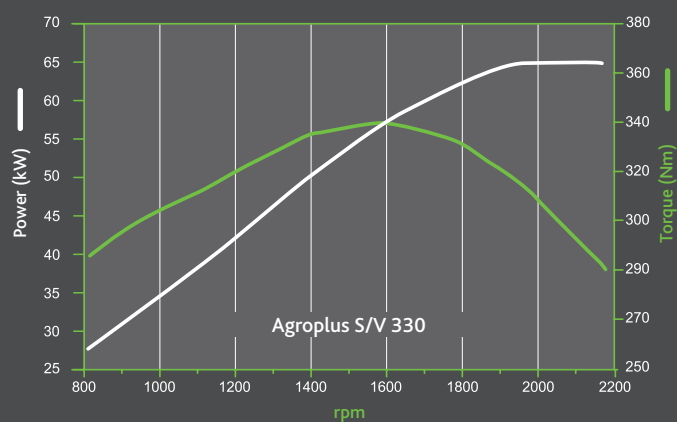
Providing the power for Agropius S/V tractors 1000 Series engines, with turbocharger and intercooler, and are compliant with Tier3a emission regulations.

These modular design engines, with a unitary cylinder capacity of 1000 cm^3 , produce 82 and 90 HP in the 3 cylinder configuration and 85, 96 and 106 HP in the 4 cylinder configuration. It's your choice: a compact 3 cylinder version for greater agility or 4 cylinder models predominantly for more heavier implement work.

Of all the different cylinder/displacement configurations offered in the specialised tractor sector, with multiple, small displacement cylinders on the one hand, for a more compact but less powerful engine and conventional engines on the other, with fewer, larger displacement cylinders – which are more powerful but too bulky for specialist applications – a unitary cylinder capacity of one litre strikes the most effective balance. The intercooler cools air pressurised by the turbocharger and makes it more dense, making it possible to feed more oxygen into the cylinders and significantly increase combustion efficiency.



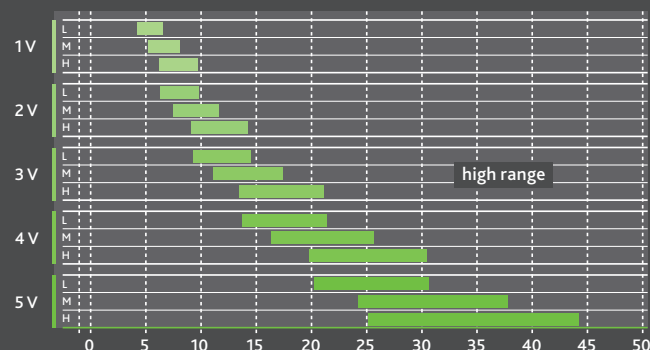
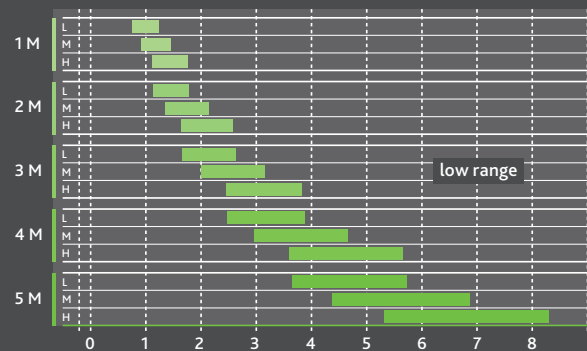
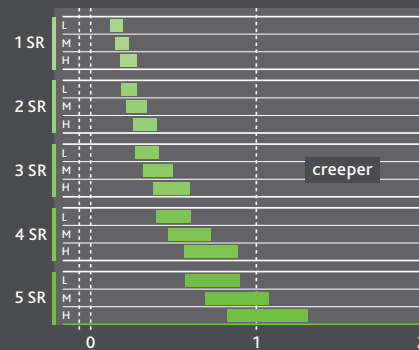
High pressure fuel injection and electronic engine governor. A cutting edge technological feature.



The result is a substantial increase in power, reduced fuel consumption and lower engine operating temperatures. The exclusive injection system with an individual injection pump for each cylinder is a unique feature in this market sector, and is more reliable and advanced than more commonly used rotary pumps. The extremely high operating pressures of the system make much shorter injection times possible, optimising both performance and consumption.



TRANSMISSIONS:
INCREASED EFFICIENCY IN THE
FIELD AND ON THE ROAD.

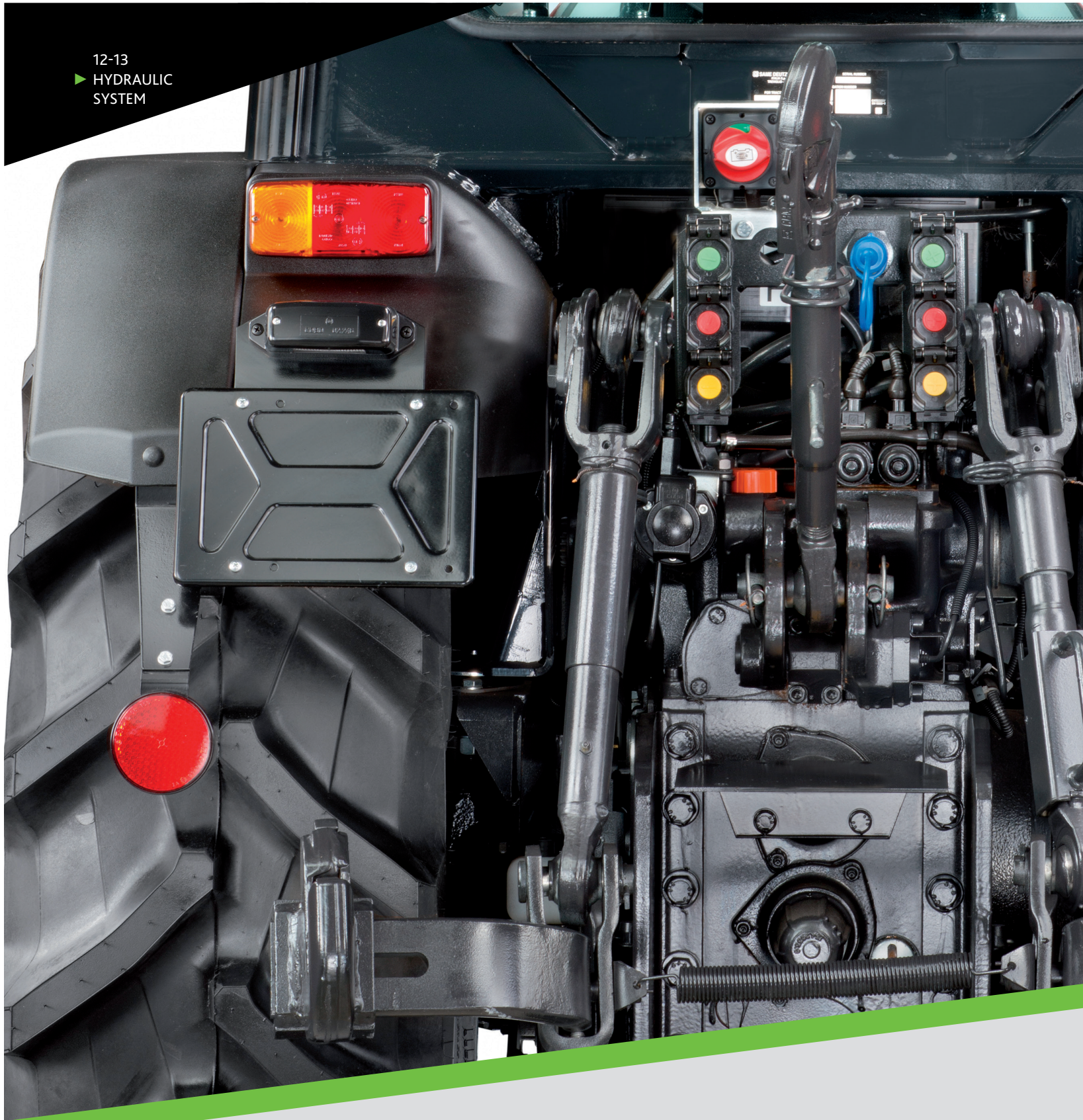


Ground speed in km/h.

The transmissions of the Agroplus S/V have been developed to respond to the increasingly demanding needs of modern agriculture. Versatility and efficiency are the two greatest strengths of these transmissions: with 3 ranges (with supercreeper gear), a 5 speed gearbox and 3 powershift ratios offering a total of 45 different speeds in both directions. As an alternative, a mechanical transmission with 30+15 speeds is also available. Versions with Powershift allow the driver to shift gears effortlessly by simply pressing the clutch button (ComfortClutch) situated ergonomically on top of the gear lever, without having to use the clutch pedal.

For even more transmission efficiency the Agroplus S/V tractors may be equipped with the Overspeed gearbox, with specifically spaced higher ratios to let the driver either choose maximum economy, with a speed of 40 km/h attainable at engine economy speed (regardless of tyre size) in top gear, or maximum performance, by shifting down to the next ratio below top gear. For road transport usage, lower engine speeds reduce fuel consumption, while still offering the advantage of generous torque back-up.

This also reduces noise, which in turn benefits driver comfort. 4WD and electrohydraulically operated 100 % lockable front and rear differential locks ensure good performance and traction in all conditions.



EQUIPPED TO MANAGE ALL
KINDS OF OPERATIONS EASILY.



Multiple equipment options. Hydraulic control units in the centre wheelbase (on demand) expand the range of applications.



The controls for rear lift and hydraulic implements are positioned close to each other and within easy reach.

GS version is equipped with hydraulic PowerShuttle allowing directional manoeuvres with no interruption in drive power. In addition to the hydraulic reverse shuttle, the transmission may also be equipped with the Stop&Go function, which increases the potential of the reverse shuttle itself, especially in situations when it is necessary to hold the tractor stationary, such as when hitching implements or starting on an uphill gradient. This function lets the driver control the tractor precisely simply from the brake pedals and without having to use the clutch.

Specialised farming often entails the use of hydraulic implements with very high oil flow demands. This means that having a high per-

formance hydraulic system, with superior flexibility in terms of the number and location of auxiliary valve couplings is crucial.

Agroplus S/V tractors are equipped with a dual tandem hydraulic pump with a flow rate of 33 + 25 L/min. A wide variety of configurations are available for the hydraulic outlets – with up to 3 mechanical valves at the rear with flow regulator (for a total of 6 couplings), plus the options of two mid-mounted valves for front implement operation with one valve available with float mode. The centre point of the tractor may be equipped with 4 mid-mounted couplers connected to the rear outlets or 6 additional couplers with separate flow control.



SPECIALIZED TO LIFT UP
YOUR WORK.



Choice of PTO configurations with 3 different speeds available.



Additional control units for front and centre.



The steering angle is not compromised with the addition of front lift.

The unique lift linkage and tie-rod geometry ensures the rear lift is capable of the most challenging tasks with a maximum lift capacity of 2600kg. The mechanical lift is efficient, simple to use and offers precision linkage control. However, an electronically controlled hitch offers an even higher-tech option.

External hitch controls on the rear mudguards makes coupling implements safe and simple. A dedicated front hitch with a maximum capacity of 1500 kg with a 1000 rpm front PTO is also available for working with front mounted implements: an option which further extends the capabilities of Agroplus S/V tractors to include tasks with both front and rear implements.

The extraordinary versatility of Agroplus S/V tractors also extends to the choice of PTO configurations (all with multiplate wet clutches),

with 3 different speeds available (540/540ECO/1000 and ground speed PTO). This makes it possible to work effectively with power-hungry pneumatic sprayers, and effectively with implements such as side shoot remover machines and small inter-row mowers.

A ground speed PTO is available for transport applications on gradients, particularly ideal for connecting driven wheel trailers. The PTO clutch is engaged and disengaged electrohydraulically from a button, ensuring progressive, shock-free activation of implements. The effective PTO output shaft speed is indicated digitally on the instrument cluster.

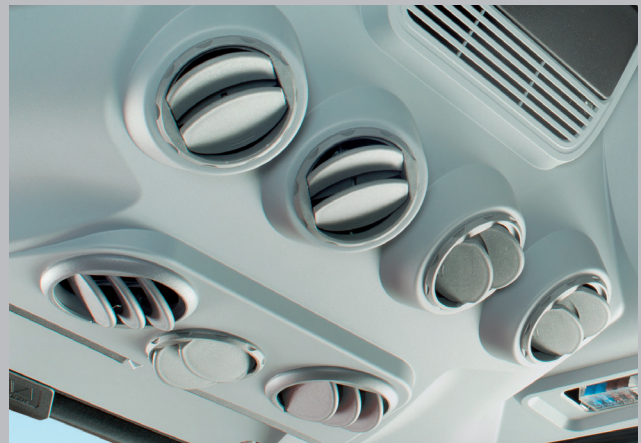
The braking system. Front wet disc brakes integrated in the front axle work in conjunction with the tried and tested wet disc brakes on the rear axle to increase braking performance, brake durability and safety.



THE MOST COMFORTABLE
WORKING PLACE FOR YOUR JOB.



The controls for A/C and working lights are placed handily in the roof.



Seven ventilations ensure a comfortable working climate even after a long working day.



Clear and intuitive positioning of the controls in the right-hand console.

The cabs of Agropius S/V tractors offer one of the best operating environments on the market in terms of comfort, ergonomics, functionality and design, to make the job more pleasant and profitable. The 4-post structure with single piece windscreen offers unobstructed all-round visibility. New sound insulating and sound absorbent panels (also in the under hood area), special glass and a host of other technical features (such as viscostatic drive for the cooling fan) ensure excellent levels of acoustic comfort in the cab. The controls are colour-coded for instinctive use and immediate recognition. The

roof and engine hood feature a tapered design with rounded corners to prevent the risk of tangling with branches or overhanging shoots and damaging the plants. The cab is equipped with a powerful air conditioning system which now includes a new condenser to further improve performance, while the optimised layout of the numerous directional vents in the cab ensures a uniform and effective distribution of treated air in the cab. Everything the driver needs to make life on board more comfortable, and ensure an ergonomically comfortable driving position.



EVEN MAINTENANCE RUNS LIKE A CLOCKWORK.

All engine ancillaries (radiators, fans, hoses, filters etc.) are specifically designed to keep the engine as compact as possible, but also allow regular maintenance and repairs. The compact radiator pack is quick and easy to clean, even in the field. The air filter is situated in a dedicated, moulded compartment within the fuel tank structure, and includes a dust ejector which significantly extends maintenance intervals.

A hydraulic oil radiator is fitted as standard to keep the oil at the ideal operating temperature even in the most demanding working conditions and in the hottest climates. Other ancillaries in the under hood area are engine oil filters, a fuel pre-filter with water separator and an effective exhaust silencer, available with either a horizontal or a vertical tailpipe. Even before you access the engine, it is clear that everything is designed for simple maintenance, from the single-piece rear-hinged hood, which also features a lift mechanism for effortless opening.

This makes it extremely simple to access the engine compartment and quickly check coolant and brake fluid levels or clean the engine air filters and radiators. What's more, the engine oil level can be checked without even opening the hood, while the cab air filters are easily accessible without tools to encourage regular cleaning.

Technical data		Agroplus S/V				
		320	330	410	420	430
ENGINE						
Emissions		Tier3	Tier3	Tier3	Tier3	Tier3
Manufacturer		SDF	SDF	SDF	SDF	SDF
Cylinders/Displacement	no./cm ³	3/3000	3/3000	4/4000	4/4000	4/4000
Intake		Turbo Intercooler	Turbo Intercooler	Turbo Intercooler	Turbo Intercooler	Turbo Intercooler
Max. power (2000/25/EC) at 2200 rpm	kW/HP	60/82	66/90	63/85	71/96	78/106
Max. torque @ 1600 rpm	Nm	310	340	345	373	390
Electronic engine control		●	●	●	●	●
Fuel tank capacity	litres	35 + 30	35 + 30	35 + 30	35 + 30	35 + 30
SHUTTLE						
Mechanical Synchronised Shuttle		●	●	●	●	●
Hydraulic PowerShuttle with Stop&Go system		●	●	●	●	●
MECHANICAL TRANSMISSION						
5 speed gearbox		●	●	●	●	●
Number of speeds with underdrive and supercreeper gear	no.	30 + 15	30 + 15	30 + 15	30 + 15	30 + 15
POWERSHIFT TRANSMISSION						
5 speed gearbox		●	●	●	●	●
Number of speeds with underdrive and supercreeper gear	no.	45 + 45	45 + 45	45 + 45	45 + 45	45 + 45
Powershift number of speeds	no.	3	3	3	3	3
REAR PTO						
Electrohydraulically engaged		●	●	●	●	●
PTO 540/540ECO		●	●	●	●	●
PTO 540/540ECO/1000		○	○	○	○	○
Ground speed PTO		○	○	○	○	○
FRONT PTO						
Electrohydraulically engaged		●	●	●	●	●
PTO 1000		○	○	○	○	○
FRONT AND REAR AXLE						
Four wheel drive electrohydraulically engaged		●	●	●	●	●
Electrohydraulically engaged differential lock		●	●	●	●	●
BRAKES AND STEERING						
Parking brake independent		●	●	●	●	●
Trailer braking hydraulic		●	●	●	●	●
Hydrostatic steering with independent pump		●	●	●	●	●
HITCH						
Mechanical rear hitch		●	●	●	●	●
Electronic rear hitch		○	○	○	○	○
Rear lift capacity	kg	3000	3000	3000	3000	3000
Front hitch		○	○	○	○	○
Front lift capacity	kg	1500	1500	1500	1500	1500
HYDRAULIC SYSTEM						
Hydraulic system with dual pump	l/min	33 + 25	33 + 25	33 + 25	33 + 25	33 + 25
Rear auxiliary hydraulic valves (max.)	no. of couplers	6	6	6	6	6
PLATFORM						
Suspended on Silent-Block mounts		●	●	●	●	●
ROPS folding		●	●	●	●	●
CAB						
Suspended on Silent-Block mounts		●	●	●	●	●
Ventilation and heating		●	●	●	●	●
Air conditioning		○	○	○	○	○
DIMENSIONS AND WEIGHTS						
Standard rear tyres		360/70R24	360/70R24	380/70R24	420/70R24	420/70R24
Max. length without rear linkage	mm	3186	3186	3338	3363	3363
Width (min./max.)	mm	1314 / 1813	1314 / 1813	1391 / 1873	1461 / 1911	1461 / 1911
Max height at ROPS	mm	2228	2228	2380	2405	2405
Height at hood	mm	1296	1296	1318	1343	1343
Height at steering wheel	mm	1306	1306	1328	1353	1353
Height at mudguards	mm	1161	1161	1183	1323	1323
Cab height	mm	2303	2303	2325	2350	2350
Ground clearance	mm	234	234	252	260	260
Wheelbase	mm	2027	2027	2157	2157	2157
Front track (min./max.)	mm	985 / 1270	985 / 1270	1034 / 1270	1088 / 1324	1088 / 1324
Rear track (min./max.)	mm	982 / 1489	982 / 1489	992 / 1489	1022 / 1520	1022 / 1520
Minimum turning circle without brakes	mm	3400	3400	3500	3600	3600


●: standard ○: optional

Technical data and pictures are indicative. Committed to delivering a product more and more in line with your needs, DEUTZ-FAHR reserves the right to update the specifications of its machines at any time without notice.

Dealer

Marketing-Communication Service - Code 3083564-3-4-4 - 03/16

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