

SERIES 6



DEUTZ-FAHR
6150.4 - 6160.4 - 6150 - 6160
6180 - 6190 Agrotron





SUITABLE FOR ANY CHALLENGE AS
A 4-CYLINDER OR A 6-CYLINDER
UNIT.



4 cylinder

- Short wheelbase
- Versatile range of applications
- Easy to maneuver
- Optimum prerequisites for a compact power pack

6 cylinder

- Long wheelbase
- High level of constant power
- High torque
- Heavy-duty field operations

THE RIGHT POWER PACK FOR YOUR NEEDS.

The 6 Series offers high levels of performance and maximum ride comfort, as well as scope for you to select precisely the right tractor for your working environment, together with the required implements and attachments. All the equipment details of this new 6 Series feature design properties specifically developed for agricultural businesses and contract hire companies, all designed to deliver optimum levels of performance coupled with fuel economy. Often, it is the right choice of tractor that determines whether or not you achieve optimum productivity with reduced operating costs: power is not the only consideration in this equation. Often, other features are involved. To satisfy the many and varied requirements of farmers, the 6 Series offers a comprehensive selection of models and equipment variants. 4 or 6-cylinder engines are equipped with SCR and DCR technology (Deutz common rail). The 4-cylinder models with a short

wheelbase lend themselves, by way of example, to support or transport roles while the rugged 6-cylinder models with long wheelbase are also suitable for heavy-duty field work. The 6 Series constitutes an important further development in the mid-range and top-end segments of the tractor market: the 4-cylinder version is the right choice if you are looking for versatility and maneuverability, but if you need peak levels of performance, the 6-cylinder models are preferable. The complete equipment range extends across a broad spectrum of possible applications: from working the ground to sowing, from plant spraying to harvesting, as well as rapid transport work. Thanks to this outstanding level of versatility, the 6 Series is a good choice for medium-sized farming businesses that use the tractor as an all-rounder, as well as for contract hire companies that perform support and transport work.

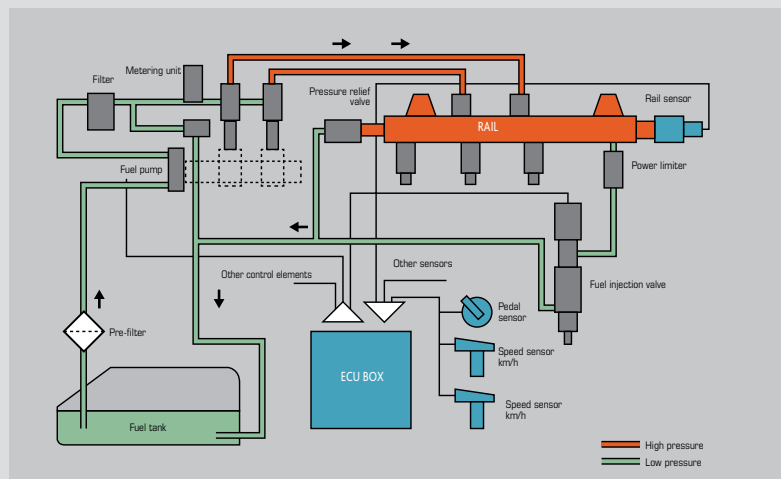


POWER FOR NEW
TASKS.



ENVIRONMENT-FRIENDLY ENGINES WITH A HIGH EFFICIENCY RATING.

The tractors in the 6 Series, with their engines extending across a range of 140 to 190 hp, exhibit an exceptional level of modular design. With a broad constant power range, the Series is clearly ideally suited for farm work of all kinds. The maximum performance output level is achieved at an engine speed of 1900 rpm and remains between 1600 and 2100 rpm – i.e. almost constant across virtually the entire operating range needed for typical field work tasks. To achieve the best possible engine performance levels together with low specific fuel consumption and reduced pollutant emissions, a power pack comprising engines with 4 valves per cylinder, a turbocharger with intercooler and an electronically controlled waste gate valve, DCR (Deutz Common Rail) fully electronic fuel injection control up to 1600 bar and downstream exhaust emission treatment by means of an SCR catalytic converter.

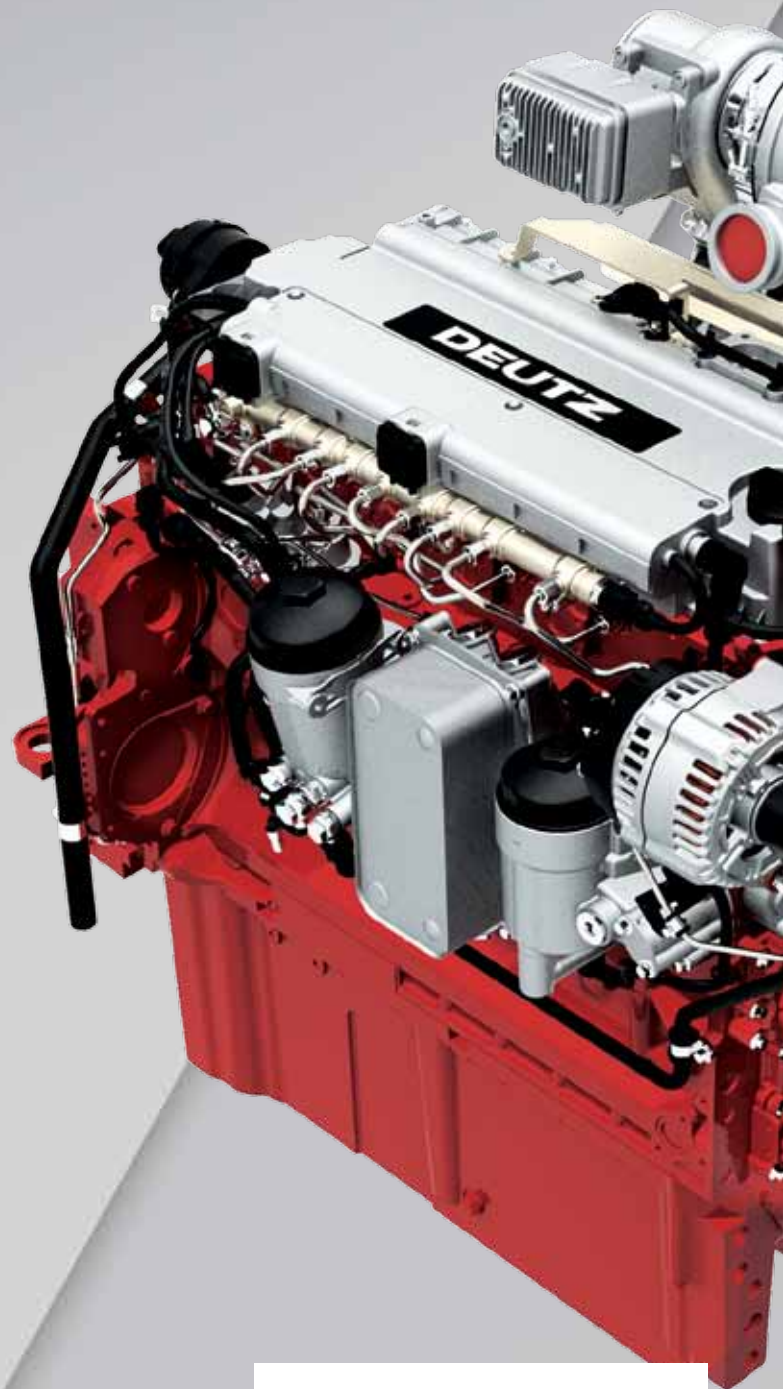


IMPROVED EFFICIENCY RATING, HIGHER PRODUCTIVITY.

In conjunction with the new geometry in the combustion chambers recessed directly into the pistons, the new Deutz Common Rail engines (DCR) deliver high and virtually constant power, even during ultra-heavy-duty work, developing excellent levels of torque and doing so at remarkably low engine speeds. This results in higher traction during field work and heavy-duty transport work. In conjunction with broad operational elasticity, the following advantages can be achieved: increase in productivity, enhanced fuel economy and a reduction in noise and vibration loads in the minimum and nominal speed range. Through the use of SCR technology, it is possible to dispense with exhaust gas recirculation (EGR), and this further improves the engine performance level. At an identical level of power output, a reduction in fuel consumption compared to previous models can reasonably be anticipated.

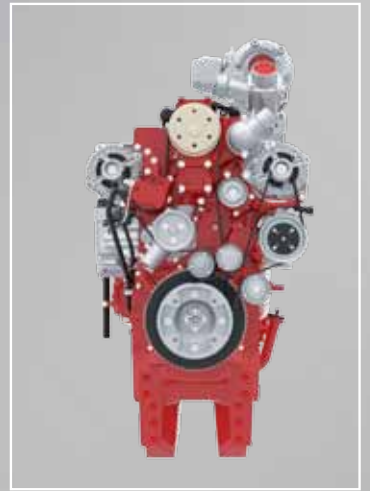
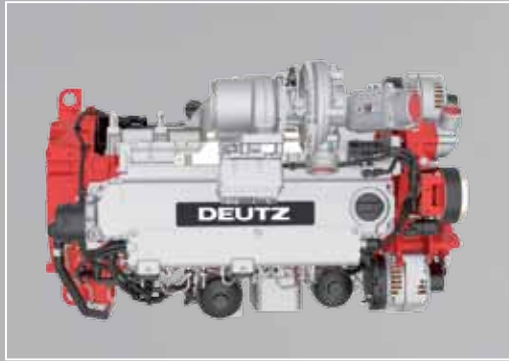
GREATER FUEL ECONOMY AND COST SAVINGS THANKS TO ADBLUE.

The use of AdBlue (a solution containing 32.5% of ultra-pure urea in demineralized water needed for Selective Catalytic Reduction (SCR)) pays for itself fully through the saving in fuel. This method is not only gentle on the environment, it really does save you money at the same time. The tank for AdBlue does not in any way impair the capacity of the main tank. The capacity of the AdBlue tank is designed for operational autonomy: a full tank is sufficient for almost two full fuel tanks. In this way, it is easier to contend with long working days. The models in the new 6 Series are equipped to meet the challenges posted by bio-fuels and can run on diesel mixtures as well as on 100% biodiesel (B100).



The DCR high-pressure fuel injection system (Deutz Common Rail) operates at 1600 bar and is supplied by two injection pumps lubricated by the engine. The new PowerCore air filter with the Ejector system for pre-separation of dust increases the efficiency rating and reduces the cost of service work.

DPC (Deutz Power Control), the innovative performance management system, delivers a needs-based level of power to suit each type of application.



New Tier 4i-compliant common-rail engines from Deutz, with 4 or 6 cylinders, 16 or 24 valves, turbocharger with intercooler and electronic feedback control.

100% biodiesel-compatible



Deutz common rail technology.

100 % biodiesel-compatible engine (biodiesel acc. to standards EN 14214:2003).



RELIEF FROM PRESSURE WHEN CHANGING GEAR: ALWAYS IN THE RIGHT GEAR...

THE RIGHT GEAR FOR EVERY APPLICATION.

The transmission in the new 6 Series has 6 gears, each with 4 powershift stages, giving it a total of 24 ratio steps. Then add the optional equipment with crawler transmission (available in the 4 lower ranges) and an electrohydraulic power shuttle transmission that makes it much easier to maneuver in headlands and in confined spaces when working with front loader equipment. In total, the transmission provides up to 40 forward gear ratios and the same number of reverse gear ratios, all carefully stepped to avoid any unnecessary areas of overlap. When transporting goods on the road, the engine runs at just 1550 rpm(*) to save fuel and to reduce the impact of noise and vibration. The electrohydraulic Powershuttle with modulating response characteristics enables the direction of travel to be altered, even on gradients, and at speeds of up to 12 km/h. All you need to do is use the lever located beside the steering wheel: there is no need to depress the clutch pedal.

(*) = 1550 rpm for the 6160 model; 1640 rpm for models 6150, 6180 and 6190, all with standard tires.



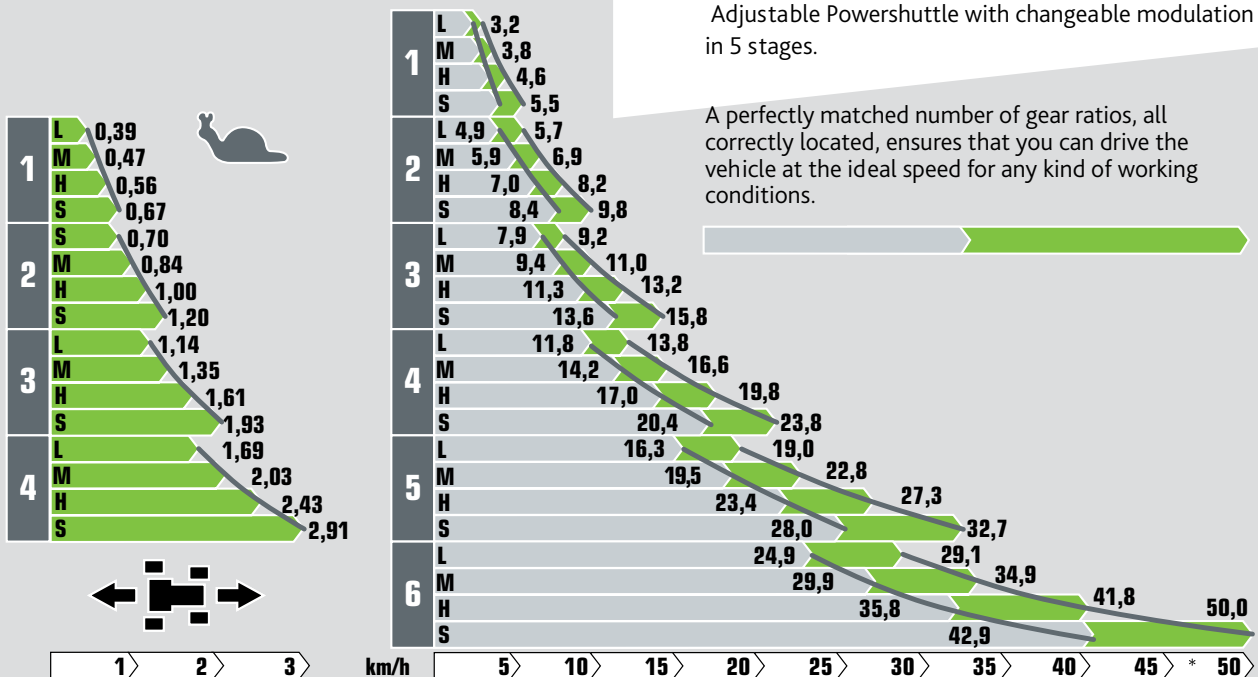
WORKING WITH AN AUTOMATIC SYSTEM

The automatic Powershift transmission fitted as standard in the 'P' version has 4 powershift ratios in every operating range. The choice of the ideal ratio step can be made automatically in response to prevailing load and engine speed. The extremely rapid response time is intended for work that involves frequent gear changes. That enables the driver to concentrate full time on his work; the engine power is always within the optimum range, one that favours low fuel consumption. The automatic control of four wheel drive and the differential lock makes it possible to master exceptionally difficult situations. Depending on vehicle speed and steering angle, the electronic control unit engages or disengages the four wheel drive system and opens and closes the differential lock accordingly. This not only improves the traction required for field work, but also ensures safe and high manoeuvrability for the tractor.



Adjustable Powershuttle with changeable modulation in 5 stages.

A perfectly matched number of gear ratios, all correctly located, ensures that you can drive the vehicle at the ideal speed for any kind of working conditions.



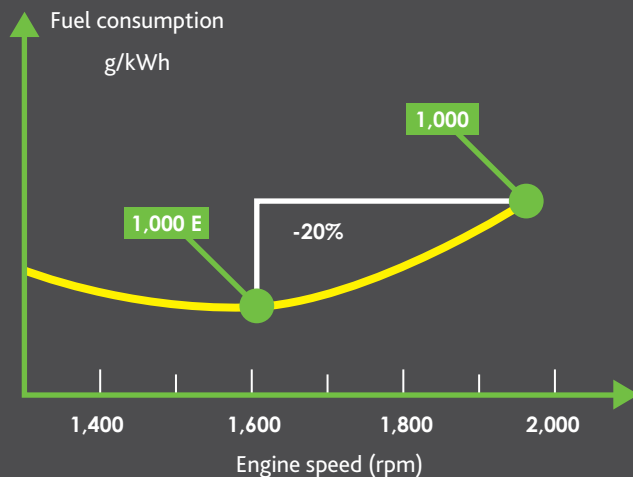
(*) to the extent legally permissible



NEEDS-BASED
POWER OUTPUT.



ECONOMY PTO



The 'economy PTO shaft' not only reduces the engine speed. Wear, noise levels and fuel consumption all decrease as well.



Lever for selecting the PTO speed with engagement and disengagement by means of comfortable electrohydraulic controls.

WIDE SELECTION OF PTO SPEEDS.

The opportunity to select between different PTO speeds increases the versatility of a tractor and also enables work to be tackled at an optimum efficiency rating especially if this does not involve the engine having to operate at maximum power. Tractors in the Agrotion 6 Series are all equipped as standard with 4 PTO shaft speeds: as well as the normal speeds of 540 and 1000 rpm, an 'ECO for economy' PTO is also available. On all models, alongside electrohydraulic engagement and disengagement, automatic load detection is provided to ensure that the tractor can set off in a continuously variable and gradual manner with implements attached to it. PTO remote control on the rear mudguards is included in the standard product package. A front powerlift unit with a 1000 rpm PTO speed is available as an option.





THE UNITING OF POWER AND
PRECISION.



A POWERLIFT WITH ENORMOUS LIFTING POWER

All Agrotion tractors in the 6 Series are equipped with the EHR electronic lifting gear control system. This controls traction, position, mixture control and float setting as well as slip control. The rear-mounted lifting gear is rated for loads of 9,200 kg. The lifting power of the (optional) front-mounted lifting gear is 4,000 kg. The following functions are available as standard: Fast reaction, vibration damping of attachments during transport, locking in desired position, limitation of implement height, setting of lowering speed. The operating parameters of the rear-mounted lifting gear are set on the conveniently positioned side console and values are displayed on the digital screen on the dashboard. The maximum slip figure can be set using a special potentiometer. This refined range of instrumentation enables the driver to monitor all operating data in real-time and to boost the productivity of the tractor.

BEST IN CLASS HYDRAULIC SYSTEM

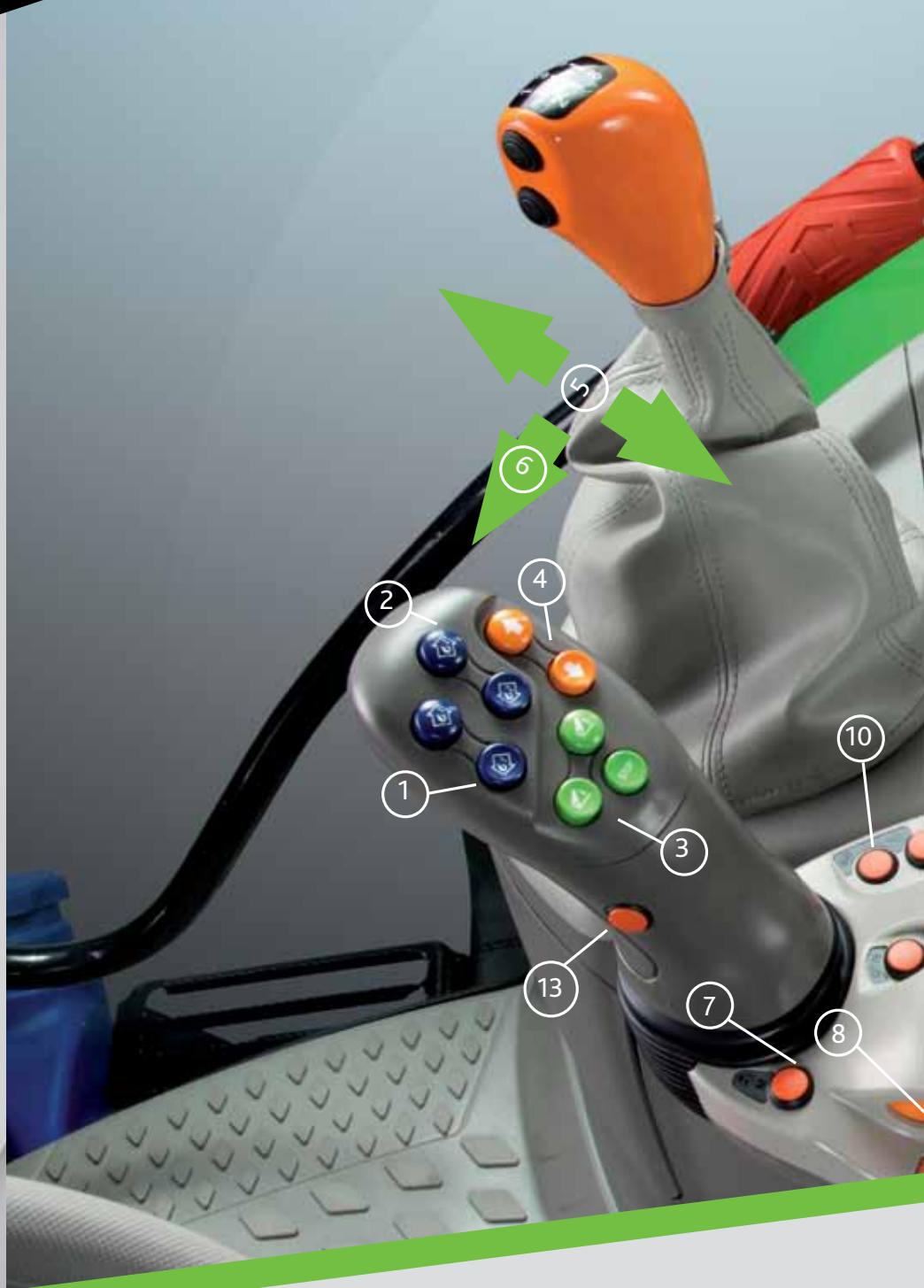
The hydraulic system comprises a pump with a displacement of 42 l/min for the power steering system and auxiliary circuits, as well as a constant displacement pump with a throughput of 83 l/min to supply the control valves on the powerlift unit. On request, the hydraulic system can be equipped with a load-sensing system (120 l/min) to adapt power output to suit device requirements, to reduce performance losses and fuel consumption, and to extend the service life of the hydraulic components. As standard equipment, four mechanically controlled dual-action control valves are fitted. In the 'P' version, 4 dual-action electronically controlled control valves are installed as standard, and there is scope for extending the system to include up to 7 control valves. That involves up to 2 valves being available at the front for linkage and an auxiliary service. All control units can be used in locked condition, either with single or dual-action, even if the rear-mounted lifting gear is operational. Furthermore, the operating time and oil flow rate can be adjusted.

BROAD-SPECTRUM VERSATILITY AND EASY TO OPERATE.

Using the Power-Beyond connection, the entire flow of pressurized oil from the hydraulic pump can be routed to one or more hydraulic motors mounted on the attached implement. This application is very helpful for attachments that have a stand alone hydraulic system. The high displacement volume available improves the hydraulic efficiency rating which has a beneficial impact on fuel economy. All models in the 6 Series are equipped with 'Push-Pull' hydraulic connections which make it possible to connect up pressurized hydraulic lines. Any droplets of oil that may escape when connecting up implement lines are collected in a drip collection bottle.

POWERCOMS CONTROL
LEVER
WITH COMFORTIP.

- 1 Electrohydraulic auxiliary control unit no. 1
- 2 Electrohydraulic auxiliary control unit no. 2
- 3 Lifting gear control unit for raising / lowering / rapid retraction / EHR activation
- 4 Hydraulic Powershuttle transmission forwards/reverse
- 5 POWERSHIFT: powershift transmission
- 6 Comfortip: for saving and calling up routine sequences
- 7 Engine speed memory
- 8 Electronic manual throttle
- 9 Neutral (changing into Neutral)
- 10 Differential lock
- 11 Four wheel drive
- 12 Joystick control lever for control unit nos. 3 and 4
- 13 Automatic PowerShift transmission



MORE CONCENTRATION,
HIGHER PRODUCTIVITY.

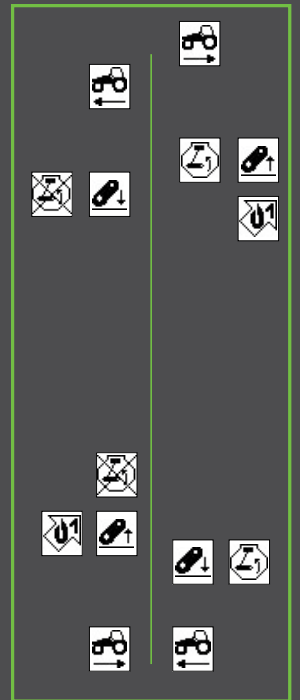
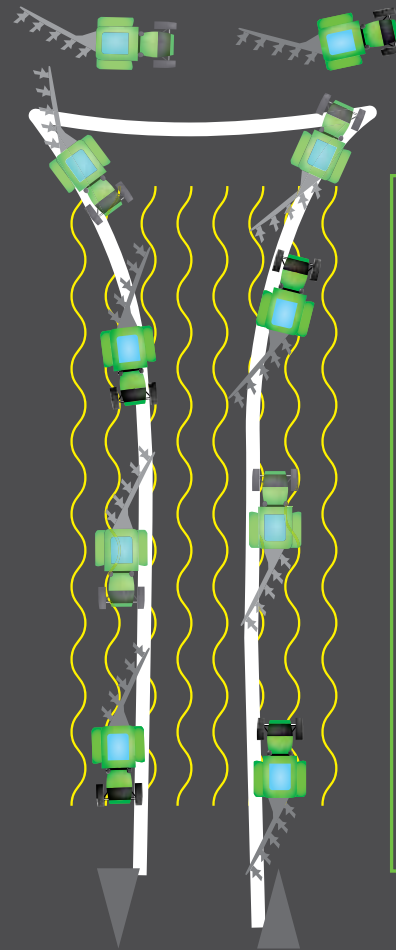


ONE-LEVER OPERATION - TO ENSURE THAT YOU HAVE EVERYTHING UNDER CONTROL

During field work, certain operations tend to repeat themselves. This requires the driver always to key in the same sequence of commands whenever he reaches the headland and before starting down a new furrow. That requires a great deal of concentration which in turn harbors the risk of operator error.



Sequence of tasks for routine operations.



PROGRAMMING IS CHILD'S PLAY.

Using the Comfortip system, the driver can program individual sequences of tasks (with up to 16 functions) using the PowerComS control lever, and can call these up by simply nudging "tipping" the control lever. The Info-Center makes the task of programming easier for the driver by providing a series of specific symbols on the screen display from which the driver can select and save the desired ones. Whenever saved commands are called up, the next function programmed in the display is highlighted, enabling the driver to tell at any time which function he is next able to call up. At the end of each furrow, this dispenses with the need for keying in the relevant sequence of commands all over again before turning around and embarking on the next parallel furrow. Instead, simply by pressing the PowerComS control lever, the driver activates the desired sequence of commands.

- Engage a forward gear
- Engage Reverse gear
- Lower the plough
- Call up the headland speed of engine
- Raise the plough
- Call up working speed of engine
- Turn the plough

SERIES 6

6150-6160-6180-6190

Agrotron





SERIES 6
6150.4-6160.4
Agrotron



FUNCTIONALITY IS A QUESTION
OF THE CAREFUL PLANNING OF
DETAILS.



OPTIMUM VISIBILITY

A cab concept that continues to set new standards: With all-round visibility and a glazed surface area of 6.5 m² the spacious panorama cab on the Agrotion is one of the largest in its class.



EXCELLENT AIR-CONDITIONING

The air-conditioning system delivers continuous and constant air-conditioning to the driver's cab environment, aided by no fewer than 14 adjustable air vents to distribute the air flow around the driver to optimum advantage.



5-STAR COMFORT.

The entrance steps are made of steel with non-slip steps, and a foot strip is lit automatically whenever the door is opened and this makes access to the cab easy and convenient. Once on board, the driver is welcomed by a sense of being in total control of the vehicle – thanks to the generous extent of cab windows that provide a 320° round view, and thanks to the glass roof with sun protection. In the event of this not being enough, the vehicle has 15 work lights - 6 at the front and 9 at the back. The features of the new S-Class² cab include the warm gray tone of the trim panels, the standard Softgrip steering wheel with aluminum inserts, the multifunction armrest with all the main controls and provision for fitting a radio with 4 speakers. If so desired, the equipment package can include mechanical or pneumatic cab suspension and an electronically controlled air-conditioning system to make long working days in the cab that much more comfortable.

A TAILOR-MADE WORKPLACE.

Right from the basic version, the driver's seat has air suspension and automatic level control. As an option, the new driver's seat has dynamic suspension for incomparable comfort thanks to vibration-damping protection. The passenger seat design has also been made softer and more comfortable. The powerful air-conditioning system in the cab provides 14 distributed ventilation ports to deliver a pleasant working climate, ideally suited to any conditions: under a blazing sun, in the cold, or when the windows need to be de-iced or condensation needs to be dealt with. The air quality in the cab is always superb thanks to the special filters installed down the side cab struts (optional active carbon filters are also available); these filters are easy to access for cleaning and replacement.



THE HIGHEST SAFETY STANDARDS
ON THE ROAD.

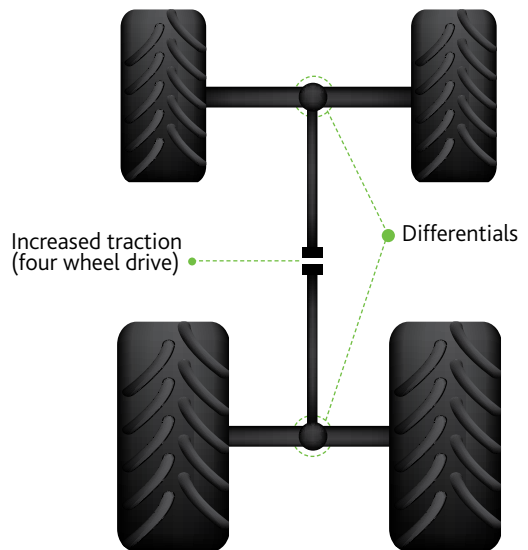


AXLE SYSTEM MANAGEMENT (ASM)

The Axle System Management (ASM) system regulates the engagement and disengagement of the front axle drive and the differential locks in a fully-automatic way. In this way, the need for manual intervention of the kind that might distract the driver from ongoing work can be eliminated. Engagement and disengagement of the front axle drive and/or the front or rear differential lock take place in response to the steering angle and speed – each depending on needs and without any scope for error. As well as maximum traction under all operating conditions, this system delivers maximum safety during normal operations combined with the highest levels of comfort.



ASM= + Comfort
+ Safety
+ High efficiency rating



INNOVATIVE BRAKES WITH A HIGH EFFICIENCY RATING.

To increase passive and active safety, DEUTZ-FAHR has devised an uncompromising brake package that employs the best technology available on the market at this time. Power-Brake is now a synonym for maximum braking action combined with the highest levels of ride comfort. To facilitate night-time working to the best possible extent, the 6 Series features a broad range of work lights. In the basic equipment package, halogen headlights are fitted. If required, the lighting package can be extended to include xenon headlights.

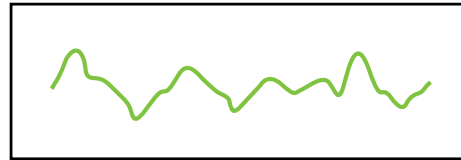




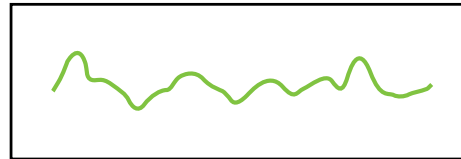
CORRECTS EVERY IRREGULAR
TERRAIN FEATURE



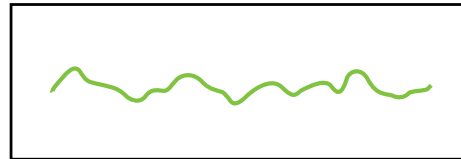
VIBRATION CURVES



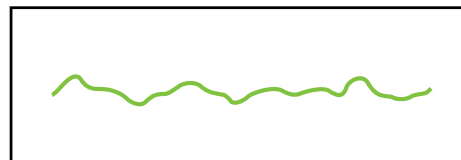
Without suspension



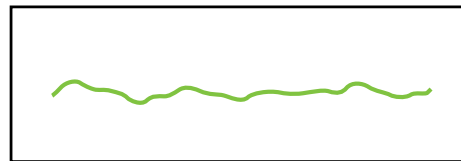
Front axle with suspension



Cab with suspension



Front axle and cab with suspension



Front axle and cab with suspension, Aeromat air-suspended driver's seat

FRONT AXLE SUSPENSION

An innovative system operates the electronically controlled suspension on the front axle without affecting the steering lock and the extent of pendulum travel of the front axle. The new technical solutions comprise two hydraulic cylinders, the connecting system for support and the three nitrogen dampers: This paves the way to enhanced ride comfort and greater running stability even at high vehicle speeds and on rough terrain. The electronic control unit maintains the suspension units at their optimum level regardless of the load applied at the front and uses the full extent of damping stroke at all times. For traction work, this system can be disabled to improve the traction (ground adhesion) of the 'rigid' axle.

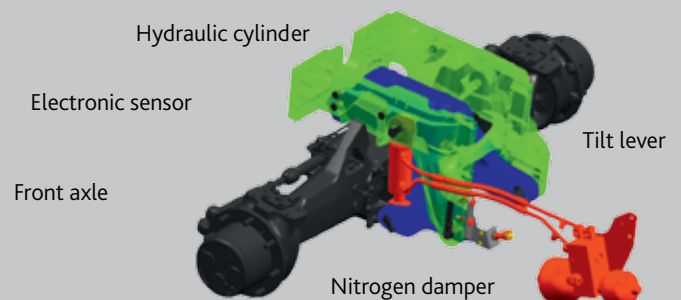
MECHANICAL CAB SUSPENSION

The mechanical vibration damping of the cab comprises mechanical springs. This substantially reduces the vibrations and bumps that occur when operating and transporting on rough ground.

AIR CAB SUSPENSION

An effective system enables the air suspension on the cab to

HYDRO-PNEUMATIC FRONT AXLE SUSPENSION.



regulate its settings automatically. This is accomplished by adapting the automatic intake of compressed air to the spring dampers to suit the prevailing weight inside the cab. The suspension units are always at their optimum height to make full use of the spring action. Even small changes in load in the cab (for example caused by the weight of driver and passenger) are recorded by the sensor and the system automatically optimizes the spring travel, which remains constant at all times. Two hydraulic suspension units rapidly damp out the most serious vibrations while the Panhard rod balances out pitching and rolling motion.



EVERY DESIRE FULFILLED BY THE
FULLY COMPREHENSIVE RANGE
OF EQUIPMENT.



For optimum comfort and high precision when operating attached implements, the P version comes with up to 7 electronically controlled hydraulic control units.

Thanks to the multi-function armrest and the PowerComS feature, the driver can retain full control over all functions at all times.

Hydraulic system with 'Closed-Center' and 'Load Sensing' – which ensures that power output is always perfectly matched to the needs of the implement attached.

Thanks to the Comfortip system (headland management), up to 16 repeating operations can be saved in the form of a macro, i.e. a sequence of operations, and this can be recalled simply by nudging the joystick.

Automatic Powershift transmission with intelligent control unit that engages the best gear ratio in real-time and dependent on prevailing load and engine speed.

P-VERSION OF THE 6 SERIES

In the P version, DEUTZ-FAHR enhances its high standard of technology with an improved level of operator comfort and optimized performance capabilities. The exclusive features were customized specifically to meet the requirements of contract hire companies and farm businesses that require maximum levels of performance but do not wish to sacrifice the operational comfort and the unique style of the 6 Series from Deutz-Fahr. All commands are arranged on a multi-functional armrest. The P version benefits from being equipped with an automatic transmission and crawler gear unit that engages the optimum gear ratio within its range of 4 Powershift speeds. By selecting the Eco or Power mode, it is possible to change the response characteristics of the transmission from Economy to High-Performance mode. The automatic Powershift transmission is controlled by an intelligent management system that selects and

engages the optimum gear ratio in real time and in response to the prevailing load and engine speed. For optimum control of tractor performance levels, the P version of the 6 Series is equipped with the Comfortip system: Used in combination with the Powercom S joystick, this intelligent fixture streamlines operations during work sequences that occur frequently. Up to 16 commands can be saved in the form of a command sequence or macro, and this can be called back up simply and easily by nudging or 'tipping' the joystick. A specific display with clear symbols displays the saved and ongoing operational sequences. The 'Closed-Center' hydraulic system on the P version can be extended by the addition of up to 7 electrohydraulic control units to assure optimum comfort and precision during the operation of attached implements. In the P version, numerous innovations in the 6 Series Powershift range achieve their ultimate expression in terms of performance capabilities and ease of operation.

TECHNICAL DATA	SERIES 6						
	6150.4	6160.4	6150	6160	6180	6190	
ENGINE							
Engine	DEUTZ - TCD 4.1 L04 4V Tier 4i			DEUTZ - TCD 6.1 L064V Tier 4i			
Fuel injection/pressure	Deutz Common Rail / 1600 bar			Deutz Common Rail / 1600 bar			
Cylinders/swept volume	No./ccm	4/4038		6/6057			
Approved fuel	Diesel, B100						
Power at nominal/rated speed (ECE R-120)	kW/hp	101/137	115/156	101/137	112/152	123/167	135/184
Nominal / rated engine speed	rpm	2100					
Max. power (ECE R-120)	kW/hp	109/149	118/161	109/149	118/161	130/176	143/193
Homologated power (2000/25 CE)	kW/hp	103/139	113/153	104/141	120/163	128/174	142/193
Engine speed range at constant power	rpm	1600-2100					
Maximum torque	Nm	605	672	605	672	740	820
Engine speed at max. torque	rpm	1600					
Contents of diesel fuel tank	l	230			300		
Contents of AdBlue tank	l	28			35		
TRANSMISSION							
Number of gear ratios	24 / 24 and 40 / 40						
Powershift ratios	4						
Maximum speed	40 km/h and 50 km/h respectively						
Speed Matching	Standard						
Adjustable Powershuttle	Multi-disc coupling in oil bath with modulation of response characteristics						
Front axle suspension	Optional						
ASM (automatic control of limited-slip differential and 4WD)	Standard						
PTO SHAFT							
Speed of rear PTO shaft	rpm	540/540E/1000/1000E					
Operation of rear PTO on the mudguards	Standard						
Front power take-off	rpm	1000					
HYDRAULIC POWERLIFT							
Maximum lifting power (front / back)	kg	4000 / 9200					
Category of 3-point suspension	II/III						
Operation of rear lift on the mudguards	Standard						
Radar	Optional						
HYDRAULICS							
Constant pump (series)	l/min	83					
Load-Sensing variable displacement pump (option)	l/min	120					
Hydraulic control valves (standard / optional)	4/7						
Operation of valve 1 on the fenders	Standard for the 'P' version						
Power steering pump	l/min	42					
BRAKES AND STEERING UNIT							
Servo brake (Boost Brake)	Standard						
Front and rear brakes with brake discs in an oil bath	Optional						
Pneumatic system for trailer	Optional						

TECHNICAL DATA

SERIES 6

6150.4
6160.4
6150
6160
6180
6190

TYRES

Tyres on front / rear wheels, standard	16.9R24/18.4R38	16.9R28/20.8R38	16.9R24/18.4R38	16.9R28/20.8R38	16.9 R28/20.8 R38	16.9 R30/650/65 R42
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CAB

The new S-Class-2 cab with new interior appointment in warm grey tones	Standard
PowerComS armrest	Standard for the 'P' version
Headland management for frequently recurring operations (ComforTip)	Standard for the 'P' version
ISOBUS interface and ISOBUS connection	Optional
Upholstered passenger seat	Standard

ELECTRICAL SYSTEM

Voltage	V	12
Battery	V/Ah/A	12 / 143
Alternator	V/Ah	14 / 150
Starter	V/kW	12 / 4
External socket		Standard
High-current socket		Standard

DIMENSIONS AND WEIGHTS (WITH REAR/FRONT TIRES)

	540/65R24/600/65R38	540/65R28/650/65R38	540/65R24/600/65R38	540/65R28/650/65R38	540/65R28/650/65R38	540/65R28/650/65R38
Wheelbase	mm	2419	2647	2767		
Min/max length	mm	4523-4772	4690-4772	4545-4772	4705-4892	
Min/max height	mm	2904-3004	2916-3004	2927-3050		
Min/max width	mm	2068-2521	2068-2527	2068-2531		
Min/max ground clearance	mm	455-505	455-525	455-505	535-555	

PERMITTED MAXIMUM DIMENSIONS AT 50 KM/H

Max. front axle load	kg	4200	4700	4200	4700	4900	5200
Max. rear axle load	kg	7200	8000	7200	8000	8400	9000
Total permissible weight	kg	9500	10000	9500	10000	11000	12000

UNLADEN DIMENSIONS

Unladen weight at front	kg	2150-2865	2170-2885	2300-3015
Unladen weight at back	kg	3590-3695	3700-3865	4060-4225
Total unladen weight	kg	5740-6560	5870-6750	6360-7240


Dealer

Marketing-Communication Service - Code 308.8543.3.4-2 - 04/13 LP

DEUTZ-FAHR recommends the use of genuine lubricants and spare parts.



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