



**THE TRACTOR YOU HAVE BEEN
WAITING FOR.
THE NEW AGROTRON TTV
410 / 420 / 430**



EVOLVING AGRICULTURE.



The requirements of a dairy farm needs to be considered just as much as...



...the variety of applications on a large arable farm.



WE MAKE TRACTORS FOR ALL FARMING OPERATIONS.

Building a tractor suitable for all farm operations takes a bit more than just delivering the latest technology. It requires the skill to understand what farmers actually need.

At a time when agriculture is becoming more and more complex and farmers need to understand and take account of more and more things, farmers and farming contractors are still combining their love of the land with sustainable and intelligent management methods. It is this down-to-earth rationalisation, combined with a high level of technical know-how and expertise, which allows them to take the right decisions based on the economic advantages as well as the technical considerations.

For more than 80 years, DEUTZ-FAHR have known what farmers are looking for. Affordability, high performance, re-

liability, and above all, economic tractor technology. They want machines that they can use efficiently and productively. That's why DEUTZ-FAHR builds tractors and combine harvesters the way farmers want them.

“FOR MORE THAN 80 YEARS, FARMERS HAVE BEEN RELYING ON THE SUSTAINABLE TECHNOLOGY OF DEUTZ-FAHR.”



“WHAT’S IMPORTANT IS NOT THE TECHNICALLY ACCEPTABLE, BUT THE MOST ECONOMIC OVERALL CONCEPT.”



The rear of the Agrotron 410/420/430 is noticeable by its large visibility glass areas, high number of work lamps, and a reversing camera.



OUR FIRM GOAL IS THE LOWERING OF LABOUR AND MACHINERY COSTS.

In today's intensive farming businesses, every Euro counts. So modern tractors now need to do more, as well as be more economic. It is the most economic overall concept that counts.

It is the tractors in the 120 to 145HP power class that now form the backbone of European agriculture. Despite the trend towards larger and larger tractors, the market share of these tractors has grown constantly over recent years. There are tractors in this class which simply have to do everything, and be able to do anything. At the same time providing high performance, economy, flexibility, and reliability. Tractors that form part of the stock management systems on large farming concerns. Tractors that need to show what they can do in tough grassland applications on dairy farms. Tractors that consistently have to deliver high performance economically even with a front loader.

The new Agrottron TTV 410/420/430 has been designed for these multiple requirements and has been rigorously optimised to meet the needs of economy and technology. So it is equipped with the very latest DEUTZ 4-cylinder engine, a highly efficient continuously variable transmission system, and powerful hydraulics. What's more, this modern and versatile tractor also has four power take-off speeds and one of the largest and most comfortable driver cabs.

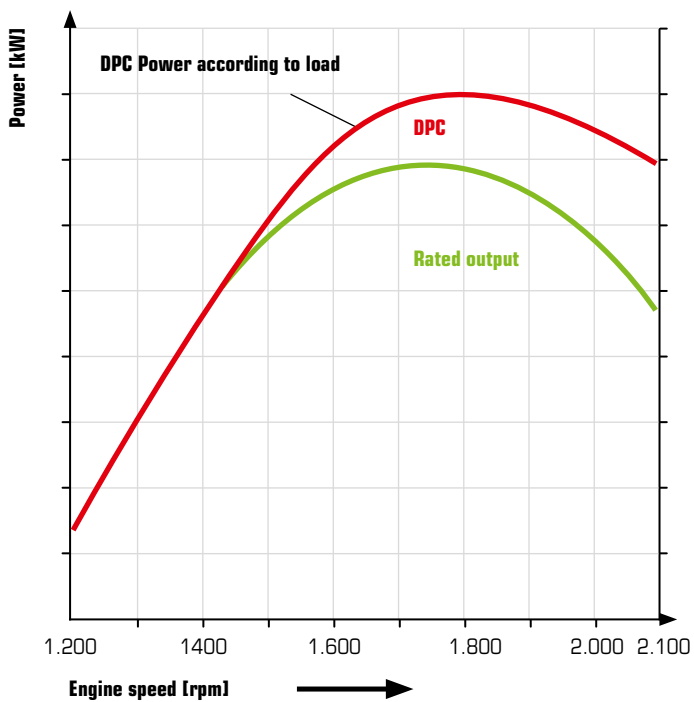
The fuel economy and high efficiency of these engines also ensure low consumption whatever the application. And combined with the long maintenance intervals

and low price of genuine replacement parts, the Agrottron TTV 410/420/430 ensures low operating, labour and machinery costs, per hectare or per unit of production, for any farming operation. This will make a real contribution to driving down total costs since, at the end of the day, farmers and farming contractors are there to make money.





DEUTZ-FAHR Power Control (DPC)



The innovative DPC technology always supplies the highest and most economic power output for the load requirements. It delivers high torque, responsiveness and the appropriate tractive power even in the hardest operating conditions.





THE MOST MODERN AND ECONOMICAL ENGINE TODAY.

Thanks to the very latest DEUTZ engines, the new Agrotron TTV 410/420/430 economises on fuel from the very first hour of operation. High torque over a wide rpm range and low engine speed at 50 km/h are taken for granted.

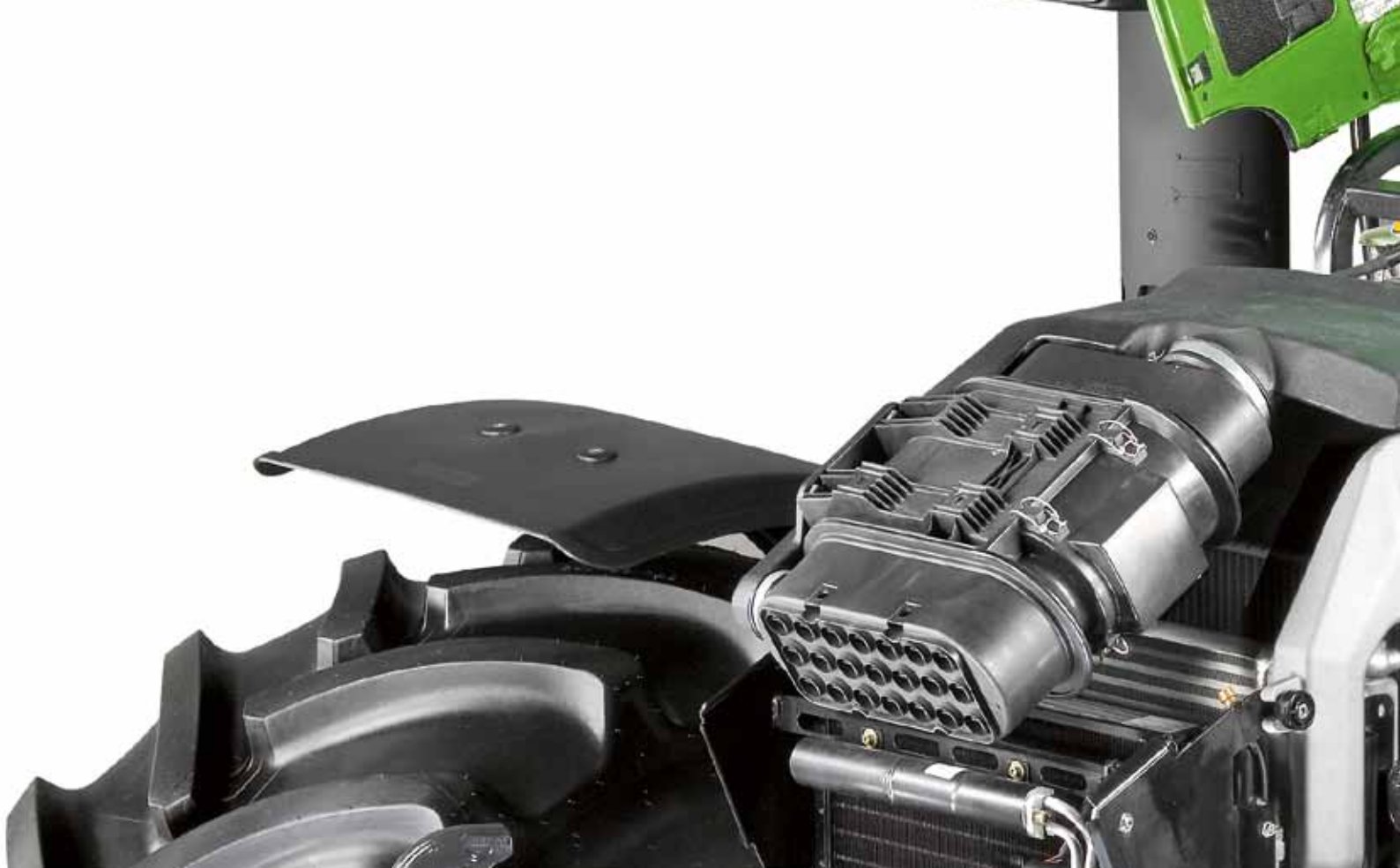
DEUTZ Common Rail (DCR), four valves per cylinder, EGR (exhaust gas recirculation), turbocharger with charge air cooler, electronic high-pressure injection system, fuel cooler: These are just a few of the features of the 4-cylinder

“DEUTZ ENGINES ARE BOTH ECONOMIC AND POWERFUL.”

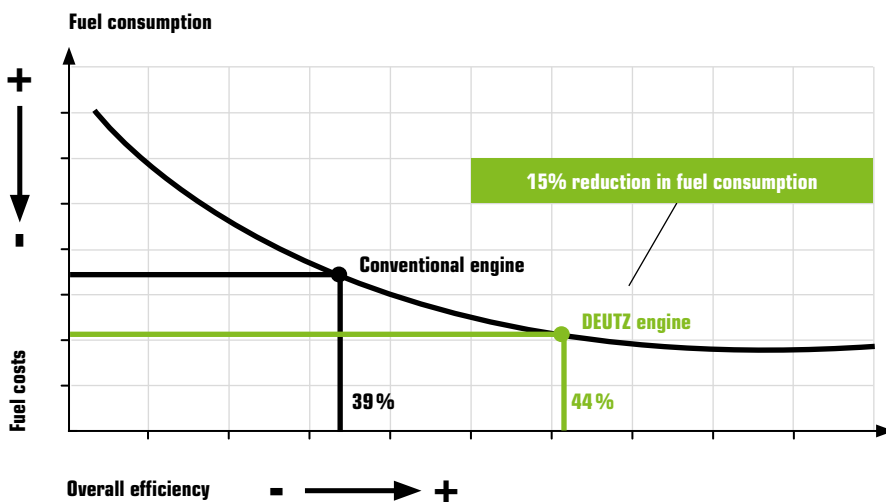
turbodiesel engines in the new Agrotron TTV 410/420/430. Thanks to the new injection system with two injection pumps in the engine block, and the

newly designed combustion chambers, the engines in the 2012 range consistently deliver high constant power output even during the toughest pulling jobs. The electronic injection system with injection pressures up to 1,600 bar ensures quick response and rapid torque rises even at low engine speeds. With engine power outputs of 114HP/84kW (TTV410), 124HP/91kW (TTV420) and 134HP/98.5kW (TTV 430), the new Agrotron TTV is the perfect all-round tractor for many farming operations. All engines have four valves per cylinder, thus ensuring optimal filling of the combustion chambers. This allows the combustion chambers to be arranged symmetrically and the 6-hole injection nozzles to be centred vertically in the cylinder head. And the result: optimised combustion, quick response to load changes, and lively handling characteristics.

One distinctive feature of the engines is the innovative cooling system, consisting of an electronically controlled fan that delivers constant cooling output in all operating situations, but which is also intelligently controlled and regulated. Twin drive discs rotate around each other, and are switched on and off as required. One disc is connected to the engine through a viscous coupling. The second disc is engaged hydraulically through a separate hydraulic line when required. The discs are controlled electronically and engage the cooling fan according to the particular load conditions. This always ensures full cooling output, while at the same time preventing unnecessary power consumption when operating the fan. It also reduces overall noise levels.



The engine is equipped with a technologically innovative cooling system: five radiator and cooler units are arranged in series (engine coolant, transmission oil, diesel fuel, intercooler and aircon condenser), so as to maximize the exposure of the cooling surfaces to air while keeping the overall dimensions of the assembly to a minimum. An exclusive hinged mounting system allows the radiators to pivot outwards for easy cleaning and maintenance.

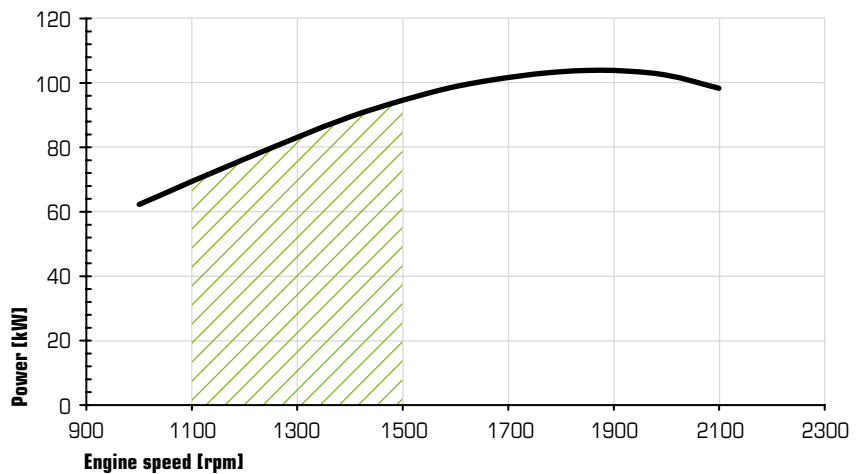


With the economy power take-off shaft, the Agrottron TTV works in the most efficient engine speed range.

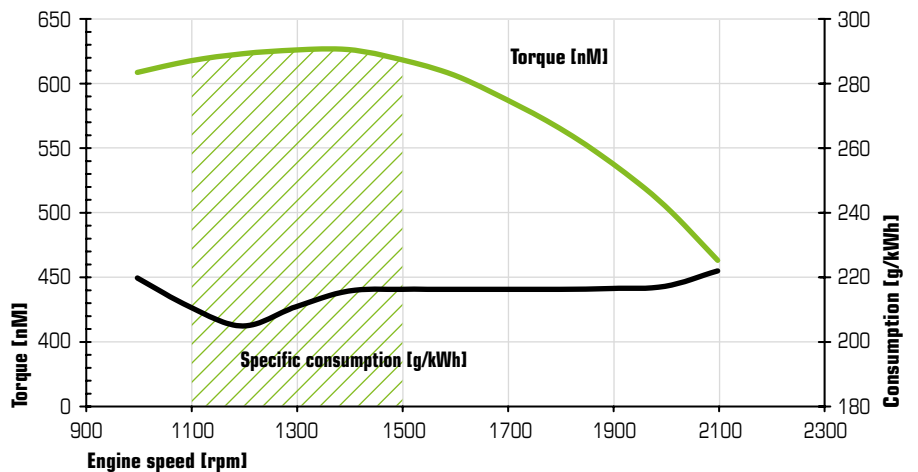


ECONOMIC POWER TRAIN.

The external exhaust gas recirculation (EGRex) brings a substantial reduction of nitrogen oxides (NOx). Part of the exhaust gas is cooled by a special cooler and fed back into the intake air, thus ensuring smoother combustion, lower consumption and, above all, cleaner exhaust gas. The engine also responds quicker and has better acceleration.



“ECONOMY AS STANDARD.”



Maximum torque and minimum consumption fall inside the main operating range of the Agrottron TTV 430.



The driver can adjust the response behaviour according to the type of operation (ECO or POWER setting).

The controls could not be more clearly positioned: With the PowerComV operating lever and optional i-Monitor screen, the driver can see everything and has everything at his fingertips.

“NO TRACTOR COULD BE SIMPLER TO OPERATE.”



CONTINUOUS RIDE COMFORT WITHOUT DISCOMFORT.

There are many companies that know how to make continuously variable transmissions. But only a few can make highly efficient ones. Thanks to a higher percentage of mechanical components, the continuously variable transmission on the Agrottron TTV 410/420/430 simply has the most efficient continuously variable drive.

Lower proportion of hydrostatic parts, quick response to driver commands, maximum economy and extremely simple operation are the main attributes of the TTV transmission. These not only raise the tractor's efficiency, but also increase productivity and reduce consumption by minimising hydraulic losses.

The transmission is controlled either by the accelerator pedal or with the PowerComV operating lever. The driver can use this lever not only to control the vehicle speed

steplessly from 0 to 50 km/h, but also to select the main tractor functions, such as the hitch linkage, additional auxiliary valves, and changes in travel direction.

Three modes are available: AUTO, PTO and MANUAL. The driver decides the mode in which the transmission will work, and for which type of operation. In Automatic mode, the driver sets the desired speed through sensitive use of the accelerator pedal. The driver can adjust the response behaviour according to the type of operation (ECO or POWER setting). The engine speed is adapted by the electronics, which calculate the correct engine speed for the current load conditions. So the tractor is always working within the most economical range.

Power take-off mode is activated automatically when the power take-off shaft is switched on, this allows economic opera-

tion at constant engine speed. The desired engine speed can be set and adjusted using the EMC dial or the electronic manual throttle. Advantage: At all engine speeds, the Agrottron TTV 410/420/430 adapts itself immediately and comfortably to the working and operating situation.

In **Manual mode**, the accelerator pedal acts as accelerator only, i.e. it controls the engine speed. Ground speed can be adjusted from 47 m/h up to the maximum speed of 40 km/h using the PowerComV operating lever in the armrest.

The **PowerZero mode** holds the tractor securely irrespective of upward/downward gradient or current load condition, the tractor is stationary without having to operate the service brake. The driver can stop and start again safely and comfortably.



All important tractor functions are shown on the main menu.

“THE POWER TAKE-OFF EQUIPMENT IS UNIQUE.”



The standard auto power take-off disengages the PTO shaft whenever the rear hitch is operated.



FOUR-SPEED ECONOMY.

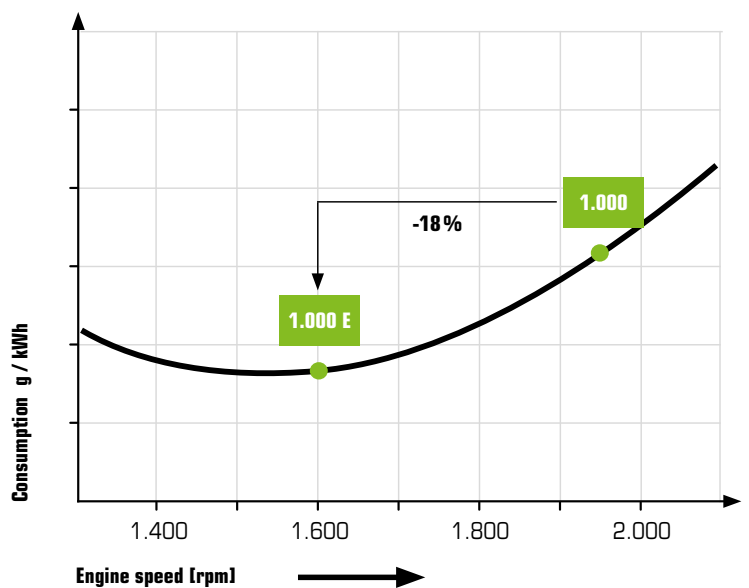
The new **PowerBrake** system not only provides sensitive and secure braking of the tractor, but also works a secure brake pressure accumulator to ensure up to ten brake applications without the engine running.

Another feature of this power category is the rear PTO, which has **four speeds** (540/540E/ 1000/1000E). The desired speeds are pre-selected in the cab, and switched electrohydraulically.

The proportional control ensures modulated, smooth start-up of the PTO shaft. The rear PTO fender control is fitted as standard. When the hitch is raised or lowered, the PTO shaft is switched on and off by the auto PTO system.

The front PTO shaft, has a speed of 1000 rpm and is driven directly by the engine and engaged by pressing a but-

ton. It works independently from the rear PTO. Modulation of the multi-disc wet clutch means that the implement always starts smoothly, irrespective of load.



With the Economy PTO shaft, the Agrottron TTV works in the optimal fuel consumption rpm range.



Integrated front hitch and front PTO are available as an option.



Clearly arranged and easily located.
The way the rear of a tractor should be.



HYDRAULIC POWER FOR ALL APPLICATIONS.

Working implements that increase productivity are becoming more and more complicated to use. So the tractor's hydraulic system has to be able to keep up with them. DEUTZ-FAHR doesn't believe in going half way: Load Sensing is included as standard.

The Agrotron TTV 410/420/430 is equipped with a hydraulic system con-

trolled by quantity and pressure (Load Sensing), which has a flow rate of up to 110l/min. This system has up to seven double-action auxiliary control valves, which are locked for the lift functions and a float position, and have both single or double action. With the iMonitor, each

“THESE HYDRAULICS CAN HANDLE ANY APPLICATION.”

valve has flow control and timer. So each operation receives the exact amount of oil required. The AGROTRON TTV 4 cylinder models have a dedicated hydraulic reservoir which can hold 50 litres of oil. The oil take out with this reservoir fitted is 36 litres. The oil tank is completely independent from the transmission and supplies oil to the hitch and auxiliary valves. It has its own filtering system. The transmis-

sion is protected from any contaminated oil that might get into the tractor after operating external equipment. The Agrottron TTV 410/420/430, also has automatic vibration damping. This effectively dampens the vibrations in any hydraulic system which are caused by attached

implements when travelling at high road speeds, and which considerably affect driving safety and comfort. The large lift cylinders provide enormous lift capacity for this category: up to 6200kg. All Agrottron TTV models 410/420/430 are equipped with an electronic hitch control (EHR). The control functions and sensors are continuously monitored by an integrated diagnostic system. When the hitch is switched on, the system automatically carries out a self-test by running an integrated diagnostics program. The basic setting of the EHR is selected on a conveniently placed control unit, and automatically monitors the following functions: Draft and position control, mix control, float position, rapid entry, slip control (if radar sensor installed), ride control, transport lock, external control override, height limiter, drop speed control. The control for the rear hitch is integrated in the PowerComV control lever.



Clearly arranged and extremely simple to handle, the new iMonitor operator terminal also provides a reversing camera, hands-free system and connection for an MP3 player.



The modern S Class cab provides outstanding visibility and a wide opening for operator entry.



THE PRODUCTIVITY AND EFFICIENCY YOU'VE BEEN WAITING FOR.

Operating concepts are many. But few are simple, self-explanatory, and easy to learn in practice.

This is why the development engineers at DEUTZ-FAHR have paid special attention to functionality and simplicity of operation.

All operators of the Agrotron TTV 410/420/430 will be able to operate this tractor safely and productively af-

All important operating functions for the timing and flow rate control, electronic control units, drive train management (ASM), electronic engine control (EMC) and manual throttle are integrated in the armrest of the driver seat.

The switches and controls are arranged according to priority and are easily identified by their different shapes and colours. The armrest is adjustable to

to operate the tractor, but will also interest the driver with its numerous additional and useful functions.

The iMonitor is operated through a operator terminal, which can be pressed and turned to move through the individual tractor menus and select the function that the driver wants to adjust or operate. This type of control uses the operating principle now universally applied by luxury car manufacturers for operating navigation devices and similar menu-driven components.

“SIMPLE OPERATION WITH NO NEED FOR LONG TRAINING COURSES.”

ter only a short period of familiarisation and without any special training. The benefits are obvious: Time-saving, safety, and fast reaction speeds when working, since operation becomes instinctive after a short working time.

the driver's arm length and enhances operator comfort.

Clearly arranged, simple to operate, and intuitive: The new iMonitor from DEUTZ-FAHR not only makes it simpler



**ALL THE PERFORMANCE AND
ECONOMY YOU COULD WISH FOR.**



POWER

EFFICIENCY

50 or 40 km/h at low engine speed

Maximum vehicle speed can be programmed and is reached at reduced engine speed. This saves you fuel.

Intelligent transmission oil cooling

The transmission oil cooling circuit is equipped with a thermostatic valve which ensures that operating temperature is reached quickly - even at low temperatures.

eVisco fan

The fan is operated electronically by an intelligent fan control and engages when required. This saves fuel in all operating situations.

DEUTZ DCR 4-cylinder turbo-diesel engine

Modern DEUTZ engines, with four valves per cylinder, are distinguished by their rapid start-up, economical fuel consumption and high flexibility.



ER

ECONOMY IS AN OVERALL CONCEPT.



ECO/Power settings

The response and shift characteristics of the TTV transmission are individually adjustable. From highly economic through to economic and quick change.

Separate hydraulic oil tank

The transmission is protected from any contaminated oil that might get into the tractor after operating external equipment.

Economy PTO

With four PTO speeds, two of which are economy PTO (540E/100E), the Agrotion TTV 410/420/430 saves up to 18% fuel, even in PTO operations.

Load-sensing hydraulic system

Hydraulic power where it's needed. With up to 110l/min and up to 36l of oil volume available.

Power-assisted brake system

The power-assisted brake system provides better braking characteristics and secure, braking.

TECHNICAL DATA

ENGINE

Type designation		TTV 410	TTV 420	TTV 430
Water-cooled DEUTZ diesel engine	Type	TCD 2012 L4 4V DCR		
Cylinder/cubic capacity	Number/cm ³	4/4.038		
Bore /stroke	mm	101/126		
Injection system		DCR (DEUTZ Common Rail) with 1,600 bar injection pressure and 6-hole injection nozzles		
Rated output (2000/25 EC)	kW/ HP	84/114	91/124	98.5/134
Max. power with DPC	kW/ HP	89/121	95/130	104/142
Rated speed	rpm	2,100		
Max. torque	Nm	521	566	611
Constant output range	rpm	1,600-2,100		
Air system		Powercore		
Tank capacity	l	220		
Oil change interval		500 h or yearly		

CONTINUOUSLY VARIABLE TTV TRANSMISSION

Type designation		TTV 410	TTV 420	TTV 430
Transmission model		continuously variable TTV transmission up to 50 km/h* (40 km/h a. W.)		
Power Shuttle		hydraulic, Multi-clutch		
Oil cooler		Series		
Max. speed		40 or 50 km/h selectable max. speed - 50 km/h at reduced engine speed of just 1,750 rpm		
PTO shaft speed		540/540 E/1000/1000 E		

HYDRAULICS

Type designation		TTV 410	TTV 420	TTV 430
System		Load sensing		
Oil system	l	Closed Center System (separate oil system)		
Available oil volume	l	36		
Pump volume flow rate	l/min (bar)	Load sensing 110 (200)		
Auxiliary valves		up to 7 auxiliary valves		
Rear hitch lift	kg	6,200		

AGROTRON TTV 410/420/430: IT IS THE MOST ECONOMIC OVERALL CONCEPT THAT COUNTS.



Exclusive to DEUTZ-FAHR:
24 months warranty for Agrotron models M, TTV, L and X.



Fuel saving even at 50 km/h thanks to reduced engine speed.



One transmission, two selectable final speeds: 40 or 50 km/h.



DEUTZ Common Rail: Exclusive technology for lowest fuel consumption and fastest response characteristics.



External exhaust gas recirculation reduces consumption.



Approved for 100% biodiesel: Saves costs and protects the environment.



4 PTO shaft speeds as standard: 540/540E/1.000/1.000E.



DEUTZ-FAHR tractors always offers the most economic overall concept: Economic and powerful, at the lowest operating costs.



With their innovative engine technology, DEUTZ-FAHR tractors consume 15% less diesel fuel than their competitors.



The above specifications refer to tractors with all available equipment. For standard equipment and options, refer to the current price list and ask your local dealer for details.

Cod.: 308.8552.3.4 - 03/11 - CFV

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EVOLVING AGRICULTURE.