

Fendt 800 Vario



FENDT

Fendt 800 Vario – the compact high horsepower tractor



Since it was first introduced, the Fendt 818 Vario has become the most sold compact high horsepower tractor in Europe. The performance of high horsepower tractors has been ingeniously combined with the manoeuvrability and visibility of a mid-sized tractor. With the new top model, the 820 Vario, Fendt fulfils customer requests and now offers this tractor with over 200 hp. This model range offers you premium class standard equipment – with everything professionals require. For example, the tractor management system, TMS, the headland management system, Variotronic^{TI}, and the integral front power lift are all standard.



Fendt 818 Vario	185 hp	136 kW
Fendt 820 Vario	205 hp	151 kW

Maximum power acc. to ECE R24

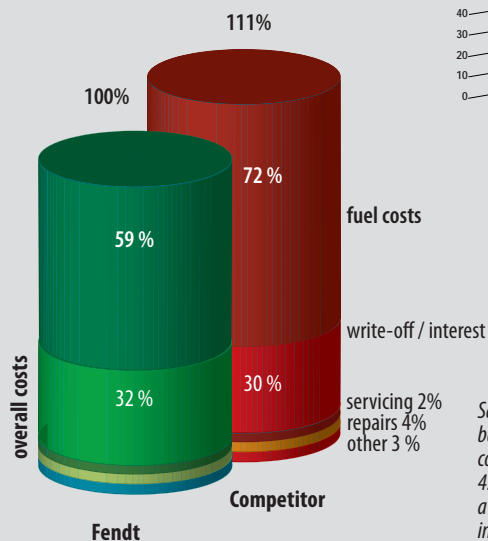
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High productivity starts with low costs per hour

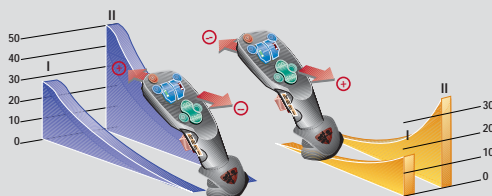
Low costs per hour

In order to compare the actual costs involved in investing in a tractor, the overall costs and operating costs per hour or hectare must be considered. These include fuel consumption, which is the single greatest factor amounting to over 50% of costs, write-off, including resale value, servicing, repairs and miscellaneous costs such as insurance or housing.



One joystick instead of many levers

With the Variostick, you can accelerate the 800 Vario from standstill to the desired speed steplessly. Move the Variostick in the opposite direction, and the tractor decelerates. Stepless from 0-50 km/h forward and 0-40 km/h reverse without crawler or group gears.



Sample calculation that appeared in top agrar 12/2004, based on fuel consumption data for a Fendt Vario and a competitor's tractor (competitor's fuel consumption is 4.4 litres per hour more than Fendt's). Calculations based on a diesel price of 1 euro per litre and 8000 operating hours in 10 years.

Superior productivity – the added-value of a stepless drive

Farm type	Area (ha)	Operating time	Fuel saved
Mixed production	50	-2.7 %	-6.5 %
	100	-3.3 %	-6.5 %
	200	-4.3 %	-6.8 %
Fodder production	50	-6.8 %	-8.7 %
	100	-6.6 %	-8.3 %
	200	-5.5 %	-8.0 %
Market crop production	50	-4.4 %	-6.5 %
	100	-4.6 %	-6.4 %
	200	-4.4 %	-6.4 %

Compared to drive concepts with power shift transmissions, the stepless drive technology offers savings potential for all types and sizes of farming businesses.

Source: Landwirtschaftliches Wochenblatt Westfalen-Lippe, 5/2001



The success of modern farming businesses depends on economically optimised production procedures. A top requirement here is the use of suitable mechanisation. With the 800 Vario, Fendt offers an extremely productive and economical universal machine for low-cost handling of all work waiting to be done.

Compact, economical high horsepower tractor

The successful Fendt 800 Vario model, now in the second generation, has been significantly further developed compared to the previous models. Through the utilisation of the latest technology for engines, economic benefits have been increased by up to 10 percent. At the same time, the new top model, the 820 Vario with 205 hp maximum power output, has livelier handling and more pulling power.



- Excellent power-to-weight ratio of 35 kg/hp (820 Vario)
- High payload reserves thanks to permissible gross weight of 12500 kg
- Factory-installed 42" rear tyres are standard for both models
- Latest high horsepower tractor technology for the drive train ensures low operating costs
- Low variable costs through low fuel consumption of 195 g/kWh
- Absolute productivity and profitability in the overall cost calculation

Wide range of standard equipment

The 800 Vario is equipped with all the basic Variotronic features. Additionally, it has the TMS engine management system and the Variotronic[™] headland management, in other words, the latest technology for high-horsepower tractors. The steering assist system, Auto-Guide^{PRO}, which permits exact pass-to-pass driving, independent of visibility conditions and implement width, can also be installed on the 800 Vario.

Impressive profitability

An excellent return on investment is the key benefit of Vario tractors. The initially higher purchase price is offset by higher performance and lower fuel costs during every hour of operation. A further plus in the overall profitability calculation is the good resale value of a Fendt. Profit from the exceptional overall profitability of the 800 Vario!

A premium class workplace: the driver station in the 800 Vario

The Fendt Varioterminal: Information and command centre

- Colour information display
- Display bar for menu navigation
- Pushbuttons for menu navigation
- Rotary control for fine settings



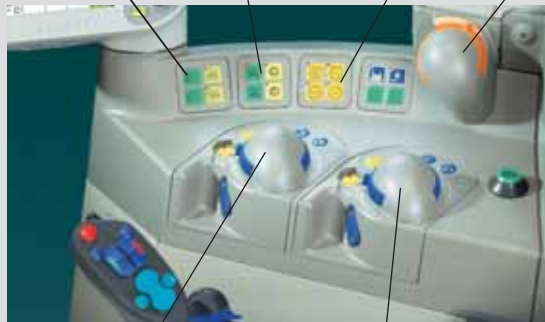
The multiple award-winning Fendt Varioterminal offers you simple and logical controls. It makes simple operations even easier and also aids the experienced driver during complex operations. This is where you make fine settings to all the EPC and hydraulic control valve functions, program engine speeds and the cruise control memories and adapt the automatic maximum output control to your work. These settings can be saved permanently for four different operations or implements. Moreover, the Varioterminal contains an on-board computer that logs all important parameters, such as the distance driven or area worked, and has a standard-equipped fuel consumption indicator as well.

Ergonomics paired with well thought-out operating logic on the right-hand side console

- Crossgate lever for 2 electric proportional control valves
- 4WD/differential lock engagement
- Front axle suspension and cruise control preselection
- PTO speed preselection
- Hand throttle



- Multi-function joystick
- Engine speed memory keys



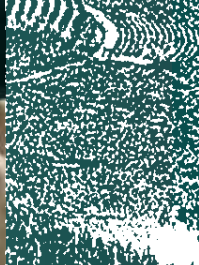
- EPC front power lift controls (optional) and front PTO engagement
- EPC rear power lift controls and rear PTO engagement



Ever-increasing working hours at a stretch and higher tractor utilisation require optimum working conditions to aid in protecting the driver's health and combating fatigue. The workplace on the 800 Vario offers well-thought out functionality and maximum ergonomics, so that you stay fit on long work days.

Ideal working position

The more comfortable a working position is, the better the driver can attend to the implements. For this reason, the 800 Vario is equipped with a height and tilt-adjustable steering column. The original Fendt seat can be adapted to virtually all height requirements; it has air suspension as standard and has an integral active charcoal layer for climate control. The Fendt Super Comfort Seat, which has low frequency suspension, is also available as an option.



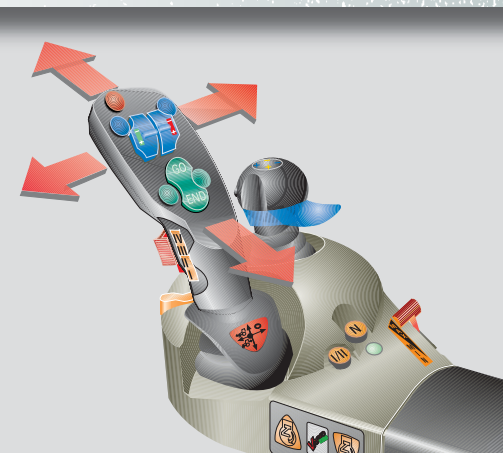
- Tidy cab design that concentrates on the essentials
- Pleasantly quiet work place; free-standing exhaust is isolated from the cab
- Perfect ergonomics and logical controls
- Height and tilt-adjustable steering wheel
- Comfort engagement controls with automatic modes for 4WD, differential locks and PTO
- Varioterminal for fine adjustments
- TMS and Variotronic™ are standard
- Fold-down passenger seat
- Air-conditioning system is standard

All the tractor operating elements are arranged logically on the right-hand side. Integrated in the armrest are a joystick, a crossgate lever for controlling two hydraulic valves, the speed memory keys and controls for setting the standard-equipped TMS. Integrated in the side control console are the EPC and PTO controls and various engagement keys. In front of them, always in good view of the driver, is the Varioterminal, with which all

fine settings to the hydraulics and transmission can be made. The instrument cluster in the steering column displays operating statuses, such as engine temperature, fuel supply and speeds.

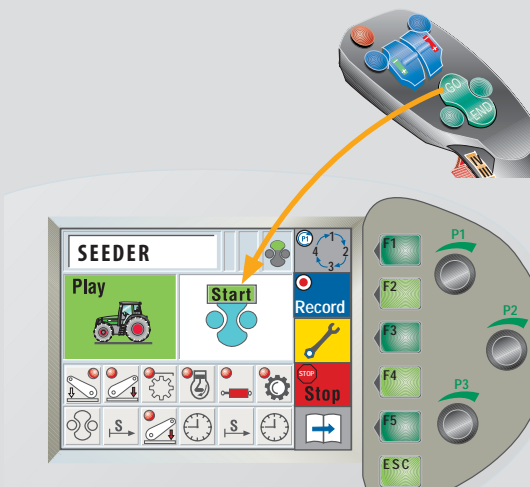


Operating comfort that you will appreciate more with every working hour



The top choice for operating comfort

Push the joystick forward to accelerate the Vario. To slow down, simply pull the speed control lever back again. Driving in reverse is just as easy – only the other way around. Do you need to reverse quickly? Simply move the joystick to the left – the Vario decelerates to a standstill and drives off again in the opposite direction. Activate the cruise control with a simple movement to the right. Driving with Fendt Vario: ingeniously simple – simply ingenious



Ergonomic benefits: Directly next to the speed control lever are the crossgate lever for operating two hydraulic valves, the engine speed memory keys, the sliding control and the key for setting and activating the TMS.

Variotronic™

A touch of a button on the joystick triggers automatic procedures at the headland. They save time and prevent operating errors on long work days. Sixteen sequences with up to 13 functions each can be saved permanently for four implements.

Fendt has received many international awards for the Variotronic™ operating concept. Comprising a joystick, Varioterminal and control console, the Variotronic impresses through its simple, ingenious handling. For you, this means greater economic benefits and productivity in practical use.

Simple, intelligent operation

Independent of Variotronic™, the 800 Vario also has various automatic modes that execute your work with the touch of a button. For example, the automatic PTO engagement, which automatically engages and disengages the power lift dependent on lifting height, or the 4WD and differential lock engagement, which is speed and steering angle dependent.





- Convenient operation with the Fendt multi-function joystick
- Cruise control
- Stepless reversing (shuttle gears) with stop-and-go function
- Convenient engagement controls with automatic modes for 4WD, differential locks and PTO
- Engine speed memory
- ISO BUS implement control
- Variotronic^{TI} headland management system

Variotronic^{TI} headland management system

The 800 Vario is fitted with the TMS tractor management system and the Variotronic^{TI} headland management system as standard. They allow you to carry out your work easier and more comfortably. Whether you are a beginner or professional, with these systems you automatically perform your work at maximum efficiency and have more time to monitor your implements.

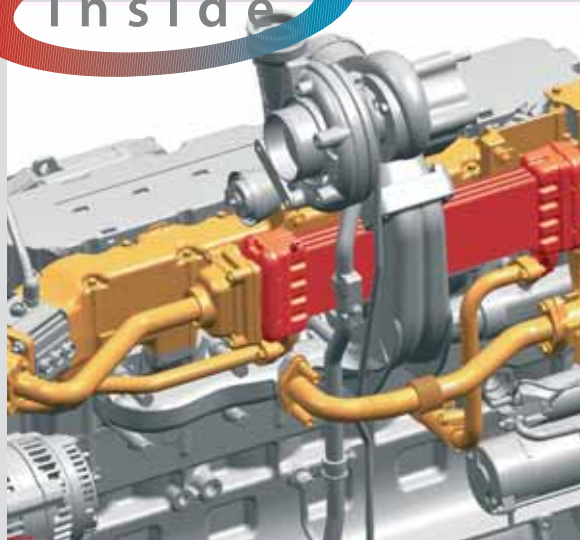
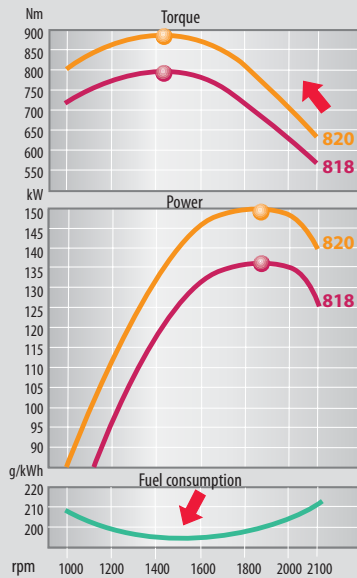
ISO BUS implement control

With the standard-equipped Fendt implement control, you profit from lower purchase costs and enhanced operating comfort. Without implement control, a separate control terminal is required for each implement. With implement control on the 800 Vario, you control all ISO and LBS implements conveniently with the Varioterminal and the joystick. This enables uniform and simple operating logic with optimum operating ergonomics.

So powerful and yet so economical thanks to the latest engine technology

A 895 Nm torque, 205 HP max. power at 1,900 rpm and a specific fuel consumption of 195 g/kWh for the 820 Vario thanks to implementation of the latest technology.

The external EGR system provides targeted cooling of recirculated exhaust, which lowers fuel consumption considerably compared to internal recirculation systems. It saves you up to 10 percent in fuel.



A fuel consumption display is integrated in the Varioterminale on the 800 Vario as standard. This shows the current as well as average fuel consumption and has two sum counters. Fuel consumption per hectare can also be logged at the same time in the on-board computer.



The 800 Varios have efficient cooling units with maximum service-friendliness. The cooling units for hydraulic oil, transmission oil, fuel and air-conditioning can be swung up away from the radiator to give you better access for cleaning.



No matter if you use your tractor for traction or PTO work – in any case, superior overall profitability is crucial. The 800 Vario tractors have engines with the latest technology. Although they comply with upcoming exhaust standards, fuel efficiency has been increased compared to the previous model.

Powerful and economical
In the light of increasing diesel prices, fuel economy becomes of major importance. In the 800 Vario, Fendt employs a high-tech six-cylinder Deutz engine with four-valve technology for greater economy. It has a speed-independent common rail high-pressure fuel injection system and fully electronic engine control.



- 4-valve engine with 6.1 l displacement: 205 hp max. power at 1900 rpm (ECE R24) and 895 Nm torque (820 Vario)
- Common rail high-pressure fuel injection system with injection pressures up to 1600 bar
- Electronic engine control EDC 7
- External exhaust gas recirculation system for lowest fuel consumption and best environmental compatibility
- Viscous fan for optimum engine cooling
- Low specific fuel consumption of 195 g/kWh
- 340-litre tank capacity for long work days
- Servicing interval every 500 operating hours
- One hundred percent ready for RME

AGRex – economical and environmentally-friendly

The high-tech injection system and the first-rate external exhaust gas recirculation system complement each other. Cooling and proportioning of recirculated exhaust gas optimises the combustion process significantly. The benefit in comparison to a simple, internal exhaust gas recirculation system is substantially lower fuel consumption.

Fully approved for RME fuel

The 800 Vario is also approved for RME fuel without restrictions, as are all Fendt tractors starting with the 1995 models. The use of rape methyl ester according to DIN EN 14214 is fully approved by Fendt as standard specification. You profit from the cost benefits – the tractor does not need to be converted, nor is costly additional insurance required.

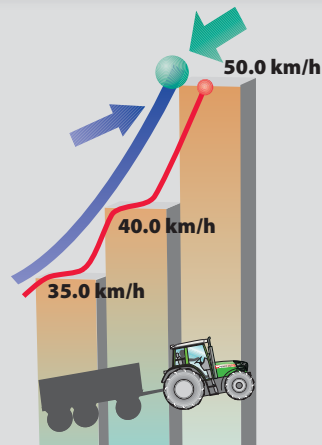


Experience the Vario advantages – on the road, in the field and at the filling station

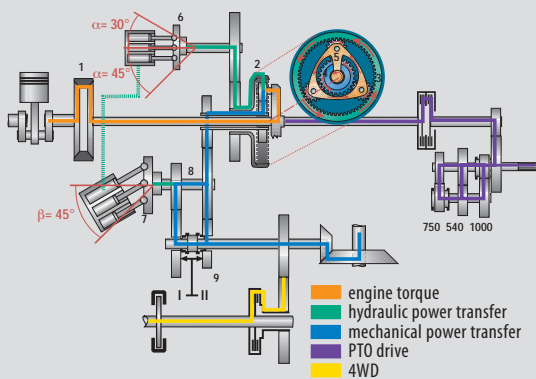
Operation	Operating time	Fuel consumption
Mowing	-10%	-10%
Chopping silage maize	-10%	-10%
Harvesting potatoes	-5%	-10%
Harrowing/drilling	-5 %	-10%
Weeding	-5%	-10%
Ripping	-3%	-3%
Ploughing	-3%	-3%

The savings potential for various working procedures is clearly noticeable. You save valuable working time through higher area coverage and also profit from low fuel consumption.

Source: Nürtingen University

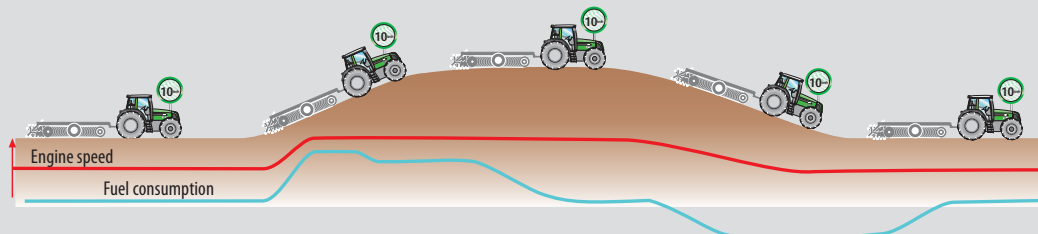


Fendt Vario – better than power shift. It allows you to utilise power reserves that are not even available to modern power shift transmissions.



1. Torsional vibration damper
2. Planetary gear set
3. Ring gear
4. Sun wheel
5. Planet carrier
6. Hydro pump
7. Hydro motor
8. Collecting shaft

■ engine torque
■ hydraulic power transfer
■ mechanical power transfer
■ PTO drive
■ 4WD



Automatically drive economically with the standard-equipped TMS Tractor Management System.

When TMS (Tractor Management System) is activated, the tractor electronics control the engine and transmission. This significantly increases operating comfort for the driver. The driver only needs to set the desired speed, TMS controls the rest. In the graphic above, one can see that the tractor drives on level ground at a reduced engine speed.

On the slope, the load increases, so TMS increases the engine speed. As soon as the load decreases (on level ground or downhill), the quantity of fuel injected is reduced. This maintains an economical driving style, since TMS drives the tractor at the lowest engine speed possible.

The productivity of a tractor, and therefore also the return on investment, is determined in great part by fuel consumption. But an economical engine is only one of the determining factors. It is just as important to maintain the engine at its economical optimum while achieving as high an area coverage as possible. No problem with the Vario drive concept from Fendt.

Uncompromising in all applications

This kind of flexibility is only possible with Fendt Vario transmissions. From 30 metres per hour to 50 km/h, every speed is possible over the whole range, without steps. The 800 Vario is therefore predestined for professional grassland applications as well as for heavy-duty field work or row crop operations in large farming businesses. An all-rounder that will impress you through its comfort and uncompromising economy every time you use it.





- Maximum working capacity with optimum fuel consumption
- Up to 10 percent more area coverage thanks to optimally adapted travel speed
- 50 km/h top speed at a fuel-saving 1700 rpm
- Up to 10 percent in fuel savings
- Super crawler gears included (from 30 m/h)
- Joystick operation instead of multiple levers
- Turboclutch feature for greater driving comfort
- Stepless reversing of travel direction (shuttle gears) without wear
- Stop-and-go function

Fendt Vario: better than power shift

With stepless variable speed, you can utilise power reserves that are not even available to modern power shift transmissions. With conventional transmissions you are always one gear too high or too low, because of the steps. Vario allows you to mobilise the power reserves that are hidden in between the steps. That means power flow without interruptions.

Special equipment included

In addition to economic benefits, the stepless drive also offers you a one-of-a-kind benefit in operating comfort. A crawler gearbox is no longer necessary, since it is integrated in the Vario drive. To increase driving comfort, the 800 Vario has a turboclutch feature, which prevents engine stalling.

Overview of technology

The third generation Fendt 800 Vario is a consequent further development of the most successful compact high horsepower tractor range with stepless drive. The result is enhanced performance.

It comprises two models ranging from 185 hp to 205 hp maximum power.

1. Front drive axle with 52° steering lock
2. Hydropneumatic front axle suspension with level control and 2 cylinders (lockable)
3. Front power lift (standard)
4. Front PTO (optional)
5. Planetary final drives
6. 6.06-litre Deutz engine with 4-valve technology
7. Intercooler
8. AGReX external exhaust gas recirculation
9. Stepless Vario transmission
10. Planetary gear set
11. Hydro motor
12. Hydro pump
13. Enclosed 4-WD clutch
14. Nitrogen pressure accumulator (suspension)
15. 340-l fuel tank
16. Planetary axle
17. Multi-disc brake for rear wheels
18. Front wheel disc brake
19. Tilttable comfort cab
20. Front cab bearing is silent bearing
21. Pneumatic cab suspension
22. Air-sprung Fendt comfort seat
23. Multi-function joystick for controlling the stepless Vario transmission
24. Varioterminal
25. Auxiliary work lights





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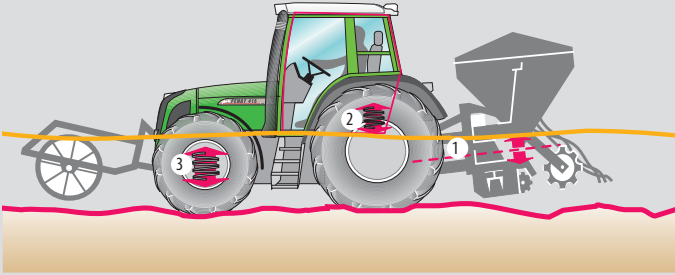
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Fast transport with maximum comfort, full safety and high payload reserves

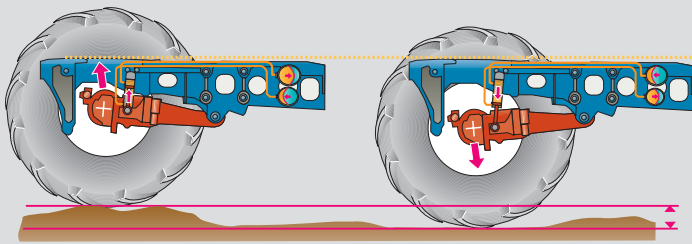
A combination of suspension systems

The combination of shock load stabilising (1), pneumatic cab suspension (2) and front axle suspension with level control (3) provides ride comfort on par with commercial vehicles. This also increases safety substantially, since the vehicle is not in danger of developing bounce when driving with mounted implements. The load on the front axle remains constant and steerability is maintained.



Front axle suspension

The swing axle, centrally located in the swing arm, detects uneven surfaces and transmits these findings to the swing arm. The plungers on the two cylinders displace oil, activating three nitrogen reservoirs which absorb all shocks.



Pneumatic cab suspension is standard

The pneumatic cab suspension has air spring dampers on the rear bearing. These feature automatic levelling, which adjusts the suspension to varying loads.

Even for compact standard tractors, the transportation of goods for purchase and sales-oriented jobs is gaining importance and today already amounts to over 40 percent of operating hours. The 800 Vario allows you to perform haulage work at 50 km/h at a fuel-saving 1700 rpm while providing maximum ride comfort and driving safety.

Safe driving, even with high payloads

A robust cast half frame, which enables a permissible gross weight of 12.5 tons, carries the load on the Fendt 800 Vario. This gives you ample payload reserves for heavy-duty implements. But high transport loads must also be slowed down quickly in dangerous situations. On the 800 Vario this is ensured by a practically maintenance-free braking system, comprising two integral multi-disc brakes for the rear wheels and a disc clutch on the cardan





- 50 km/h haulage speed at reduced engine speed (1700 rpm)
- EPC with shock load stabilising
- Superior driving safety and ride comfort
- Standard-equipped pneumatic cab suspension for perfect ride comfort
- Front axle suspension with level control and locking function that permits front-mounted implements to be guided precisely
- Top-efficiency lifetime braking system: wet, integral multi-disc brakes
- Robust cast half-frame design

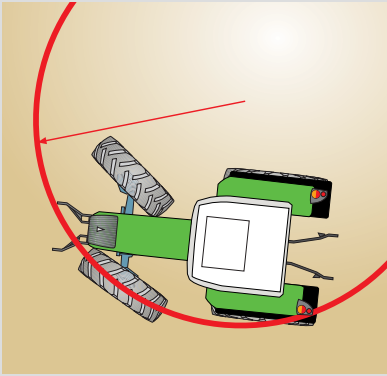
shaft for the front wheels. The front axle with level control, a benefit in terms of ride comfort, also contributes to driving safety. For easier mounting and for precise guiding of front-mounted implements, the suspension can be locked with a pushbutton.

Cab suspension for maximum comfort

The 800 Vario cab is equipped with pneumatic cab suspension as standard. Hydraulic suspension in the front and air spring dampers with automatic level control at the rear, keep annoying shock loads and movements away from the cab. This increases working comfort, keeping the driver fit on long working days and protecting the driver's health.

Light for row crop work, heavy for traction work – the 800 Vario can be variably ballasted

A steering lock of 52° together with a wheel base of 2720 mm ensure a turning circle of 5.6 metres, which makes the 800 Vario extremely manoeuvrable.



The 800 Vario is fitted with swivelling front mudguards as standard, which allow wheels to be turned to the fullest.



For heavy-duty traction work, the 800 Vario has many ballasting options. The rear axle can accommodate up to four rim weights, 300 kg each.



Minimum soil compaction is essential for successful field and grassland operations. The tyre options for the 800 Vario go up to 600/60 R30 front and 710/60 R42 rear. That guarantees the least amount of pressure on the ground.



Intelligent 4WD and differential lock technology

Depending on the setting, 4WD and differential locks can be automatically engaged and disengaged, dependent on steering angle and travel speed. If you choose 100% 4WD or 100% differential locking, these are engaged permanently. Both of these functions can be engaged and disengaged under load in automatic as well as 100 percent modes.

No matter if you operate your tractor for cultivation or grassland operations – in either case soil compaction is a major disadvantage. With the appropriate tyres, you can prevent soil compaction. But it is even easier, if the tractor does not weigh much to begin with. With the 800 Vario, you profit from an advantageous vehicle weight and a broad selection of tyre options. If required for the application, variable ballasting options are also available.



Universal applicability

With an unladen weight of 6800 kg, the Fendt 800 Vario is the first choice for all kinds of applications. It has a power-to-weight ratio of 33 kg/hp (820 Vario), which gives it exceptionally lively handling. A permissible gross weight of 12500 kg provides ample payload reserves for heavy implements. For heavy-duty traction work, you can ballast the tractor variably and for row crop work on large farms, you also benefit from its low vehicle weight.



- Advantageous unladen weight of only 6800 kg
- Excellent power-to-weight ratio of 33 kg/hp (820 Vario)
- High payload up to 5,700 kg
- Large row crop tyres can be used:
300/95 R52 rear
270/95 R38 front
- Wheelbase: 2.72 metres
- Turning circle: 5.6 metres
- Electrohydraulic engagement for 4WD and differential lock, can be actuated under load
- 100% locking differential on rear axle
- Locomatic front differential lock

Tyres for every application

When developing the 800 Vario, Fendt engineers placed great value on offering as broad a selection of tyres as possible. Now, for all 800 models, row crop tyres with 270/95 R38 front and 300/95 R52 rear are possible. That gives you a rear wheel diameter of 1890 mm. For optimum soil protection, tyre sizes 600/60 R30 front and 710/60 R42 rear are possible.

Compact and manoeuvrable

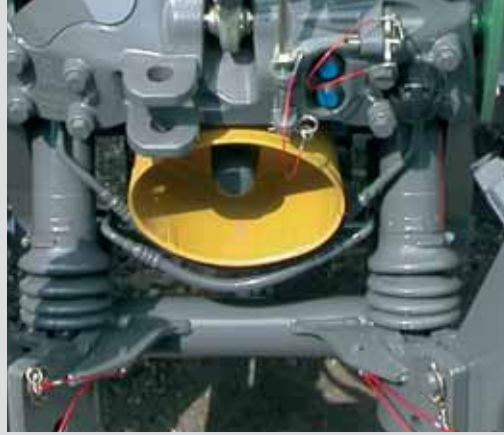
The well-thought out design of the 800 Vario gives it maximum manoeuvrability. A length of 4.75 metres, a wheelbase of 2.72 metres and a steering lock of up to 52 degrees result in a turning circle of 5.6 metres. That permits tight turning manoeuvres that will save you time at the headlands. Furthermore, the 800 Vario offers exceptional visibility.

Powerful drives at the front and rear



Standard with flange PTO

The 800 Vario is fitted with a flange PTO as standard. When required, you can switch between different PTO profiles easily and in a relatively short amount of time.



Optional front PTO with excellent efficiency

Optionally with 540 rpm or 1000 rpm. In either case, you benefit from excellent efficiency, since the front PTO is driven directly from the engine's crankshaft.



Save yourself unnecessary steps

The 800 Vario has external controls for the power lift and rear PTO. Mount rear implements easily and save yourself unnecessary steps, for example, when filling the slurry tank.



Never endanger the drive shaft again

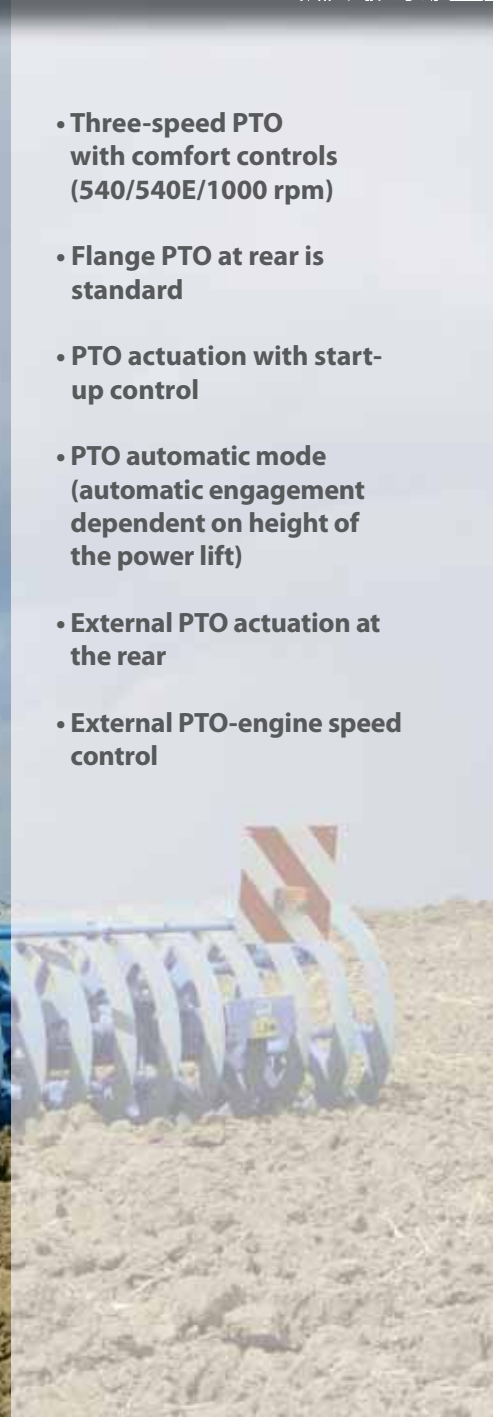
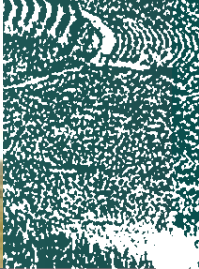
Concentrate on the essentials at the headlands. The PTO automatic mode engages and disengages the PTO as soon as the implement has been lowered or raised.



You will appreciate the operating comfort of the 800 Vario, in particular for tillage applications, where you often must operate the PTO controls in addition to the controls for the power lift. It offers you extensive, high-quality PTO management with start-up control.

Three-speed PTO is standard

The PTO engagement control has 3-speed preselection. It is conveniently operated with keys on the control console. The 800 Vario comes with the PTO speeds 540 rpm, 750 rpm und 1000 rpm at the rear as standard. For less power-hungry operations, the 750-rpm economy PTO "540E" allows smooth working at a reduced engine speed and also saves fuel. The optional front PTO is driven directly from the engine's crankshaft with no loss of power.



- Three-speed PTO with comfort controls (540/540E/1000 rpm)
- Flange PTO at rear is standard
- PTO actuation with start-up control
- PTO automatic mode (automatic engagement dependent on height of the power lift)
- External PTO actuation at the rear
- External PTO-engine speed control

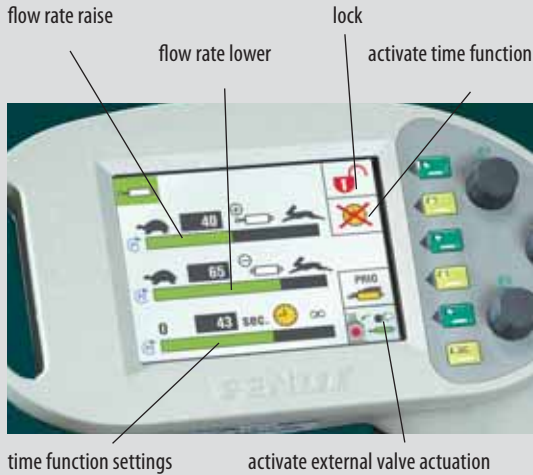
You have the choice of 540 rpm or 1000 rpm. The automatic PTO start-up sensitively controls start-up, according to the power requirements of the implement. This increases the service life of all the PTO components and reduces machine costs.

Automatic modes

The well-known and greatly-appreciated PTO automatic mode is also available as standard on the 400 Vario. After being activated simply by pushing a button, it automatically engages and disengages the PTO, depending on the lifting height of the power lift. The 800 Vario offers you operating comfort inside and outside of the cab. The electrohydraulic PTO engagement can be operated externally from the tail lamp bracket.

Powerful hydraulics for modern implements

Electrical valves: first-rate working and operating comfort



The joystick and the crossgate lever control the electric proportional valves. These are all double-acting control units, which can also be used in a single-acting capacity, and feature a floating position. The controls for the first two valves are located on the convenient crossgate lever. Setting the valve functions with the Varioterminale is simple. Using the rotary control and function keys, you can easily and precisely control the flow rates and actuation times of all electric proportional valves, set valve priority or activate external actuation for a valve.



If you would like to use your 800 Vario for front loader operations, the FENDT CARGO is top choice. You will profit from the perfect combination of all components. During development, all the dimensions and forces of the CARGO were explicitly designed for the Vario. This gives you the operational safety that comes from testing the front loader and tractor as one complete unit. The results are best visibility with balanced force and load distribution for practical operations. The standard crossgate lever provides precise control of the CARGO. You can activate the optional third and fourth control circuits with the pushbuttons on the crossgate lever. The optional damping system and the optional attachment lock is also conveniently activated from the driver seat.



Standard: first-rate front power lift

The standard front power lift on the 800 Vario is an integral part of the tractor design and has been well-thought out in every last detail. For example, the top link can remain on the tractor as it is, even when it is not required.



Powerful EPC rear power lift with double-acting function

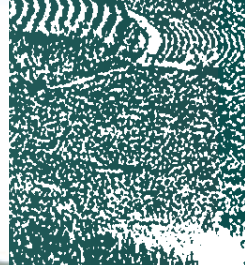
As standard on the 800 Vario, the EPC rear power lift can be switched to double-acting operation by moving just one lever. Using the down-force rear power lift, for example, you can mount twin tyres easily.



Modern implements demand ever greater flexibility and performance from the tractor hydraulics. Fast lifting and high oil delivery rates are required for economical operation. The 800 Vario models, with their load sensing hydraulics and electrical hydraulic valves, are well-equipped for convenient operation.

Powerful hydraulics

The 800 Vario is equipped with a load sensing hydraulic system. That means: modern axial piston pumps deliver the exact quantity of hydraulic oil required – up to 110 (154 optional) litres per minute. A maximum of 45 litres of hydraulic oil is available to mounted or trailed implements. The hydraulics and transmission have separate oil supplies, which permit unrestricted use of bio-oils for the hydraulics.



- Load sensing hydraulics
- Hydraulic delivery capacity:
110 l/min
(optional: 154 l/min)
- Hydraulic oil cooler
- Maximum lift capacities:
Rear: 90.8 kN
Front: 44.4 kN
- EPC rear power lift control with
 - shock load stabilising
 - quick lift
 - lift height limiter
 - lowering throttle
 - position, draft and mixed control
 - external actuation
- Integral front power lift with gas shock absorbers
- Electric hydraulic valves (standard with external actuation)
- Crossgate lever
- Max. available hydraulic oil: 45 l
- Bio-oils can be used for the hydraulics thanks to separate oil supplies

EPC rear power lift with reserves

The electrohydraulic rear power lift, which has a maximum lift capacity of 90.8 kN, guarantees that in practical operation even heavy rear-mounted implements for this power class can be lifted to the fullest lift height without trouble. The standard-equipped shock load stabilising counteracts vehicle bounce by actively raising and lowering the power lift.

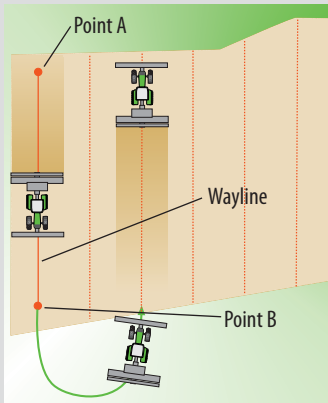
Integral front power lift with damping

The optionally available front power lift for the 800 Vario has a continuous lift capacity of 44.4 kN. It can safely lift front-mounted implements weighing up to 3 tonnes. The integral gas shock absorbers ensure that driving safety and ride comfort are maintained at these high loads.

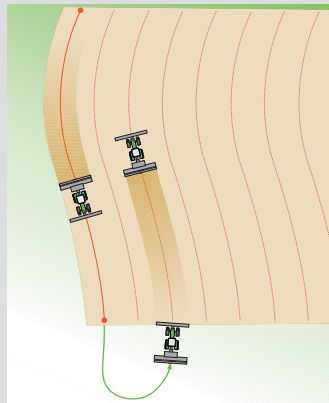
Maximum precision automatically when working with Fendt Auto-Guide^{PRO}

Fendt Auto-Guide^{PRO}: fits your individual requirements and almost any shape of field

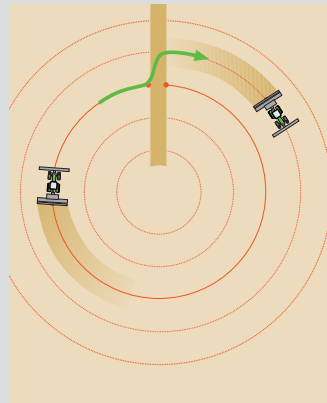
Fendt proLine – the classic steering assist system for driving along exact straight parallel lines



Fendt proContur – for guidance along curved, parallel lines



Fendt proCircle – for guidance along concentric circular tracks



Simple operation

A colour terminal makes operating Auto-Guide^{PRO} simple and logical. There is ample memory capacity available for storing field boundaries, as well as obstacles in the field.

When working, tracks that have already been worked are marked in colour. This facilitates orientation at night or in poor visibility conditions.



Reference station

An optional Local Base Station, which provides the correction signal, is available for Fendt Auto-Guide^{PRO}. This makes the system autonomous and allows operation independent of subscriptions for reference signals that are provided for a fee by commercial correction signal providers. It has been designed to be mobile and can be set up at any location in a short amount of time. Then you can drive the whole day long with precision that remains constant.



Fendt Auto-Guide^{PRO} further increases the well-documented high profitability of Vario tractors. It further reduces costs for performing work as well as direct costs. With the steering assist system, working quality remains steady and constant, even on long work days. At the same time, you benefit from substantially increased working comfort.

A highlight where profitability is concerned With the Auto-Guide^{PRO} GPS-supported steering assist system, accurate pass-to-pass driving is child's play. You reduce overlapping as well as skipping and can therefore optimise area usage without needlessly using up resources. The driver also has more time to focus on the implements, to monitor these and, if necessary, adjust their settings optimally to changing conditions. The steering assist system delivers constant, precise working quality



AUTO-GUIDE



- Constant working quality under all visibility conditions – even on very long work days
- Overlapping and skipping is reduced
- Savings in seed, fertiliser and pesticide expenses
- Savings in fuel and working time
- Greater area coverage since full working width is used and turning manoeuvres at the headlands are faster.
- Higher working quality since more attention can be focussed on the implement
- Controls are integrated in the Variotronic^{TI} headland management system
- Faster system accuracy when beginning work
- Fast, precise tracking and sensitive steering corrections, thanks to proportional steering valve

independent of the length of operation and the prevailing visibility conditions. In contrast, even the best driver's concentration wanes towards the end of a long work day.

The right accuracy*

You can choose from three accuracy levels for Fendt Auto-Guide^{PRO} to match your requirements. The "Standard VBS" correction signal provides pass-to-pass accuracy of 20 cm, "Precision HP" 5 cm and the "High Precision" system with a local base station 2 cm. Choose the accuracy that suits your work.

*The accuracy that can be obtained in the field depends on the GPS signal, correction signal, system and tractor factors, type and settings of the implement and the conditions in the field.

Often small things are what make everyday life with a Fendt so pleasant

The 800 Vario is equipped with rear work lights as standard. The Twin Power work lights are mounted on the left and right of the cab roof. Their high position gives you exceptional lighting for your rear-mounted implements.



With two simple hand movements, you can set the lower links on the 800 Vario to rigid or swinging position, depending on implement requirements. A robust, sturdy mechanical lateral lock is locked and unlocked with levers on the right and left sides. In the unlocked position, the lift arms are automatically centred in the middle position. By moving just one pin, you can change the width of the lower links between Cat. II and III.



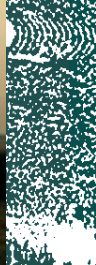
The standard automatic hitch with remote control from Fendt can be adjusted in height quickly and easily. The locking pin is opened with a lever. The hitch can then be lowered or raised on the guide rails – with only one hand.



It is impossible to prevent oil from leaking when coupling hydraulic connections. On the 800 Vario, though, oil leaks run into the casing, which also serves to protect hydraulic couplings from dirt, and are then led through a hose into an easily accessible container.

You have surely experienced this in your day to day work. Whether you have to change implements when you are pressed for time, or have to work many hours in your Vario without breaks during peak work times, often the small detail solutions are what make life easier. Fendt offers you a number of such details.

Benefit from the sum of the small details that a Fendt tractor offers to help you perform your work easier and more comfortably. When designing and developing a vehicle, Fendt engineers always search for solutions that bring you forward. From experts for experts.



With the external hydraulic valve actuation, you can operate a hydraulic control unit with a pushbutton on the tail lamp frame. For example, this considerably simplifies mounting implements when using a hydraulic top link.

Whether you have control cables for a control terminal or hydraulic lines for hydraulic valves on the implement, the cable lead-through in the Fendt cab is designed to enclose the cable so that dirt and cold cannot enter the cab when the windows are closed. Of course, the cables can be fitted easily without tools.

The 800 Vario has ISO BUS implement control, which is integrated in the Variotronic, as standard. With the 800 Vario, you control ISO BUS and LBS implements with the Varioterminal and the joystick. In this way, you have a uniform and simple operating logic with optimum operating ergonomics and save the purchase costs for terminals for your implements.



Fendt tractors have signal lights with auto shut-off. Just like in your car, the turn signal indicator automatically shuts off when the steering wheel is turned back.

The 800 Vario was designed to give you access to all areas necessary for daily maintenance – even when the front loader is mounted.

The steering wheel is height and tilt adjustable to adapt to the individual requirements of every driver.

Innovative technology, intelligent services – all from one source

Consultation: the way to a tailor-made Fendt

Fendt sales agents are experienced specialists who can provide you with extensive advice and information on technology, equipment and the overall profitability of a Fendt tractor.

More freedom for investments – the AGRICREDIT financial services

Financing through AGRICREDIT guarantees attractive conditions and flexible repayment periods, customised to meet your needs.



A trial run in the field – experience the difference

You cannot pass judgement on a Fendt tractor without the experience of driving one in the field. Fendt tractors enjoy a first-class reputation for superb driving and working comfort. Not until you have driven a Fendt, do you realise how big the difference really is when compared with other tractors.

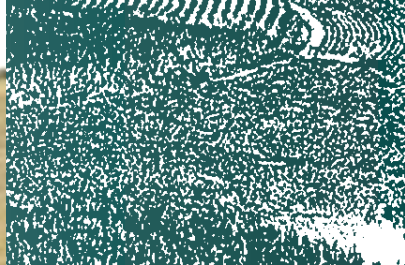
Renting gives you freedom

Do you need a vehicle to fill a short-term capacity requirement, or do you want use one over a longer period of time without purchasing? Are you looking for a tax advantage or do you require solvency for other investments? Fendt StarService offers you solutions.

It is clear that you get cutting-edge technology with a Fendt tractor. But that is not enough for a successful business nowadays. That is why Fendt sales partners also offer a wide range of services. All from one source.

Competent consultations and demonstrations

Fendt dealers and distributors receive regular training and are specialists for Fendt products. They have in-depth knowledge of the entire product line and will offer you competent consultation. Ask your local Fendt sales partner. Or contact us at www.fendt.com for an individual Fendt demonstration.



Know-how through practical training

Profit by technically and economically optimising operations with your Fendt tractor, whether in the field, on the road or in the books. Professional instructors show you how to utilise top class technology efficiently and safely, in theory and practice.

Fast diagnostics thanks to Fendias

The StarService technician uses FENDIAS to gain access to the digital data inside your Fendt. Furthermore, if required, data is gathered and analysed while the machine is running – for example, data from the hydraulics or the transmission. All for the sake of fast error diagnostics and operational availability.

FENDT StarService Emergency Hotline

Available 7 days a week!¹⁾ FENDT StarService partners are mobile and have only one objective: to keep your Fendt operationally available. Should something actually happen, the Emergency Hotline is available for fast and competent help – even on-location at your farm or business!

¹⁾ during the harvesting season from May to October



Genuine Fendt parts – from AGCO Parts – so that your Fendt remains 100% Fendt: Original Fendt parts are tailored to your Fendt. They carry the assurance of series quality and are tested for functional reliability. That pays off in many ways: - 12 month warranty on original Fendt parts and their installation - the highest level of operational reliability - top resale value

Mobile expert service
Every StarService partner has a modern service vehicle. Tried and test, optimised tools, as well as service documentation and FENDIAS, the computer-supported analysis and diagnostics system, are always on board. This allows the mobile StarService technician to localise and rectify errors quickly.

Fendt24 – because your time is invaluable!
Your StarService partner has the most commonly required parts in stock. If a part is not in stock, we deliver those that are ordered by 6 pm by 8 am the next morning. During the harvesting season¹⁾ your StarService partner has access to Fendt24. Here orders are taken around the clock and are ready for delivery within two hours.

Profitability under contract

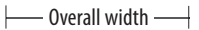
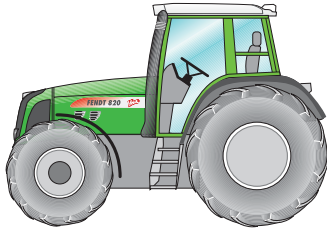
With a Fendt Service Package, you have servicing and repair costs under control. Would you like to have the prescribed servicing work done on the basis of reasonable fixed costs? Or do you want full control of costs per operating hour without unpleasant surprises? Choose between the Service, ProService and FullService packages.

Tractors for rent

Rent a tractor including the Service Package at a fixed cost through your FENDT StarService partner. This frees up your funds and you can easily calculate the costs per hour. We can take over all servicing work, complete insurance coverage and repairs*, if you like.

* Repairs according to FENDT warranty policy; natural wear (e. g. tyres) and malicious damage are excluded.

Technical specifications



	818 Vario	820 Vario
Engine		
Rated power (kW/hp) (ECE R24)	125 / 170	140 / 190
Max. power (kW/hp) (ECE R24)	136 / 185	151 / 205
Rated power (kW/hp) (EC 97/68) ⁵⁾	137 / 186	152 / 207
Max. power (kW/hp) (EC 97/68)	141 / 192	156 / 212
No. of cylinders / cooling	6 cylinders, four-valve technology / water turbocharger, intercooler	
Aspiration	common rail / EDC / external EGR	
Injection / engine control / exhaust recirculation	101/126/6057	
Bore / stroke (mm) / displacement (cm ³)		
Rated engine speed (rpm)	2100	2100
Speed at max. power (rpm)	1900	1900
Max. torque (Nm/rpm)	804/1450	895/1450
Torque rise (%)	35	35
Optim. fuel consumption (g/kWh)	195	195
Fuel tank (l)	340	340
Oil change interval (op. hrs.) ⁴⁾	500	500
Transmission and PTO		
Type of gearbox	stepless Vario transmission	
Speed range: Range I (forward / reverse)	0.02 to 28 km/h / 0.02 to 17 km/h	
Range II (forward / reverse)	0.02 to 50 km/h / 0.02 to 40 km/h	
Max. speed (km/h)	50	50
Rear PTO (rpm)	540 / 540E / 1000	
Front PTO ¹⁾ (rpm)	540 or 1000	
Hydraulics		
Type	load sensing	
Hydraulic pump capacity (l/min)	110 (154 ¹⁾)	110 (154 ¹⁾)
Working pressure (bar)	200	200
Rear power lift control	EPC, lower link control, shock load stabilising	
Auxiliary valves max. (standard) incl. front controls	5 da ³⁾ (3 da ³⁾) electr. valves / crossgate lever	
Max. lift capacity, rear power lift on the drawbar (kN/kp)	90.8 / 9256	90.8 / 9256
Max. lift capacity, front power lift (kN/kp)	44.4 / 4526	44.4 / 4526
Max. available hydraulic oil (l)	45	45
Brakes		
Rear brakes	wet, integrated multi-disc brake	
Front brakes	wet brakes on cardan shaft	
Weights and dimensions		
Unladen weight acc. to DIN 70020 (kg)	7185	7185
Perm. gross weight (kg)	12500	12500
Max. payload (kg)	5315	5315
Max. hitch load (kg)	2000	2000
Overall length (mm)	4753	4753
Overall width (mm)	2570	2570
Overall height (mm)	3025	3025
Ground clearance ²⁾ (mm)	566	566
Wheelbase (mm)	2720	2720
Front track ²⁾ (mm)	1940	1940
Rear track ²⁾ (mm)	1920	1920
Min. turning circle ⁶⁾ (m)	5.6	5.6
Electrical equipment		
Starter (kW)	3.0	
Battery	12V / 170 Ah	
Alternator	2800 W / 14V / 200 A	
Cab		
Construction	integral, tiltable safety cell hinged front, side and rear windows, roof hatch, ventilation system with blower in roof, hot water heating with 3-speed blower, air-conditioning	
Climate control		

¹⁾ = upon request, ²⁾ = with standard tyres, ³⁾ = can also be operated as single-acting, ⁴⁾ = is halved when using RME, ⁵⁾ = definitive power specifications for registration, ⁶⁾ = without steering brake

	818 Vario		820 Vario	
	front	rear	front	rear
Standard tyres	540/65 R30	650/65 R42	540/65 R30	650/65 R42
Optional	600/60 R30	710/60 R42	600/60 R30	710/60 R42
	540/65 R28	650/65 R38	540/65 R28	650/65 R38
	270/95 R38*	300/95 R52*	270/95 R38*	300/95 R52*

*recommended

Your Fendt dealer will be pleased to inform you about further tyre options.

Standard and optional equipment

	818	820
Vario controls		
Joystick control (multi-function joystick)	■	■
Varioterminal for fine settings	■	■
Fuel consumption indicator	■	■
Camera for the Varioterminal	□	□
Variotronic implement control for ISO and LBS implements	■	■
Variotronic™ - Headland Management System	■	■
Vario™S - Engine-Transmission Management System	■	■
Preparation for steering assist	□	□
Auto-Guide steering assist system with VBS or HP or Local Base Station	□	□
Cab		
Pneumatic cab suspension	■	■
Height and tilt-adjustable steering column	■	■
Fendt Comfort Seat, air sprung	■	■
Fendt Super Comfort Seat, air sprung, low frequency suspension	□	□
Radio mounting kit with two stereo speakers	■	■
Radio CD Blaupunkt or CD MP3 Blaupunkt, coaxial speakers	□	□
Ventilation with steplessly adj. fan in roof	■	■
Air-conditioning system	■	■
Emissions filter (aerosol)	□	□
Rear window wash/wipe	□	□
Heated rear window	□	□
Mechanically width-adjustable side view mirror	■	■
Twin Power roof work lights rear, front	■	■
Work lights A-pillar, rear mudguard	□	□
Work light Xenon A-pillar, mudguard rear	□	□
Bracket for additional device	□	□
Battery disconnect switch (electric)	□	□
Engine		
Zyklon precleaner	□	□
Fuel pre-filter	■	■
Preheater package (engine, transmission, hydraulic oil)	□	□
Exhaust brake	□	□
Transmission		
Turboclutch, automatic maximum output control, cruise control	■	■
Shuttle function, stop and go function	■	■
Acoustic signal when reversing	□	□
Chassis / safety features		
Shock load stabilising EPC	■	■
Front axle suspension with level control	■	■
Compressed air system	■	■
4WD / differential locks		
Central 4WD, maintenance-free	■	■
Comfort engagement controls for 4WD / differential locks	■	■
Rear / front differential with 100% disc locking	■	■
Power shift PTO		
Rear: Flange PTO 540/540E/1000 rpm	■	■
Front: 540 rpm or 1000 rpm	□	□
PTO engagement control, electrohydr. preselection	■	■
External controls for rear PTO	■	■
Hydraulics		
Load sensing system with axial piston pump (110 l/min), hydraulic oil cooler	■	■
154 l/min delivery capacity	□	□
Electrohydraulic power lift DA (EPC), with external controls	■	■
Upper link QC hydraulic	□	□
Radar-activated wheel slip control	□	□
External hydraulic connection (load sensing)	□	□
External control for hydraulic control unit at rear	■	■
Double connect-under-pressure couplings, rear	□	□
Front power lift da with external controls	■	■
Front power lift da with position control and external controls	□	□
Front loader, front loader attachments	□	□
Body		
Automatic hitch with remote control, rear	■	■
Ball coupling	□	□
Pickup hitch	□	□
Swinging drawbar	□	□
Piton-fix	□	□

	818	820
Rotating beacon	□	□
Wide vehicle marker	□	□
Hinged front wheel mudguard	■	■
Twin tyres rear	□	□
Twin tyres front	□	□
Wheel weights, rear wheels	□	□
Front weights, various sizes	□	□

The Fendt on-line configurator: Here you can put together your own custom Fendt according to your wishes. Visit www.fendt.com.

■ Standard □ upon request



CD or CD MP3 Blaupunkt radio



Auxiliary lighting with Xenon work lights; rotating beacon

Wide vehicle marker



Camera for the Varioterminal



Double-sided connect-under-pressure couplings; external load sensing hydraulic connection



Original Fendt CARGO front loader

Leaders drive Fendt



Sales agent:

All data regarding delivery, appearance, performance, dimensions and weight, fuel consumption and running costs of the vehicles correspond with the latest information available at the time of going to press. Changes may be made before the time of purchase. Your Fendt dealer will be pleased to supply you with up-to-date information.



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