

# Fendt 300 Vario



**FENDT**



## Simply Vario – logical and productive



For many years now, the 300 range has been a symbol for reliability, economy and long-lasting value. The 312 model has been the most sold tractor in Germany year after year. Can such a successful tractor range be improved by further development? Fendt has taken on this challenge – with the objective of creating a tractor with superior productivity that is easy to operate. The result is the new 300 Vario range. It combines the best of two Fendt milestones: the 300 tractor range and the stepless Vario transmission concept. True to our motto – simple, logical and productive.





<b>Fendt 309 Vario</b>	<b>95 hp</b>	<b>70 kW</b>
<b>Fendt 310 Vario</b>	<b>105 hp</b>	<b>77 kW</b>
<b>Fendt 311 Vario</b>	<b>115 hp</b>	<b>84 kW</b>
<b>Fendt 312 Vario</b>	<b>125 hp</b>	<b>92 kW</b>

Maximum power acc. to ECE R24

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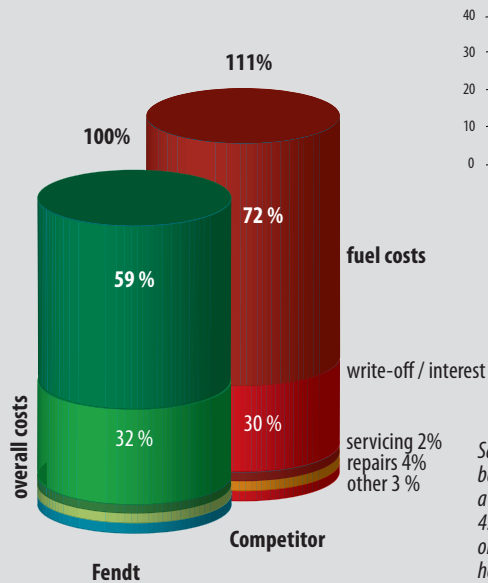
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# High productivity starts with low costs per hour

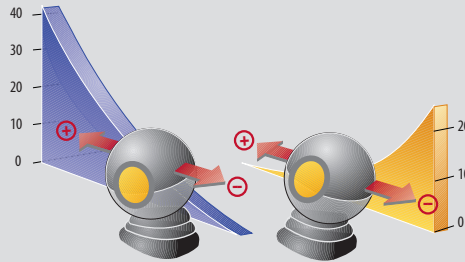
## Low costs per hour

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.



## No. 1 for ease of operation

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. Driving with Fendt Vario: ingeniously simple – simply ingenious



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 higher 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 words lightweight, compact dimensions, manoeuvrability and visibility have a new look.**

**With the 300 Vario, Fendt offers a compact tractor that features the latest drive technology and the simplest operation. The 300 Vario offers maximum productivity in the power segment from 95 to 125 hp and is geared towards mid-sized farming businesses.**

## The compact lightweight Vario

The 300 Vario combines the advantages of a compact tractor with those of a high-tech tractor. A compact block construction gives it maximum manoeuvrability at a vehicle weight of just 4350 kg. With an optimum power-to-weight ratio of only 35 kg/HP, the 312 Vario is a high-spirited tractor boasting exceptional driving dynamics. The compact dimensions of the tractor also provide exceptional visibility.







- Low unladen weight of just 4350 kg thanks to compact and weight-saving block construction
- Excellent power-to-weight ratio of 35 kg/hp (312)
- Manageable dimensions for the tightest conditions and excellent visibility
- Great manoeuvrability, wheelbase only 2350 mm
- Easiest operation
- Latest high horsepower tractor technology for the drive train ensures low operating costs
- Absolute productivity and profitability in the total cost calculation

### **Simple, logical and productive**

The single-gate Fendt Vario Stick gives you the simplest control over the transmission on the 300 Vario. It has never been easier to operate a transmission.

It also brings savings potential in time and fuel that only stepless drives can offer.

The optional TMS offers even greater driving comfort and automatically maintains an economical driving style.

### **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. Benefit from the excellent overall profitability of the 300 Vario!

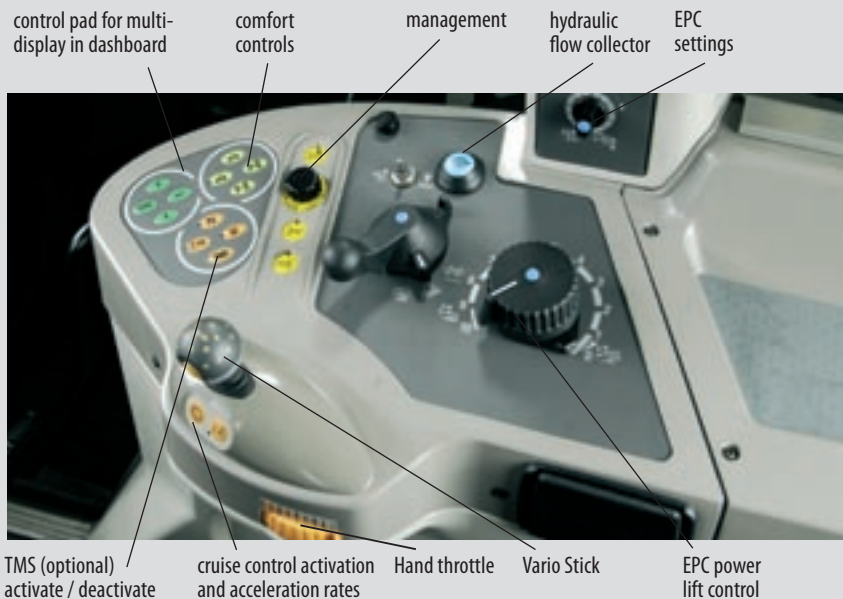


## Familiar, yet new: the driver station in the 300 Vario

The Fendt cockpit with the centrally located multi-display – everything in view, everything at hand



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



**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. This applies to compact standard tractors just as much as to high-horsepower tractors. The 300 Vario has a workplace that you wouldn't want to do without.**

### Welcome at home

The operating concept is an ideal symbiosis between state-of-the-art technology and ease of operation.

In the Vario 300 cab, all control elements are concentrated on the steering column unit and the right-hand side console. This allows you to focus on the essentials, whether you are driving on the road or working in the field. There is also a comfortable fold-down passenger seat.



- Tidy cab concept that concentrates on the essentials
- Pleasantly quiet work place; free-standing exhaust is isolated from the cab
- Perfect ergonomics and easy to operate controls
- Back-lit control elements for night operations
- Fold-down passenger seat
- Height and tilt-adjustable steering wheel
- Comfort engagement controls for 4WD, differential locks and PTO

### Well thought-out ergonomics

All the tractor control elements are located on the right-hand console. The power lift controls, PTO controls and comfort engagement controls are next to the Variostick. Back-lit control elements guarantee safe operation, even at night. The hydraulic control units are operated via a crossgate lever as standard.

### Ideal working position

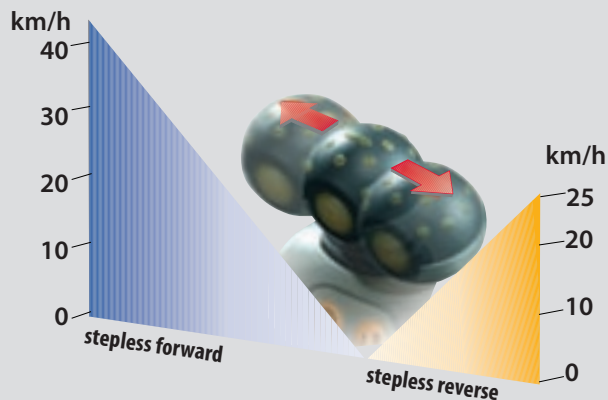
The more comfortable a working position is, the better the driver can attend to the implements. For this reason, the 300 Vario is equipped with a height and tilt-adjustable steering column. The original Fendt seat allows perfect adaptation to virtually all height requirements thanks to the integral backrest extension as well as legroom and seat tilt adjustment.



## It couldn't be easier: simplest operation with the Fendt Variostick

### One Variostick instead of many levers

With the Variostick, you can accelerate the 300 Vario from standstill to the desired speed steplessly. Move the Variostick in the opposite direction, and the tractor decelerates. Stepless from 0-40 km/h forward and 0-25 km/h reverse - without crawler or group gears.



### Everything in view with the multi-display



The multi-display is located at the centre of the cockpit. Here you can view or change settings for the cruise control, engine speed memory, automatic maximum output control, TMS, etc.



The key for activating the cruise control functions and selecting the acceleration rate are operated with your thumb – without having to take your hand off the Variostick. Right next to it is the hand throttle.

**Simple, logical and productive.**  
When developing the 300 Vario, Fendt engineers placed great value on sticking to the essentials. The result is simple and logical controls for superior productivity, available for the first time in the compact standard tractor class.

**All in one**  
Conventional transmissions require three levers: for shifting the main gears, group gears and power shift stages – and most probably also the controls for super crawler gears. The 300 Vario unites all of these into one speed control lever. Placed ergonomically on the right console, the lever allows you to drive any speed between 30 m/h and 40 km/h steplessly, without having to move your hand from the controls.





- Simplest operation via single-gate Variostick
- The Fendt Variostick integrates them all in one. You no longer need:
  - main gearshift lever
  - group gearshift lever
  - super crawler gearshift lever
- Cruise control
- Optional with TMS
- Stepless reversing (shuttle gears)
- Settable acceleration rates
- Electronic hand throttle
- Multi-display for:
  - engine speed memory
  - cruise control memory
  - automatic maximum output control
  - acceleration rates
  - time
  - fuel consumption indicator

### Cruise control

The new 300 Vario also has cruise control like the “big” Varios. The cruise control activation button is conveniently located under the Variostick. You can reach it with your thumb, without having to take your hand off the speed control lever.

The electronic hand throttle is located near the cruise control activation button, which also means that you do not need to take your hand off the lever to operate the hand throttle.

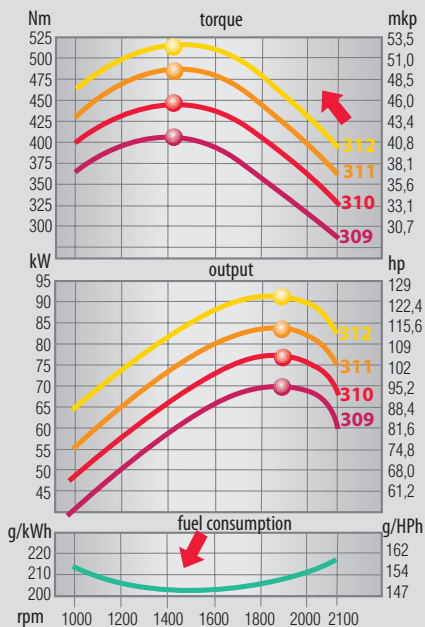
### Fine adjustments

Fine adjustments to the transmission are made with the control panel next to the Variostick and corresponding information is displayed in the centre information display on the dashboard. You simply have everything under control.

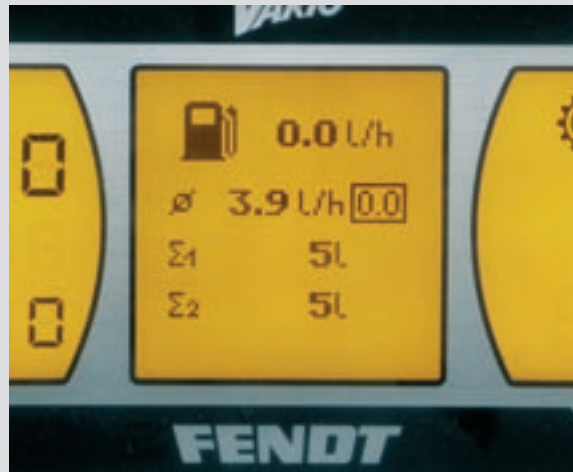


# So powerful and yet so economical thanks to the latest engine technology

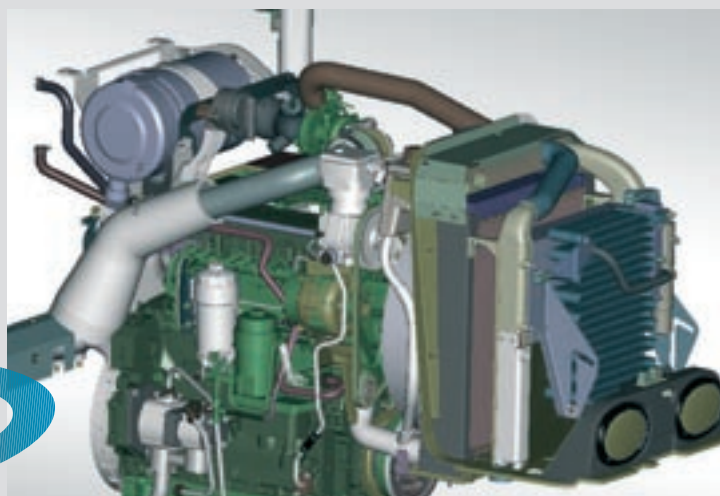
A 515 Nm torque, 125 HP max. power at 1800 rpm and a specific fuel consumption of 212 g/kW for the 312 Vario thanks to implementation of the latest technology.



The fuel consumption indicator on the 300 Vario is located in the multi-display. It provides information about the average and current fuel consumption and has two memories. You simply have everything under control all the time.



The external EGR system provides targeted cooling of recirculated exhaust, which lowers fuel consumption considerably compared to internal exhaust gas recirculation systems.



The newest technology in engine design has been implemented in the 4.04 I Deutz engines. It allows the 300 Varios to achieve exceptionally good fuel economy. Along with a tank capacity of 210 litres, large for this class, this guarantees a maximum driving range.

**No matter if you use your tractor in the field, grasslands or for row crop work – in any case, superior overall profitability is crucial. The 300 Varios have powerful state-of-the-art engines with long servicing intervals. With a fuel tank capacity of 210 litres, there is no need to refuel on long working days.**

**As powerful and profitable as the “big ones”**  
In the light of increasing diesel prices, fuel economy becomes of major importance. In the 300 Vario, Fendt employs a high-tech four-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 4.04 l displacement: 125 hp max. power at 1900 rpm (ECE R24) and 515 Nm torque (312 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 206 g/kWh (207 g/kWh for 309 Vario)
- 210-litre tank capacity for long work days
- Servicing interval every 500 operating hours
- One hundred percent RME operation possible thanks to two oil lubricated high-pressure injection pumps

#### **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 300 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.



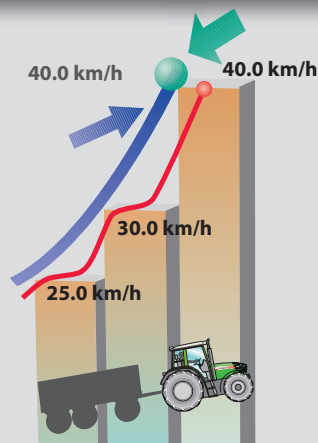


## Experience the Vario advantages – on the road, in the field and at the filling station

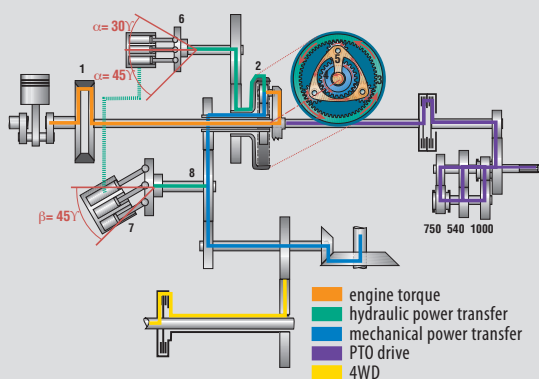
Operation	Operating time	Fuel consumption
Mowing	-10 %	-10 %
Chopping silage maize	-10 %	-10 %
Harvesting potatoes	-5 %	-10 %
Harrowing/drilling	-5 %	-10 %
Weeding	-5 %	-10 %
Ripping	-3 %	-3 %
Ploughing	-3 %	-3 %

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

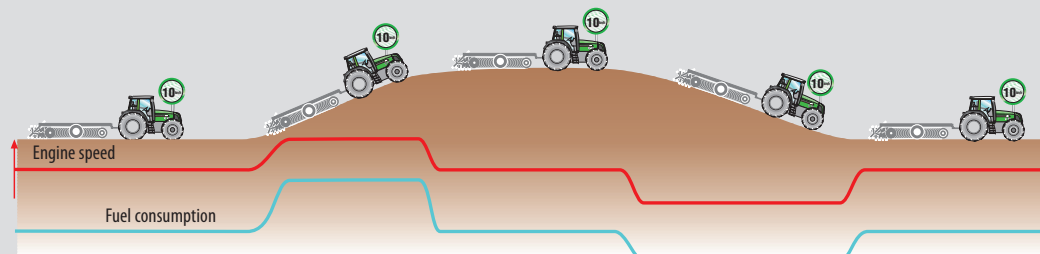
Source: Nürtingen University



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



### Automatically drive economically with the optional 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 above graphic, one can see that the tractor drives at a reduced engine speed on level ground.

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 40 km/h, every speed is possible without steps. The 300 Vario is therefore predestined for operations in specialty crops as well as for row crop work, grassland operations and cultivation and last but not least as a farmyard tractor. In the last case, the stepless drive provides absolute benefits, for example, in operations with feed mixer wagons.







- Maximum working capacity with optimum fuel consumption
- Up to 10 percent more area coverage thanks to optimally adapted travel speed
- 40 km/h top speed at a fuel-saving 1750 rpm
- Up to 10 percent in fuel savings
- Super crawler gears included (from 30 m/h)
- Operation using the Variostick instead of many levers
- Turboclutch feature for greater driving comfort
- Stepless reversing of travel direction without wear
- A first for stepless drives: ground PTO (optional)
- Tractor Management System TMS for even greater convenience (optional)

### **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. It is integrated in the Vario drive. To increase driving comfort, the 300 Vario has a turboclutch feature, which prevents engine stalling.



## Overview of technology

The Fendt 300 Vario was developed by uniting the advantages of two successful milestones in the history of the company. The 300 model range – the most-bought Fendt tractor range – and the revolutionary stepless drive concept, Vario. The result is a compact, powerful tractor that features the simplest operation and best profitability.

1. Front drive axle with 52° steering lock
2. Hydropneumatic front axle suspension with level control, lockable (optional)
3. Front power lift
4. Front PTO
5. Planetary final drives
6. 4.04 l 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. Planetary axle
16. Ring piston brake for rear wheels
17. Comfort cab
18. Front cab bearing is silent bearing
19. Mechanical cab suspension (optional)
20. Air-sprung Fendt comfort seat
21. Variostick for controlling the stepless Vario transmission
22. Fendt cockpit with multi-display
23. Auxiliary work lights





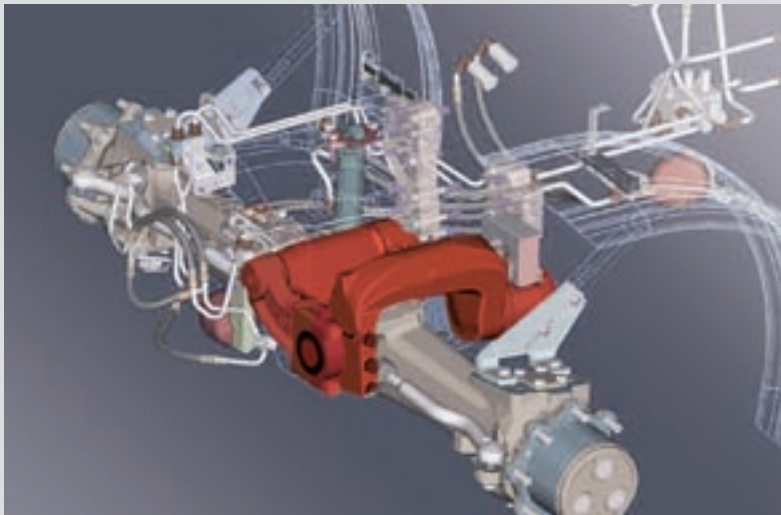
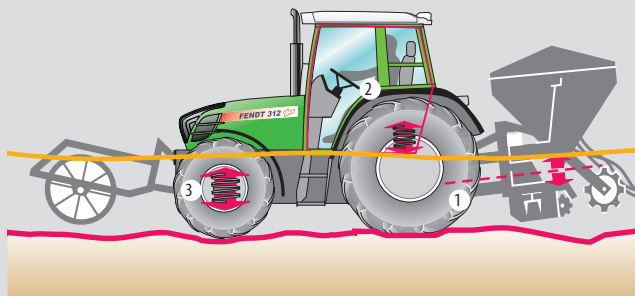




## Safe and mobile with a top speed of 40 km/h Full comfort with front axle suspension\*

### A combination of suspension systems

The combination of shock load stabilising (1), mechanical cab suspension (2) and front axle suspension with level control (3) provides ride comfort on par with commercial vehicles. It also substantially increases safety, 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.



### The hypopneumatic front axle suspension

(optional) has a total suspension travel of 90 mm along with a 20 degree swing angle. Level control maintains suspension comfort, independent of payload. That guarantees safe braking and steering of the vehicle at all times.

\*optional

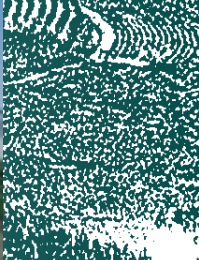
**Even for compact standard tractors, the transportation of goods for purchase and sales jobs is gaining importance and today already amounts to over 40 percent of operating hours. The 300 Vario allows you to perform haulage work at 40 km/h at a fuel-saving 1750 rpm while providing maximum ride comfort and driving safety. Three systems work together to provide this comfort.**

### Swift and safe

High acceleration power and a transport speed of 40 km/h make the 300 Vario an attractive haulage vehicle. But high transport loads must be slowed down quickly in dangerous situations. That is why the 300 Vario is fitted with ring piston brakes. The shock load stabilising system ensures quiet driving behaviour, even with heavy mounted implements, and guarantees a significant plus in comfort.







- 40 km/h haulage speed at reduced engine speed (1750 rpm)
- EPC-B with shock load stabilising system
- Superior driving safety and ride comfort
- Mechanical cab suspension for perfect ride comfort (optional)
- Front axle suspension with level control (optional) and locking function that permits front-mounted implements to be guided precisely
- Ring piston brakes on the rear axle with 4WD engagement when braking ensure safe deceleration

### More comfort and driving safety

A front axle with level control, which ensures maximum ride comfort and driving safety, is available as an option for the 300 Vario. The system is based on the tried and tested swing axle principle and can be locked. Locking the suspension permits easier mounting of front implements and allows precise guidance of front-mounted implements.

### Cab suspension

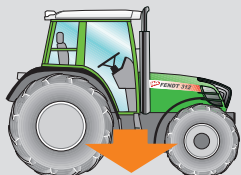
To dampen vibrations, the cab on the 300 Vario is fitted with silent block bearings as standard. A mechanical cab suspension is available upon request. Hydraulic suspension in the front and sprung struts with an integral lateral stabiliser at the rear, absorb annoying shock loads and movements of the cab. This increases working comfort, keeping the driver fit on long working days and protecting the driver's health.





# Light, flexible and manoeuvrable sowing, cultivating and harvesting

The 300 Vario combines a low vehicle weight and compact dimensions with the benefits of a stepless drive. The result is exceptional dynamics through a low power-to-weight ratio of 35 kg/HP (47 kg/kW) while minimising soil compaction in all applications.

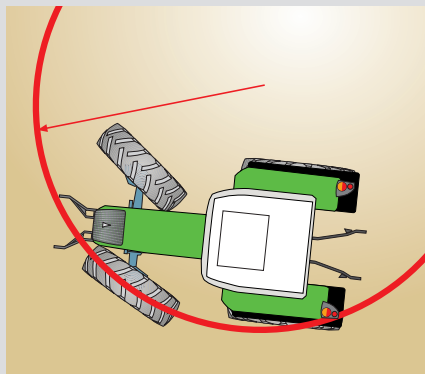


Fendt 312 35 kg/hp

Competitor 1 42 kg/hp

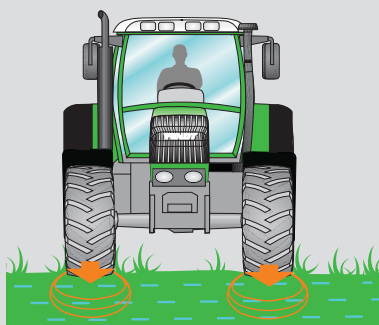
Competitor 2 45 kg/hp

A 52° steering lock together with a 2,350 mm wheelbase result in a turning circle of 4.0 meters (312 Vario) and make the 300 Vario an exceptionally manoeuvrable tractor.



Applying fertilisers and pesticides in late growing stages increases yield. The 300 Vario has the necessary ground clearance: 511 mm<sup>1)</sup> even allows trouble-free operations in specialty crops.

<sup>1)</sup> = with tyres 270/95 R32 front and 270/95 R48 rear



Minimum soil compaction is essential for successful field and grassland operations.

**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 weight so much to begin with. With the 300 Vario, you profit from a low vehicle with and a broad selection of tyre options. If required for the application, variable ballasting options are also available.**

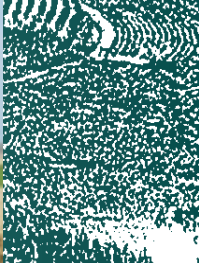
## The lightweight Vario

You profit from an unladen weight of just 4,350 kg in the 4WD version. This results in an optimum power-to-weight ratio of just 35 kg/hp (312 Vario), which gives the tractor exceptional driving dynamics and unique liveliness.

At the same time, a permissible gross weight of 8,000 kg allows a payload of 3,650 kg.







- Low unladen weight of only 4350 kg (312 Vario)
- Excellent power-to-weight ratio of 35 kg/hp (312 Vario)
- High payload up to 3,650 kg
- Standard tyres:  
540/65 R38 rear  
480/65 R24 front
- Large row crop tyres can be used:  
270/95 R48 rear  
270/95 R32 front
- 510 mm max. ground clearance<sup>1)</sup>
- Optimally suited for row crop and specialty crop work thanks to stepless drive which starts at 30 m/h
- Extremely compact dimensions for maximum manoeuvrability and best overview
- Short wheelbase: 2.35 metres
- Turning circle: 4.40 metres
- Pivoting mudguards (optional)

<sup>1)</sup> = for tyres 270/95 R32 front and 270/95 R48 rear

### Tyres for every application

The 300 Vario is standard-equipped with 540/65 R38 tyres at the rear and 480/65 R24 tyres in the front (312 Vario). The tractor's tyre concept also allows for large row crop tyres 270/95 R48 at the rear and 270/95 R32 in the front. That gives you a 1730-mm wheel diameter on the rear axle, for minimum soil compaction during row crop operations.

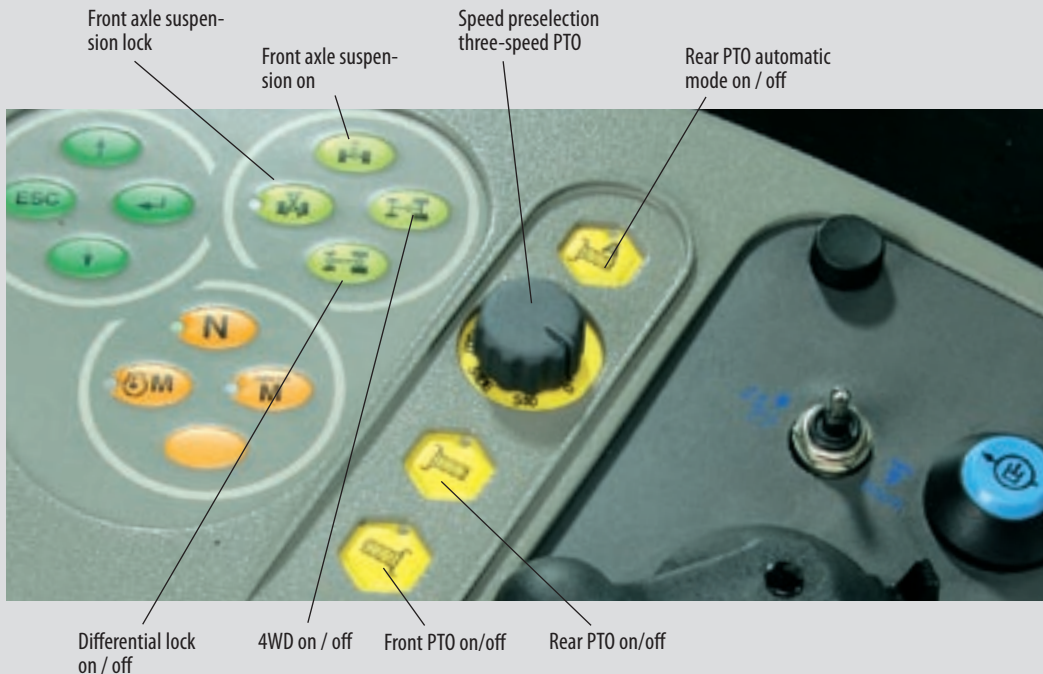
### Short, compact and manoeuvrable

The compact design of the 300 Vario permits maximum manoeuvrability. A length of 4.15 metres, a 2.35-metre wheelbase and a 52°-steering lock result in a turning circle of just 4.0 metres. This gives you best manoeuvrability, even in tight farmyards. Furthermore, the 300 Vario provides an exceptional overview thanks to its compact dimensions.



# Powerful drives at the front and rear

## Convenient, ergonomically optimised controls for PTO, 4WD, locks and suspension



### Save yourself unnecessary steps

External actuation of the rear power lift and rear PTO selector are available for the 300 Vario. 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.

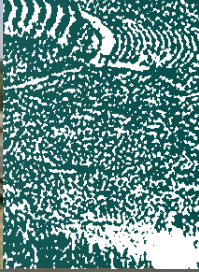


**You will come to appreciate the operating comfort of a 300 Vario, especially during row crop work, when you often have to operate the PTO and 4WD engagement simultaneously. It offers you extensive and high-quality PTO management and convenient operation of 4WD and differential lock engagement.**

### Easy PTO management

The PTO engagement control has 3-speed preselection. The optional ground PTO in the 300 Vario is a world first. It is the first tractor with stepless drive that can be equipped with a ground PTO instead of the economy PTO upon request. The familiar and valued PTO automatic mode from the big Varios is also available as standard. It automatically engages and disengages the PTO, depending on the lifting height of the power lift.





- **Three-speed PTO with comfort controls (540/540E/1000 rpm)**
- **Optional ground PTO (540/ground/1000 rpm)**
- **PTO actuation with start-up control**
- **PTO automatic mode (automatic engagement dependent on height of the power lift)**
- **External PTO actuation at the rear**
- **Electrohydraulic engagement for 4WD and differential lock, can be actuated under load**
- **Optional: Automatic modes for 4WD and differential lock (lift height dependent)**
- **100% locking differential on rear axle**
- **Locomatic front differential lock**
- **External PTO-engine speed control**

Automatic PTO start-up protects your PTO implements with a smooth start-up – you profit from lower servicing costs and longer service life of your implements. The 300 Vario offers you operating comfort inside and outside of the cab. The electrohydraulic PTO engagement can be operated externally from the tail lamp bracket.

#### **Convenience for 4WD and differential locks**

The 300 Vario has electrohydraulic 4WD engagement and can be engaged and disengaged under load. The same applies to the differential locks at the rear. If required, the front axle differential is locked automatically via the Locomatic function.

This transfers the required power to the ground quickly, in all situations.



## Powerful hydraulics for modern implements

### Practical control centre for the EPC

Rocker switch for rapid lowering and extra lift

Lift height limiter, lowering throttle and position-draft control

Shock load stabilising



Quick lift

Settings for lifting heights and depth control

Oil flow collector



### Ergonomic crossgate lever and flow control

Two valves can be actuated at once with the crossgate lever, without having to switch hand positions. The 1st and 3rd valves are equipped with a flow controller. The flow quantity can be controlled steplessly from 15 to 78 litres. Both valves also have a kick-out lock.



**For the universal application of a tractor, powerful hydraulics have become more important today than ever before. Modern implements require fast lifting and a high oil delivery capacity. With the 300 Vario you are equipped for all cases.**

### Powerful hydraulics

The 300 Vario is equipped with a "hydraulic turbo" as standard. When there is a particularly high demand in power, the driver can engage an oil collector with a pressure switch. Then, with two gear pumps in series, the hydraulic system has a delivery capacity of 78 l/min. Bio-oils can be used for the system without any limitations.





- Hydraulic delivery capacity:  
78 l/min (hydraulic oil flow  
collection 48 + 30 l/min)
- Hydraulic oil cooler
- Maximum continuous lift  
capacities:  
Rear: 5280 daN  
Front: 2940 daN (optional)
- EPC rear power lift with
  - shock load stabilising
  - quick lift
  - lift height limiter
  - lowering throttle
  - position, draft and mixed  
control
  - external actuation
- Integral front power lift  
(optional), with gas shock  
absorbers
- 1st and 3rd valves with flow  
control and kick-out lock
- Crossgate lever
- Max. available hydraulic oil:  
42 l
- Separate oil supplies for  
transmission and  
hydraulics
- Bio-oils can be used for  
hydraulics

#### **EPC rear power lift with reserves**

The electrohydraulic rear power lift, which has a continuous lift capacity of 52.8 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 system counteracts vehicle bounce by actively lifting and lowering the power lift.

#### **Integral front power lift with damping**

The optionally available front power lift for the 300 Vario has a continuous lift capacity of 29.4 kN. It accommodates front-mounted implements up to a weight of 2 tonnes. The integral gas shock absorbers ensure that driving safety and ride comfort are maintained at these high loads.

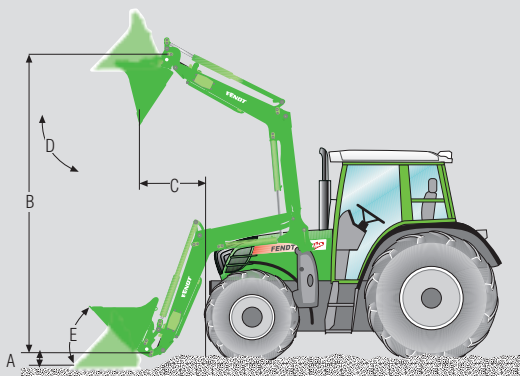


# Become a champion loader with the new Fendt CARGO

With the new Fendt CARGO Lock, you can mount and remove the CARGO front loader from your 300 Vario even faster and easier. Thanks to the semi-automatic lock, you no longer need to deal with locking bolts, which are often difficult to insert. The system also offers optimum operational safety, since the front loader is locked in place immediately after driving into it.



The standard-equipped crossgate lever is a plus in operating comfort. The front loader can be operated precisely with just one lever for two control valves. The optional CARGO comfort controls (not shown) not only control the 3rd and 4th hydraulic circuits, but also enable convenient activation of the hydraulic attachment lock and the front loader damping system using the crossgate lever.



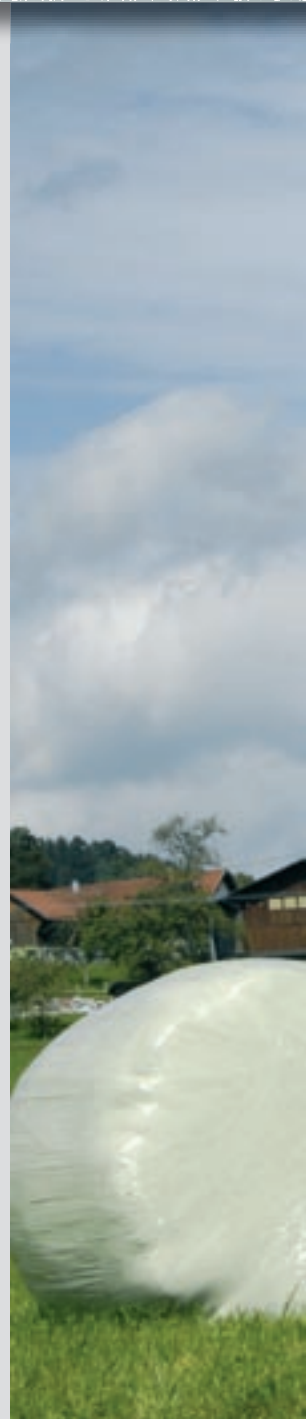
Model	3X/65	4X/75
<b>A</b> Digging depth (mm) <sup>1)</sup>	110	225
<b>B</b> Lifting height (mm) <sup>1)</sup>	3850	4050
<b>C</b> Dumping dist. (mm) B = 3.5 m <sup>1)</sup>	1350	1780
<b>C</b> Dumping dist. (mm) B = max. <sup>1)</sup>	930	1260
<b>D</b> Angle of emptying	55°	55°
<b>E</b> Angle of backward tilt	48°	48°
Lift capacity over full hgt (daN)	1680	1940
Max. lifting capacity (daN)	1850	2250

A 300 Vario equipped with an original CARGO front loader from Fendt permits extremely easy front loader operations.

<sup>1)</sup> Depends on tyres

**Just as for tractors, the demands on the performance of modern front loaders continue to increase. The answer here is Fendt CARGO. The tailor-made front loader, sporting a new design, was developed specifically for Vario tractors. During development, attention was not only placed on technical specifications. Comfort, safety and service-friendliness also meet the high Fendt standards.**

**The tailor-made accessory for your 300 Vario**  
When you upgrade your 300 Vario with the Fendt CARGO, you profit from a perfect combination of all components. During development, all the dimensions and forces of the CARGO were explicitly designed for the Vario. That 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 your operations.







- The perfect combination: tractor and front loader from the same manufacturer
- All pipes run in the frame
- Valves and damping are protected in cross bar
- Simple retrofit options for the loader
- Euro quick-change frame (optional SMS frame)
- Comprehensive safety concept
- Multi-coupler for mounting front loader (standard)
- 3rd and 4th hydraulic circuit (optional)
- Multi-coupler for 3rd and 4th hydraulic circuit on Euro quick-change frame (optional)
- Damping system (optional for 4X/75)
- Hydraulic attachment lock (optional for 4X/75)
- Wide range of original Fendt attachments (optional)

### Comfort with a capital C

The operating concept was designed for optimum driving comfort. The standard crossgate lever provides precise control of the CARGO. If you require the optional third or fourth hydraulic circuits, these are activated via pushbuttons on the crossgate lever and then easily operated with the crossgate lever. The optional damping system can be activated conveniently from the driver seat by simply pressing a switch; the optional attachment lock is controlled in the same way.

A specially designed connection between the front loader and the tractor permit all maintenance work to be performed on the 300 Vario tractors while the front loader is attached. Further visible evidence of the perfect symbiosis of the tractor and loader is the front window of the 300 Vario, which can be swung out completely at any time during front loader work.

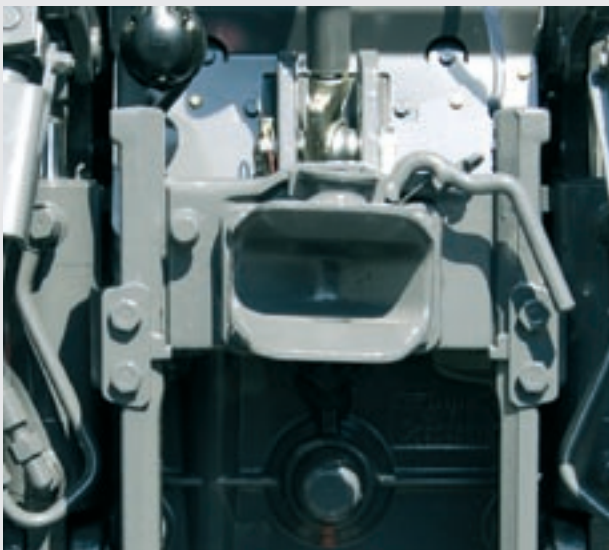


## Often small things are what make everyday life with a Fendt so pleasant

The normal roof version of the 300 Vario is equipped with rear work lights as standard. The work lights are mounted on the right and left of the cab roof. Their high position provides exceptional lighting for your rear-mounted implements.



With two simple hand movements, you can set the lower links on the 300 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.



The standard hitch 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.

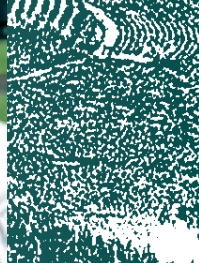


It is impossible to prevent oil from leaking when coupling hydraulic connections. On the 300 Vario, though, oil leaks run into the casing, which also serves to protect hydraulic couplings from dirt, and are then led through a hose into an easily accessible container.

**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.





The 300 Vario was designed to give you a large selection of tyres. Wide tyres from 600/65 R34 on the rear wheels are possible for minimising soil compaction, just as are large-sized row crop tyres with a rear wheel diameter of 1729 mm.

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 while the window is closed, so that dirt and cold cannot enter the cab. Of course, the cables can be fitted easily without tools.

The 300 Vario has three speeds at the rear PTO as standard. Using a rotary switch, you can conveniently preselect the required speed electrohydraulically from the driver seat.



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 300 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 – financing through AGCO FINANCE

Financing through AGCO FINANCE 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 customer 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](http://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!<sup>1)</sup> 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!

<sup>1)</sup> 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 18:00 by 8:00 the next morning. During the harvesting season<sup>1)</sup> 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.

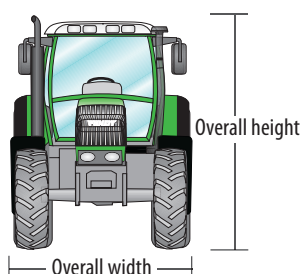
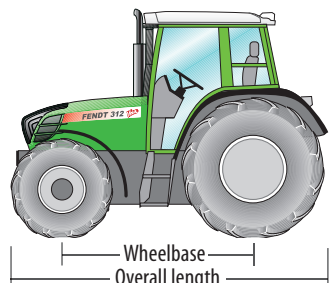
### Tractors for rent

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



	309 Vario	310 Vario	311 Vario	312 Vario
<b>Engine</b>				
Rated power (kW/hp) (ECE R24)	59 / 80	66 / 90	74 / 100	81 / 110
Max. power (kW/hp) (ECE R24)	70 / 95	77 / 105	84 / 115	92 / 125
Rated power (kW/hp) (EC 97/68) <sup>6)</sup>	69 / 94	73 / 99.5	84 / 114	91 / 124
Max. power (kW/hp) (EC 97/68)	73 / 99	80 / 109	88 / 119	95 / 129
No. of cylinders / cooling / aspiration	4 cylinders, four-valve technology / water / turbocharger, intercooler			
Injection / engine control / exhaust recirculation	common rail / EDC / AGReX			
Bore / stroke (mm) / displacement (cm³)	101/126/4038			
Rated engine speed (rpm)	2100	2100	2100	2100
Speed at max. power (rpm)	1900	1900	1900	1900
Max. torque (Nm/rpm)	407/1450	445/1450	485/1450	515/1450
Torque rise (%)	40	44	35	32
Optim. fuel consumption (g/kWh)	207	206	206	206
Fuel tank (l)	210	210	210	210
Oil change interval (op. hrs.) <sup>5)</sup>	500	500	500	500
<b>Transmission and PTO</b>				
Type of gearbox	stepless Vario transmission			
Speed range: (forward / reverse)	0.02 to 40 km/h / 0.02 to 25 km/h			
Max. speed (km/h)	40	40	40	40
Rear PTO (rpm)	540 / 540E / 1000			
Standard:	540 / 1000 / ground PTO (7.9 rev/driven metre)			
optional:	540 or 1000			
Front PTO <sup>1)</sup>				
<b>Hydraulics</b>				
Construction	constant flow system			
Hydraulic pump capacity (l/min)	78 (48+30)	78 (48+30)	78 (48+30)	78 (48+30)
Working pressure (bar)	200	200	200	200
Rear power lift control	EPC, lower link control, shock load stabilising			
Auxiliary valves max. (standard) incl. front controls	4 da <sup>4)</sup> (2 da <sup>4)</sup> ) valves / crossgate lever			
Max. lift capacity, rear power lift on the drawbar (daN/kp)	5280 / 5382	5280 / 5382	5280 / 5382	5280 / 5382
Max. lift capacity, front power lift (daN/kp)	2940 / 2997	2940 / 2997	2940 / 2997	2940 / 2997
Max. available hydraulic oil (l)	42	42	42	42
<b>Brakes</b>				
Rear brakes	wet, integrated ring piston brake			
Front brakes	4WD engagement			
Rear wheel drive version:	drum brake <sup>2)</sup>	drum brake <sup>2)</sup>		
<b>Weights and dimensions</b>				
Unladen weight acc. to DIN 70020 (kg)	4130 (3800 <sup>2)</sup> )	4130 (3800 <sup>2)</sup> )	4190	4350
Perm. gross weight (kg)	8000 (6000 <sup>2)</sup> )	8000 (6000 <sup>2)</sup> )	8000	8000
Max. payload (kg)	3370 (2200 <sup>2)</sup> )	3370 (2200 <sup>2)</sup> )	3310	3150
Max. hitch load (kg)	2000	2000	2000	2000
Overall length (mm)	4150	4150	4150	4150
Overall width (mm)	2165	2275	2275	2385
Overall height (mm)	2755	2760	2760	2800
Max. Ground clearance (mm)	510	510	510	510
Wheelbase (mm)	2350	2350	2350	2350
Front track <sup>3)</sup> (mm)	1685 (1580 <sup>2)</sup> )	1685 (1580 <sup>2)</sup> )	1685	1820
Rear track <sup>3)</sup> (mm)	1660	1660	1660	1800
Min. turning radius (m) / with steering brake (m)	4.4 (4.1 <sup>2)</sup> )	4.4 (4.1 <sup>2)</sup> )	4.5	4.5
<b>Electrical equipment</b>				
Starter (kW)	3.0			
Battery	12V / 90Ah			
Alternator	2002 W / 14V / 150 A			
<b>Cab</b>				
Construction	integral, tiltable safety cell hinged front, side and rear windows, ventilation system with			
Climate control	blower in roof, hot water heating with 3-speed blower, air-conditioning <sup>1)</sup>			

<sup>1)</sup> = upon request, <sup>2)</sup> = rear wheel drive version, <sup>3)</sup> = with standard tyres, <sup>4)</sup> = can also be operated as single-acting, <sup>5)</sup> = is halved when using RME, <sup>6)</sup> = definitive power specifications for registration

		309 Vario		310 Vario		311 Vario		312 Vario	
		front	rear	front	rear	front	rear	front	rear
Standard tyres	4WD version	380/70 R24	480/70 R34	440/65 R24	540/65 R34	440/65 R24	540/65 R34	480/65 R24	540/65 R38
	Rear wheel drive version	11.00-16	480/70 R34	11.00-16	540/65 R34	-	-	-	-
optional	4WD version	480/65 R24	600/65 R34	480/65 R24	600/65 R34	480/65 R24	600/65 R34	480/65 R24	600/65 R34
		270/95 R32	270/95 R48	270/95 R32	270/95 R48	270/95 R32	270/95 R48	270/95 R32	270/95 R48
		425/75 R20	600/65 R30	425/75 R20	600/65 R30	480/65 R24	540/65 R38	480/60 R28	600/68 R38

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



# Standard and optional equipment

	309	310	311	312
<b>Cab</b>				
Driver info system with LCD display	■	■	■	■
Variostick control	■	■	■	■
Vario <sup>TMS</sup> - Engine-Transmission Management System	□	□	□	□
Height and tilt-adjustable steering column	■	■	■	■
Fendt Comfort Seat, air-sprung with backrest-extension, lumbar support,	■	■	■	■
Mechanical cab suspension	□	□	□	□
Radio mounting kit with two stereo speakers	■	■	■	■
Radio CD Blaupunkt or CD MP3 Blaupunkt	□	□	□	□
Tinted windows	■	■	■	■
Roof hatch	■	■	■	■
Hot water heater with 3-speed blower	■	■	■	■
Ventilation system with 3-speed blower in roof <sup>1)</sup>	■	■	■	■
Ventilation with inf. adj. fan in roof <sup>1)</sup>	□	□	□	□
Air-conditioning <sup>1)</sup>	□	□	□	□
Rear window wash/wipe	□	□	□	□
Work lights, roof rear <sup>1)</sup>	□	□	□	□
Work lights A-pillar, roof front <sup>1)</sup> , mudguard	■	■	■	■
Work lights Twin-Power A-pillar, roof front <sup>1)</sup>	□	□	□	□
Work light Xenon A-pillar, mudguard rear	□	□	□	□
Terminal bracket	□	□	□	□
<b>Engine</b>				
AGReX external exhaust gas recirculation	■	■	■	■
Air filter precleaner	□	□	□	□
Automatic cold-start	■	■	■	■
Engine preheater	□	□	□	□
Exhaust brake	□	□	□	□
Tank cap with lock	□	□	□	□
<b>Transmission</b>				
Turboclutch function	■	■	■	■
Cruise control, auto. max. output control	■	■	■	■
Shuttle gears	■	■	■	■
Acoustic signal when reversing	□	□	□	□
<b>Chassis / driving safety</b>				
Compressed air system	□	□	□	□
Shock load stabilising EPC-B	■	■	■	■
Front axle suspension with level control	□	□	□	□
<b>4WD/differential locks</b>				
Central 4WD, maintenance-free	■	■	■	■
Comfort engagement controls for 4WD / differential locks	■	■	■	■
<b>Powershift PTOs</b>				
Rear: 540/750/1000 rpm	■	■	■	■
Rear: 540/ground/1000 rpm <sup>2)</sup>	□	□	□	□
Front: 540 rpm or 1000 rpm <sup>2)</sup>	□	□	□	□
PTO engagement control, electrohydr. preselection	■	■	■	■
External controls for rear PTO	■	■	■	■
<b>Hydraulics</b>				
Tandem pump, hydraulic oil cooler	■	■	■	■
Electro-hydraulic power lift (EPC-B)	■	■	■	■
External controls for rear power lift	■	■	■	■
Crossgate lever	■	■	■	■
Front power lift <sup>2)</sup>	□	□	□	□
Front loader, front loader attachments <sup>2)</sup>	□	□	□	□
<b>Additional equipment</b>				
Low roof version	□	□	□	□
Rear hitch	■	■	■	■
Automatic hitch with remote control, rear	□	□	□	□
Ball coupling	□	□	□	□
Pickup hitch	□	□	□	□
Swinging drawbar	□	□	□	□
Piton-fix	□	□	□	□
Rotating beacon	□	□	□	□
Wheel weights, rear wheels	□	□	□	□
Front weights, various sizes	□	□	□	□

<sup>1)</sup> = not possible for low roof version <sup>2)</sup> = not possible for rear wheel drive version

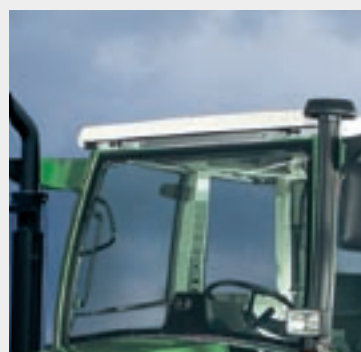
■ Standard

□ upon request

Document case



Additional Xenon work lights; rotating beacon



Low roof version



Integral front power lift and front PTO

Wide selection of weights for optimum ballasting



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.