

# AGROFARM



GERMAN ENGINEERING

# THE AGROFARM: THE SIMPLEST WAY OF STAYING IN THE BLACK.

Comfortable, well-designed cab with tinted windows and roller sunblind ensures relaxed, non-fatiguing work. Ergonomic, easy-to-follow operation and clearly arranged switches and operating levers. Air conditioning available on request.

Angled, shaped bonnet ensures outstanding visibility, especially with front mounted implements. Safe working and maneuvering even in the smallest spaces.

The very latest economical DEUTZ engines boast electronic engine control, programmable speed, high reliability and uniform power delivery. Responsive and high torque engines with low fuel consumption.

The optional integrated front powerlift with a lifting force of up to 1,800 kg and the front PTO running at 1,000 rpm considerably widen the range of applications of the Agrofarm and are absolutely essential for a universal tractor.

Powerful hydraulics with lifting forces of up to 5,300 kg. Up to three additional remote valves simplify operation and widen the range of applications. Convenient operation using single levers.

Four PTO speeds. Economic and efficient in every application.

You have the choice: Modern Synchroshift transmission with 20/20 speeds, or the powershift transmission with 40/40 speeds. An adjustable hydraulic Powershuttle comes as an option depending on equipment. Practical transmission technology with an outstanding range of speeds and low gearshift forces. It's easy to get into gear!



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

**Farm managers and service providers want to earn money. After all, work is only fun if it earns money. In pursuit of this aim, today's managers have to make far-reaching decisions which always directly affect the operating results of their agricultural businesses.**

The process of deciding on a new machine is often a long one of collecting data and information and consulting friends, advisors and associations. Ultimately decisions are, however, always made for rational reasons, as all aspects which safeguard the success of the business must be taken into account. It is therefore advantageous if a decision can be made for a strong

brand with a rational tractor concept which concentrates on one thing – the success of its customers – by providing cost-effective technology which does justice to practical requirements. With a wealth of experience gained from more than 80 years of major technological leadership in the agricultural machinery industry, the Agrofarm is an example of such rational technology.

## The universal tractor class

The new Agrofarm series has been specially designed for grassland, field maintenance and farmyard use and offers particular advantages in the compact medium class: Great flexibility, a low center of gravity and high maneuverability, clear sight lines, easy handling as well as maximum economic

efficiency and productivity, offering great value for money.

The Agrofarm is a universal tractor which comes with practical equipment. With economic, reliable DEUTZ engines fitted in the two available equipment variants, it is a match for the requirements of any farm, whether full-time or part-

time operations. The various cab roof options and the resulting low height make this series suitable for small building entrances. With a practical range of transmissions, a professional hydraulic system and unbeatably low operating and maintenance costs, the Agrofarm is a genuine all-round talent.

# COMFORTABLE WORKING CONDITIONS.

## ADVANTAGES

- Ergonomic and spacious cab with excellent panoramic view
- Operating levers within easy reach
- Efficient heating and ventilation
- High flow air conditioning system
- Low height to suit low building entrances
- Excellent view of front-mounted implements with shaped, sloping bonnet

- Open-view roof simplifies front loader work
- Platform tractor with safe protective roof



The modern 4-post cab offers not just a better overview but comfortable entry as well.



Clearly arranged and easy to read – the Agrofarm's instrument panel.



The workplace as it should be – light, comfortable and tidy.

**Today's farmers can rely on DEUTZ-FAHR to give them a comfortable workplace in every tractor class. The Agrofarm also boasts a generously configured compact cab and ergonomic operation – suitably designed in friendly colors and high-quality materials.**

An exemplary workplace: Safe cab access with a large door opening angle, anti-slip, solid steps. Excellent freedom of movement and clear view of all important operating and control elements. Additional comfort with optional air-sprung driver's seat for relaxed and concentrated work. This ergonomic driver's work-

place also naturally includes the softly padded driving wheel, located within easy reach. Adjustable in tilt and reach (not in all versions), it can be optimally adjusted to the height of any driver.

### Well informed

The clear, non-glare information display provides constant information on all relevant values and operating statuses of the tractor in both analog and digital form. Speed, PTO speed, operating hours and mileage are shown on an easy-to-read digital display.

### Everything in sight

The tractors are characterized by their compact, low design and excellent maneuverability. Good lines of sight in all directions due to the shaped, sloping bonnet and narrow cab uprights as well as large glazed areas.

### Everything at hand

All operator elements are conveniently located on the right next to the driver's seat. They are arranged in functional groups and can be operated almost intuitively after even just a short time. All the levers of a functional group are the same color, eliminating the possibility of

confusion and enhancing operational reliability. It doesn't take long to get a grip on the Agrofarm.

### First-class air conditioning

The best air conditioning in all weather conditions. The outside air is effectively filtered over a large surface. In addition to the three-stage fresh air blower and the efficient hot water heating system, The Agrofarm tractor is fitted with a high output air conditioning system.

# POWER UNDER THE HOOD.

## ADVANTAGES

- Constant power and constant torque
- High torque rise and a high starting torque for constant power and reliable starts even when under load
- Powerful and yet flexible water-cooled DEUTZ turbo diesel engines with electronic engine control and programmable speed
- High efficiency with Bosch single high-pressure injection pumps
- Approval for 100% biodiesel: Saves costs and protects the environment



**Work hard and save fuel. DEUTZ engines live up to their economic reputation. After all, modern farmers expect fuel-efficient, high-power engines even in the compact Agrofarm.**

The water-cooled 4-cylinder turbo diesel engines of the 2012 series boast a compact design, uniform power development and low fuel consumption. Fitted with electronic engine control with programmable

speeds and a modern high-pressure injection system with injection pressures of up to 1.400 bar, they deliver efficient fuel utilization, enormous efficiency and excellent emissions values. And, thanks to the

160 liter fuel tank, they are more than a match for long working days.

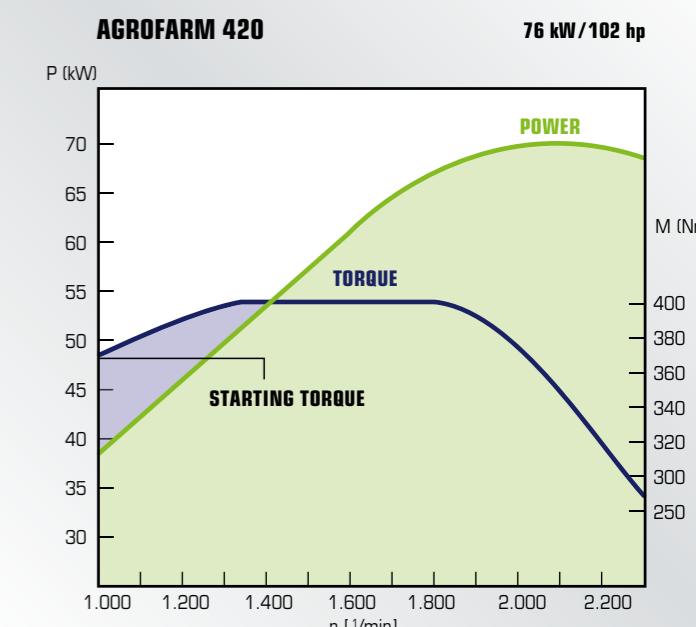
## High torque and constant power

The engines are characterized by high torque at low engine speeds. That means the Agrofarm 420 reaches its maximum torque of 380 Nm at just 1,800 rpm

and keeps it constant up to a speed of 1,400 rpm. Maximum power is reached at just 2,100 rpm. High starting torques ensure that the tractor pulls off reliably with heavy loads, even on hills.



Modern engine technology from DEUTZ with high-pressure injection and electronic engine control.



# THE RIGHT SPEED FOR EVERY ACTIVITY.

## ADVANTAGES

- ▶ Adjustable hydraulic power shuttle
- ▶ Maintenance-free lifetime clutches for the Powershuttle
- ▶ Low gearshift forces
- ▶ Comfort clutch actuation on the shift lever (Powershuttle version)
- ▶ True four-wheel brakes for maximum performance and reliable braking
- ▶ Practical speed graduation
- ▶ Three practical transmission versions: 20/20 SynchroSpeed and Powershuttle, 40/40 DuoSpeed



Hydraulic Powershuttle available on request.



Easy to shift: The 40/40 speed DuoSpeed transmission.

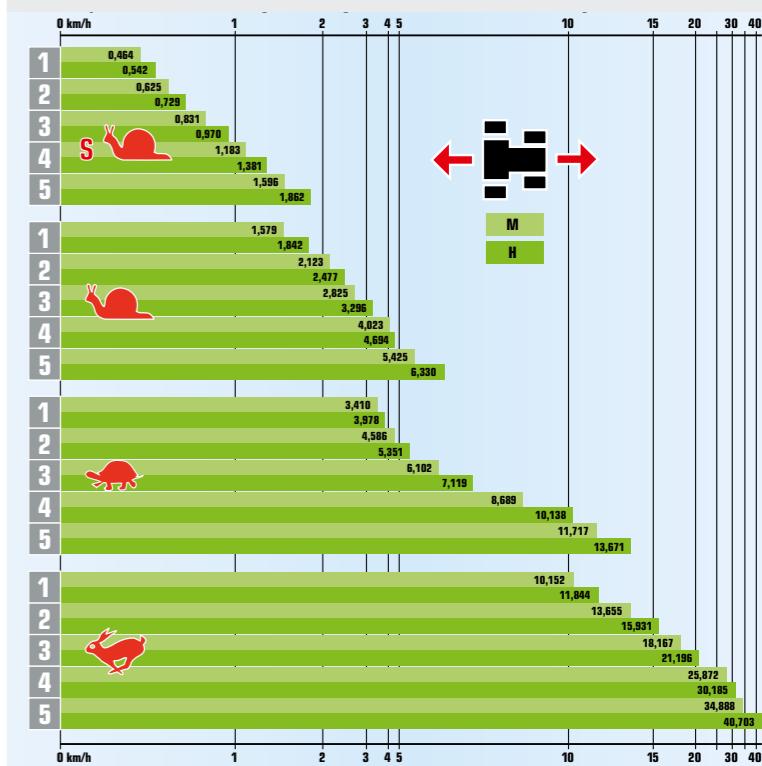


Comfortable pre-selection of four PTO speeds.



Modulation of powershuttle is shown on the display.

40/40 Duospeed Transmission Speed Chart



The Agrofarm's reliable transmission comes to the fore particularly when the vehicle is used as a grassland tractor. Three transmissions are available: A Synchroshift and Powershuttle transmission with 20/20 forward/reverse speeds, a Powershift transmission with two shift stages and 40/40 speeds.

### T 4000/T 5000 Synchroshift transmission

The newly developed Synchroshift transmission comes with 5 speeds and 4 groups (including creeper speed group) as well as mechanical or hydraulic F/R shifting. It is available with 20/20 speeds, ensuring correspondingly narrow and practical speed graduation.

### Duospeed Transmission

The duospeed transmission is equipped with 40 Forward 40 Reverse Gears with two powershift stages and declutch button. It offers the right speed for every application from 540m/h right through to 40km/h. In the main working range from 4- 15km/h, 15 gears can be selected.

### Clutch-free Powershuttle shifting

Both transmissions can be fitted with an optional hydraulic Powershuttle with five adjustable settings, enabling the driver to change the direction of travel without actuating the clutch. This makes front loader work and maneuvering child's play. The Powershuttle versions also come with a comfort clutch on the shifting lever. They engage at the press of a button and shift

up to 10 speeds without the clutch pedal being pressed.

### Safe braking as you please

All Agrofarm models have independent oil-immersed disc brakes on the front and rear axles. The durable, maintenance-free long-life brakes also ensure the necessary safety at high speeds.

# POWERFUL HYDRAULICS FOR TOUGH JOBS.

## ADVANTAGES

- Mechanical lower link hydraulic control
- Actuation of the PTO at both rear mudguards
- Integrated front powerlift with single or double action upon request
- Independent electro-hydraulically operated PTO
- 4 PTO speeds: 540/540E and 540/540E und 1000/1000E
- Ground-speed PTO for special applications upon request



Easily accessible and well arranged hydraulic connections.



Up to three additional remote valves upon request.



The powerful rear linkage with 5,300 kg lift capacity for operating the heaviest implements.

**Hydraulic power you can rely on. That's because these days even a compact tractor has to handle a wide variety of jobs. With a pump capacity of 56 l/min and a separate hydraulic circuit for the steering, the Agrofarm's hydraulic system is a match for any requirement.**

The Agrofarm is supplied with a mechanical lower link control as standard. The mechanical control is particularly efficient and offers application-specific advantages for all farms.

### Remote valves for all demands

The hydraulic system ensures practical implement use. Up to three precision-metered, double-acting additional remote valves can be supplied for the Agrofarm. They are controlled using single levers and, depending on the version, also feature a

flow rate control system. The oil then flows to easily accessible hydraulic connections, which can be coupled under pressure and are provided with leakage oil tanks.

### Electro-hydraulically operated PTOs

All Agrofarm tractors come with com-

prehensive PTO equipment as standard. The following combinations are available: 540/1000 or 540/540E/1000/1000E. The required speeds are preselected in the cab and activated electro-hydraulically. To protect the implements and the transmission train, PTO start-up is softly modulated.

DEUTZ-FAHR also offers a ground-speed PTO with a second PTO stub for trailers with driven axles. The PTO can also be operated externally at the rear fender.

# MAY WE OFFER YOU ANYTHING ELSE?



Although the standard equipment of the Agrofarm is already extremely comprehensive, it can still be enhanced. DEUTZ-FAHR supplies a coordinated range of additional and special equipment for all ranges and assemblies. Contact your DEUTZ-FAHR dealer. They will be pleased to be of assistance.

#### 1 Front powerlift & front PTO:

The Agrofarm unfolds its true versatile potential when equipped with mounted front implements. The integrated

front powerlift boasts a lifting force of 1,800kg, while the front PTO delivers a speed of 1,000rpm.

#### 2 Compressed air braking system:

Indispensable for road transport with trailers. In addition to compressed air braking systems, hydraulic trailer braking systems complying with a variety of standards are also available.

**3 Air conditioning:** Standard on all Cab models

**4 High visibility roof:** The comfort cab becomes a true open-view cab giving the best view of the front loader. The elevated front loader is easily visible through the tilting transparent roof.

**5 Beacon lamp:** The beacon lamp, available as a factory fitting and attached to a hinged arm on the cab roof, makes an active contribution to road safety.

**6 Ground-speed PTO:** A ground-speed PTO is available in addition to the standard PTO equipment.

**7 Powershuttle:** Hydraulically actuated and included as standard depending on equipment. With five adjustable settings to cover every application.

**8 Platform tractor:** Not all farms require a tractor with cab. The platform tractor with protective roof can offer a simple but comfortable solution. 420GS ROPS.

**9 Working headlamps:** Additional working headlamps provide optimal illumination of the working area at the front.

**10 Ballast carrier and front weights:** Front weight carriers and ballast weights guarantee optimal weight distribution for every application. A wide range of front weights is also available for use with front powerlifts.

**11 Driver's seat with air suspension:** For your comfort and health on long working days.

**12 Hydraulic system:** Powerful hydraulics with a delivery rate of 56l/min and a separate hydraulic circuit for steering. With 3 remote valves on request.

# NO NEED FOR LONG MAINTENANCE.

## ADVANTAGES

- Tool-free access to all important maintenance points
- Long maintenance intervals for oil and filters lower operating costs
- Low costs for wearing and maintenance parts
- Engine oil change every 500 hours
- Valve adjustment every 1,500 hours
- Transmission and hydraulic oil change every 1,200 hours
- Easy cleaning of the cooling system



### Fast, daily maintenance

Daily maintenance is quick and easy and can be completed in next to no time simply by opening the rear hinged bonnet. Pressure-actuated springs keep the bonnet in the open position. All important components and assemblies can be reached straightforwardly for maintenance without the need for tools. The engine oil level can be checked without opening the bonnet.

### Long maintenance intervals

The regular maintenance intervals for the engine are so long they are almost unique. The engine oil only has to be changed every 500 hours of operation, while the valve setting only has to be checked every

1,500 hours. The transmission oil and its filters do not need to be replaced until after 1,200 hours. That – and the low cost of wearing and maintenance parts – means that the operating costs for an Agrofarm are satisfactorily low.

**1 The engine and transmission oil coolers** are fitted with a mesh guard and are therefore easy to clean.

**2 The expansion reservoir** for the coolant is also easily accessible. The liquid level can be conveniently checked through the transparent tank.

**3 The cartridge of the intake air filter** is easily pulled out to the side after the clips have been detached. The ejector dust seal keeps the maintenance intervals for the filter very long.

**4 The fuel filters** with water separator can be accessed from the side after opening the engine bonnet.

**5 The battery** can also be accessed easily without the use of tools.

**6 The oil filler neck and dipstick** are very easy to reach. Long maintenance intervals cut the operating costs for servicing and maintenance.



# TECHNICAL DATA

## AGROFARM 410 • 420

Type designation	410	420
<b>Engine</b>		
DEUTZ diesel engine	Type	TD 2012 L 04
Design		Turbo/liquid-cooled/ high-pressure injection
Maximum power (2000/25 EC)*	kW/hp	63.5/85
Speed rated	rpm	2,300
Cylinders/cubic capacity	No./cm <sup>3</sup>	4/4,038
Bore/stroke	mm	101/126
Torque rise	%	32
Maximum torque	Nm	320
Constant torque range	rpm	1,400-1,600
Constant power range	rpm	1,800-2,300
Engine oil change interval		500 h or every year**
Oil quantity/tank capacity	l	9/160
Use of bio-diesel		Suitable for unrestricted use of fuel in accordance with DIN EN 14214
<b>Cab</b>		
Design		Integrated cab, with noise insulation, exhaust on the side of the strut
Equipment		Sun blind, tinted windows, wiper/washer unit at front and rear, opening for implement actuation, working headlamp at front and rear; interior lighting, Grammer mechanical comfort seat (with air suspension on request) with seat belt
Heating		Hot-water heating with fan with 3 settings
Air conditioning		Front and rear windows can be tilted, ventilation system with fan, A/C system is standard, tilttable glass roof on request
Display		Non-glare information display with digital display showing vehicle speed, speed of front/rear PTO, powershift stages, operating hours, time, etc.
<b>Electrical system</b>		
Voltage	V	12
Battery	V/Ah/A	12/180/800
<b>Chassis, brakes, steering</b>		
Front differential lock		100%, electrohydraulic activation
Rear differential lock		Electrohydraulic activation
4-wheel drive operation		Mechanical, electrohydraulic on request
Service brake		Wet disk brake system on all 4 wheels
Steering system		Hydrostatic with separate pump (37 l)
Steering angle/smallest turning circle		55°/3.50 m
Trailer brake		Combined one/two line compressed air braking system on request
<b>Working hydraulics</b>		
System/oil reservoir		Open center/shared with transmission
Pump flow rate	l/min (bar)	56 (190)
Available oil quantity	l	20

\* Basis for approval

\*\* Engine oil change interval halved if run on bio-diesel

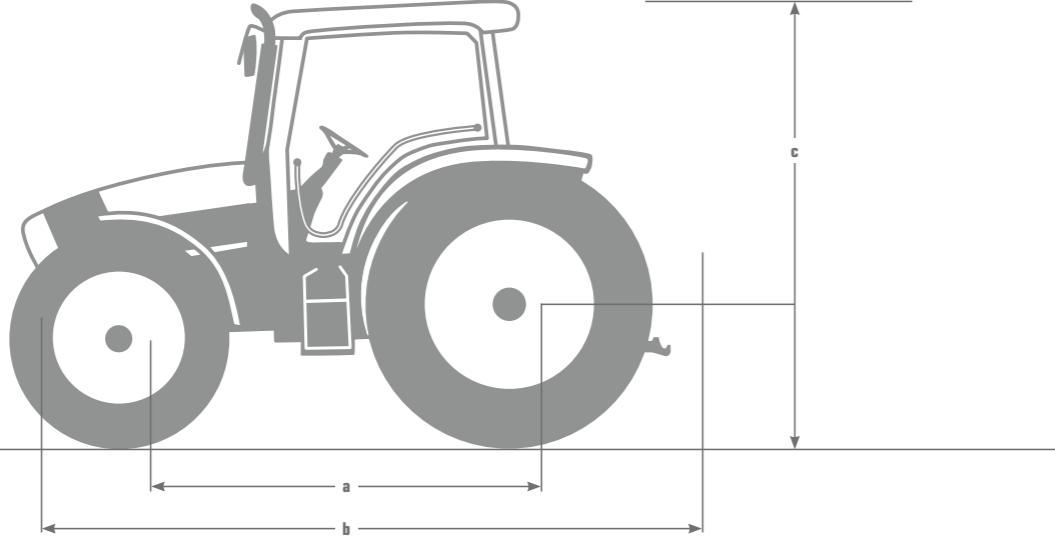
Type designation	410	420		
<b>Powerlift</b>				
Category of 3-point hitch, rear		II/fast coupler optional		
Lifting force at rear	kg	4,300		
Front powerlift, cat. II		Integrated with folding lower links on request		
Front powerlift lifting force	kg	1,800		
<b>Hydraulic remote valves</b>				
No. of remote valves		2 (std) 3 on request		
Non-pressurized recirculation		Standard		
Version		Double-acting, mechanical actuation		
<b>Transmission</b>				
Transmission	V/R	40/40 Duospeed (GS)		
		20/20 Synchroshift (DT) 20/20 Powershuttle (GS) 40/40 Duospeed (GS)		
Clutch actuation		Mechanical, electrohydraulic actuation via foot pedal and switch in gear lever on request		
Reverse transmission		Mechanical with separate shifting lever on the left side (420DT), electrohydraulic Powershuttle on the steering wheel (410 / 420GS)		
<b>Speeds of Synchroshift/ Powershuttle transmission 20/20 with 480/70 R34 tires, example for Agrofarm 420 DT/ GS</b>				
1	0.402	1.132	3.605	10.915
2	0.596	1.677	5.341	16.171
3	0.793	2.231	7.106	21.515
4	1.047	2.943	9.374	28.361
5	1.389	3.907	12.442	40.000
<b>Speeds of Duospeed powershift transmission 40/40 with 480/70 R34 tires, example for Agrofarm 410 - 420 GS</b>				
1	0.464/0.542	1.579/1.842	3.410/3.978	10.152/11.844
2	0.625/0.729	2.123/2.477	4.586/5.351	13.655/15.931
3	0.831/0.970	2.825/3.296	6.102/7.119	18.167/21.196
4	1.183/1.381	4.023/4.694	8.689/10.138	25.872/30.185
5	1.596/1.862	5.425/6.330	11.717/13.671	34.888/40.703
<b>Front PTO</b>				
Actuation		Electrohydraulic shifting		
Speed	rpm	1,000		
Direction of rotation		Right in direction of travel		
<b>Rear PTO</b>				
Actuation		Electrohydraulic; in the cab and on the two rear mudguards		
Ground-speed PTO		With separate PTO stub on request		
PTO speeds		540/540E/1,000/1,000E		
Engine speed 540/540E/1,000/1,000E	rpm	2,080/1,630/2,280/1,780		

\* Limited to 40 kph

# TECHNICAL DATA

## AGROFARM 410 • 420

**a** Wheel base  
**b** Length  
**c** Height above cab



Type designation	410	420
<b>Dimensions in mm</b>		
<b>a</b> Wheel base	2,310	2,340
<b>b</b> Length with/without lower link	4,060/3,850	4,160/3,950
<b>c</b> Overall height without/with A/C*	2,560/2,730	2,638/2,808
Track widths	Adjustable wheel rims, track widths between 1,500 and 2,100mm possible depending on tires	
Minimum width	1,957 mm with 340/85 R 38 tires	
Ground clearance (with standard tires)	500	500
<b>Weights in kg (40 km/h, cab)</b>		
<b>Unladen weight**</b>		
Front	1,610	1,620
Rear	2,060	2,390
Total	3,670	4,010
<b>Permissible laden weight</b>		
Maximum front axle load	2,800	3,000
Maximum rear axle load	3,300	4,800
Permissible total weight	6,100	7,200

\* For standard roof; depending on rear wheel tires

\*\* With ballast carriers without ballast weights, without front powerlift, with cab and driver (75kg) and a full fuel tank

Tyre combination	410		420	
	Front	Rear	Front	Rear
Option	320/85 R 24	420/85 R 30	—	—
Option	360/70 R 24	480/70 R 30	—	—
Option	320/85 R 28	340/85 R 38	320/85 R 28	340/85 R 38
Option	480/65 R 24	540/65 R 34	480/65 R 24	540/65 R 34
<b>Standard</b>	<b>420/70 R 24</b>	<b>480/70 R 34</b>	<b>420/70 R 24</b>	<b>480/70 R 34</b>
Option	380/85 R 24	420/85 R 34	380/85 R 24	420/85 R 34
Option	—	—	480/70 R 24	520/70 R 34
Option	—	—	420/85 R 24	460/85 R 34
Option	—	—	340/85 R 28	420/85 R 38
Option	—	—	440/65 R 28	540/65 R 38
Option	—	—	380/70 R 28	480/70 R 38

Available standard tyre combinations are given on the current valid price lists.

# SURE AND SAFE WITH ORIGINAL DEUTZ-FAHR.



## Original service is wise.

Without doubt – many can repair much. But only your DEUTZ-FAHR specialist dealer knows your tractor inside and out. Only your dealer has regularly trained mechanics and experts on call. Only dealers have the special tools and diagnostic equipment required for competent diagnosis and inspection. All this gives you peace of mind – without doubt.

## Original parts make good sense.

As you placed your trust in the original tractor, we recommend you use original parts when required. Only these comply with the high quality and safety standards of DEUTZ-FAHR and ensure correct function and operation without problems – guaranteed.

## DEUTZ-FAHR lubricants

We recommend new genuine DEUTZ-FAHR lubricants. The outstanding quality of this product range, which is made exclusively for DEUTZ-FAHR, ensures that your tractor always receives exactly what it needs.



**Please contact your DEUTZ-FAHR dealer – he will be pleased to answer your questions:**

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