



# RAKES

Two-rotor and four-rotor rakes

- ▶ Robust construction
- ▶ Innovative
- ▶ Ease of operation



## FIRST-RATE HARVEST



For more than 95 years, FELLA has always stood for innovative technology, outstanding quality and a personal passion for the service of agriculture. As the specialist for "Made in Germany" forage harvesting technology, we offer our customers all around the world an extremely wide range of products in terms of mowers, hay tedders, rakes and conditioners.

FELLA has been represented in all key markets around the world since the 1980s. Through close contact with farmers and agricultural contractors, our machines are constantly undergoing further development towards perfection. In this way, even the most diverse markets can enjoy mutual benefits. FELLA's objective is to provide every customer with the optimum solution for his farming requirements.



## TRADITION, INNOVATION, PASSION

The first rake was produced on our company site in Feucht as early as the mid 1960s. All key components of our forage harvesting machines are assembled and tested in Feucht by specialists before they leave our works.

At the same time, our research and development department continues to invest all its expertise into the development of ever better and more efficient machines. This will guarantee the outstanding FELLA "Made in Germany" quality far into the future for our customers the world over.

## FELLA – the forage harvesting specialist:

- ▶ *"Made in Germany" quality*
- ▶ *More than 95 years of experience*
- ▶ *In-house research and development department*
- ▶ *All machines are assembled and tested on the company's site by specialists*
- ▶ *Innovative, efficient, long-lasting*

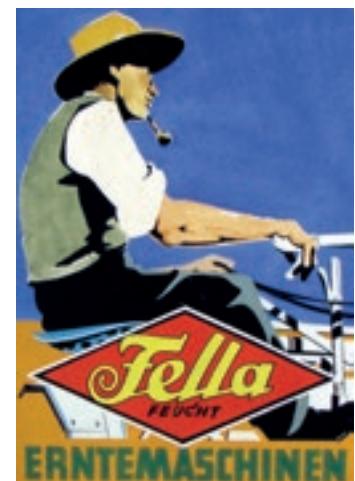
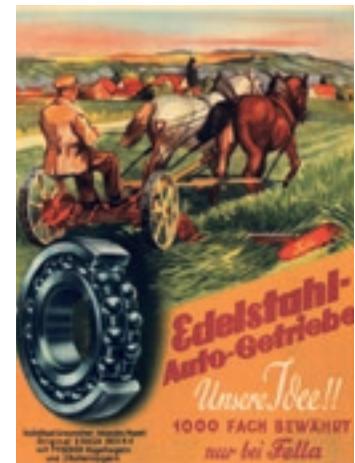
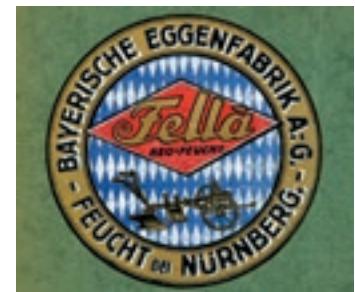
# HISTORY

The name FELLA has been a byword for innovative agricultural machinery from Franconia for over 95 years. FELLA-Werke GmbH of Feucht near Nuremberg currently holds a top position in the demanding crop harvesting machinery sector. With a comprehensive range of drum and disc mower units, tedders and rakes, FELLA is in an excellent position to enjoy sustainable growth on the world market.

Since early 2011, FELLA has been fully incorporated into the AGCO Corporation and continues to drive forward the specialisation of harvest technology for them. The Feucht site, near Nuremberg, is AGCO's centre of excellence for green forage harvesting in Europe.

## AN OVERVIEW OF OUR HISTORY

- ▶ **1918** Founding of "Bayerische Eggenfabrik AG" (Bavarian Harrow Factory) in Feucht
- ▶ **1921** The brand name FELLA is created, derived from the Egyptian word "Fellache" (= farmer)
- ▶ **1923** Ploughs and front carriages are incorporated in the product range
- ▶ **1932** Introduction of grass mowers, hay tedders, horse rakes and reaper-binders to the product portfolio
- ▶ **1953** FELLA launches its first conditioner with tine rotor onto the market. It is awarded with the "große Bronzene Preismünze" (great bronze medal) by the DLG (German Agricultural Association)
- ▶ **1954** FELLA launches the Jupiter, an automatic, powerful combine harvester onto the market
- ▶ **1968** Rakes added to the product portfolio
- ▶ **1980** Specialisation of products for green forage harvesting
- ▶ **1989** Concentration on the core competences of construction, assembly, sales
- ▶ **1997** The principle of the four "self-controlling factories" is introduced. Two years later, it is awarded with the International Best Factory Award
- ▶ **2000** Investment in the "new" FELLA (new building, restructuring)
- ▶ **2004** Takeover of FELLA by Argo. FELLA becomes a wholly-owned subsidiary of Laverda
- ▶ **2007** Argo and AGCO conclude a joint venture, each with a 50% share, FELLA becomes a part of both companies
- ▶ **2011** 100% takeover by AGCO: FELLA becomes the centre of excellence for green forage harvesting of AGCO in Europe
- ▶ **2013** FELLA's 95th anniversary



# SERVICE

*"Out of sight, out of mind." But not at FELLA!*

*Together with our dealers, we are always there and ready to provide reliable support to our partners, both at home and abroad – as we have been doing for almost 100 years. In conjunction with our well organised spare parts stores, regular further technical training for our dealers ensures that FELLA machines can be used, maintained and repaired to a professional standard. This comprehensive service ensures a high level of deployment reliability for your FELLA machines and makes a significant contribution to high-yield and stress-free forage harvesting.*



## TWO-ROTOR AND FOUR-ROTOR RAKES



### WHY A TWO-ROTOR OR FOUR-ROTOR RAKE FROM FELLA?

These days, large rakes are key machines in the forage harvesting process – a failure can result in the stoppage of expensive machines following on behind and enormous costs. You should never compromise with your rake choice and always put your trust in quality and operational reliability. FELLA has combined its years of experience with the latest technical knowledge and, from these, developed a range of high-performance large-scale rakes. Characteristics which all the machines share are the robust construction, ease of operation and outstanding raking quality – all things from which you, as the user, can immediately benefit thanks to their practicality. The individual models also win users over with their unique features – take a look for yourself!



### Benefits at a glance:

- ▶ *Decades of experience*
- ▶ *Large product range*
- ▶ *Robust construction – ease of handling*
- ▶ *All machines manufactured from high-quality materials and all components powder coated – colour coating particularly impact resistant and long-lasting, providing a brilliant look which lasts for years*

### OPINIONS BASED ON ACTUAL USE:

*"We purchased the FELLA multi-rotor rakes because of their robust construction, high performance and ease of operation. Journeys to the places of work are quick and safe and our drivers do not want to go without the steerGUARD steering system, especially on smaller plots of land. We also regard the expertise of Norwood\* as a plus point."*

Colton Bros, Agricultural contractor, New Zealand

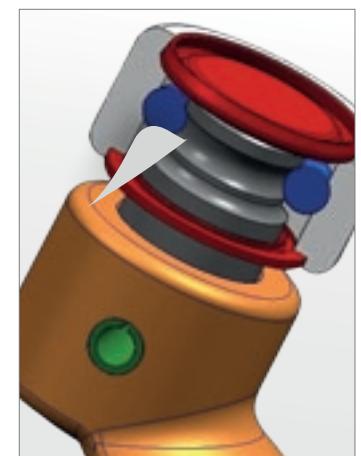
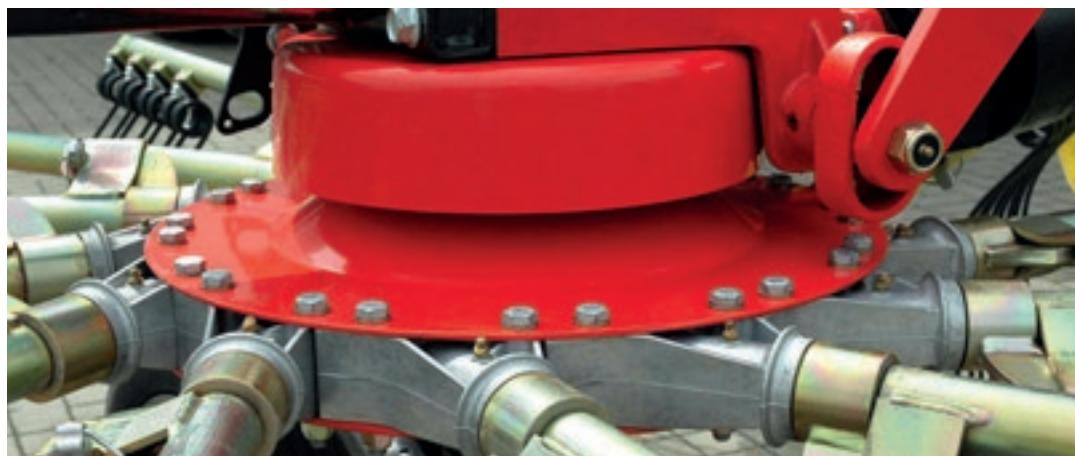


## RAKE HEADS

The rake heads from FELLA win users over due to their enclosed construction, which can be relied on to protect all critical components from dirt and dust. The large-dimensioned drive unit and the precision-manufactured tine arm housings made of aluminium alloy both reflect the modern and practice-proven design.

## CAM TRACK

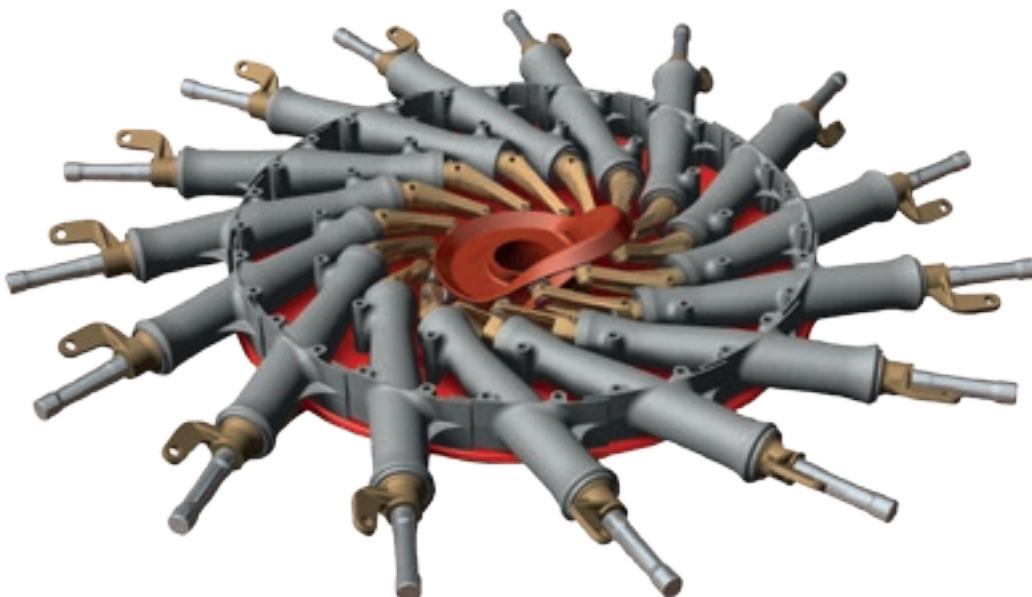
The optimised shape of the cam track, which is made of unbreakable spheroidal graphite cast iron, provides maximum smooth running and quick, precise lifting of the tines. The cam track can be adjusted without using tools\*, which means that it is easily adapted to the most varied of working conditions. The rollers in the cam track have ball bearings and are maintenance-free. This design guarantees a long service life, even under difficult working conditions.



*Permanently lubricated steel rollers with ball bearings*

## TANGENTIALLY ARRANGED ROTOR ARMS

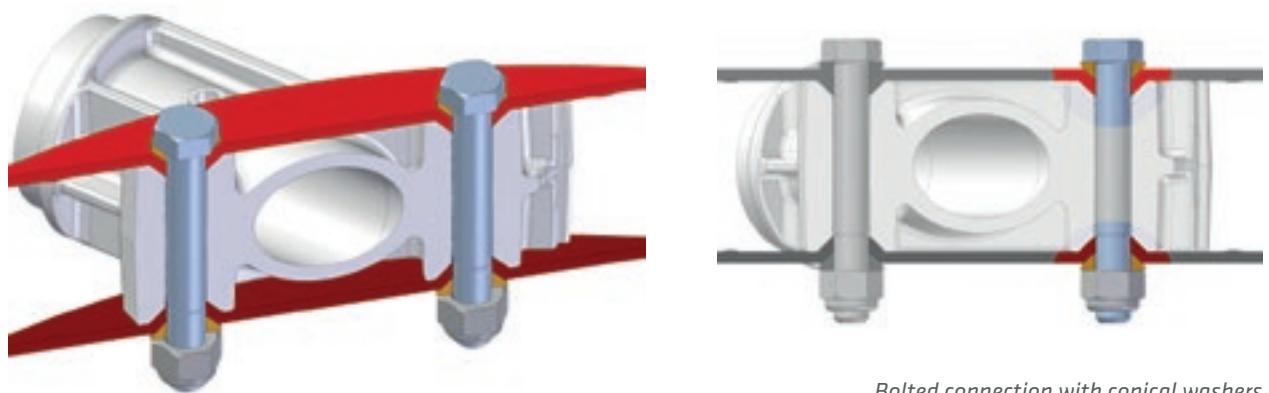
Best raking quality is achieved with the tangential arrangement of the tine arms and an ideal swath is created. It makes significantly higher working speeds possible – necessary if the harvesting weather is not in your favour.



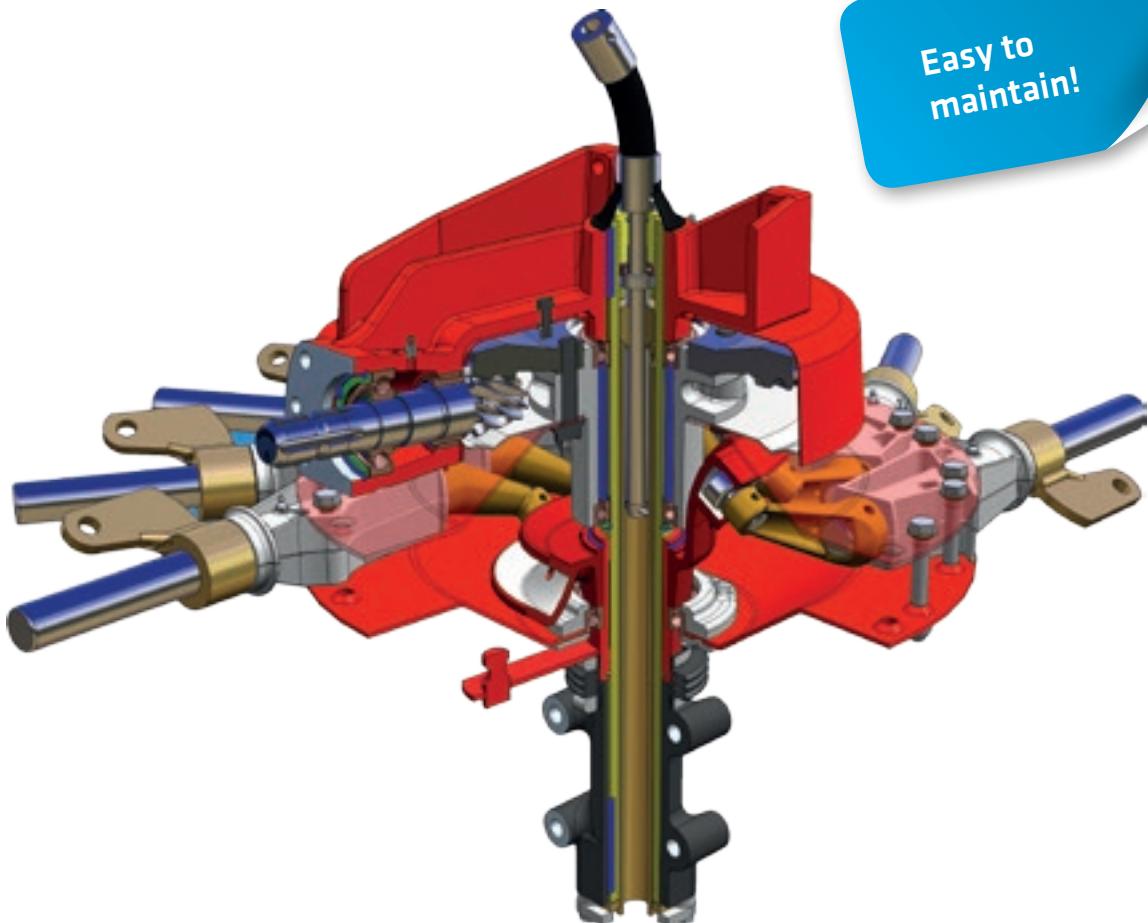
## THE EASY-TO-MAINTAIN TS3 AND TS4 RAKE HEAD

### BOLTED CONNECTION OF THE RAKE HEAD

The rake head is bolted together using conical washers to form a sturdy unit. This has the advantage that the bolts are not subjected to shearing effect, but rather only to compressive and tensile forces. As a result, perfect centring and rigidity is achieved for a long service life. If necessary, the support arms can be replaced individually without having to dismantle the rake socket.



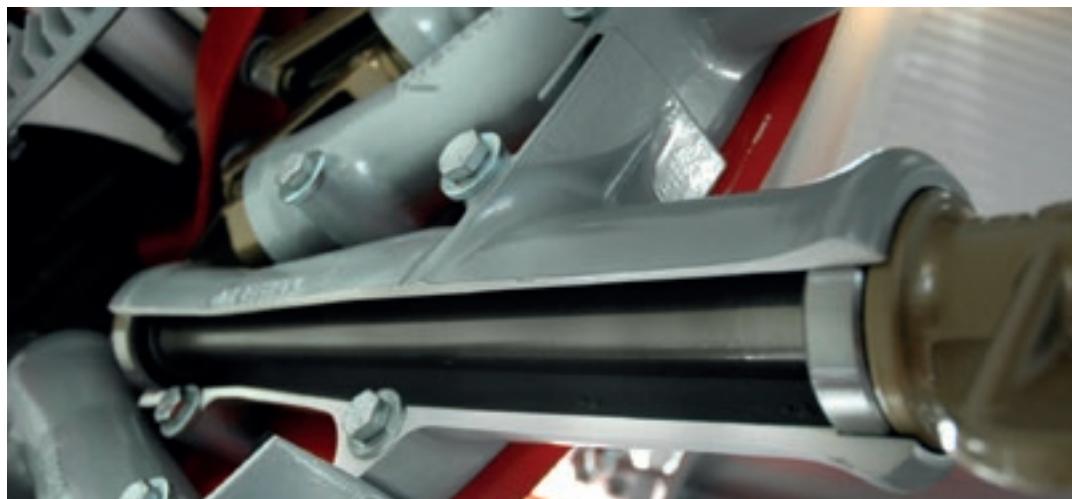
*Bolted connection with conical washers*



## THE TS5 AND TS6 RAKE HEAD: MAINTENANCE-FREE ROTOR ARM MOUNTING

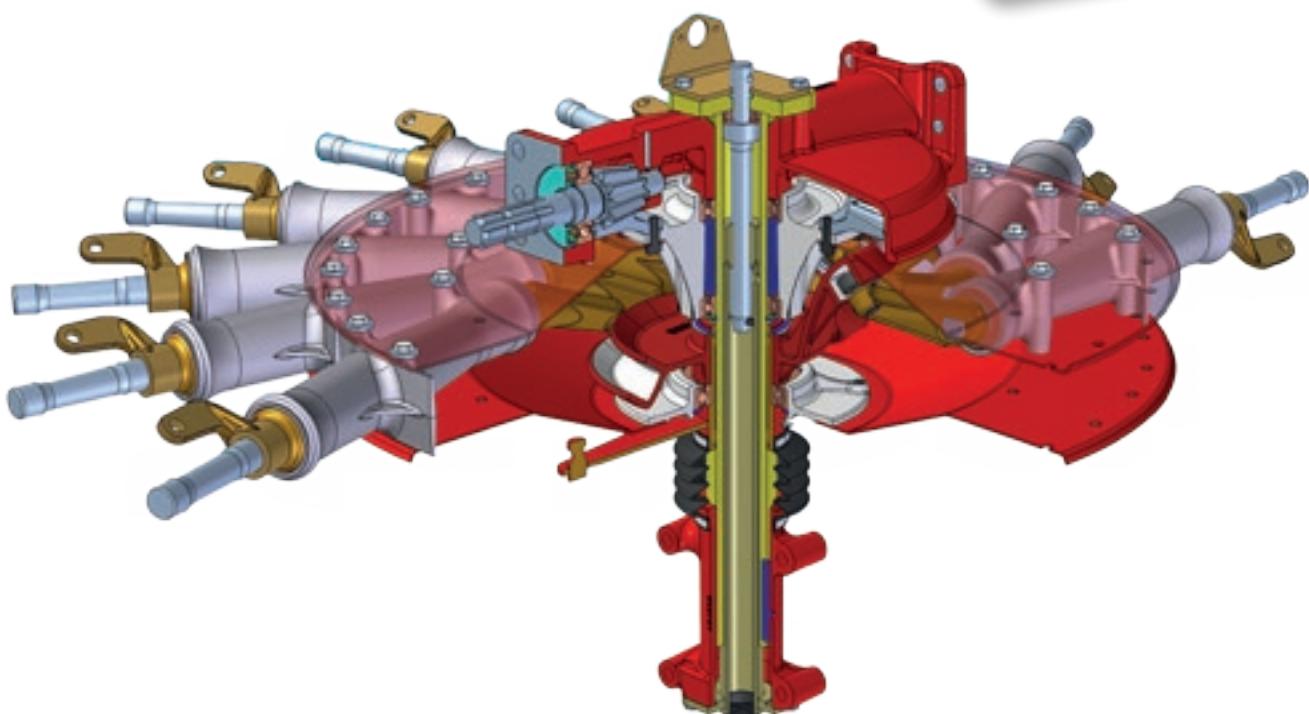
### OUR INDUSTRY LEADING HIGH OUTPUT ROTOR HEADS

A typical feature of this head is the solid, large-dimensioned bearing tubes of the rotor arms. With a distance between bearings of 43 cm, this key component is designed for extremely high loads and the harshest of working conditions. The precision ball roller bearings are also completely maintenance-free. The sheet metal socket tilted on its outer edge gives the head additional stability.



*Maintenance-free precision ball roller bearings*

Maintenance-free  
rotor arm mounting



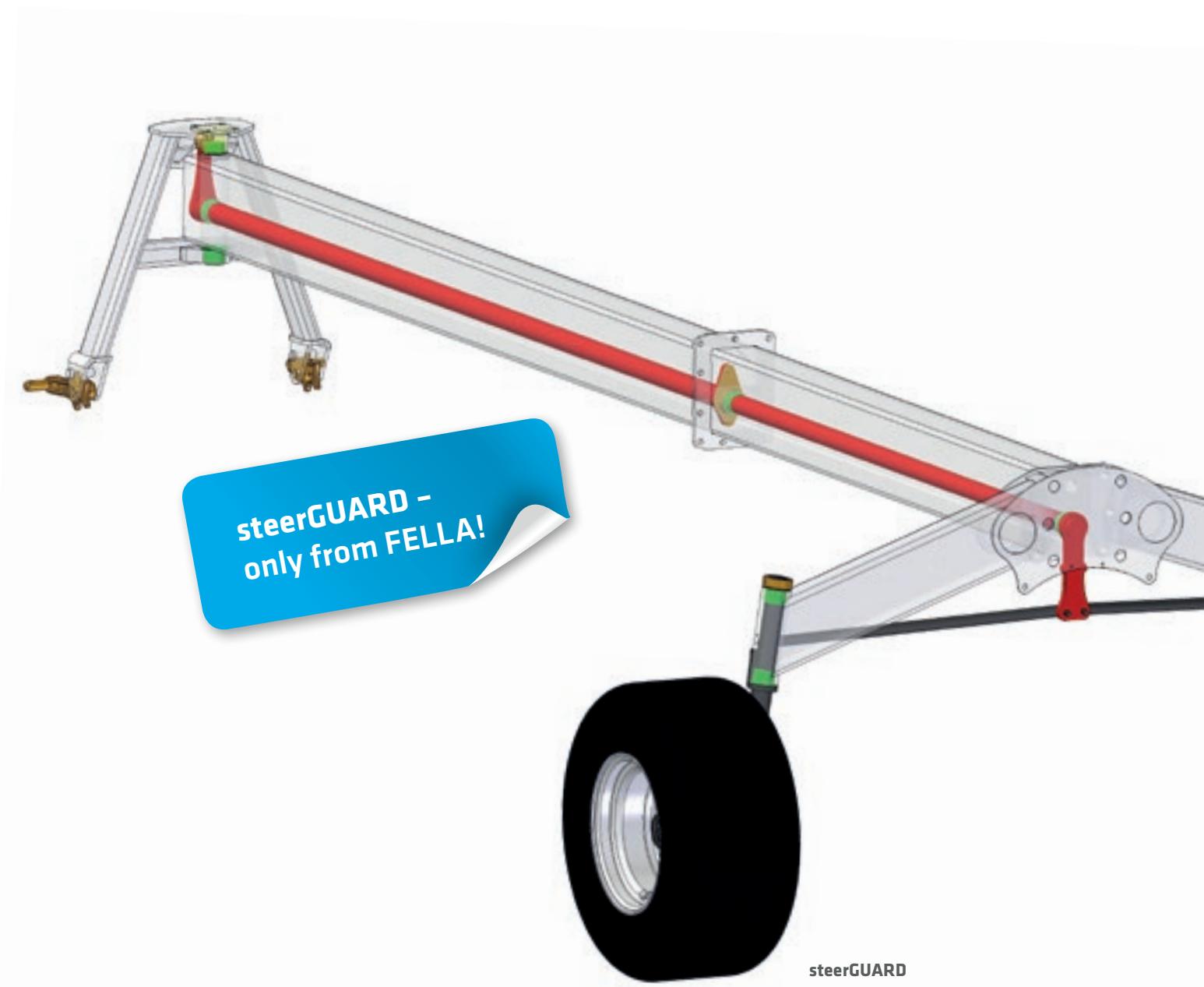
## TYPICAL FEATURES OF FELLA RAKES

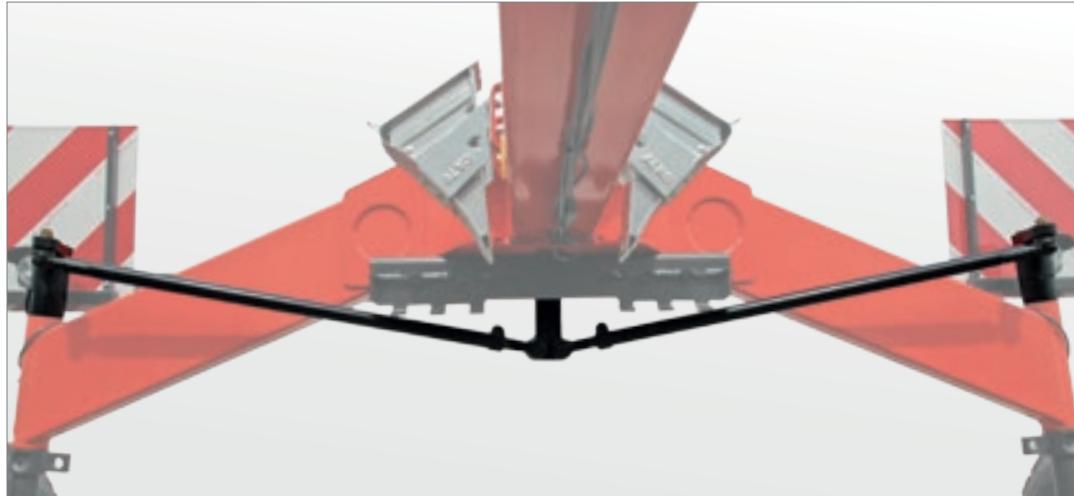
### TECHNOLOGICAL HIGHLIGHT: STEERGUARD – FOR A POSITIVE AND DIRECT STEERING MOVEMENT

FELLA is the only manufacturer on the market to offer a steering system for the rake which operates within the frame. This patented steering system provides very high and long-lasting steering precision. The steering shaft is protected against damage by the frame and, unlike externally located steering systems, only has two moving joints. As a result, accurate steering and safety is guaranteed, even after years of use.

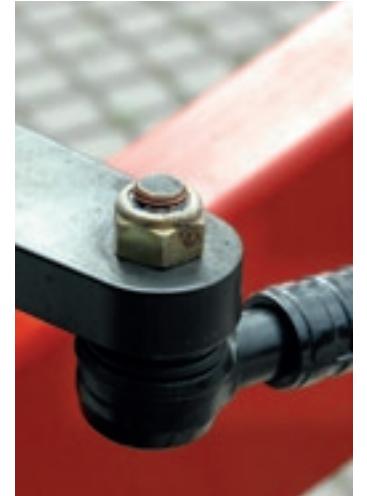
The steering movement is transferred from the steering shaft to the wheels with the aid of the stub axle steering with adjustable track rod. The track rods are fitted with high-precision commercial vehicle ball joint conical heads which have been proven over millions of kilometres.

The greatest benefit of this steering system lies in the very positive and direct transmission of the steering movement. The rake always runs exactly in the track of the tractor and is extremely agile. Furthermore, this type of steering guarantees very smooth running even at high speeds. As a result, safe and quick travel from field to field is possible at speeds of up to 50 km/h\*.





Track rods



Adjustable track rod head

## At a glance:

- ▶ Patented steering system
- ▶ Very positive and direct transmission of the steering movement
- ▶ Very high and long-lasting steering precision
- ▶ Track rod, as used in HGVs
- ▶ Rake runs exactly in the track of the tractor
- ▶ Safe and quick travel even at 50 km/h\*



## TYPICAL FEATURES OF FELLA RAKES

### PERFECT GROUND FOLLOWING IN EVERY SITUATION

FELLA was one of the first manufacturers of the now tried and tested, fully cardanic rotor suspension, and they patented the invention. It ensures that perfect ground following is guaranteed even under the most difficult of working conditions. The rotor can follow the ground perfectly independent of the frame, whether inclined longitudinally or transversely. As a result, forage lying in recesses and depressions can be recovered without loss.

Damage to the ground by the tines is safely avoided even in hilly terrain. With FELLA, tidy raking work is always achieved without forage loss – and it's top-quality forage



*Patented, fully cardanic rotor suspension*

### TECHNOLOGICAL HIGHLIGHT: JET EFFECT

Due to the fully cardanic rotor suspension and weight distribution of the rotor, the rotor lifts first at the front and then at the back. When lowered, the rear wheels contact with the ground and then the front wheels. In this way, the tines are prevented from penetrating into the ground. No penetration, no damage to the field, no forage contamination – top-quality forage.



*Jet Effect*

### TINE CONTROL USING CAM TRACK ADJUSTMENT

The moment at which the tines lift out of the swath can be quickly changed at any time without the use of tools\*, and thereby adapted to the working and forage conditions. All that needs to be done is to simply change the hole in the holed plate in which the cam track holding rod is inserted, and you will prevent loss of forage and create cleanly shaped swaths. On the multi-rotor rake, this device can also be used to positively influence the transfer of forage from the front to the rear rotor. Other settings can be made on the longitudinal and transverse inclination of the rotor head. In this way, you will reach high driving speeds, even under difficult working conditions. All these adjustment options are typical features of FELLA rakes, and increase the efficiency of your work in the time critical business of forage harvesting.



### At a glance:

- ▶ Fully cardanic rotor suspension with Jet Effect, leading to perfect ground following and clean raking without loss of forage
- ▶ Particularly clean swath shape thanks to adjustable control moment for the tines

## TYPICAL FEATURES OF FELLA RAKES

### RAKE DEPOSIT TO THE RIGHT

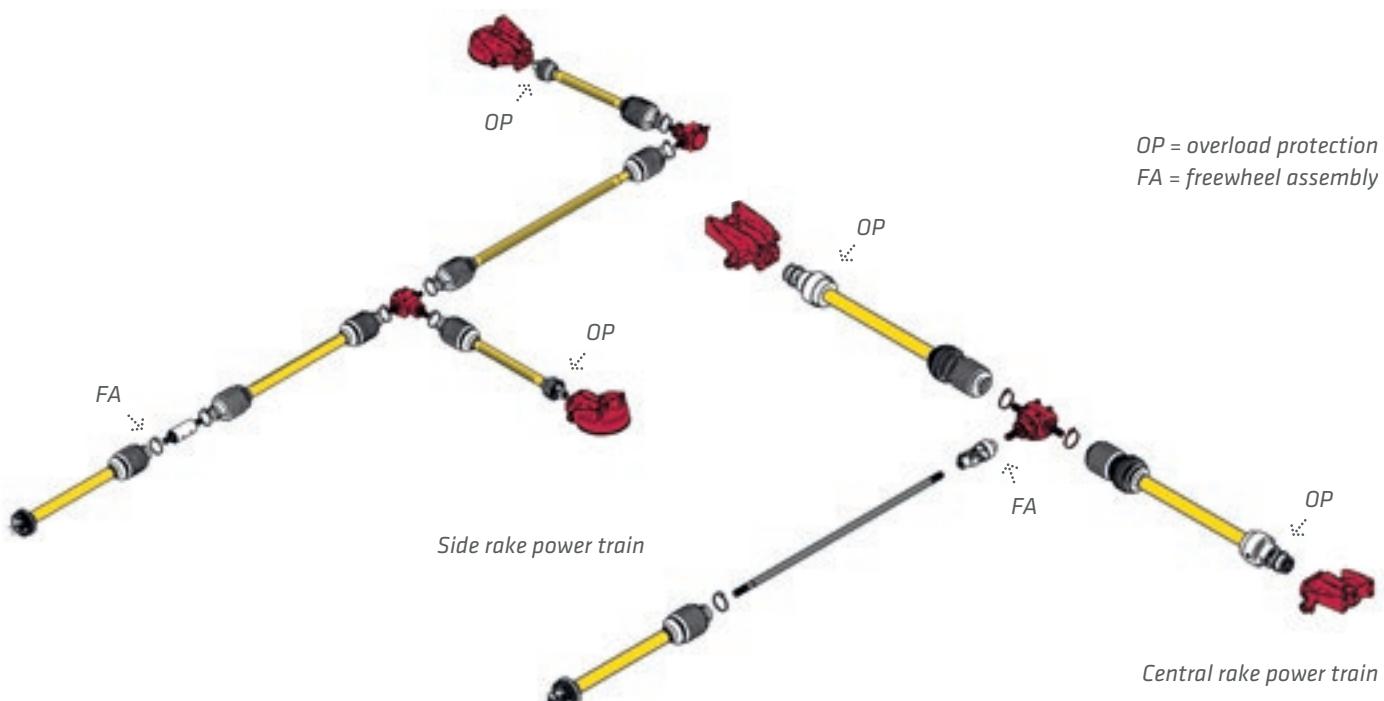
All FELLA rakes (except central rakes) deposit the swath to the right. In this way, you always have your perfect swath in view, because the operating controls in tractors today are on the right. Depositing on the right – makes ergonomic sense!

Swath deposit on the right –  
swath always in view!



### POWER TRAINS

On FELLA rakes, all power trains are designed to be in a straight line, and are fitted with overload protection devices and freewheeling clutches. This means that they are very reliable in use, which eliminates expensive repairs and long periods of inactivity during the busy forage harvesting season.



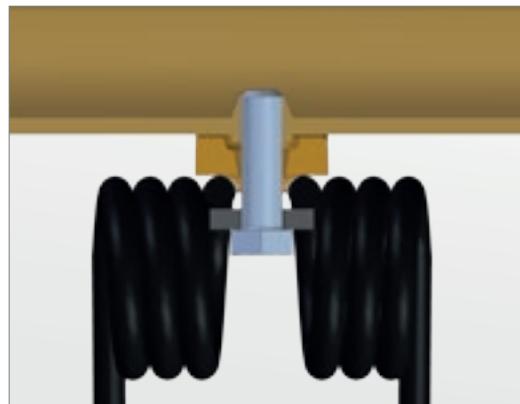
*The overload protection device is fitted very close to the rotor, thereby protecting each individual rotor.*

### TINE FIXTURE

The tines are not pushed over the tine tube; instead each tine is bolted in from the bottom. This has the advantage that the side of the arm facing the forage is completely smooth and therefore no forage gets caught on it. In the event that a tine becomes worn or broken, all tines do not have to be removed in order to change one of the inner tines. The tines also have greater freedom of movement because this is not limited by the tube.



*Each tine is bolted in place individually beneath the tine arm*



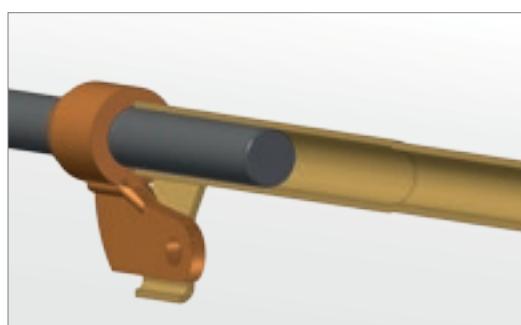
*Tine fixture*



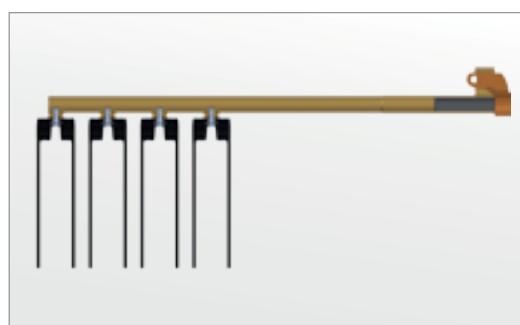
*Completely smooth front side of the tine arm*

### TINE ARMS

All FELLA tine arms consist of tough tube material and are manufactured in one piece. The connection point to the tine arm is machined for a perfect fit which makes it possible to insert the tine arms easily and reduces wear on this heavily stressed point to a minimum.



*Perfectly fitting connection point to the tine arms*



## CAMCONTROL – TS 7850 AND TS 7850 PRO

### TECHNOLOGICAL HIGHLIGHT: CAMCONTROL – HYDRAULIC CAM TRACK ADJUSTMENT SYSTEM

The “CamControl” hydraulic cam track adjustment system provides the highest possible ground clearance in the headland position: more than 50 cm. CamControl optimises the timing for raising the tine arms into the horizontal passive deposit position when raising the rotors.

It is possible to drive over large swaths without any problem, even with large quantities of forage. At the same time, the rake maintains its low centre of gravity and therefore enables safe turning even on hilly terrain.



*Lifting height with CamControl*



*Lifting height without CamControl, simulated image*



*Possible to drive over large swaths without difficulty*

## At a glance:

- ▶ *Extremely high ground clearance in headland position*
- ▶ *Optimised timing for raising the tine arms into the horizontal passive deposit position*
- ▶ *Possible to drive over large swaths without difficulty*
- ▶ *Low centre of gravity for safe turning even on hilly terrain*

## CONTENTS OVERVIEW

### TWO-ROTOR AND FOUR-ROTOR RAKES

Page 20-27

#### TWO-ROTOR RAKE WITH SIDE SWATH DEPOSIT

Classic two-rotor side rake, with and without transport chassis for swathing large, individual swaths or two small, individual swaths



Page 30-37

#### TWO-ROTOR RAKE WITH CENTRAL SWATH DEPOSIT

Two-rotor central rake with variable working width and swath width which wins over users with its raking performance and flexibility



Page 40-43

#### FOUR-ROTOR RAKE WITH CENTRAL SWATH DEPOSIT

Four-rotor large area rake with variable working width and swath width which wins over users with its performance, agility and simple yet sturdy construction.



**MACHINE DESIGNATIONS AND ABBREVIATIONS**

- TS: Rake

Machine designation	TS 1302	TS 1502	TS 1402	TS 1452	TS 1603	TS 7850	TS 7850 PRO
Approx. working width in m	6.30/7.00	6.30/7.00	5.75/6.65	5.80/6.70	6.60/7.70	7.80/8.40	7.80/8.40
Approx. swath width in m	0.60-1.90	0.60-1.90	0.60-1.90	0.60-1.90	0.60-1.90	0.60-1.90	0.60-1.90
Number of possible swaths	2	2	2	2	2	2	2
Approx. weight in kg	1,250	1,380	1,550	1,580	2,100	2,400	2,450
Approx. power requirement in kW/hp	33/45	33/45	19/26	19/26	30/41	44/60	44/60

Machine designation	TS 671	TS 801	TS 880	TS 8055 PRO	TS 10065	TS 10065 PRO
Approx. working width in m	5.80-6.60	6.80-7.60	7.20-8.00	7.20-8.00	8.80-10.00	8.80-10.00
Approx. swath width in m	1.20-1.80	1.20-2.00	1.20-2.00	1.20-2.00	1.30-2.20	1.30-2.20
Number of possible swaths	1	1	1	1	1	1
Approx. weight in kg	1,350	1,875	1,900	2,050	2,900	2,950
Approx. power requirement in kW/hp	19/26	30/41	35/48	35/48	51/70	51/70

Machine designation	TS 4000	TS 12555 PRO
Approx. working width in m	12.50	12.50
Approx. swath width in m	1.20-2.20	1.20-2.20
Number of possible swaths	1	1
Approx. weight in kg	4,300	4,400
Approx. power requirement in kW/hp	59/80	59/80

## FELLA two-rotor side rake



# FIRST-RATE HARVEST!

Based on tradition, innovation and passion.



## TWO-ROTOR SIDE RAKE DRAWBAR LINKAGE

### TS 1302 TS 1502

- Tidy raking, even on demanding terrain
- Low power requirement
- Transport width, without converting, less than 3 m



TS 1502



Transport width less than 3 m



Individual swaths



Two individual swaths

### FLEXIBILITY IN DEMANDING TERRAIN

The models TS 1302 and TS 1502 are very agile and versatile machines. Depositing a single swath is just as easy as depositing two small single swaths or a double swath by making a return pass. The working width can be infinitely adjusted hydraulically and held fixed in any position. Using these machines, tidy and precise swaths can be formed even on demanding terrain. Due to their comparatively low weight, small tractors can also be used, which increases cost-effectiveness.

### PERFECT GROUND FOLLOWING

The cardanic mechanism patented by FELLA in conjunction with the twistable frame and the large-dimensioned tyres ensure perfect ground following. As a result, forage lying in recesses and depressions can be recovered without contamination or loss.

### MAXIMUM CONVENIENCE

Changing from working position to transport position can be easily performed from the tractor seat. Also, the tine arms do not have to be removed for travelling on the road. Depending on the country involved, the permissible transport speed for these models is 40 km/h. As a result, there is more time left for the actual task, namely raking.

### TOP-QUALITY FORAGE

Because of the numerous adjustment options on the rake, tidy raking work can be achieved, even under difficult conditions. High-quality forage can therefore be produced.

## At a glance:

- ▶ *Flexible working width from 3.10 m to 7.00 m*
- ▶ *One or two swaths possible*
- ▶ *Twistable frame for the best ground following*
- ▶ *Perfect ground following thanks to fully cardanic rotor suspension and Jet Effect*
- ▶ *Quick transport without modifying the tine arms*
- ▶ *Easy-to-maintain TS4 rake head*
- ▶ *Top-quality forage*
- ▶ *Sequential control for delayed lowering/lifting of the rotors (as standard on TS 1502)*

### WE RECOMMEND\*:

- ▶ Tandem axle with 18/8.50-8 hyper-balloon tyres for smooth and positive running even under difficult conditions
- ▶ Contact wheel 18/8.50-8 with hyper-balloon tyre for the front rotor for improved ground following



\*AS AN OPTION

## TWO-ROTOR SIDE RAKE WITH TRANSPORT CHASSIS

**TS 1402**  
**TS 1452**  
**TS 1603**

- Medium-sized side rake
- Tidy forage transfer and swath formation



TS 1603



TS 1603 in use (two-swath deposit)



Transport position – extremely compact



TS 1452: Precise steering

## FIRST-RATE TECHNOLOGY FOR QUALITY FORAGE

With the TS 1402, TS 1452 and TS 1603 models, FELLA offers three medium-sized two-rotor side rakes. Using these rakes, it is possible to deposit two small swaths, one large swath or a double swath by making a return pass. The switchover can be performed easily and within seconds. All FELLA side rakes have a large overlap between the first and the second rotor, ensuring a tidy forage transfer and swath formation even under difficult working conditions.

## PERFECT GROUND FOLLOWING

In addition to the fully cardanic rotor suspension, the side rake is distinguished by its contact-sensing chassis. It enables optimal ground following at all times. The longitudinal and transverse inclination can also be variably set on all rotors. This ensures that contamination of your high-quality forage is prevented.

## CONVENIENCE OF OPERATION, PURE AND SIMPLE

The machines are equipped with an automatic hydraulic sequential control system which can be individually adapted to your requirements. This system controls the delayed raising and lowering of the rear and front rotor and, as a result, enables you to deposit perfectly formed swaths at the headland. Because of the automatic height limitation in the headland position, it is no longer necessary to switch off the rotors. The lowest transport height is also ensured in the transport position, no matter which working width you have set. A FELLA patent.

## At a glance:

- ▶ Large working widths possible
- ▶ Deposit of 1 or 2 swaths possible as standard
- ▶ Transport speeds of up to 50 km/h\*
- ▶ Perfect ground following thanks to cardanic rotor suspension and Jet Effect
- ▶ Convenience of operation, pure and simple
- ▶ **steerGUARD** – the ingenious steering system from FELLA
- ▶ Easy-to-maintain rake heads (TS3/TS4)
- ▶ Clean raking thanks to contact wheels running on the tine

**Jet Effect**

## WE RECOMMEND\*:

- ▶ Tandem axle with 16/6.50-8 super-balloon tyres for smooth running and tidy work in all conditions and for all types of forage
- ▶ Spare wheel with 16/6.50-8 super-balloon tyre



## DUAL-ROTOR SIDE RAKE WITH TRANSPORT CHASSIS

### TS 7850 TS 7850 PRO

- ▶ Side rake for high demands
- ▶ Deposit of one or two swaths
- ▶ Tidy forage transfer and swath formation



TS 7850 PRO in use (one-swath deposit)



Sequential control system



Transport position



Jet Effect



steerGUARD rotating shaft steering for rakes


 NEW!

### FIRST-RATE TECHNOLOGY FOR HIGH-QUALITY FORAGE

With the TS 7850 and the TS 7850 PRO, FELLA offers a dual-rotor side rake with a working width of between 7.80 m and 8.40 m for high demands. Using these two rakes, it is possible to deposit two small swaths or one large side swath. The swath former, which pivots hydraulically, is extremely convenient to operate on long working days. As with all FELLA side rakes, the TS 7850 and the TS 7850 PRO have a large overlap between the first and the second rotor, ensuring a tidy forage transfer even under difficult working conditions.

### PERFECT GROUND ADAPTATION AND PURE OPERATING CONVENIENCE

In addition to the fully cardanic rotor suspension, the side rakes are distinguished by their six-wheel contact-sensing chassis with tandem axles. It enables optimal ground following at all times. The longitudinal and transverse inclination can also be variably set on all rotors. This ensures that contamination of your high-quality forage is prevented.

Like the series TS 1402 to TS 1603, the machines are equipped with an automatic hydraulic sequential control system that can be individually adapted to your requirements – this means perfectly formed swaths at the end of the field. The power train is protected by a freewheel that comes as standard as well as by the overload protection in the power train – this also reduces wear. The transport height is always as low as it can be in the transport position of both machines, no matter which working width you have set. A FELLA patent.


 CamControl

### CAMCONTROL – ADJUSTING THE CAM TRACK

CamControl – the hydraulic cam track adjustment system from FELLA – gives you a huge amount of ground clearance at the headland when raising the rotors. It is not necessary to switch off the rotors in the headland position. It is possible to drive over large swaths without any problem, even with large quantities of forage. At the same time, the rake maintains its low centre of gravity and therefore enables safe turning even on hilly terrain.



Lifting height without CamControl,  
simulated image



Lifting height with CamControl

## DUAL-ROTOR SIDE RAKE WITH TRANSPORT CHASSIS

### TS 7850 TS 7850 PRO

- ▶ Side rake for high demands
- ▶ Deposit of one or two swaths
- ▶ Tidy forage transfer and swath formation



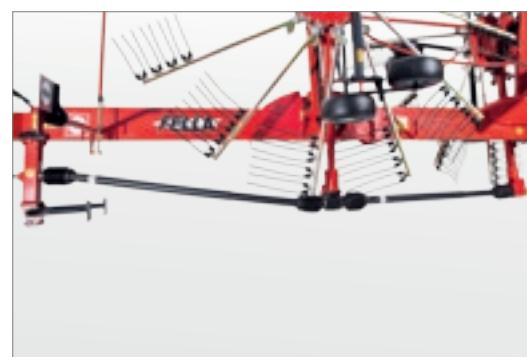
TS 7850 PRO in use (two-swath deposit)



Cloth folds automatically



Ideal swath formation



PTO shaft route



Maintenance-free support-arm mounting  
(TS five-head)

## OPERATING TERMINAL COMES AS STANDARD WITH THE TS 7850 PRO FOR EVEN GREATER CONVENIENCE

The PRO version of the TS 7850 is equipped with an operating terminal that comes as standard for even greater convenience. All functions can easily be operated from the comfort of the driver's seat of the dual-rotor side rake, such as the separate height adjustment of the individual rotors and the movement into and out of the transport position. You preselect the function, then implement it using the tractor's hydraulic control unit. No cords are required to lock or release the transport lock for the PRO version of the TS 7850. This means that the operating terminal that comes as standard with the TS 7850 PRO is particularly user friendly, for greater convenience when processing your high-quality forage.

NEW!

### At a glance:

- ▶ Ample working widths of 7.80 m (side swath deposit) or 8.40 m (two-swath deposit)
- ▶ Single- or two-swath deposit possible as standard
- ▶ Transport speed of up to 50 km/h\*
- ▶ Perfect ground following thanks to cardanic rotor suspension and Jet Effect
- ▶ **steerGUARD** – the ingenious steering system from FELLA
- ▶ Maintenance-free support-arm mounting (TS five-head)
- ▶ CamControl – hydraulic cam track adjustment when raising the rotors
- ▶ Automatically pivoting swath former
- ▶ Tandem axles as standard
- ▶ Wide-angle drive shaft as standard

CamControl

### TS 7850 PRO

- ▶ Operating terminal that comes as standard for even greater convenience
- ▶ Transport chassis with 300/80-15.3 (11.5/80-15.3) or 380/55-17 Flotation tyres



Operating terminal (TS 7850 PRO)

#### WE RECOMMEND\*

- ▶ Mechanical second swath former for forming two individual swaths – recommended for large volumes of forage
- ▶ Hydraulic two-swath deposit package – additional DA control unit required on the tractor



\*country-specific

\*AS AN OPTION

Two-rotor central rake from FELLA



# FIRST-RATE HARVEST!

Based on tradition, innovation and passion.



## TWO-ROTOR CENTRAL RAKE WITH TRANSPORT CHASSIS

### TS 671

- Entry-level model with professional features
- Short and agile frame
- Ideally suited for small tractors



TS 671



## CENTRAL RAKE FOR SMALL TRACTORS

The TS 671 entry-level model in the two-rotor central rake range has a working width of 5.80 m to 6.60 m. This machine combines the technology which has proven itself so many times before in the single-rotor rake with elements of the professional equipment fitted to its "big brothers". The TS 671 wins users over with its uncompromising stability even under harsh working conditions. Because of the short and agile frame, you can overcome any situation, however difficult. True to the motto: wide in the field, narrow and quick on the road.

## CONVENIENCE OF OPERATION, PURE AND SIMPLE

The working width can be adjusted without tools and, combined with the externally adjustable control cam, enables the creation of an optimum swath for the machines following on behind. The working width can be selected in four different positions, thereby providing maximum convenience without a great expenditure of time and effort. Because of the patented technology, the lowest transport height is always ensured regardless of the preselected working width. Because of the automatic height limitation in the headland position, it is no longer necessary to switch off the rotors. The swath sheet folds up automatically and, in this way, it is even possible to travel over transverse swaths without damaging them.

## At a glance:

- ▶ *Variable working width from 5.80 m to 6.60 m*
- ▶ *Short and agile rake*
- ▶ *Optimum ground following thanks to fully cardanic rotor suspension and Jet Effect*
- ▶ *Transport speeds of up to 50 km/h\**
- ▶ **steerGUARD** – the ingenious steering system from FELLA
- ▶ *Ideally suited to small tractors*
- ▶ *Easy-to-maintain TS3 rake head*

**Jet Effect**

### WE RECOMMEND\*:

- ▶ Tandem axle with 16/6.50-8 super-balloon tyres for smooth running and tidy work in all conditions and for all types of forage
- ▶ Electrohydraulic individual raising of the rotors



## TWO-ROTOR CENTRAL RAKE WITH TRANSPORT CHASSIS

### TS 801 TS 880

- The all-rounders
- Automatic working width preselection
- Optimum swath formation



TS 880



*Tidy raking work – down to the last blade of grass!*



*Headland position*



*Working/swathing width adjustment*

## THE ALL-ROUNDERS IN THE TWO-ROTOR CENTRAL RAKE RANGE

Automatic working width preselection, tidy raking work, precisely deposited swaths (even where large quantities of forage are involved) and quick and safe travel from field to field are all offered by the TS 801 and TS 880 two-rotor central rakes. With variable working widths from 6.80 m to 8.10 m and swaths of 1.20 m to 2.00 metres, they can master any working situation. Due to the 4-wheel contact-sensing chassis with the self-steering twin leading wheels and the cardanic suspension of the rotors, tidy and loss-free raking work is always achieved. The best precondition for your high-quality forage.

## CONVENIENCE OF OPERATION, PURE AND SIMPLE

The working width can be adjusted without tools and, combined with the externally adjustable control cam, enables the creation of an optimum swath for the machines following on behind. The working width can be selected in four different widths, thereby providing maximum convenience without a great expenditure of time and effort. Because of the patented technology, the lowest transport height is always ensured regardless of the preselected working width. Because of the automatic height limitation in the headland position, it is no longer necessary to switch off the rotors. The swath sheet folds up automatically and, in this way, it is even possible to travel over transverse swaths without damaging them.

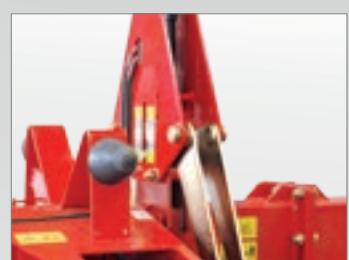
## At a glance:

- ▶ *Variable working width from 6.80 m to 8.10 m*
- ▶ *Perfect ground following thanks to fully cardanic rotor suspension and Jet Effect*
- ▶ *High level of operational convenience*
- ▶ **steerGUARD** – the ingenious steering system from FELLA
- ▶ *Easy-to-maintain TS4 rake head*
- ▶ *Working width/swath width adjustment for convenience of operation and the lowest transport height (FELLA patent)*

Working width/swath width adjustment (FELLA patent)

## WE RECOMMEND\*:

- ▶ Tandem axle with 16/6.50-8 super-balloon tyres for smooth running and tidy work in all conditions and for all types of forage
- ▶ Electrohydraulic individual raising of the rotors
- ▶ Hydraulic adjustment of the working width/swath deposit



\*AS AN OPTION

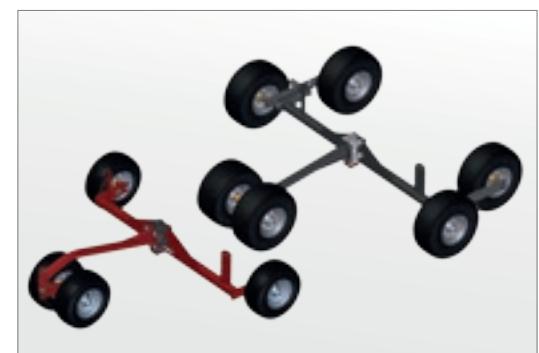
## TWO-ROTOR CENTRAL RAKE WITH TRANSPORT CHASSIS

### TS 8055 PRO

- Specialist for tough working conditions
- Optimum ground adaptation
- Top-quality swath



TS 8055 PRO



Stable rotor chassis



Headland position

### THE SPECIALIST FOR STRAW AND TOUGH WORKING CONDITIONS

Because the rotor rakes are under enormous stress during straw recovery and other difficult working conditions, they require an improved level of technology and equipment. The TS 8055 PRO includes all the benefits of the tried and tested TS 880, plus the low-maintenance TS5 rake head and a particularly stable rotor chassis that has been developed especially for extreme requirements.

The rotor chassis on the TS 8055 PRO has been equipped with six rather than four wheels and with a tandem axle with 18-inch tyres, which ensures optimum ground following. The twin leading wheel was also redesigned to be larger and rigid to ensure running even under difficult conditions in the stubble field. The clearance between tines and leading wheel was also reduced in order to guarantee a top-quality swath without contamination and stones, creating perfect conditions for your machine following on behind. The TS 8055 PRO of course also copes competently with all operations on normal grassland.

### At a glance:

- ▶ *Specialist for straw and harsh working conditions*
- ▶ *Rigid twin leading wheel with 18/8.50-8 tyres*
- ▶ *Widened tandem axle*
- ▶ *Very wide tandem axle wheel clearance*
- ▶ *Transport speed of up to 50 km/h\**
- ▶ *Convenience of operation, pure and simple*
- ▶ *Maintenance-free rotor arm mounting*
- ▶ **steerGUARD** – the ingenious steering system from FELLA
- ▶ *Perfect ground following thanks to fully cardanic rotor suspension and Jet Effect*

Maintenance-free  
rotor arm mounting

### WE RECOMMEND\*:

- ▶ Flow divider for synchronised lifting of the rotors, even on sloping terrain
- ▶ Electrohydraulic individual raising of the rotors
- ▶ Hydraulic adjustment of the working width/swath deposit
- ▶ Spare wheel



## TWO-ROTOR CENTRAL RAKE WITH TRANSPORT CHASSIS

### TS 10065 TS 10065 PRO

- FELLA's largest dual-rotor central rakes
- Leading the trend towards larger working widths
- Powerful performance, high impact capacity



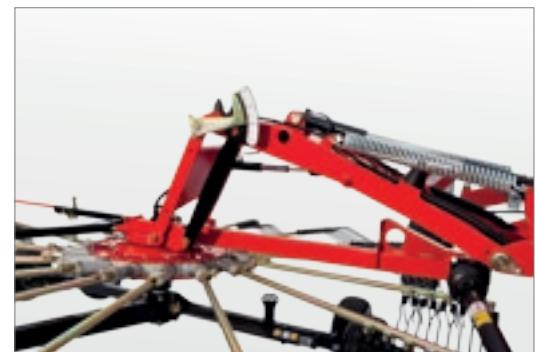
TS 10055



Headland position



Transport position



Variable, hydraulically adjustable working width

### LARGEST FELLA CENTRAL RAKES WITH TWO-ROTORS

Bigger, faster, stronger. The TS 10065 and TS 10065 PRO are the largest central rakes with two rotors in the FELLA range. Their enormous area output is essential for ensuring the high level of efficiency of the harvesting machinery following on behind. In order to handle large quantities of forage in the best way possible, the working width can be changed hydraulically from 8.80 m to 10.00 m, allowing a perfect swath to be produced. The permissible transport speed of up to 50 km/h\* ensures quick journeys to the place of work, so you can quite easily manage any working day, no matter how long. Because of the low-maintenance design of the machines, time and effort spent on servicing is reduced to a minimum.

### PERFECT GROUND ADAPTATION

In addition to the fully cardanic rotor suspension, the TS 10065 and TS 10065 PRO set themselves apart with their wide six-wheel contact-sensing chassis with steerable front wheels. This ensures optimum ground following at all times. The longitudinal and transverse inclination can be variably set on all rotors. As a result, no contamination occurs to your high-quality forage.

### SIMPLY INGENIOUS

The switchover from transport position to working position is triggered simply and very conveniently. The locking system opens without a cable pull.

### PRO MODEL

The TS 10065 PRO model is equipped with an electrohydraulic convenience operation system as standard. The working height of the rotors can be set individually using the hydraulics. In addition, the electrohydraulic individual rotor raising system comes as standard, as do relatively large tyres. This ensures that operation is extremely convenient and comfortable for long working days.

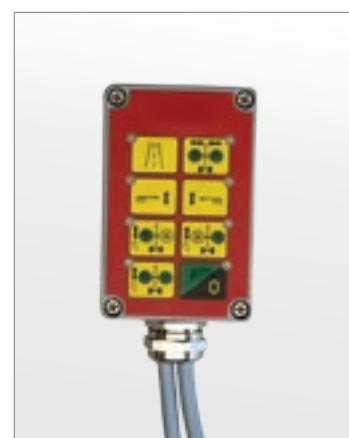
## At a glance:

- ▶ *Perfect ground adaptation thanks to fully cardanic rotor suspension and Jet Effect*
- ▶ *Headland lift with height restriction*
- ▶ **steerGUARD** – the ingenious steering system from FELLA
- ▶ *18 rotor tyres*
- ▶ *Maintenance-free rotor arm mounting*
- ▶ *Transport speeds of up to 50 km/h\**
- ▶ *Variable, hydraulically adjustable working width of 8.80 m to 10.00 m*
- ▶ *Tandem axle as standard*

Maintenance-free  
rotor arm mounting

## TS 10065 PRO

- ▶ *With electrohydraulic convenience operation as standard*
- ▶ *Hydraulic working height adjustment*
- ▶ *Single lift for rotors*
- ▶ *Transport chassis tyres, 380/55-17 running wheels as standard*



Electrohydraulic convenience operation

Four-rotor central rake from FELLA



# FIRST-RATE HARVEST!

Based on tradition, innovation and passion.



## FOUR-ROTOR CENTRAL RAKE WITH TRANSPORT CHASSIS

### TS 4000

- ▶ For large farms and interfarm use
- ▶ Simple yet robust construction
- ▶ Low centre of gravity, excellent driving behaviour



TS 4000



*Automatic hydraulic sequential control*



*Headland position with automatic height limiter*



*Transport position*

## THE FELLA FLAGSHIP

Performance and agility: With the TS 4000, FELLA offer a four-rotor large-area rake which wins over new users. With its four rotors and a working width of 12.50 m, this rake provides each machine following on behind with an optimum swath and, as a result, optimum capacity utilisation.

The model was specially developed for large-scale farms as well as inter-farm use. Because of its simple yet extremely robust construction, the TS 4000 is easy to operate, which increases its flexibility precisely when used on more than one farm. New drivers can also use the TS 4000 safely and efficiently.

## HEADLAND CONTROL SYSTEM

The machine is equipped with an automatic hydraulic sequential control system which can be individually adapted to your requirements. This system controls the delayed raising and lowering of the rear pair of rotors and, as a result, enables you to deposit perfectly formed swaths at the headland. Because of the automatic height limitation in the headland position, it is no longer necessary to switch off the rotors.

The swath sheet folds up automatically and, in this way, it is even possible to travel over transverse swaths without damaging them.

## SAFE ON THE ROAD AND ON THE HILLSIDE

The TS 4000 is designed for a transport speed of up to 50 km/h\*, which ensures quick journeys to the site of work. In order to be safe at all times when travelling, the machine is equipped with a high-performance brake system. The brake system allows you to carry out difficult operations in hillside situations. Due to the low centre of gravity, safe driving behaviour is ensured, even at 50 km/h\*.

## At a glance:

- ▶ *Variable swath width*
- ▶ *Simple yet robust construction*
- ▶ *Ease of operation*
- ▶ *Transport speeds of up to 50 km/h\**
- ▶ *Headland control system*
- ▶ *Easy-to-maintain TS4 rake head*
- ▶ *Brake system*
- ▶ *Perfect ground following thanks to fully cardanic rotor suspension and Jet Effect*

### WE RECOMMEND:

- ▶ Electrohydraulic single lifting for individually raising or lowering the rotors



## FOUR-ROTOR CENTRAL RAKE WITH TRANSPORT CHASSIS

### TS 12555 PRO

- Extremely convenient to operate
- Optimum swath deposit for the perfect utilisation of the following machines
- Rake head TS5 integrated



TS 12555 PRO



Transport position



Headland position



## EXTREMELY CONVENIENT AND COMFORTABLE OPERATION

FELLA is setting standards in the multi-rotor rake sector. With the development of a four-rotor rake with maintenance-free support-arm mounting, FELLA is offering the perfect equipment for retrieving high volumes of forage in extremely short time frames and satisfying the growing demands of farmers. The TS 12555 PRO combines the tried and tested benefits of the TS 4000 with the most modern convenience of operation.

### TS5 RAKE HEAD

The tine arms come with maintenance-free precision ball roller bearings, and this reduces the maintenance requirement for the new rake head to a minimum and saves valuable time during forage harvesting. Another feature of the new head is the solid, large-dimensioned bearing tubes of the rotor arms. With a large distance between bearings, this key component is designed for extremely high loads and harsh working conditions. Customers are impressed by the stability of the tine arm housing, which is precision manufactured from aluminium alloy.

### ELECTRIC HEIGHT ADJUSTMENT AND ONE-SIDED WIDE-ANGLE PTO SHAFT AS STANDARD

The electric height adjustment function is part of the improved standard equipment for the TS 12555 PRO. You can easily adjust the working height from the comfort of the tractor seat and can therefore ideally adapt the rake to different working conditions. Because the rotors can be set perfectly, the forage is neither left behind nor contaminated. The four-rotor rake with central swath deposit also includes a one-sided wide-angle drive shaft as standard.

## At a glance:

- ▶ *Perfect ground following thanks to fully cardanic suspension and Jet Effect*
- ▶ *Maintenance-free rotor arm mounting*
- ▶ *Electric height adjustment as standard*
- ▶ *Wide angle PTO shaft as standard*
- ▶ *All in all: convenience of operation, pure and simple*

Maintenance-free  
rotor arm mounting



Electric height adjustment



Operating control for electric height adjustment

## Rakes from FELLA



# FIRST-RATE HARVEST!

Based on tradition, innovation and passion.



## TECHNICAL SPECIFICATIONS OF MULTI-ROTOR RAKES

	TS 1302	TS 1502	TS 1402	TS 1452	TS 1603	TS 7850
Dimensions and weight						
Approx. working width in m	6.30/7.00	6.30/7.00	5.75/6.65	5.80/6.70	6.60/7.70	7.80/8.40
Approx. rotor diameter in m	2.96	2.96	2.74/2.78	2.78	3.20	3.60
Approx. transport width in m	2.30/3.00	2.30/3.00	2.70	2.70	2.98	2.80
Approx. swath width in m	0.60–1.90	0.60–1.90	0.60–1.90	0.60–1.90	0.60–1.90	0.60–1.90
Number of possible swaths	2	2	2	2	2	2
Approx. transport length in m	8.45	8.45	6.65	6.65	7.45	8.50
Approx. transport height in m	2.80	2.80	3.00/3.60	3.00/3.60	3.65	3.60
Approx. weight in kg	1,250	1,380	1,550	1,580	2,100	2,400
Power requirement						
Approx. power requirement in kW/hp	33/45	33/45	19/26	19/26	30/41	44/60
Hitching						
Two-point lower links	-	-	CAT I + II	CAT I + II	CAT I + II	CAT II
Tractor linkage drawbar	■	■	-	-	-	-
Rotor, arms, tines						
Swath deposit	right	right	right	right	right	right
Number of rotors	2	2	2	2	2	2
Number of tine arms per rotor	10/10	12/12	10/12	12/12	12/12	13/13
Number of tines per arm	3	4	4	4	4/5	4/5
Hydraulic control units						
Required hydraulic connections	1 x SAV, 1 x DAV	1 x SAV, 1 x DAV	1 x SAV	1 x SAV	1 x SAV	1 x DAV
Tyres, axles, lighting equipment						
Tyres (rotors)	18/8.50-8	18/8.50-8	16/6.50-8	16/6.50-8	16/6.50-8	6 x 16/6.50-8
Tandem axis	□	□	□	□	□	□
Standard tyres (main chassis)	-	-	260/70-15.3 (10.0/75-15.3)	260/70-15.3 (10.0/75-15.3)	260/70-15.3 (10.0/75-15.3)	300/80-15.3 (11.5/80-15.3)
Electric lighting	■	■	■	■	■	■

■ Series   □ Equipment variant   - not available

\* floating position required

\*\* including 1 x DA with floating position





*Best harvest – based on tradition, innovation and passion.*

## FELLA FOR YOU

*"We can't change the weather, but we have the machines that will allow you to make the most of any conditions."*

Your FELLA team



### PHILOSOPHY

For FELLA, close contact with our customers is very important. The experiences of farmers and agricultural contractors who use FELLA products around the world is collected and is purposefully incorporated into the design of our products.

### PATENTS

It is FELLA's objective to create ingenious and sustainable solutions for our products. This has already been well documented through numerous FELLA patents.

### SERVICE

*"Out of sight, out of mind." But not at FELLA!*

Together with our dealers, we are always there and ready to provide reliable support to our partners, both at home and abroad – as we have been doing for almost 100 years. In conjunction with our well organised spare parts stores, regular further technical training for our dealers ensures that FELLA machines can be used, maintained and repaired to a professional standard. This comprehensive service ensures minimum downtime for your FELLA machines and makes a significant contribution to high-yield and stress-free forage harvesting.

- ▶ *Exceptionally wide range of mowers, hay tedders and rakes*
- ▶ *Innovation and progress: continuous further development for a first-rate harvest*
- ▶ *Minimum downtime, maximum machine availability thanks to professional dealers and a well-organised spare parts supply*
- ▶ *Long service life machines "Made in Germany"*



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