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Harvesting **Energy**

Productline 2010

Mowers | Tedders | Rakes

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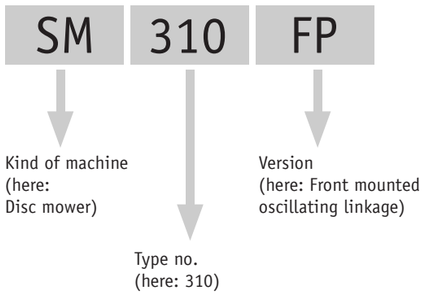
Glossary of FELLA Abbreviations

Example machine denomination:



Kinds of machine:

KM dr um mower
SM disc mower
TH t edder
TS ra ke

Versions:

D thr ee-point linkage
DN three-point linkage with
f ollow-up device
DS three-point linkage rigid
FK front mounted compact linkage
FK-S front mounted compact linkage with side-shift
FP front mounted oscillating linkage
FP-S front mounted oscillating linkage with lateral displacement
FZ front mounted trailing linkage
Hydro h ydraulic operation
InLine spur gear drive
ISL spur gear drive without inner skid
KC tine rotor conditioner
L li ght series
RC roller conditioner with rubber profile unit
T drawbar with driven tines
TL T urbolift system
Trans tr ansport chassis

Stated assembly times are meant without preparation time and without adaptation to tractor.

All stated information about dimension and weight is approx. and without obligation.

We reserve ourselves the right to modify design.

CE All FELLA products are based on EU Machinery Directive.

Table of contents

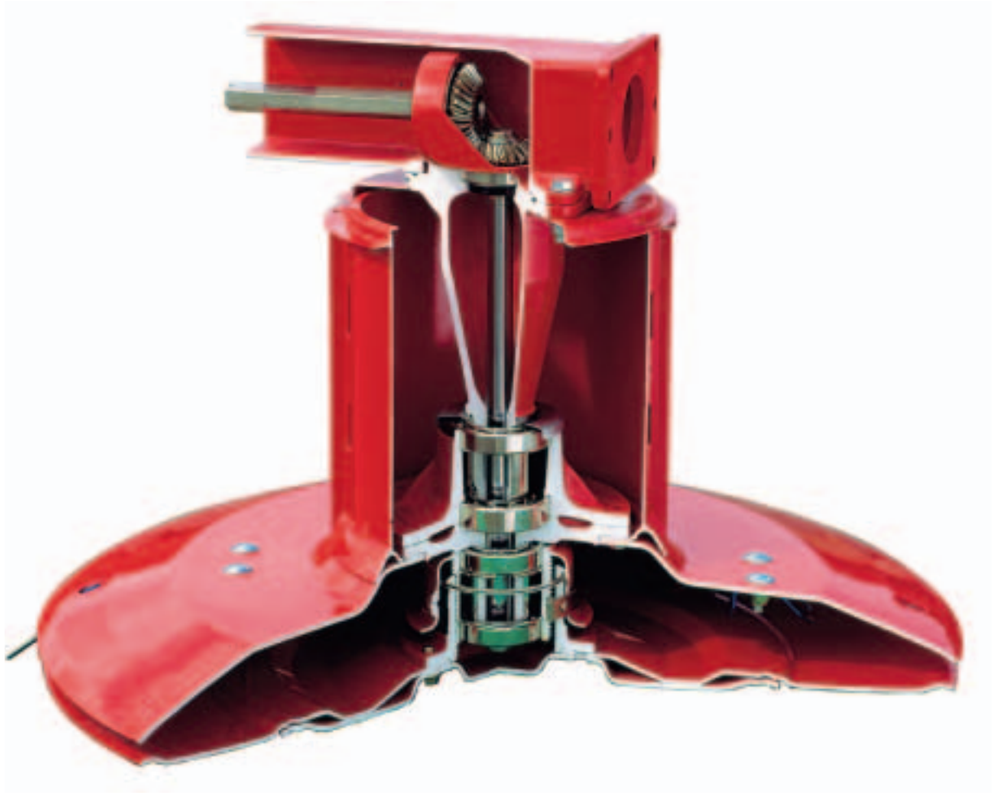
Drum mowers

Drum mowers

Drum mowers
Mowing drum

The most important features

Feature	Benefit
Large dimensioned square steel gear frame	• Torsion-resistant • Long service life
Drive via hexagonal shaft	• Uniform power output to all mowing drums
Flange-mounted mowing drums, screw connection accessible from the outside	• Quick disassembly of the drive train is possible
Mowing drum screwed-on – not welded-on	• Easy to maintain
Drive of the mowing drum via spiral bevel gears with Gleason spiral teeth running in the oil bath	• Lifetime oil filli g • Long service life • Smooth running
Supported in 5 points: • Mowing drum supported in 3 points in the main load area • Sliding plates supported in two points	• High stability, even for applications with extreme load
Revolving screw-connected two-piece sliding plate	• Low wear • Easy to replace in case of wear • Protection of the sod • No accumulation of soil and forage • Low forage contamination
Large passage between the mowing drums running in pairs, transport rails as effective conveyor aid	• High forage throughput • Trouble-free forage flo • Clean cutting pattern
Standard rapid-exchange system for the blades	• Quick change of the blades • Reduced maintenance time
Offset reserve drill holes for blade holder at the rotor disk	• When replacing worn blade holders, the new ones can be screwed into the new drill holes • Easy to maintain



Drum mowers

Front mounted
Oscillating linkage

Feature	Benefit
Power input between the mowing drums	• Optimum power train • No unilateral load
Elastic drive via 4 V-belts with automatic tensioning device	• Safe power train • Overload-protected • Low wear
Compact attachment to the tractor	• Center of gravity close to the tractor • Low load for tractor and machine
Suspension of the mowing unit above the swinging axle	• Optimum adjustment to the ground by virtue of pendulum radius of +/- 6.5°
Spring relief on the side of the tractor in the direction of the upper link pivot point	• Uniform load over the entire working width
Perforated plate at the 3-point linkage for individual positioning of the relief springs	• Optimum relief adjustable • Application of telescopic upper link is possible
Continuously variable adjustment of the cutting height (45 to 73 mm)	• Easy adjustment to different application conditions
Closed adjustment unit	• No penetration of dirt and humidity • Long service life
Standard swath guiding device (2 swath disks right and left each), exception KM 230 FP: only 1 right (standard)	• Clean swath positioning between the tractor wheels
Standard rapid-exchange system for the blades	• Quick change of the blades • Reduced maintenance time
Optional V-belt pulley for reduced speed (1000 -> 840 and/or 540 -> 450 rpm)	• Fuel-effic ent • For the operation of a trailer with loading facility

Denomination of machine	KM 230 FP	KM 270 FP	KM 300 FP	KM 310 FP
Ref. Nr. 1000 PTO rpm, left	714 556 0000	714 576 0000	714 586 0000	714 596 0000
Mounting Category	II			
Working width approx. m	2,20	2,55	2,85	3,06
Transport width approx. m	2,15	2,50	2,80	3,00
Transport length approx. m	1,41	1,29		1,39
Capacity approx. ha/h	2,70	3,20	3,50	3,75
Mower drums	2	4		
Blades per drum	4	3		
Swath width approx. m	0,95	0,70 - 1,10	0,85 - 1,10	1,10 - 1,35
Power demand approx. kW/hp	36/49	48/65	55/75	
PTO rpm	540/1000			
Overrunning clutch	standard			
Weight approx. kgs	603	726	766	856
Assembling time h	assembled	1,0		

Rotation of PTO-shaft (standing in front of the tractor looking to front PTO-shaft).

Special equipment	reference no.	
Cat. II triangular coupling frame (on the tractor)	712 814 0000	
V-belt pulley for reduced input speed; for self-loading trucks that cannot be operated with full PTO shaft speed; speed reduction from 1000 rpm to 840 rpm or from 540 rpm to 450 rpm, respectively	714 704 0000	
Swath disk left for KM 230 FP; recommended for • central front attachment to prevent driving over the swath • difficult ope ating conditions, swath width approx. 0,85 m	714 734 0000	
Lamp holder	714 741 0000	
Set of mowing drum clamps for 2 mower disks; to increase the output	714 745 0000	

Drum mowers

Front mounted
Headstock with trailing linkage

Feature	Benefit
Power input between the mowing drums	• Optimum power train • No unilateral load
Elastic drive via 4 V-belts with automatic tensioning device	• Safe power train • Overload-protected • Low wear
Parallel adjustment of the mowing unit to ground unevenness	• Optimum adjustment to the ground • Protection of the sod
Extremely easy pulling as the point of pull is close to the front „Towing is easier than pushing“	• Ground protecting • Fuel-effic ent
Large pendulum radius of the mowing unit due to the overhead frame	• Pendulum radius 30°
Large lifting distance due to integrated hydraulic cylinder in connection with the front hydraulic system	• Lifting height 360 mm • Total lifting distance 490 mm
Continuously variable adjustment of the cutting height (45 to 73 mm)	• Easy adjustment to different application conditions
Closed adjustment unit	• No penetration of dirt and humidity • Long service life
Standard swath guiding device (2 swath disks right and left each)	• Clean swath positioning between the tractor wheels
Standard rapid-exchange system for the blades	• Quick change of the blades • Reduced maintenance time
Optional V-belt pulley for reduced speed (1000 -> 840 and/or 540 -> 450 rpm)	• Fuel-effic ent • For the operation of a trailer with loading facility

Denomination of machine	KM 310 FZ
Ref. Nr. 1000 PTO rpm, left	714 591 0000
Mounting Category	II
Working width approx. m	3,06
Transport width approx. m	3,00
Transport length approx. m	1,39
Capacity approx. ha/h	3,75
Mower drums	4
Blades per drum	3
Swath width approx. m	1,10 - 1,35
Power demand approx. kW/hp	55/75
Necessary hydraulic outlets	1 x SAV*
PTO rpm	540/1000
Overrunning clutch	standard
Weight approx. kgs	910
Assembling time h	1,0

* single acting valve

Rotation of PTO-shaft (standing in front of the tractor looking to front PTO-shaft).

Special equipment	reference no.	
Cat. II triangular coupling frame (on the tractor)	712 814 0000	
V-belt pulley for reduced input speed; for self-loading trucks that cannot be operated with full PTO shaft speed; speed reduction from 1000 rpm to 840 rpm or from 540 rpm to 450 rpm, respectively	714 704 0000	
Lamp holder	714 741 0000	
Set of mowing drum clamps for 2 mower disks; to increase the output	714 745 0000	

Drum mowers

3-point linkage
Side attachment

Feature	Benefit
Elastic drive via 4 V-belts with automatic tensioning device	• Safe power train • Overload-protected • Low wear
Spring-loaded anti-collision device (KM 167: shear bolt)	• Optimum protection when colliding with an obstacle
Track adjustment via adjustable lower link bolts	• Adjustment to different tractors and tire sizes • Utilization of the entire working width
Switch from working position to transport position from the tractor seat (except for KM 167)	• High comfort of operation
Automatic transport lock	• High safety during road transport
Optional hydraulic lifting device	• More compact transport position • Mowing of slopes is possible
Foldable protection covers	• Easy accessibility for cleaning and maintenance work
Standard rapid-exchange system for the blades	• Quick change of the blades • Reduced maintenance time
Optional intermediate disks for adjusting the cutting height (+ 9 mm)	• Adjustment to different application conditions
Conditioner can be retrofitted a y time (except for KM 167)	• High fl xibility

Denomination of machine	KM 167	KM 187	KM 187 KC	KM 225	KM 225 KC
Reference number	714 401 0000	714 411 0000	714 411 0000 + 714 323 0000	714 430 0000	714 430 0000 + 714 323 0000
Mounting Category	I+II*	II			
Working width approx. m	1,65	1,85		2,20	
Transport width approx. m	1,65	1,70		1,90	
Capacity approx. ha/h	2,00	2,25		2,70	
Mower drums	2				
Blades per drum	3			4	
Swath width approx. m	0,75	0,85		1,00	0,90
Power demand approx. kW/hp	22/30	29/40	40/55	36/50	50/68
Necessary hydraulic outlets	-				
PTO rpm	540				
Overrunning clutch	standard				
Warning panels	-				
Electric lightning	-				
Weight approx. kgs	440	524	644	610	730
Assembling time h	1,0		1,5	1,0	1,5

* special equipment

Special equipment	reference no.	
Conditioner KC 187/225; Additional power requirement approx. 12 kW (16 hp); weight approx. 120 kg; (relief spring 714729 is recommended for KM 187)	714 323 0000	
Intermediate shaft for KM 225; only required for KM 225 with Conditioner attachment + hydraulic lifting device	714 324 0000	
Spring relief for KM 168/187	714 729 0000	
Hydraulic lifting device for KM 167, increases the adjustement to the ground when working on slopes	714 730 0000	
Hydraulic lifting device for KM 187/225; increases the adjustment to the ground when working on slopes; intermediate joint 714324 additionally required for KM 225 + KC	714 731 0000	
Rotating swath former for KM 225; to be attached on the right side of the machine (in driving direction), swath width approx. 0,90 m	714 735 0000	
1 set of **intermediate disks** for adjusting the cutting height (for 2 -mowing drums); increase of the cutting height by 9 mm	714 738 0000	
Lamp holder; for machines **without** hydraulic lifting device	714 739 0000	
Lamp holder; for machines **with** hydraulic lifting device	714 740 0000	
Extension of the lower control arm connections (by 100 mm) for KM 187/225	714 743 0000	
Cat II three-point pivot for KM 167	714 737 0000	

Drum mowers

3-point linkage
Side attachment

Feature	Benefit
Elastic drive via 4 V-belts with automatic tensioning device	• Safe power train • Overload-protected • Low wear
Standard spring relief	• Always uniform contact pressure • Optimum adjustment to the ground • Clean cutting pattern • Protection of the sod
Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
Track adjustment via adjustable lower link bolts	• Adjustment to different tractors and tire sizes • Utilization of the entire working width
Switch from working position to transport position from the tractor seat	• High ease of operation
Automatic transport lock	• High safety during road transport
Foldable protection covers	• Easy accessibility for cleaning and maintenance work
Standard rapid-exchange system for the blades	• Quick change of the blades • Reduced maintenance time
Optional intermediate disks for adjusting the cutting height (+ 9 mm)	• Adjustment to different application conditions
Optional swath guiding device (2 swath disks right and left each)	• Narrower swath positioning

Denomination of machine	KM 262	KM 292
Reference number	714 435 0000	714 437 0000
Mounting Category	II+III	
Working width approx. m	2,55	2,85
Transport width approx. m	1,60	
Transport length approx. m	4,70	4,90
Capacity approx. ha/h	3,20	3,50
Mower drums	4	
Blades per drum	3	
Swath width approx. m	1,65	1,85
Power demand approx. kW/hp	53/72	60/82
Necessary hydraulic outlets	-	
PTO rpm	1000	
Overrunning clutch	standard	
Warning panels	-	
Electric lightning	-	
Weight approx. kgs	750	790
Assembling time h	1,5	

Special equipment	reference no.	
Articulated fork W2400-1 3/8“ (21); additional delivery	712 863 0000	
Swath guiding device; consisting of 2 rotating swath disks on the right and on the left side; required for self-loading truck operation; minimum swath width approx. 0,80 m (KM 262)/ 0,95 m (KM 292)	714 750 0000	
1 set of **intermediate disks for adjusting the cutting height** (for 2 mowing drums); increase of the cutting height by 9 mm, 2 sets necessary	714 738 0000	
Hydraulic intermediate lift for KM 262, 292; 1x SAV required	714 732 0000	

Drum mowers

3-point linkage
Center attachment

Feature	Benefit
Mowing unit suspended at the center of gravity	• Excellent ground adjustment • Relief of the lifting arms at the tractor
Pulled suspension of the mowing unit „Pulling is easier than pushing“	• Ground protecting • Fuel-effic ent
Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
Constant, continuously variable contact pressure by means of hand wheel (no tools required)	• Very easy adjustment to different application conditions
Contact pressure adjustable while driving	• Passing of wet areas with low contact pressure is possible • No damage to the sod • No forage contamination
Hovering cut	• Low load of bearing frame and supporting tube • Protection of the sod
Mower can easily be unpressurised by means of the push button during parking	• Mower is completely unpressurised when parked > No danger, for example to playing children
Standard rapid-exchange system for the blades	• Quick change of the blades • Reduced maintenance time
Optional intermediate disks for adjusting the cutting height (+ 9 mm)	• Adjustment to different application conditions

Denomination of machine	KM 310 TL
Reference number	714 445 0000
Mounting Category	II+III
Working width approx. m	3,06
Transport width approx. m	1,90
Transport height approx. m	3,99
Capacity approx. ha/h	3,75
Mower drums	4
Blades per drum	3
Swath width approx. m	1,95
Power demand approx. kW/hp	60/82
Necessary hydraulic outlets	1 x SAV*, 1 x DAV**
PTO rpm	1000
Overrunning clutch	standard
Warning panels	standard
Electric lightning	standard
Weight approx. kgs	1105
Assembling time h	2,0

* single acting valve
** double acting valve

Special equipment	reference no.	
Articulated fork W2400-1 3/8“ (21); additional delivery	712 863 0000	
Swath guiding device; consisting of 2 rotating swath disks on the right and on the left side; required for self-loading truck operation; minimum swath width 1.10 m	714 750 0000	
1 set of **intermediate disks for adjusting the cutting height** (for 2 mowing drums); increase of the cutting height by 9 mm, 2 sets necessary	714 738 0000	

Disc mowers

Disc mowers

Disc mowers

3-point linkage
Spur gear drive

	Feature	Benefit
	The gears run in an oil bath	• This ensures proper lubrication of the drive in every mowing situation
1	Flexible V-belt drive	• Minimization of mower wear
2	Roll/shear pin in the bearing fla ge of each cutter disc	• Drive protection in case of racking in a obstacle
3	The cutter bar has a very flat p ofile with cutter disc which run in pairs	• Good cutting results • Deep cutting is possible
4	The cutter bar has a stone guard and large hardened skid as standard	• Long life • Low operating cost
5	Lightweight but although robust construction	• Large cutting widths can also be achieved with small tractors • Gentle on the turf sward • Very good cost (required hp) to yield (mowing capacity) ratio
	Protective cloth, folds to both sides	• Easy access for cleaning and maintenance (e.g. changing blades)
6	With spring-mounted cutter bar as standard	• Low ground pressure • Gentle on the turf sward
7	Track adaptation by means of adjustable lower link pins CAT I and II	• The mower is adaptable to different tractor types and sizes of tire
	Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
	The mower can be lifted at the headland without using the tractor's three-point linkage	• The mower set-up at the three point hydraulic linkage is maintained throughout the mowing operation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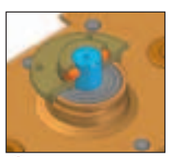
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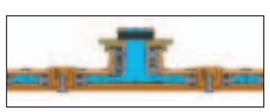
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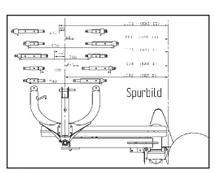

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Denomination of machine	SM 168 InLine	SM 208 InLine	SM 248 InLine	SM 288 InLine
Reference number	712 014 0000	712 016 0000	712 018 0000	712 019 0000
Mounting Category	I+II			
Working width approx. m	1,66	2,06	2,42	2,82
Transport width approx. m	1,73			
Transport height approx. m	2,47	2,85	3,23	3,61
Capacity approx. ha/h	2,00	2,40	2,70	2,80
Mower iscs d	4	5	6	7
Blades per disc	2			
Swath width approx. m	0,90	1,25	1,65	2,00
Power demand approx. kW/hp	22/30	30/41	37/50	44/60
Necessary hydraulic outlets	1 x SAV*			
PTO rpm	540			
Overrunning clutch	optional			standard
Weight approx. kgs	372	407	437	475
Assembling time h	4,0			

* single acting valve

Special equipment	reference no.	
Drive shaft with overrunning clutch for SM 168 InLine; required for tractors fitted wit PTO brake; supplied	712 706 0000	
Drive shaft with overrunning clutch for SM 208/248 InLine; required for tractors fitted wit PTO brake; supplied	712 710 0000	
Drive shaft with overrunning clutch for SM 168/208/248 InLine; required for tractors fitte with PTO brake; additional delivery	712 711 0000	
Swath guide (left) for SM 168/208/248 InLine; to deposit a narrow swath; consisting of rotating swath former, feeder drum, swathing plates (left + right), swath width approx. 0,55/0,95/1,30 m	712 822 0000	
Swath guide (left) for SM 288 InLine, to deposit a narrow swath; consisting of rotating swath former, feeder drum, swathing plate (left + right), swath width approx. 1,30 m	712 891 0000	
For stony terrain: **1 welded-on skid** for SM InLine (at least 3 are needed per mower) Recommended: number of cutter discs = number of welded-on skids	712 713 0000	
High cutting device for SM InLine; increases cutting height by 54 mm	712 887 0000	
Lighting fixtu e for SM InLine; for attaching a warning panel and light	712 718 0000	

Disc mowers

3-point linkage
Spur gear drive without inner skid
Quick blade change

NEW

	Feature	Benefit
1	Mower without inner skid	• Drive directly from above into the first ower disk • Mowing on slopes possible without any problems
	The gears run in an oil bath	• This ensures proper lubrication of the drive in every mowing situation
2	Flexible V-belt drive	• Minimization of mower wear
3	Roll/shear pin in the bearing fla ge of each cutter disc	• Drive protection in case of racking in a obstacle
4	The cutter bar has a very flat p ofile with cutter disc which run in pairs	• Good cutting results • Deep cutting is possible
5	The cutter bar has a stone guard and large hardened skid as standard	• Long life • Low operating cost
	Protective cloth, folds to both sides	• Easy access for cleaning and maintenance (e.g. changing blades)
6	With spring-mounted cutter bar as standard	• Low ground pressure • Gentle on the turf sward
7	Track adaptation by means of adjustable lower link pins CAT I and II	• The mower is adaptable to different tractor types and sizes of tire
8	Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
9	The mower can be lifted at the headland without using the tractor's three-point linkage	• The mower set-up at the three point hydraulic linkage is maintained throughout the mowing operation


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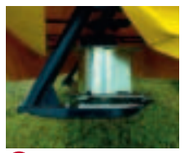
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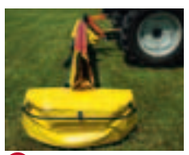
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9

Denomination of machine	SM 2460 ISL	SM 2870 ISL
Reference number	712 004 0000	712 006 0000
Mounting Category	I+II	
Working width approx. m	2,42	2,82
Transport width approx. m	1,75	
Transport height approx. m	3,25	3,65
Capacity approx. ha/h	2,70	2,80
Mower discs	6	7
Blades per disc	2	
Quick blade change	standard	
Swath width approx. m	1,65	2,00
Power demand approx. kW/hp	37/50	44/60
Necessary hydraulic outlets	1 x SAV*	
PTO rpm	540	
Overrunning clutch	optional	standard
Weight approx. kgs	485	525
Assembling time h	4,0	

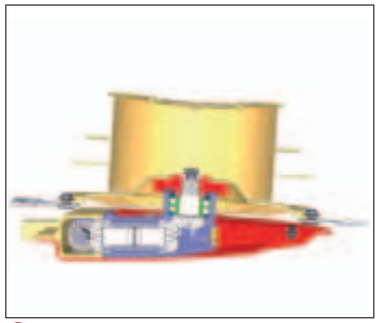
* single acting valve

Special equipment	reference no.	
Drive shaft with overrunning clutch for SM 2460 ISL; required for tractors fitted with P O brake; supplied	712 710 0000	
Drive shaft with overrunning clutch for SM 2460 ISL; required for tractors fitted with P O brake; additional delivery	712 711 0000	
For stony terrain: **1 welded-on skid** for SM ISL (at least 3 are needed per mower) Recommended: number of cutter discs = number of welded-on skids	712 713 0000	
High cutting device for SM ISL; increases cutting height by 54 mm	712 887 0000	
Lighting fixtu e for SM ISL; for attaching a warning panel and light	712 718 0000	
Rotating swath former right	712 917 0000	
Swath guide (left) for SM 2460 ISL; to deposit a narrow swath; consisting of rotating swath former, feeder drum, swath width approx. 1,50 m	712 918 0000	
Swath guide (left) for SM 2870 ISL; to deposit a narrow swath; consisting of rotating swath former, feeder drum, swath width approx. 1,50 m	712 919 0000	

Disc mowers
Compact angular gear

The most important features

	Feature	Benefit
1	The cutter discs are driven indirectly by means of a hexagonal shaft and compact angular gears	• Smooth power transfer to all cutter discs • Torque peaks are smoothed out, there by resulting in less wear and tear to the drive train
2	Streamline cutter bar with profiled base wit hardened track skids as standard	• No push-up of forage • Allows soil through-flow u der the cutter bar beam • Low raw ash content in the forage
3	• Easy assembly of the cutter bar is ensured by: • Hexagonal shaft with rupture joint • Bolted compact angular gear drive • Bolted cutter bar • Bolted track skids and wear skids • Bolted counter-cutter • Lifetime oil filli g	• Drive components are protected from mower blockage • Very easy to change • Very economical • Low maintenance • Ensures that the drive is lubricated in every mowing situation
	FELLA big discs provide excellent forage flo (even without conditioner)	• Optimum forage delivery • No loss of forage
4	Large front over cut of cutting discs	• Cuttings are lifted • Good cutting results even in the case of long forage lying on the ground • High quality forage with low raw ash content
5	Cutter bar is supported by the complete support frame and bolted	• High stability
	Cutter blades are bolted as standard; quick blade change system is optional	• The customer can choose



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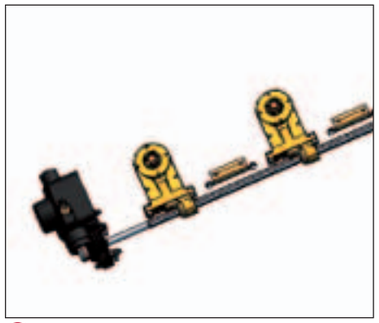

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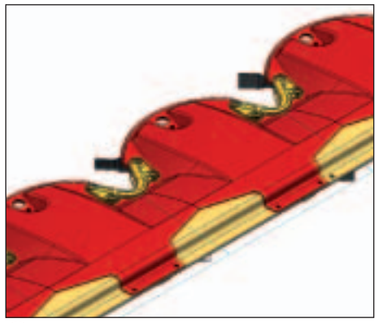

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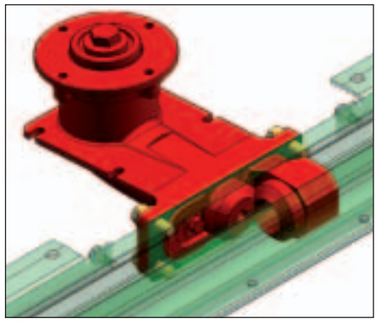

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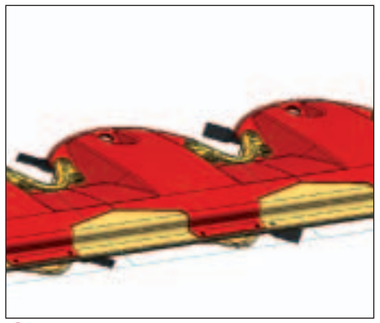

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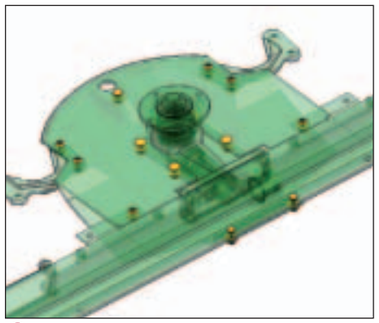

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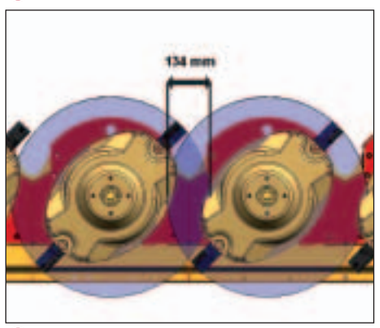

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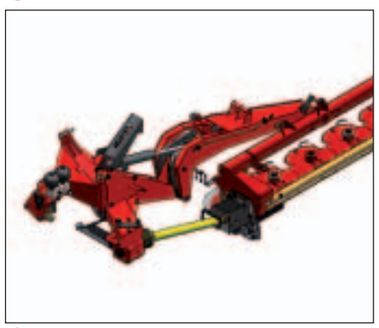

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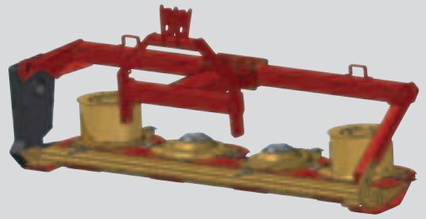
Disc mowers

Front mounted
Compact linkage

NEW



	Feature	Benefit
1	Rigid headstock	• Short, compact attachment • Center of gravity very close to the tractor
2	4 mowing disks for both types	• Symmetrical, centered run • Very good even positioning of swaths • Very good conveying performance, also in downhill operation
3	Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
	540 and 1000 rpm as well as clockwise and counter clockwise rotation as a standard	• Can be combined with all tractors
	Overrunning clutch and overload protection in the drive train as a standard	• Protection of the drive train • Less wear
	Bearing frame	• High stability
4	Foldable side protection	• Large width on the meadow • Small width on the street
5	FK-S variant with mechanic side-shift (by 12 cm to the right and left, respectively) hydraulically as an option	• Mowing on slopes and/or with twin tires is possible without problems

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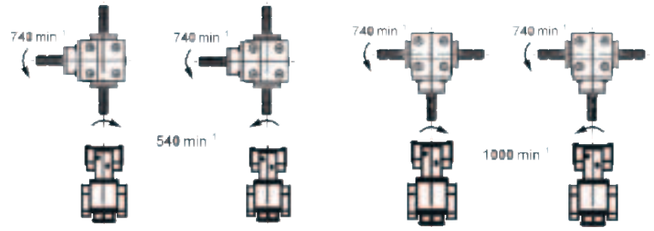
Denomination of machine	SM 210 FK	SM 210 FK-S	SM 260 FK
Reference number	712 079 0000	712 080 0000	712 076 0000
Mounting Category	I		
Working width approx. m	2,05		2,50
Transport width approx. m	2,08		2,50
Transport length approx. m	1,13	1,18	1,29
Capacity approx. ha/h	2,40		3,00
Mower discs	4		
Blades per disc	2		
Swath width approx. m	1,10		1,35
Power demand approx. kW/hp	19/26		22/30
Mechanic side-shift	-	standard	-
Necessary hydraulic outlets	-		
Transmission shaft on main drive (tractor-machine)	optional		
PTO rpm	540/1000		
Weight approx. kgs	369*	373*	410*
Assembling time h	assembled		

* Delivery without PTO-shaft

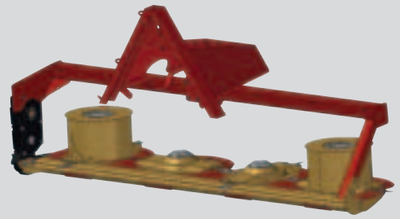
Special equipment	reference no.	
Drive shaft; for attachment to standard tractor; supplied ex works without drive shaft	712 716 0000	
Spring discharge device, for (hill-farm) tractors without spring discharge	712 820 0000	
Lamp holder	714 741 0000	
Set of suppression hoops for SM 260 FK; recommended for crop heights greater than 80 cm (required for crops 1.00 m or higher); for optimum product feed to the cutter bar + good cutting results	712 835 0000	
Swath guide for SM 260 FK, to deposit a narrow swath: consisting of 2 rotating swath formers (left and right), swath width approx. 1,10 m	712 870 0000	
Quick blade change set for SM 210 FK/FK-S	712 876 0000	
Hydraulic side-shift for SM 210 FK-S, 1 x DAV necessary	712 859 0000	

2 PTO rpm (540 and 1000)
2 driving directions (left and right)

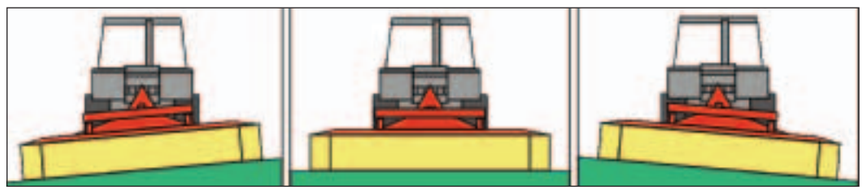


Disc mowers

Front mounted
Oscillating linkage



	Feature	Benefit
1	Oscillating linkage	• Optimum adjustment to the ground by virtue of pendulum radius +/- 6.5° • High degree of safety during street travel through spring centering mechanism allowing no lateral movement
2	Spring relief on the side of the tractor in the direction of the upper link pivot point	• Uniform load over the entire working width
	4 mowing disks for both types	• Symmetrical, centered run • Very good even positioning of swaths • Very good conveying performance, also in downhill operation
	540 and 1000 rpm as well as clockwise and counterclockwise rotation as a standard	• Can be combined with all tractors
	Overrunning clutch and overload protection in the drive train as a standard	• Protection of the drive train • Less wear
3	Bearing frame	• High stability
	Foldable side protection	• Large width on the meadow • Small width on the street
4	FP-S variant continuously variable hydraulic side-shift (by 12 cm in to the right and left, respectively)	• Mowing on slopes and/or with twin tires is possible without problems



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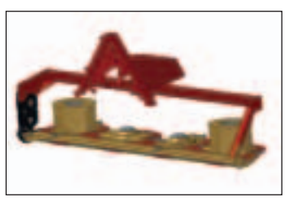

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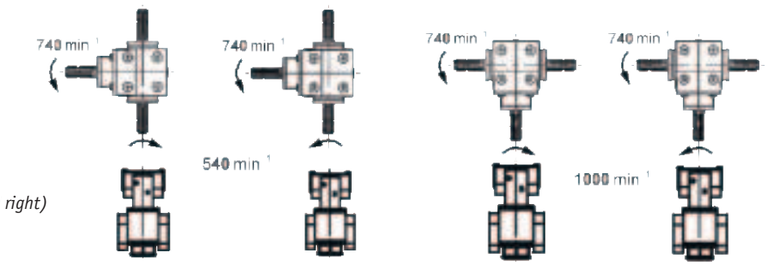
Denomination of machine	SM 260 FP	SM 260 FP-S
Reference number	712 074 0000	712 075 0000
Mounting Category	II	
Working width approx. m	2,50	
Transport width approx. m	2,50	
Transport length approx. m	1,21	
Capacity approx. ha/h	3,00	
Mower discs	4	
Blades per disc	2	
Swath width approx. m	1,35	
Power demand approx. kW/hp	28/38	
Hydraulic side-shift	-	standard
Necessary hydraulic outlets	-	1 x DAV*
Transmission shaft on main drive (tractor-machine)	standard	
PTO rpm	540/1000	
Weight approx. kgs	485	516
Assembling time h	assembled	

* double acting valve

Special equipment	reference no.	
Cat. II triangular coupling frame (on the tractor)	712 814 0000	
Lamp holder	714 741 0000	
Set of suppression hoops; recommended for crop heights greater than 80 cm (required for crops 1.00 m or higher); for optimum product feed to the cutter bar + good cutting results	712 835 0000	
Swath guide, to deposit a narrow swath: consisting of 2 rotating swath formers (left and right), swath width approx. 1,10 m	712 870 0000	

2 PTO rpm (540 and 1000)
2 driving directions (left and right)



Disc mowers

Front mounted
Oscillating linkage

	Feature	Benefit
1	Compact tractor attachment system	• Centre of gravity close to the tractor • Low load on tractor and machine
2	Trailed suspension „Pulling is easier than pushing“	• Gentle on the turf sward • Reduced load on the mower and tractor • Lower fuel consumption
	No hydraulic connection needed	• Low demand on tractor power
3	Mower unit is suspended by means of an oscillating axle at the centre of gravity	• The mower unit adapts very well to the ground contour thanks to freedom of movement of +/-6.5° • Spring relief device on tractor in the direction of the upper link pivot point results in uniform load across the entire working width • Spring centering device ensures a high level of road safety as it prevents lateral movement • Reduced wear due to large central bush bearing
4	Symmetrical number of cutter discs (6)	• Uniform crop delivery without additional feeder drums or swath drums
	Counterclockwise or clockwise rotation can be achieved very easily by reversing the gear	• High fl xibility
5	Side locking, folding safety covers	• Keeps within the max. allowable on-road transport width of 3.00 m
6	Simple and clear driveline via Walterscheid drive shaft with overrunning clutch	

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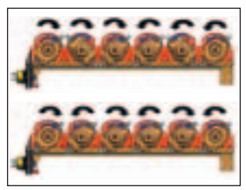

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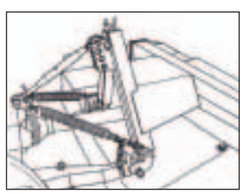

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Denomination of machine	SM 310 FP	SM 310 FP-KC	SM 310 FP-RC
Reference number	712 111 0000	712 112 0000	712 113 0000
Mounting Category	II		
Working width approx. m	3,00		
Transport width approx. m	3,00		
Transport length approx. m	1,49	1,58	1,52
Capacity approx. ha/h	3,50		
Conditioner mounting prepared	-	standard	
Conditioner	-	KC	RC
Mower discs	6		
Blades per disc	2		
Swath width approx. m	2,00	1,45 - 2,20	1,55 - 1,90
Power demand approx. kW/hp	55/75	66/90	64/87
PTO rpm	1000		
Overrunning clutch	standard		
Weight approx. kgs	734	954	1006
Assembling time h	assembled		

Special equipment	reference no.	
Lighting fixtu e; for attaching a warning panel and light	712 719 0000	
Cat. II triangular coupling frame (on the tractor)	712 814 0000	
Quick blade change set for 6 cutter discs	712 871 0000	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions	712 883 0000	
Set of suppression hoops; recommended for crop heights greater than 80 cm (required for crops 1.00 m or higher); for optimum product feed to the cutter bar + good cutting results	712 807 0000	
Protective cover; for use without conditioner; for SM 310 FP/ -SL/-KC/-RC	712 800 0000	
Spreader device for SM 310 FP-KC; for faster drying	712 852 0000	
Articulated fork W2400-1 3/8“ (21); additional delivery	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery	712 864 0000	
Stone guard RC 311 for version with roller conditioner; protects the mowing bar against stone impact	712 905 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 1,70 - 1,80 m	712 886 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the conditioner	712 909 0000	

Disc mowers

Front mounted
Headstock with trailing linkage

Feature	Benefit
1 Cutter bar is mounted at the outermost points on the sturdy support frame	• Optimum adaptation to the ground contour • Gentle on the turf sward • Optimum visibility forwards from the tractor seat • No twisting of the cutter bar
2 Front attachment provides extremely easy pulling „Pulling is easier than pushing“	• Soil conserving • Fuel saving
Frame preconfigu ed as standard for attachment of KC/RC conditioner and windrower	• High fl xibility
3 The overhead frame allows the mower unit a large freedom of movement	• Large freedom of movement 26,4°
4 The integrated hydraulic cylinder in combination with the front hydraulics provide a long vertical travel range	• Vertical travel range: 430 mm • Complete stroke distance: 560 mm
5 Parallel adaptation of the mower unit to surface unevenness	• No plunging into the ground
Optimally located spring parallelogram	• Minimal spring contraction during oscillating movement of the mower unit • Ground pressure is only marginally higher
6 Mower unit can be shifted sideways for use on slopes	• Mechanical (standard): 10 cm • Hydraulic (optional): 20 cm variable to the left and right
Mower unit can be operated at headlands by means of single-acting control unit	


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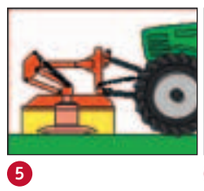
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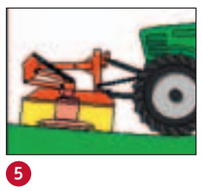
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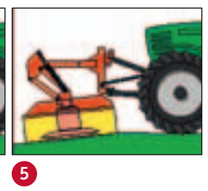
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6

Denomination of machine	SM 310 FZ	SM 310 FZ-KC	SM 310 FZ-RC
Reference number	712 117 0000	712 118 0000	712 119 0000
Mounting Category	II		
Working width approx. m	3,00		
Transport width approx. m	3,00		
Transport length approx. m	1,85	1,87	1,81
Capacity approx. ha/h	3,50		
Conditioner mounting prepared	standard		
Conditioner	-	KC	RC
Mower discs	6		
Blades per disc	2		
Swath width approx. m	2,00	1,45 - 2,20	1,55 - 1,90
Power demand approx. kW/hp	55/75	66/90	64/87
Necessary hydraulic outlets	1 x SAV*		
PTO rpm	1000		
Overrunning clutch	standard		
Weight approx. kgs	930	1150	1202
Assembling time h	assembled		

* single acting valve

Special equipment	reference no.	
Cat. II triangular coupling frame (on the tractor)	712 814 0000	
Quick blade change set for 6 cutter discs	712 871 0000	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions	712 883 0000	
Set of suppression hoops; recommended for crop heights greater than 80 cm (required for crops 1.00 m or higher); for optimum product feed to the cutter bar + good cutting results	712 807 0000	
Protective cover; for use without conditioner	712 800 0000	
Spreader device for SM 310 FZ-KC; for faster drying	712 852 0000	
Stone guard RC 311 for version with roller conditioner; protects the mowing bar against stone impact	712 905 0000	
Articulated fork W2400-1 3/8“ (21); additional delivery	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery	712 864 0000	
Hydraulic side-shift (1 double acting valve necessary)	712 858 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 1,70 - 1,80 m	712 886 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the conditioner	712 909 0000	
Additional spring relief for SM 310 FZ, for reduced contact pressure of the mower unit e.g. for stony conditions, additional delivery	712 920 0000	
Additional spring relief for SM 310 FZ, for reduced contact pressure of the mower unit e.g. for stony conditions, included in the delivery	712 921 0000	

Disc mowers

3-point linkage
Side attachment
For alpine and standard tractors

Feature	Benefit
Approx. 50 kg (110 lbs) lighter than the standard version	• Specially suited to mountain tractors
Cutter bar and input gear: one oil circulation system	• Lifetime oil filli g • Simple oil level check
1 V-belt drive with automatic, adjustable V-belt tension	• Elastic drive • Low mower wear
2 Controlled lifting kinematics	• Excellent lift height at headlands
Double sided folding guard	• Easy access for cleaning and maintenance (e.g. changing blades)
Horizontal locking in the park position	• Stability even on uneven terrain • Easy hitching
Track adaptation by adjustable lower link pin	• Very high fl xibility
3 Left and right feeder drums as standard	• Clean forage harvesting is ensured
Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle

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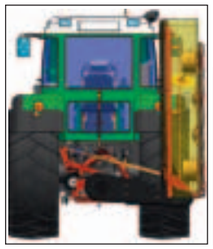

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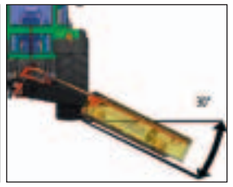

2

Denomination of machine	SM 210 L
Reference number	712 026 0000
Mounting Category	I*+II
Working width approx. m	2,05
Transport width approx. m	2,13
Transport height approx. m	2,47
Capacity approx. ha/h	2,40
Mower discs	4
Blades per disc	2
Swath width approx. m	1,10
Power demand approx. kW/hp	28/38
Necessary hydraulic outlets	1 x SAV**
PTO rpm	540
Overrunning clutch	standard
Weight approx. kgs	545
Assembling time h	1,0

* optional equipment
** single acting valve

Special equipment	reference no.	
Lighting fixtu e; for attaching a warning panel and light	712 722 0000	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Quick blade change set for 4 cutter discs	712 876 0000	
Cat. I three point hitch assembly	714 736 0000	

Disc mowers

3-point linkage
Side attachment

Feature	Benefit
Cutter bar and input gear: one oil circulation system	• Lifetime oil filli g • Simple oil level check
1 V-belt drive with automatic, adjustable V-belt tension	• Elastic drive • Low mower wear
Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
2 Controlled lifting kinematics	• Excellent lift height at headlands
Double sided folding guard	• Easy access for cleaning and maintenance (e.g. changing blades)
Horizontal locking in the park position	• Stability even on uneven terrain • Easy hitching
Track adaptation by adjustable lower link pin	• Very high fl xibility
3 Left and right feeder drums as standard	• Clean forage harvesting is ensured
Conditioners (KC and RC) are very easy to install and remove, i.e. can be retrofitted at a y time	• Flexibility

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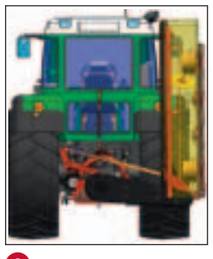

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Denomination of machine	SM 210	SM 270	SM 320	SM 350
Reference number 540 rpm	712 031 0000	712 032 0000	712 034 0000	712 035 0000
Reference number 1000 rpm	712 021 0000	712 022 0000	712 024 0000	712 025 0000
Mounting Category	II			
Working width approx. m	2,05	2,55	3,00	3,50
Transport width approx. m	2,13			
Transport height approx. m	2,47	2,95	3,43	3,91
Capacity approx. ha/h	2,50	3,00	3,50	4,00
Conditioner mounting prepared	KC/RC		KC	-
Mower iscs d	4	5	6	7
Blades per disc	2			
Swath width approx. m	1,10	1,60	1,80	2,30
Power demand approx. kW/hp	36/49	40/54	45/61	50/68
Necessary hydraulic outlets	1 x SAV*			
PTO rpm	540/1000			
Overrunning clutch	standard			
Weight approx. kgs	612	630	724	798
Assembling time h	1,0			

* single acting valve

Special equipment	reference no.	
Lighting fixtu e; for attaching a warning panel and light	712 722 0000	
Rotating swath former (left) for SM 210/270; to deposit a narrow swath, swath width approx. 0,85 (SM 210)/1,30 m (SM 270)	712 823 0000	
Swath guide (left) for SM 350; to deposit a narrow swath; consisting of rotating swath former and feeder drum, swath width approx. 1,60 m	712 824 0000	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Set of HD cutter discs with wear protection for SM 270; specially designed for stony or sandy conditions	712 881 0000	
Set of HD cutter discs with wear protection for SM 320; specially designed for stony or sandy conditions	712 882 0000	
Set of HD cutter discs with wear protection for SM 350; specially designed for stony or sandy conditions	712 880 0000	
2 height-adjustable contact wheels for increased cutting height	712 818 0000	
Quick blade change set for SM 210; for 4 cutter discs	712 876 0000	
Quick blade change set for SM 270; for 5 cutter discs	712 877 0000	
Quick blade change set for SM 320; for 6 cutter discs	712 871 0000	
Quick blade change set for SM 350; for 7 cutter discs	712 879 0000	

Disc mowers

3-point linkage
Side attachment
With tine rotor-conditioner
FELLA „effective“-conditioner

	Feature	Benefit
1	The forage is not crushed during conditioning; only the wax coat is removed	• Gentle forage treatment • Less loss due to crumbling compared to flail co ditioners
2	Conditioner intensity can be controlled by means of a counter-comb which can be adjusted to four different positions without tools	• Adaptable to a variety of conditions
3	Spring tine rotor as standard with Super C tines and tine loss protection	• Low sensitivity to foreign debris
4	Conditioner is mounted across the full working width	• Wide forage pick-up • Smooth forage flo
	Shape of cutter discs and left and right feeder drums as standard	• Clean forage harvesting • Optimum loading of the conditioner across the full cutting width
5	Formation of a loose, well aerated swath, wide distributor optional	• Faster drying
	Simple, direct drive concept	• Low weight • Easy to pull > little additional power demand
	Low-wear conditioner rotor mounting	• High durability > Economy

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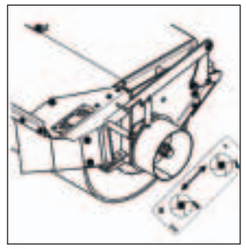

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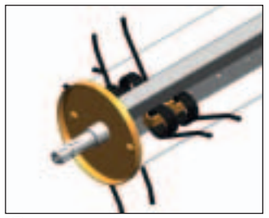

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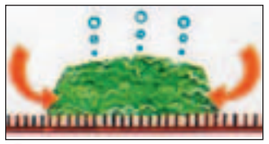

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Denomination of machine	SM 210 KC	SM 270 KC	SM 320 KC
Reference number 540 rpm	712 031 0000 + 712 311 0000	712 032 0000 + 712 312 0000	712 034 0000 + 712 327 0000
Reference number 1000 rpm	712 021 0000 + 712 321 0000	712 022 0000 + 712 322 0000	712 024 0000 + 712 328 0000
Mounting Category	II		
Working width approx. m	2,05	2,55	3,00
Transport width approx. m	2,13		
Transport height approx. m	2,47	2,95	3,43
Capacity approx. ha/h	2,50	3,00	3,50
Conditioner mounting prepared	standard		
Conditioner	KC		
Mower discs	4	5	6
Blades per disc	2		
Swath width approx. m	0,40 - 0,95	0,90 - 1,40	1,35 - 1,90
Power demand approx. kW/hp	48/65	55/75	63/86
Necessary hydraulic outlets	1 x SAV*		
PTO rpm	540/1000		
Overrunning clutch	standard		
Weight approx. kgs	782	883	1011
Assembling time h	1,5		

* single acting valve

Special equipment	reference no.	
Lighting fixtu e; for attaching a warning panel and light	712 722 0000	
Spreader device for SM 210 KC; for faster drying	712 841 0000	
Spreader device for SM 270 KC; for faster drying	712 842 0000	
Spreader device for SM 320 KC; for faster drying	712 843 0000	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Set of HD cutter discs with wear protection for SM 270; specially designed for stony or sandy conditions	712 881 0000	
Set of HD cutter discs with wear protection for SM 320; specially designed for stony or sandy conditions	712 882 0000	
2 height-adjustable contact wheels for increased cutting height	712 818 0000	
Quick blade change set for SM 210; for 4 cutter discs	712 876 0000	
Quick blade change set for SM 270; for 5 cutter discs	712 877 0000	
Quick blade change set for SM 320; for 6 cutter discs	712 871 0000	

Disc mowers

3-point linkage
Side attachment
With roller conditioner

	Feature	Benefit
1	Rubber rollers have a large profile overlap s	• It is only necessary to drive the lower roller • Upper roller runs synchronously > Simple drive system
2	Upper roller is protected by a spring	• Low sensitivity to foreign debris
3	Contact pressure of the rubber profile ele ents is adjustable	• Optimum adaptation to different harvesting and weather conditions
	Roller position close to cutter bar	• Ideal forage flo
4	Wide forage passage	• Easy forage flo

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Denomination of machine	SM 210 RC	SM 270 RC
Reference number 540 rpm	712 031 0000 + 712 335 0000	712 032 0000 + 712 337 0000
Reference number 1000 rpm	712 021 0000 + 712 336 0000	712 022 0000 + 712 338 0000
Mounting Category	II	
Working width approx. m	2,05	2,55
Transport width approx. m	2,13	
Transport height approx. m	2,47	2,95
Capacity approx. ha/h	2,50	3,00
Conditioner mounting prepared	standard	
Conditioner	RC	
Mower discs	4	5
Blades per disc	2	
Swath width approx. m	0,55 - 0,90	1,05 - 1,40
Power demand approx. kW/hp	48/65	55/75
Necessary hydraulic outlets	1 x SAV*	
PTO rpm	540/1000	
Overrunning clutch	standard	
Weight approx. kgs	835	980
Assembling time h	1,5	

* single acting valve

Special equipment	reference no.	
Lighting fixtu e; for attaching a warning panel and light	712 722 0000	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Set of HD cutter discs with wear protection for SM 270; specially designed for stony or sandy conditions	712 881 0000	
2 height-adjustable contact wheels for increased cutting height	712 818 0000	
Quick blade change set for SM 210; for 4 cutter discs	712 876 0000	
Quick blade change set for SM 270; for 5 cutter discs	712 877 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the conditioner	712 909 0000	

Disc mowers

3-point linkage
Middle attachment

NEW

	Feature	Benefit
1	Mower units are mounted at the centre of gravity	• Adapts very well to the ground contour • Reduced load on the tractor lift arms
2	Novel, patented sliding guide	• Optimal support and guidance of the mowing bar • Very good adjustment to the ground • Load will be removed from the lifting arm of the mower
3	Collision protection with swivel gear	• Very large dodge angle of the mower • Prevents damages to the drive shaft
	Hydro-pneumatic suspension system - Turbolift system (TL-System)	
4	Constant, continuously variable ground surface pressure by means of adjusting wheel (no need for tools!)	• Adaptable to a variety of conditions
	Contact pressure adjustable while driving	• Passing of wet areas with low contact pressure is possible • No damage to the sod • No forage contamination
	The cutter bar can glide into dips or depressions	• Improved cutting quality
	Free-floati g cutting	• Reduced load on the support frame, support tube and three-point hitch • Gentle on the turf sward • Reduced forage contamination (lower raw ash content in the basic forage)
5	Novel full-cloth protection	• Reduces the weight • Reduces the fuel consumption
6	Protective cloth foldable on both sides	• Optimal accessibility for cleaning and maintenance work
	Mower can be easily depressurized by push-button when setting down	• Mower is fully pressure less when the deck is fully lowered > no hazard to young children for example


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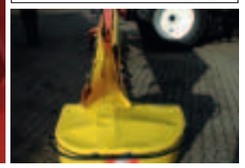
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Denomination of machine	SM 3060 TL	SM 3570 TL	SM 4080 TL
Reference number	712 156 0000	712 157 0000	712 158 0000
Mounting Category	II+III		
Working width approx. m	3,00	3,50	4,00
Transport width approx. m	2,30		
Transport height approx. m	4,65	5,15	5,60
Capacity approx. ha/h	3,50	4,00	4,80
Conditioner mounting prepared	-		
Conditioner	-		
Mower discs	6	7	8
Blades per disc	2		
Swath width approx. m	2,30	2,80	3,30
Power demand approx. kW/hp	55/75	65/88	72/99
Necessary hydraulic outlets	1 x SAV, 1 x DAV		
PTO rpm	1000		
Overrunning clutch	standard		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	875	950	980
Assembling time h	1,5	1,5	1,5

* single acting valve
** double acting valve

Special equipment	reference no.	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar (SM 4080 TL at least 3) • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Quick blade change set for 6 cutter discs for SM 3060 TL	712 871 0000	
Quick blade change set for 7 cutter discs for SM 3570 TL	712 879 0000	
Quick blade change set for 8 cutter discs for SM 4080 TL	712 872 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions, for SM 3060 TL	712 883 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions, for SM 3570 TL	712 885 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions, for SM 4080 TL	712 884 0000	
2 Swath depositing device for SM 4080 TL, consisting of 2 conveying drums, swath width approx. 2 x 1.10 m	712 894 0000	
Articulated fork W2400-1 3/8" (21); additional delivery	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery	712 864 0000	

Disc mowers

3-point linkage
Middle attachment
With conditioner

	Feature	Benefit
1	Mower units are mounted at the centre of gravity	• Adapts very well to the ground contour • Reduced load on the tractor lift arms
2	Trailed mower „Pulling is easier than pushing“	• Soil conserving • Fuel saving
3	Modular system is easy to attach to and detach from the conditioner	• High fl xibility
	Spring-loaded anti-collision device	• Optimum protection when colliding with an obstacle
	Hydro-pneumatic suspension system - Turbolift system (TL-System)	
	Constant, continuously variable ground surface pressure by means of adjusting wheel (no need for tools!)	• Adaptable to a variety of conditions
4	Contact pressure adjustable while driving	• Passing of wet areas with low contact pressure is possible • No damage to the sod • No forage contamination
	Free-floati g cutting	• Reduced load on the support frame, support tube and three-point hitch • Gentle on the turf sward • Reduced forage contamination (lower raw ash content in the basic forage)
	Mower can be easily depressurized by push-button when setting down	• Mower is fully pressure less when the deck is fully lowered > no hazard to young children for example
	With conveyor belt (KCB)	
5	• continuously variable belt speed • belt can be activated individually (also while driving)	• Adaptable to a variety of conditions

Denomination of machine	SM 310 TL-KC	SM 310 TL-RC	SM 310 TL-KCB
Reference number	712 040 0000	712 041 0000	712 042 0000
Mounting Category	II+III		
Working width approx. m	3,00		
Transport width approx. m	1,92		
Transport height approx. m	3,73		
Capacity approx. ha/h	3,50		
Conditioner mounting prepared	standard		
Conditioner	KC	RC	KC
Mower discs	6		
Blades per disc	2		
Swath width approx. m	1,45 - 2,25	1,55 - 1,90	1,60 - 2,00*
Power demand approx. kW/hp	63/86		70/95
Necessary hydraulic outlets	1 x SAV**, 1 x DAV***		2 x SAV, 1 x DAV
PTO rpm	1000		
Overrunning clutch	standard		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1225	1264	1528
Assembling time h	2,0		3,0

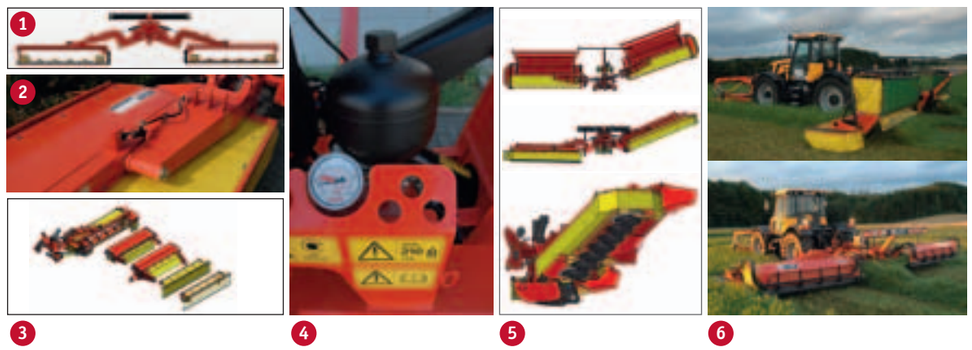
* according to type of forage and field co ditions
** single acting valve
*** double acting valve

Special equipment	reference no.	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions	712 883 0000	
Protective cover for SM 310 TL-KC/-RC; for use without conditioner	712 801 0000	
Spreader device for SM 310 TL-KC; for faster drying	712 846 0000	
Compact swath deposit for SM 310 TL-KC; for trailer operation and to avoid driving over mowed forage	712 889 0000	
Stone guard RC 311 for version with roller conditioner; protects the mowing bar against stone impact	712 905 0000	
Quick blade change set; for 6 cutter discs	712 871 0000	
Articulated fork W2500-1 3/4“ (20); additional delivery (for SM 310 TL-KCB)	712 861 0000	
Articulated fork W2400-1 3/8“ (21); additional delivery (for SM 310 TL/-KC/-RC)	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery (for SM 310TL/-KC/-RC)	712 864 0000	
Articulated fork W2500-1 3/8“ (21); additional delivery (für SM 310 TL-KCB)	712 865 0000	
Articulated fork W2500-1 3/4“ (6); additional delivery (für SM 310 TL-KCB)	712 866 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 1,70 - 1,80 m	712 886 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the conditioner	712 909 0000	

Disc mowers

3-point attachment
Mower combination
Middle attachment

Feature	Benefit
1 Mower units are mounted at the centre of gravity	• Adapts very well to the ground contour • Reduced load on the tractor lift arms
2 Trailed mower „Pulling is easier than pushing“	• Soil conserving • Fuel saving
3 Modular system is easy to attach to and detach from the conditioner	• High fl xibility
Hydro-pneumatic suspension system - Turbolift system (TL-System)	
4 Constant, continuously variable ground surface pressure by means of adjusting wheel (no need for tools!)	• Adaptable to a variety of conditions
Contact pressure adjustable while driving	• Passing of wet areas with low contact pressure is possible • No damage to the sod • No forage contamination
Free-floati g cutting	• Gentle on the turf sward • Reduced forage contamination (lower raw ash content in the basic forage)
„SafetySwing“ anti-collision device	
5 „SafetySwing“ anti-collision device	• Each mower unit avoids obstructions independently from the other units • Mower unit diverts backwards and upwards • Re-engagement into working position through its own weight
With conveyor belt (KCB)	
6 • continuously variable belt speed • belt can be activated individually (also while driving)	• Adaptable to a variety of conditions



* according to type of forage and field co ditions
** single acting valve ** double acting valve

Denomination of machine Data of rear mower (without front mower), front mower see page 30-33	**SM 911 TL**	**SM 911 TL-KC**	**SM 911 TL-RC**	**SM 911 TL-KCB**
Reference number	712 136 0000	712 137 0000	712 138 0000	712 139 0000
Mounting Category	II+III			
Working width approx. m	8,30			
Transport width approx. m	2,78			
Transport height approx. m	3,73			
Capacity approx. ha/h	10,00			
Conditioner mounting prepared	standard			
Conditioner	-	KC	RC	KC
Mower discs	2 x 6			
Blades per disc	2			
Swath width approx. m	2 x 2,00	2 x 1,45 - 2,25	2 x 1,55 - 1,90	1,80 - 2,60*
Power demand approx. kW/hp	110/150	132/180	128/175	145/200
Necessary hydraulic outlets	1 x SAV**, 1 x DAV***			2 x SAV, 1 x DAV
PTO rpm	1000			
Overrunning clutch	standard			
Warning panels	standard			
Electrical lightning	standard			
Weight approx. kgs	1966	2410	2508	2901
Assembling time h	5,0	6,0		7,0

Special equipment	**reference no.**	
1 additional skid	712 825 0000	
Set of HD cutter discs with wear protection (2 x sets necessary; per set)	712 883 0000	
Protective cover; for use without conditioner; for SM 911 TL-KC/-RC	712 804 0000	
Spreader device for SM 911 TL-KC; for faster drying	712 847 0000	
Stone guard RC 311 for version with roller conditioner; protects the mowing bar against stone impact (2 x sets necessary; per set)	712 905 0000	
Elektromagnet 2/2-way valve for SM 911 TL; enabels single lifting of either one mowing unit; saves 1 x single-acting valve	712 899 0000	
Electro-hydraulic control Load-Sensing for SM 911 TL/-KC/-RC	712 903 0000	
Electro-hydraulic control Load-Sensing for SM 911 TL-KCB	712 904 0000	
Electro-hydraulic control for SM 911 TL/-KC/-RC; upgradable to Load-Sensing	712 911 0000	
Electro-hydraulic control for SM 911 TL-KCB; upgradable to Load-Sensing	712 910 0000	
Load-Sensing upgrade kit for the electro-hydraulic controls 712 910 0000 and 712 911 0000	712 915 0000	
ISOBUS control; for SM 911 TL-KCB	712 901 0000	
ISOBUS control; for SM 911 TL/-KC/-RC	712 902 0000	
Quick blade change set; for 12 cutter discs	712 873 0000	
Articulated fork W2500-1 3/4“ (20); additional delivery	712 861 0000	
Articulated fork W2500-1 3/8“ (21); additional delivery	712 865 0000	
Articulated fork W2500-1 3/4“ (6); additional delivery	712 866 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 1,70 - 1,80 m per mower unit, 2 sets necessary	712 886 0000	
Mower disk with conveyor wings for improved forage transport to the conditioner	712 909 0000	

Disc mowers

3-point attachment
Mower combination
Middle attachment

NEW

	Feature	Benefit
1	Mower units are mounted at the centre of gravity	• Adapts very well to the ground contour • Reduced load on the tractor lift arms
2	Trailed mower „Pulling is easier than pushing“	• Soil conserving • Fuel saving
3	Modular system is easy to attach to and detach from the conditioner	• High fl xibility
	Hydro-pneumatic suspension system - Turbolift system (TL-System)	
4	Constant, continuously variable ground surface pressure by means of adjusting wheel (no need for tools!)	• Adaptable to a variety of conditions
	Contact pressure adjustable while driving	• Passing of wet areas with low contact pressure is possible • No damage to the sod • No forage contamination
	Free-floati g cutting	• Gentle on the turf sward • Reduced forage contamination (lower raw ash content in the basic forage)
5	**„SafetySwing“ anti-collision device**	
	„SafetySwing“ anti-collision device	• Each mower unit avoids obstructions independently from the other units • Mower unit diverts backwards and upwards • Re-engagement into working position through its own weight

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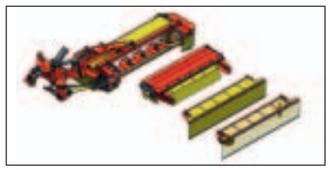

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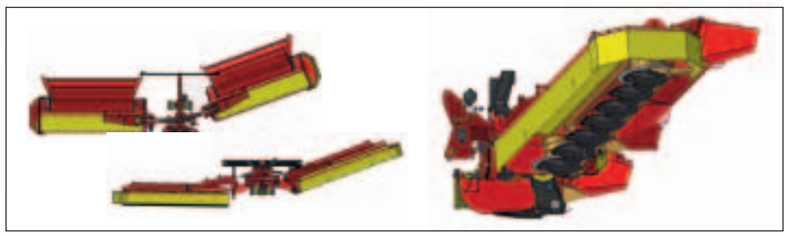

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Denomination of machine Data of rear mower (without front mower), front mower see page 30-33	**SM 991 TL**	**SM 991 TL-KC**
Reference number	712 181 0000	712 182 0000
Mounting Category	II+III	
Working width approx. m	9,30	
Transport width approx. m	2,78	
Transport height approx. m	3,90	
Capacity approx. ha/h	12,00	
Conditioner mounting prepared	Serie	
Conditioner	-	KC
Mower discs	2 x 7	
Blades per disc	2	
Swath width approx. m	2 x 2,50	2 x 1,85 - 3,25
Power demand approx. kW/hp	130/175	155/200
Necessary hydraulic outlets	1 x SAV*, 1 x DAV**	
PTO rpm	1000	
Overrunning clutch	standard	
Warning panels	standard	
Electrical lightning	standard	
Weight approx. kgs	2120	2830
Assembling time h	5,0	6,0

* single acting valve
** double acting valve

Special equipment	**reference no.**	
1 additional skid • for increased cutting height; at least 2 skids are required per cutter bar • as wear protection in stony or sandy conditions (number of cutter discs = number of additional skids)	712 825 0000	
Protective cover; for use without conditioner	712 805 0000	
Spreader device for SM 991 TL-KC, for faster drying, 2 sets necessary	712 914 0000	
Set of HD cutter discs with wear protection; specially designed for stony or sandy conditions; 2 sets necessary	712 885 0000	
Quick blade change set for 14 cutter discs	712 875 0000	
Elektromagnet 2/2-way valve; enabels single lifting of either one mowing unit; saves 1 x single-acting valve	712 899 0000	
Electro-hydraulic control Load-Sensing for SM 991 TL/-KC	712 903 0000	
Electro-hydraulic control for SM 991 TL/-KC; upgradable to Load-Sensing	712 911 0000	
Load-Sensing upgrade kit for the electro-hydraulic control 712 911 0000	712 915 0000	
ISOBUS control; for SM 991 TL/-KC	712 902 0000	
Articulated fork W2500-1 3/4" (20); additional delivery	712 861 0000	
Articulated fork W2500-1 3/8" (21); additional delivery	712 865 0000	
Articulated fork W2500-1 3/4" (6); additional delivery	712 866 0000	
Swath discs for operation without conditioner; for making more narrow swaths, swath width approximately 1.70- 1.80 m, 2 sets necessary	712 886 0000	

Disc mowers

Pulled
With transport chassis

	Feature	Benefit
1	Centrally pivoted drawbar	• Mower can be pivoted to the rear of the tractor to the left or right • Advantage in case of horizontal forage and hillside situations
2	Power transmission through robust swivel gear	• No bending of the drive shaft even in tight curves • Minimal wear in curves
3	Cutter bar is mounted at the outermost points on the sturdy support frame	• Optimum adaptation to the ground contour • Gentle on the turf sward • Optimum visibility forwards from the tractor seat • No twisting of the cutter bar
4	Front attachment provides extremely easy pulling „Pulling is easier than pushing“	• Soil conserving • Fuel saving
5	The integrated hydraulic cylinder provide a long vertical travel range	• Vertical travel range: 430 mm
	Optimally located spring parallelogram	• Minimal spring contraction during oscillating movement of the mower unit • Ground pressure is only marginally higher
	Central cutting height adjustment	• Adaptable to a variety of conditions


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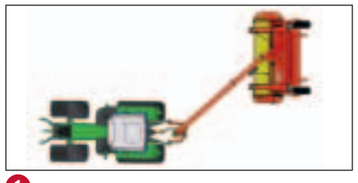
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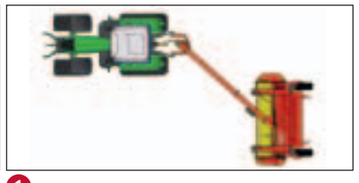
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* single acting valve ** double acting valve

Denomination of machine	SM 313 Trans	SM 313 Trans-KC	SM 313 Trans-RC
Reference number 1000 rpm	712 144 0000	712 145 0000	712 146 0000
Reference number 540 rpm	712 147 0000	712 148 0000	712 149 0000
Mounting Category	II		
Working width approx. m	3,00		
Transport width approx. m	3,00		
Transport length approx. m	7,00		
Capacity approx. ha/h	3,50		
Conditioner mounting prepared	Serie		
Conditioner	-	KC	RC
Mower discs	6		
Blades per disc	2		
Swath width approx. m	2,00	0,90 - 2,25	1,55 - 1,90
Power demand approx. kW/hp	55/74	66/90	
Necessary hydraulic outlets	1 x SAV*, 1 x DAV**		
PTO rpm	540/1000		
Overrunning clutch	standard		
Tires	10.0/75-15.3 Imp. 8PR AW		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1690	1945	1962
Assembling time h	5,0		

Special equipment	reference no.	
Set of suppression hoops; recommended for crop heights greater than 80 cm	712 807 0000	
1 additional skid	712 825 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions	712 883 0000	
Protective cover; for use without conditioner; for SM 313 Trans-KC/-RC	712 800 0000	
Swath displacer with hydraulically adjustable guiding plates for SM 313 Trans-RC; for swath displacement to left + right hand side for combined/contraflow ope ation; for 3.00 m fiel straw cutter pick-up	712 890 0000	
Stone guard RC 311 for version with roller conditioner; protects the mowing bar against stone impact	712 905 0000	
Quick blade change set for 6 cutter discs	712 871 0000	
2 bogie wheels 10.0/75-15.3 AS; additional delivery	712 895 0000	
2 bogie wheels 10.0/75-15.3 AS; supplied	712 896 0000	
1 bogie wheel 11.5/80-15.3 AW; additional delivery	712 855 0000	
1 bogie wheel 11.5/80-15.3. AW; supplied	712 856 0000	
Articulated fork W2400-1 3/8“ (21); additional delivery	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery	712 864 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 1,70 - 1,80 m	712 886 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the cond.	712 909 0000	
Additional spring relief for reduced contact pressure of the mower unit e.g. for stony conditions, additional delivery	712 922 0000	
Additional spring relief for reduced contact pressure of the mower unit e.g. for stony conditions, included in the delivery	712 923 0000	

Disc mowers

Pulled
With wheel support

Feature	Benefit
1 The hitch load of the raised machine is distributed evenly to the bogie wheel and the tractor	• Low tractor load • Large working widths can be achieved even with small tractors
Changing from working position to transport position and vice versa can be carried out hydraulically from the tractor seat	• Easy operation
2 With fringe mower as standard (mower is inclined at an angle of 25°)	• No danger of slipping into ditches • Forage is thrown inwards due to the inclination of the machine > No loss of forage
3 Anti collision device pivots 90° to the rear of the tractor > The swivel gear cannot damage the drive shaft	• High operation security
Cutter bar is mounted at the outermost points on the sturdy support frame	• Optimum adaptation to the ground contour • Gentle on the turf sward • No twisting of the cutter bar
4 The integrated hydraulic cylinder provide a long vertical travel range	• Vertical travel range: 430 mm
Optimally located spring parallelogram	• Minimal spring contraction during oscillating movement of the mower unit • Ground pressure is only marginally higher
Central cutting height adjustment	• Adaptable to a variety of conditions

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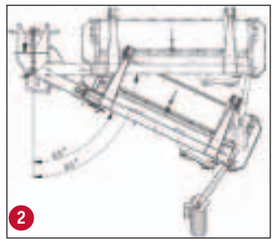
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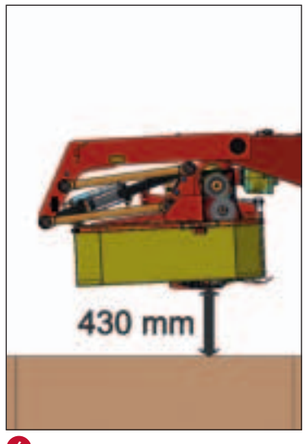

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* single acting valve ** double acting valve

Denomination of machine	SM 311 Trans	SM 311 Trans-KC	SM 311 Trans-RC
Reference number	712 141 0000	712 142 0000	712 143 0000
Mounting Category	II		
Working width approx. m	3,00		
Transport width approx. m	1,95		
Transport length approx. m	6,70		
Capacity approx. ha/h	3,50		
Conditioner mounting prepared	Serie		
Conditioner	-	KC	RC
Mower discs	6		
Blades per disc	2		
Swath width approx. m	2,00	1,45 - 2,25	1,55 - 1,90
Power demand approx. kW/hp	55/74	66/90	
Necessary hydraulic outlets	1 x SAV*, 1 x DAV**		
PTO rpm	1000		
Overrunning clutch	standard		
Tires	10.0/75-15.3 Imp. 8PR AW		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1458	1678	1730
Assembling time h	7,0		

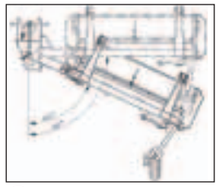
Special equipment	reference no.	
Mounted set for three-point extension for SM 311 Trans	712 867 0000	
Cat. II lower link axle for SM 311 Trans; supplied	712 860 0000	
Set of suppression hoops; recommended for crop heights greater than 80 cm	712 827 0000	
1 additional skid	712 825 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions	712 883 0000	
Protective cover for SM 311 Trans-KC/-RC; for use without conditioner	712 812 0000	
Spreader device for SM 311 Trans-KC; for faster drying	712 846 0000	
Compact swath deposit for SM 311 Trans-KC; for trailer operation and to avoid driving over mowed forage	712 889 0000	
Stone guard RC 311 for version with roller conditioner; protects the mowing bar against stone impact	712 905 0000	
Quick blade change set for 6 cutter discs	712 871 0000	
1 bogie wheel 11.5/80-15.3 AW; additional delivery	712 855 0000	
1 bogie wheel 11.5/80-15.3. AW; supplied	712 856 0000	
Articulated fork W2400-1 3/8" (21); additional delivery	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery	712 864 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 1,70 - 1,80 m	712 886 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the cond.	712 909 0000	
Additional spring relief for reduced contact pressure of the mower unit e.g. for stony conditions, additional delivery	712 920 0000	
Additional spring relief for reduced contact pressure of the mower unit e.g. for stony conditions, included in the delivery	712 921 0000	

Disc mowers

Pulled
With wheel support

	Feature	Benefit
1	The hitch load of the raised machine is distributed evenly to the bogie wheel and the tractor	• Low tractor load • Large working widths can be achieved even with small tractors
	Changing from working position to transport position and vice versa can be carried out hydraulically from the tractor seat	• Easy operation
2	With fringe mower as standard (mower is inclined at an angle of 25°)	• No danger of slipping into ditches • Forage is thrown inwards due to the inclination of the machine > No loss of forage
3	Anti collision device pivots 90° to the rear of the tractor > The swivel gear cannot damage the drive shaft	• High operation security
4	Cutter bar is mounted at the outermost points on the sturdy support frame	• Optimum adaptation to the ground contour • Gentle on the turf sward • No twisting of the cutter bar
	The integrated hydraulic cylinder provide a long vertical travel range	• Vertical travel range: 430 mm
5	Optimally located spring parallelogram	• Minimal spring contraction during oscillating movement of the mower unit • Ground pressure is only marginally higher
	Central cutting height adjustment	• Adaptable to a variety of conditions

1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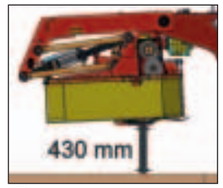

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Denomination of machine	SM 401 Trans	SM 401 Trans-KC	SM 401 Trans-RC
Reference number	712 151 0000	712 152 0000	712 153 0000
Mounting Category	II		
Working width approx. m	4,00		
Transport width approx. m	1,95		
Transport length approx. m	7,45		
Capacity approx. ha/h	4,80		
Conditioner mounting prepared	Serie		
Conditioner	-	KC	RC
Mower discs	8		
Blades per disc	2		
Swath width approx. m	2 x 1,05	2 x 0,50 - 1,25	2 x 0,60 - 0,95
Power demand approx. kW/hp	73/99	85/115	88/120
Necessary hydraulic outlets	1 x SAV*, 1 x DAV**		
PTO rpm	1000		
Overrunning clutch	standard		
Tires	10.0/75-15.3 Imp. 8PR AW		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1633	1928	1988
Assembling time h	8,0		

* single acting valve ** double acting valve

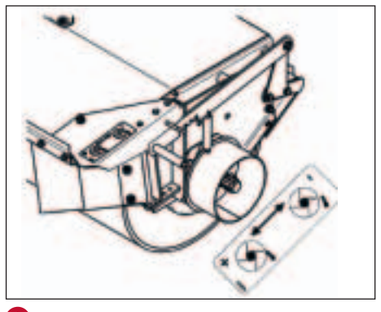
Special equipment	reference no.	
Mounted set for three-point extension	712 867 0000	
Cat. II lower link axle	712 860 0000	
1 additional skid	712 825 0000	
Set of HD cutter discs with wear protection specially designed for stony or sandy conditions	712 884 0000	
Protective cover for use without conditioner	712 813 0000	
Spreader device for SM 401 Trans-KC; for faster drying	712 844 0000	
Single swath deposit for SM 401 Trans-RC; for depositing a single swath instead of 2 individual swaths in order to prevent the swath from drying quickly	712 892 0000	
Quick blade change set for 8 cutter discs	712 872 0000	
1 bogie wheel 11.5/80-15.3 AW; additional delivery	712 855 0000	
1 bogie wheel 11.5/80-15.3. AW; supplied	712 856 0000	
Articulated fork W2400-1 3/8" (21); additional delivery	712 863 0000	
Articulated fork W2400- 8x32x38; additional delivery	712 864 0000	
Windrowing plate for operation without conditioner for piling of a more densified wi drow, swath width approx. 2,4 m (1 set) or 2x 1,2 m (2 sets)	712 886 0000	
Stone guard RC 401 for version with roller conditioner; protects the mowing bar against stone impact	712 906 0000	
Mower disk with conveyor wings for improved forage transport from the mowing bar to the cond.	712 909 0000	
Additional spring relief for reduced contact pressure of the mower unit e.g. for stony conditions, included in the delivery	712 924 0000	
Additional spring relief for reduced contact pressure of the mower unit e.g. for stony conditions, additional delivery	712 925 0000	

Tine rotor-conditioner

FELLA „effective“-conditioner
3-point linkage

Feature	Benefit
The forage is not crushed during conditioning; only the wax coat is removed	• Gentle forage treatment • Less loss due to crumbling compared to flail co ditioners
1 Conditioner intensity can be controlled by means of a counter-comb which can be adjusted to four different positions without tools	• Adaptable to a variety of conditions
2 Spring tine rotor as standard with Super C tines and tine loss protection	• Low sensitivity to foreign debris
3 Formation of a loose, well aerated swath, wide distributor optional	• Faster drying
Simple, direct drive concept	• Low weight • Easy to pull > little additional power demand
Low-wear conditioner rotor mounted	• High durability > Economy

1



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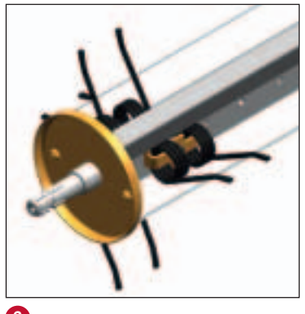

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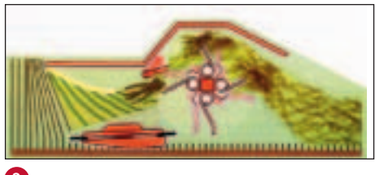

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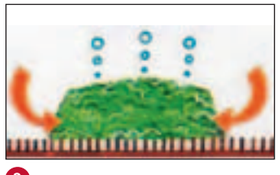
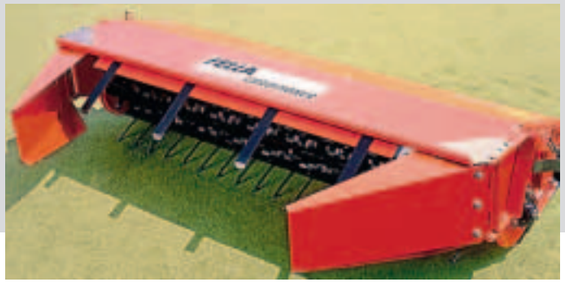


3

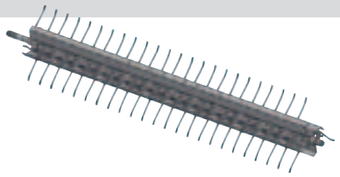
Denomination of machine	KC 275 D
Reference number	712 300 0000
Mounted to three-point linkage cat.	I/II
Pick-up width	1,73
Total width approx. m	2,32
Power demand approx. kW/hp	15/20
PTO-shaft rotation min-1	540/1000
Weight approx. kgs	398
Assembling time h	0,5

Special equipment	reference no.	
Wide spreading device for KC 275 D	712 853 0000	
Transmission shaft with overrunning clutch necessary for tractors with PTO-shaft brake, included in the delivery	712 712 0000	
Transmission shaft with overrunning clutch device necessary for tractors with PTO-shaft brake, additional delivery	712 714 0000	
Lamp holder	714 741 0000	
Contact wheel	715 575 0000	



Tine rotor-conditioner

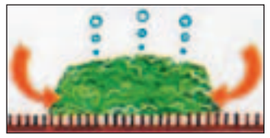
For retrofitti g
For SM 210/270/320



	Feature	Benefit
1	The forage is not crushed during conditioning; only the wax coat is removed	• Gentle forage treatment • Less loss due to crumbling compared to flail co ditioners
2	Conditioner intensity can be controlled by means of a counter-comb which can be adjusted to four different positions without tools	• Adaptable to a variety of conditions
3	Spring tine rotor as standard with Super C tines and tine loss protection	• Low sensitivity to foreign debris
4	Formation of a loose, well aerated swath, wide distributor optional	• Faster drying
	Simple, direct drive concept	• Low weight • Easy to pull > little additional power demand
	Low-wear conditioner rotor mounted	• High durability > Economy

1

2



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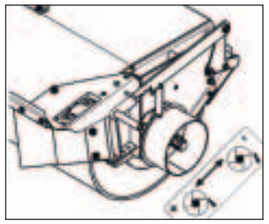

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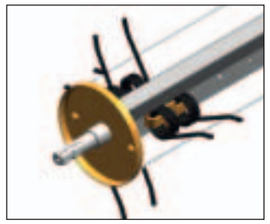

3

Denomination of machine	KC 210	KC 270	KC 320
Reference number 540 rpm	712 311 0000	712 312 0000	712 327 0000
Reference number 1000 rpm	712 321 0000	712 322 0000	712 328 0000
Power demand approx. kW/hp	12/16	15/20	18/25
PTO-shaft rotation min-1	540/1000		
Weight approx. kgs	180	223	287
Mounted time approx. h	0,5		

Roller conditioner

For retrofitti g
For SM 210 / 270

	Feature	Benefit
1	Rubber rollers have a large profile overlap s	• It is only necessary to drive the lower roller • Upper roller runs synchronously > Simple drive system
2	Upper roller is protected by a spring	• Low sensitivity to foreign debris
3	Contact pressure of the rubber profile ele ents is adjustable	• Optimum adaptation to different harvesting and weather conditions
4	Wide forage passage	• Easy flow f forage

1

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Denomination of machine	RC 211	RC 271
Reference number 540 rpm	712 335 0000	712 337 0000
Reference number 1000 rpm	712 336 0000	712 338 0000
Power demand approx. kW/hp	12/16	15/20
PTO-shaft rotation min-1	540/1000	
Weight approx. kgs	223	320
Mounted time approx. h	0,5	

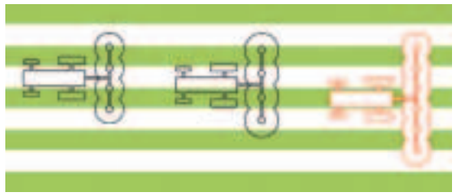
Tedders

Tedders

Combination mower - tedder

alpin-serie

well-matched combination

	TH 401 DS	TH 431 D	TH 601 D
KM 167 SM 168			
KM 187 SM 208			
KM 225, 230 FP SM 210/210 L			
SM 248			
KM 262 SM 260 FK/FP/FP-S			

Alpine tedders

3-point linkage
Rigid headstock/with follow-up device

Feature	Benefit
Drive of the individual rotors by means of hexagonal shaft and fork joints	• Uniform and reliable power train
Closed rotor heads lubricated with grease	• Insensitive to dust and dirt • Easy to maintain
Sturdy frame joints with special fla ge bushings and hardened bolts	• Refilled with g ease • Optimum ground adjustment even after many years of application
Quick attachment to the tractor with linear power curve	• Low relief of the front axle > High safety during road transport
Synchronous lift of the rotors	• Safe operation even on slopes • High stability
Standard spreading angle adjustment in 3 positions (15° - 18° - 21°)	• Application possible under different conditions
Galvanized tine support, super C spring tines	• Break-proof • Excellent adjustment to the ground contour • Protection of the sod
Rigid headstock (TH 401 DS)	
Rigid, compact headstock Cat I	• Especially for attachment to mountain tractors
Three-point linkage with follow-up device (TH 431/601 D Hydro)	
Optimum guidance on the ground due to patented, low point of pull	• Excellent follow-up behaviour • No overrunning downhill
Standard edge spreading device	• No forage losses at the edge of a fiel

Denomination of machine	TH 401 DS Hydro	TH 431 D Hydro	TH 601 D Hydro
Reference number	715 101 0000	715 110 0000	715 124 0000
Mounting Category	I+II*	I+II	
Working width approx. m	4,00	4,30	5,70
Transport width approx. m	2,33	2,44	2,70
Parking height approx. m	2,13	2,36	3,00
Rotors	4		6
Tine arms per rotor	5	6	5
Anti-tine loss protection	optional		
Tires	13/6.50-6	15/6.00-6	
Power demand approx. kW/hp	20/27	22/30	25/34
Necessary hydraulic outlets	1 x SAV		
PTO rpm	540		
PTO-shaft	overload safety clutch (radial pin clutch)		
Warning panels	standard		
Electrical lightning	optional		
Weight approx. kgs	305	385	498
Assembling time h	1,5		3,0

* optional equipment

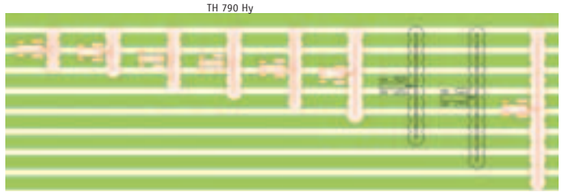
Special equipment	reference no.	
Anti-tine loss protective device (1 piece) Amount to be ordered = number of tine arms at the entire machine	715 781 0000	
Electric lighting for TH 401 DS/431/601 D Hydro	715 560 0000	
Contact wheel 13/6.50-6, for optimal adjustment to the ground, for TH 431/601 D Hydro	715 575 0000	
PTO shaft with overrunning clutch (included in the delivery), for TH 401 DS	715 773 0000	
PTO shaft with overrunning clutch (additional delivery), for TH 401 DS	715 774 0000	
PTO shaft with overrunning clutch (included in the delivery), for TH 431/601 D Hydro	715 760 0000	
PTO shaft with overrunning clutch (additional delivery), for TH 431/601 D Hydro	716 733 0000	
Attachment kit for normal tractors, for TH 431/601 D Hydro, required when attaching the tedder to a standard tractor	715 574 0000	
Attachment kit for normal tractors CAT I + II, for TH 401 DS	715 716 0000	
Spare wheel 13/6.50-6 with support, for TH 401 DS	715 586 0000	
Spare wheel 15/6.00-6 with support, for TH 431/601 D Hydro	715 587 0000	

Combination mower - tedder

well-matched combination

TH 450 D
TH 540 T
TH 540 D
TH 680 D
TH 800 Tr
TH 800 D
TH 901 Tr
TH 790
TH 790 Hy
TH 900 D
TH 1100 Hy
TH 1101 Tr
TH 1300 Hy
TH 1550 Hy
TH 1800 Hy

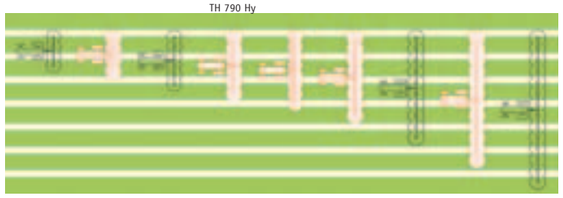
SM 248



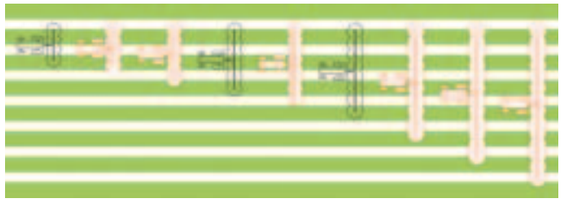
KM 262
SM 260 FK/FP/FP-S

KM 270 FP
SM 270/KC/RC

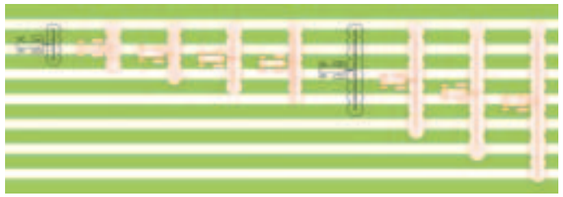
KM 286 TL
KM 292
KM 300 FP
SM 288



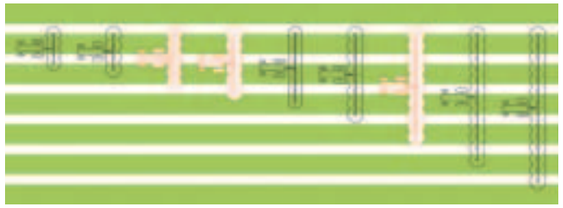
KM 310 FP/FZ
KM 310 TL
SM 310 FP/FZ
SM 310 TL
SM 311 Trans



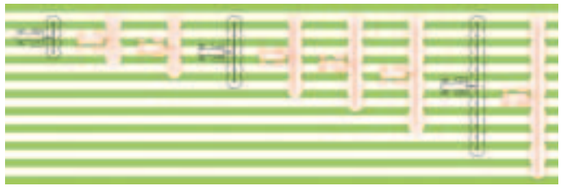
SM 313 Trans
SM 320
SM 911 TL



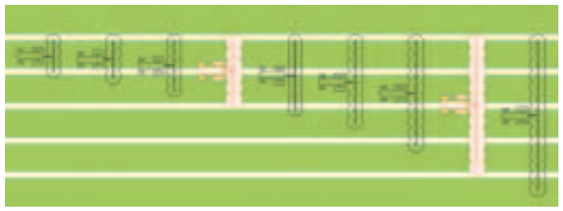
SM 350



SM 401 Trans



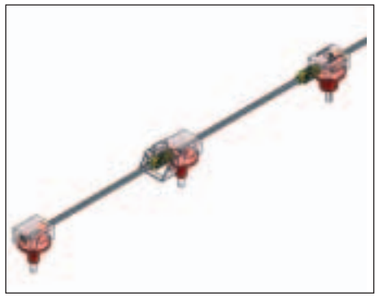
SM 420 TL



Tedders
Rotorhead

The most important features

	Feature	Benefit
1	Power-train single rotors with a hexagonal shaft and joint fork	• Steady and reliable power transmission
2	Optimal transmission ration of 1:2 in the rotor head and the hinge head	• High stability and minimization of peak torques due to hexagonal shaft in comparison to drive systems with key slots • The required tine velocity will be achieved with low motor speed > Fuel-saving > Wear-reducing > Low impact on the forage > High profitabilit
3	Largely dimensioned, induction-hardened and ground tooth flank	• Optimal power transmission to the rotors • Very smooth run • Extremely break-proof
4	Closed rotor head lubricated with grease	• Resistant against dust and dirt • Can be refilled with g ease • Maintenance-friendly
5	Thick-wall, strongly dimensioned square frame tubes in modular system	• High stability • Long service life
6	Stable frame joints with special fla ge sleeves and hardened bolts	• Very long service life • Can be refilled with g ease • Optimal adjustment to the ground even after many years in use
7	Short distance between the running wheel and the tines	• Optimal adjustment to the ground
8	Galvanized tine support, super C spring tines	• Break-proof • Very good adjustment to the ground contours • Protection of the sod > Clean forage with low portion of raw ashes



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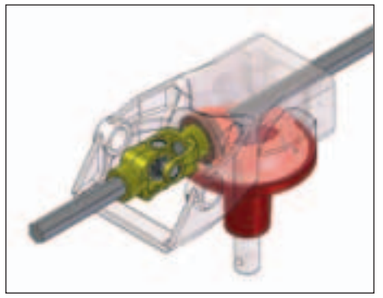

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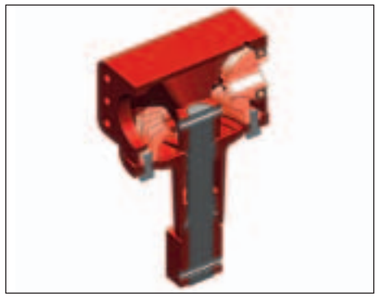

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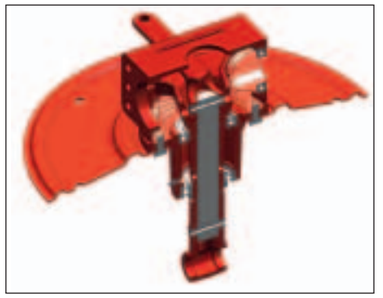

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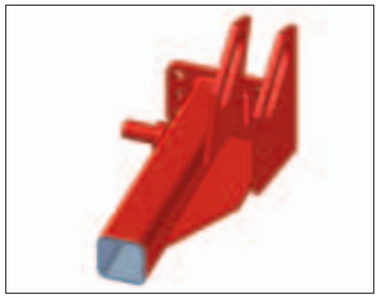

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Tedders

3-point linkage
With follow-up device

	Feature	Benefit
1	Patented traction/compression system	• Direct transmission of the machine weight to the lower control arms • Automatic centralization and immobilization when lifting the machine (***FELL*A patent**) • Smooth run of the tedder in each situation • Constant adjustment to the ground in each situation
2	Quick attachment at the tractor with linear power curve	• Low relief of the front axle > High degree of safety during road transport
3	D-shaped circular tube frame	• High stability • Long service life
4	Pendulum brake integrated in the three-point linkage	• No rocking of the tedder
5	Optimal guidance on the ground due to patented, low traction point	• Very good follow-up behavior • No risk of collisions when driving downhill
6	Synchronous lift due to pressure cylinders	• Uniform lift of the rotors in each position • Safe operation even on slopes • High stability
7	Automatic safety disconnection when lifting the rotors into transport position	• High user comfort • Protection against operational failures
8	Central edge spreading device on both sides which can be adjusted from the tractor seat (***FELL*A patent**)	• No lost of forage at f led edge • High user comfort
9	Standard spreading angle adjustment into three different positions (15° -18° -21°)	• Can be used in different types of crop


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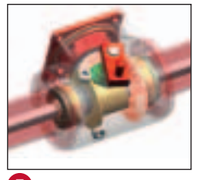
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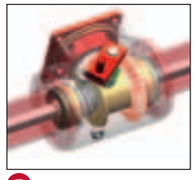
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9

Denomination of machine	TH 450 D Hydro	TH 540 D Hydro	TH 680 D Hydro	TH 800 D Hydro	TH 900 D Hydro
Reference number	715 111 0000	715 121 0000	715 126 0000	715 132 0000	715 133 0000
Mounting Category	I+II				
Working width approx. m	4,50	5,20	6,60	7,70	8,60
Transport width approx. m	2,55	2,96	2,86	3,00	2,93
Parking height approx. m	2,41	2,67	3,43	3,67	3,36
Rotors	4		6		8
Tine arms per rotor	6				
Anti-tine loss protection	standard				
Tires	16/6.50-8				6 x 16/6.50-8 2 x 18.5/8.50-8
Power demand approx. kW/hp	22/30		30/41	60/82	70/95
Necessary hydraulic outlets	1 x SAV				1 x SAV, 1 x DAV*
PTO rpm	540				
PTO-shaft	overload safety clutch (radial pin clutch)				
Warning panels	standard				
Electrical lightning	optional				
Weight approx. kgs	557	597	782	919	1080
Assembling time h	2,5		3,0	4,0	6,0

* floati g position required

Special equipment	reference no.	
Night swath gear for TH 450/540/680/800 D Hydro	715 451 0000	
Night swath gear for TH 900 D Hydro	715 453 0000	
Hydraulic edge spreading device, 1x SAV required in addition	715 736 0000	
Electric lighting to be mounted on the existent warning plates	715 565 0000	
Contact wheel 15/6.00-6 (ballon tires), for optimal adjustment to the ground, for TH 450/540/680/800 D Hydro	715 572 0000	
Contact wheel 16/6.50-8 (super ballon tires), for optimum adjustment to the ground, for TH 900 D Hydro	715 576 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Friction brake for TH 900 D Hydro, for stable driving behavior if the allocation between the mower and the tedder has not been optimally coordinated	715 578 0000	

Tedders

Pulled
With transport chassis

Feature	Benefit
Automatic steering when switching from the working position to the transport position	• High ease of operation
Synchronous lift of the rotors	• Uniform lift of the rotors in any position • High stability
Transport chassis in working position in front of the rotors, below the frame of the machine	• Chassis not in the forage throwing range • Lower load on the central rotors in comparison to the chassis tilted upward in the rear
Rotors are positioned on large rubber dampers during transport	• No load on the swivel joints
Automatic safety shutdown in transport position	• High ease of operation • Protection in case of operation errors
Standard edge spreading device on both sides	• No forage losses at the edge of a fiel • High ease of operation
Standard spreading angle adjustment in 3 positions (15° - 18° - 21°)	• Application possible under different conditions
Wide track of the transport chassis with large dimensioned tires	• Smooth road behaviour
Rotors with standard super low pressure tires (16/6.50-8); central machine 18 and/or 18.5/8.50-8	• Smooth running of the machine even on uneven ground • Protection of the sod • Excellent stability
Approved speed 40 km/h	• Low time losses when moving from one field to a other

Denomination of machine	TH 800 Trans	TH 901 Trans	TH 1101 Trans
Reference number	715 131 0000	715 130 0000	715 137 0000
Mounting Category	drawbar	II	
Working width approx. m	7,70	8,60	10,20
Transport width approx. m	3,00		
Transport length approx. m	4,48	4,40	4,78
Rotors	6	8	
Tine arms per rotor	6		
Anti-tine loss protection	standard		
Rotor tires	4 x 16/6.50-8 2 x 18/8.50-8	6 x 16/6.50-8 2 x 18.5/8.50-8	
Chassis tires	215/65-15	10.0/80-12	10.0/80-12
Power demand approx. kW/hp	30/41	40/54	
Necessary hydraulic outlets	1 x SAV	1 x DAV*	
PTO rpm	540		
PTO-shaft	overload safety clutch in the auxiliary drive (radial pin clutch)		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1237	1608	1676
Assembling time h	4,0	5,0	

* floati g position required

Special equipment	reference no.	
Night swath gear	715 451 0000	
Hydraulic edge spreading device, 1x SAV required in addition	715 729 0000	
Unilateral wide-angle drive shaft, included in the delivery	715 747 0000	
Unilateral wide-angle drive shaft, additional delivery	715 746 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Spare wheel 18/8.50-8 (hyper ballon tires) **with support,** for TH 800 Trans	716 829 0000	
1 set of **fl xible contact wheels 18.5/8.50-8,** for TH 901/1101 Trans	715 577 0000	
Pulling eye for hitch hook, for TH 800 Trans	715 737 0000	

Tedder

Pulled
Drawbar

Feature	Benefit
Coupling of the machine to a linkage drawbar or a towing hitch	• Quick and easy machine coupling • High fl xibility
Rotor tires: • External rotors 16/6.50-8 • Central rotors 18/8.50-8	• Smooth run of the machine • Protection of the sod • Excellent stability
Standard spreading angle adjustment in 3 positions (15° - 18° - 21°)	• Application possible under different conditions
Synchronous lift of the rotors	• Uniform lift of the rotors in any position • Safe operation even on slopes • High stability
Automatic safety shutdown in transport position	• High ease of operation • Protection in case of operation errors
Automatic transport lock	• High safety during road transport

Denomination of machine	TH 540 T Hydro
Reference number	715 115 0000
Mounting Category	-
Working width approx. m	5,20
Transport width approx. m	2,96
Parking height approx. m	2,67
Rotors	4
Tine arms per rotor	6
Anti-tine loss protection	standard
Tires	2 x 16/6.50-8 2 x 18/8.50-8
Power demand approx. kW/hp	22/30
Necessary hydraulic outlets	1 x SAV
PTO rpm	540
PTO-shaft	overload safety clutch (radial pin clutch)
Warning panels	standard
Electrical lightning	optional
Weight approx. kgs	555
Assembling time h	2,5

Special equipment	reference no.	
Night swath gear	715 451 0000	
Electric lighting to be mounted on the existent warning plates	715 565 0000	
Unilateral wide-angle drive shaft with overload protection (radial pin clutch), included in the delivery	715 761 0000	
Unilateral wide-angle drive shaft with overload protection (radial pin clutch), additional delivery	715 762 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Spare wheel 18/8.50-8 (hyper ballon tires) **with support**	716 829 0000	

Tedders

Pulled
Drawbar

Feature	Benefit
Coupling of the machine to a linkage drawbar, a towing hitch or a hitch hook	• Quick and easy machine coupling • High fl xibility
Rotors are automatically swiveled in the horizontal transport position during switching	• Preselected working height is maintained • High ease of operation
Adjustment of working height centrally by means of spindle	• Adjustment to different application conditions is possible
Standard spreading angle adjustment in 3 positions (15° - 18° - 21°)	• Application possible under different conditions
Rotors with standard super low-pressure tires (16/6.50-8)	• Smooth run of the machine • Protection of the sod • Excellent stability
Automatic transport lock	• High safety during road transport
Standard edge spreading device on both sides	• No forage losses at the edge of a fiel
Trailing wheels centered in the respective positions via spring brackets	• Smooth run of the machine
Mechanically folding variation (TH 790)	
Switching process via preselecting of drawbar and running wheel locking	• No hydraulic connection required
Hydraulically folding variation (TH 790/1100/1300 Hydro)	
Synchronous switching process via single-acting hydraulic cylinders	• High ease of operation

Denomination of machine	TH 790	TH 790 Hydro	TH 1100 Hydro	TH 1300 Hydro
Reference number	715 146 0000	715 147 0000	715 135 0000	715 138 0000
Mounting Category	drawbar			
Working width approx. m	7,70		10,20	12,70
Transport width approx. m	2,78			
Transport length approx. m	5,59		6,83	8,07
Rotors	6		8	10
Tine arms per rotor	6			
Anti-tine loss protection	standard			
Rotor tires	16/6.50-8			
Chassis tires	-			
Power demand approx. kW/hp	30/41		35/48	45/61
Necessary hydraulic outlets	-	1 x SAV		
PTO rpm	540			
PTO-shaft	overload safety clutch (radial pin clutch)			overload safety clutch (friction clutch)
Warning panels	optional			
Electrical lightning	optional			
Weight approx. kgs	790	890	1090	1305
Assembling time h	5,0		6,0	6,5

Special equipment	reference no.	
Warning plates set with reflecto s	715 735 0000	
Electric lighting (to be mounted on warning plates 715 735 only)	715 566 0000	
Pulling eye for hitch hook	715 737 0000	
Night swath gear for TH 790, TH 790/1100 Hydro	715 451 0000	
Night swath gear for TH 1300 Hydro	715 452 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
1 set of locking axles (2 pieces), recommended for extensive use on slopes, for TH 790	715 571 0000	

One-side wide-angle transmission shaft, recommended for mounted to hitch hook or drawbar.

Unilateral wide-angle drive shaft with overload protection (radial pin clutch), included in the delivery, for TH 790, TH 790/1100 Hydro	715 763 0000	
Unilateral wide-angle drive shaft with overload protection (radial pin clutch), additional delivery, for TH 790, TH 790/1100 Hydro	715 764 0000	
Unilateral wide-angle drive shaft with overload protection (friction clutch), included in the delivery, for TH 1300 Hydro	715 765 0000	
Unilateral wide-angle drive shaft with overload protection (friction clutch), additional delivery, for TH 1300 Hydro	715 766 0000	

Tedders

Pulled
Lower link mounting

Feature	Benefit
Synchronous switching process via double-acting hydraulic cylinders	• High ease of operation • Tractor does not have to be moved
Continuously variable adjustment of the working height via double-acting hydraulic cylinder	• Adjustment to different application conditions is possible • High ease of operation
Standard spreading angle adjustment in 3 positions (15° - 18° - 21°)	• Application possible under different conditions
Rotors with standard super low-pressure tires (16/6.50-8)	• Smooth run of the machine • Protection of the sod • Excellent stability
Automatic transport lock	• High safety during road transport
2 height-adjustable contact wheels (standard)	• Optimum adjustment to the ground
Trailing wheels centered in the respective positions via spring brackets	• Smooth run of the machine
Central rotor wheels manually lockable	• Very good suitability on slopes

Denomination of machine	TH 1550 Hydro	TH 1800 Hydro
Reference number	715 139 0000	715 140 0000
Mounting Category	II	
Working width approx. m	15,00	17,50
Transport width approx. m	2,80	
Transport length approx. m	9,05	10,30
Rotors	12	14
Tine arms per rotor	6	
Anti-tine loss protection	standard	
Rotor tires	12 x 16/6.50-8 10 PR	14 x 16/6.50-8 10 PR
Power demand approx. kW/hp	58/79	75/102
Necessary hydraulic outlets	2 x SAV	
PTO rpm	540	
PTO-shaft	overrunning clutch	
Warning panels	standard	
Electrical lightning	standard	
Weight approx. kgs	1800	2038
Assembling time h	7,0	8,0

Special equipment	reference no.	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Unilateral wide-angle drive shaft with overrunning clutch (included in the delivery)	715 776 0000	
Unilateral wide-angle drive shaft with overrunning clutch (additional delivery)	715 777 0000	

Rakes

Rakes

Rakes
Rotorhead

The most important features

	Feature	Benefit
1	Windrows will be piled on the right side (except for center rakes)	• Better ergonomics and overview since the operating elements of state-to-the-art tractors are located on the right side
2	Conical bolting of the rake unit with conical ring (not TS 5 head = TS 2000)	• Screws are not loaded with shearing effect • Perfect centering and strength > Very long service life
	Closed cam track	• Protection of the gearbox against dust and contaminations • Longer service life
3	Optimized sine-type cam track consists of high-quality, break-proof spherical cast iron	• Very smooth operation • Fast and exact lift of the tines • Ideal formation of windrows
4	The cam track can be adjusted without the use of tools	• Adaption to different conditions possible
5	Steel rollers (permanently lubricated) on roller bearings with flat co tact surface	• Reduced wear • Maintenance-free due to sealing > High service life
6	Continuous linear adjustment of the working height with the help of a crank handle	• Best raking quality and optimum adaption to the ground
7	Tangentially arranged rotor arms	• Best possible raking quality • Ideal formation of windrows > Allows higher working speed
8	Tine support with smooth leading edge	• Grass will not be winded up
9	Tube tine support enlarged to fi	• Material is not degraded • No wear between rotor arm and tine support
10	The tines are not pulled over the tube but screwed from the bottom	• Big freedom of movement of every tine • Each double tine can be exchanged individually


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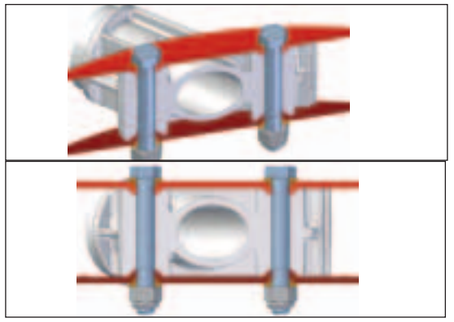
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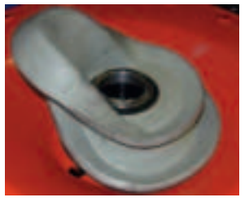
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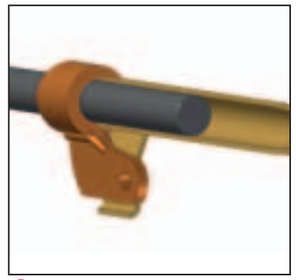
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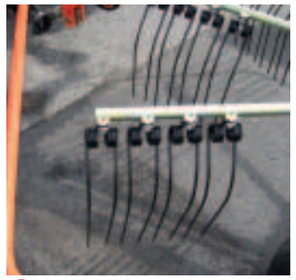
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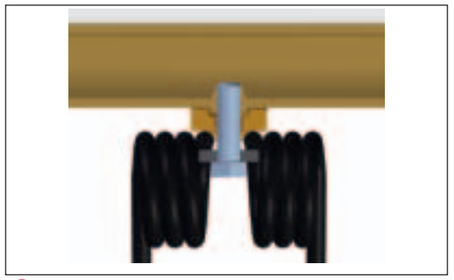
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Rakes

3-point linkage
Rigid headstock

	Feature	Benefit
1	Versatile use	• Front, Rear, Rear backwards
2	The swath is always placed on the right side of the machine in the driving direction	• Better ergonomics and overview since the operating elements of the tractors are always on the right side
3	Short headstock	• The machine is mounted very close to the tractor
4	Flexible lower control arms, optionally available, spring-centered contact wheel	• Optimum adjustment to the ground • Very good suitability on slopes
5	Adjustable transversal inclination over washers as well as large track width	• Exact adjustment to the ground • Optimum working quality
6	By default equipped with lockable swiveling wheels	• Optimum guidance when working on slopes
7	All tine supports can be removed	• Small transport and parking width
8	The removed tine supports are stored in horizontal position at the machine	• Better ergonomic working • No risk of accidents for weaker persons
9	The swath cloth can be continuously adjusted	• The swath width can be adjusted in accordance with your requirements


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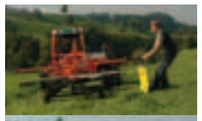


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Denomination of machine	TS 301 DS	TS 351 DS
Reference number	716 214 0000	716 223 0000
Mounting Category	I+II	
Working width approx. m	3,40	3,60
Swath width approx. m	0,60 - 1,30	0,60 - 1,50
Transport width approx. m	1,70	
Transport length approx. m	2,03	2,13
Tine arms per rotor	8	10
Double tines per arm	3	
Tires of rotor chassis	2 x 15/6.00-6	
Power demand approx. kW/hp	17/23	25/34
Necessary hydraulic outlets	-	-
PTO rpm	540	
PTO-shaft	overload safety clutch (radial pin clutch)	
Warning panels	optional	
Electrical lightning	optional	
Weight approx. kgs	330	370
Assembling time h	1,0	

Special equipment	reference no.	
Warning plates	716 778 0000	
Electric lighting, (to be mounted on warning plates 716 778 0000 only)	716 779 0000	
Contact wheel 15/6.00-6 (low-pressure tires), for optimum adjustment to the ground	715 572 0000	
PTO shaft with overrunning clutch, for rear use only, included in the delivery	716 732 0000	
PTO shaft with overrunning clutch, for rear use only, additional delivery	715 750 0000	
Spare wheel 15/6.00-6 with support	715 587 0000	
Necessary for driving backwards when mounted to the rear:		
Front mounting kit, consisting of: Contact wheel, relief spring and allround protection	716 753 0000	
Lower link attachment kit of category I + II, is recommended for the attachment to standard tractors with wide track; swath can be positioned to the right with an offset of 15 cm	716 754 0000	
Necessary for Front Application:		
Universal gear made of aluminum allow casting, suitable for 540 rpm counterclockwise as well as 1000 rpm counterclockwise and clockwise rotation; Not required for a front PTO shaft rotating clockwise with 540 rpm	716 751 0000	
Front mounting kit, consisting of: Contact wheel, relief spring and allround protection	716 753 0000	
Lower link attachment kit of category I + II, is recommended for the attachment to standard tractors with wide track; swath can be positioned to the right with an offset of 15 cm	716 754 0000	

Rakes

3-point linkage
With follow-up device

	Feature	Benefit
1	Swath is placed on the right side	• Better ergonomic position for the driver since the operating elements of modern tractors are always on the right side
2	Adjustable traversal inclination of the rotor (not applicable for TS 301 DN)	• Optimum raking
3	Wide-track chassis	• Optimum adjustment to the ground • Very good suitability on slopes
4	All tine supports can be removed	• Small transport and parking width
5	The removed tine supports are stored in horizontal position at the machine	• Better ergonomic working • No risk of accidents
6	The swath cloth can be continuously adjusted	• The swath width can be adjusted in accordance with your requirements
7	D-shaped circular tube frame	• High stability
8	Forged, fl xible lower control arms	• Very good suitability on slopes • Optimum adjustment to the ground

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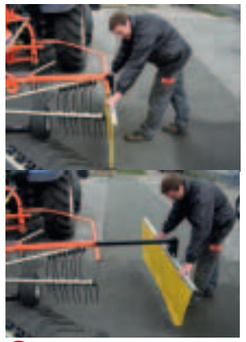

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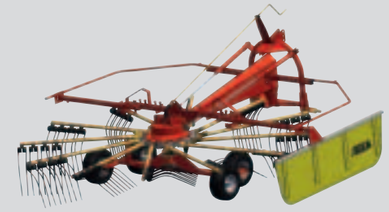
8

Denomination of machine	TS 301 DN	TS 351 DN	TS 391 DN
Reference number	716 213 0000	716 222 0000	716 227 0000
Mounting Category	I+II		
Working width approx. m	3,40	3,60	3,80
Swath width approx. m	0,60 - 1,30	0,60 - 1,50	
Transport width approx. m	1,42	1,55	
Transport length approx. m	2,00	2,21	2,31
Tine arms per rotor	8	10	
Double tines per arm	3		4
Tires of rotor chassis	2 x 15/6.00-6	2 x 16/6.50-8	
Power demand approx. kW/hp	17/23	20/27	
Necessary hydraulic outlets	-		
PTO rpm	540		
PTO-shaft	overload safety clutch (radial pin clutch)		
Warning panels	optional		
Electrical lightning	optional		
Weight approx. kgs	360	420	440
Assembling time h	1,0		

Special equipment	reference no.	
Warning plates	716 778 0000	
Electric lighting, (to be mounted on warning plates 716 778 0000 only)	716 779 0000	
Contact wheel 15/6.00-6 (low-pressure tires), for optimum adjustment to the ground	715 572 0000	
1 set of **tandem axle with wheel 15/6.00-6** (low-pressure tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 301 DN	716 762 0000	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 351/391 DN	716 765 0000	
PTO shaft with overrunning clutch, included in the delivery	716 730 0000	
PTO shaft with overrunning clutch, additional delivery	716 733 0000	
Spare wheel 15/6.00-6 with support, for TS 301 DN	715 587 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support,** for TS 351/391 DN	716 828 0000	

Rakes

3-point linkage
With follow-up device



	Feature	Benefit
1	Swath is placed on the right side	• Better ergonomic position for the driver since the operating elements of modern tractors are always on the right side
2	Adjustable traversal inclination of the rotor	• Optimum raking
3	Wide-track chassis	• Optimum adjustment to the ground • Very good suitability on slopes
4	All tine supports can be removed	• Small transport and parking width
5	The removed tine supports are stored in horizontal position at the machine	• Better ergonomic working • No risk of accidents for weaker persons
6	The swath cloth can be continuously adjusted	• The swath width can be adjusted in accordance with your requirements
7	D-shaped circular tube frame	• High stability
8	Forged, fl xible Lower control arms	• Very good suitability on slopes • Optimum adjustment to the ground

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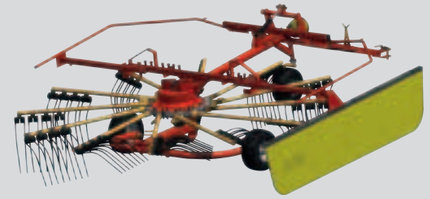
Denomination of machine	TS 400 DN	TS 426 DN	TS 456 DN
Reference number	716 228 0000	716 239 0000	716 242 0000
Mounting Category	I+II		
Working width approx. m	3,85	4,20	4,50
Swath width approx. m	0,70 - 1,55		0,75 - 1,60
Transport width approx. m	1,68	1,83	1,99
Transport length approx. m	2,34	2,58	2,68
Tine arms per rotor	10	12	
Double tines per arm	4		
Tires of rotor chassis	2 x 16/6.50-8		4 x 16/6.50-8
Tandem axle	optional		Serie
Power demand approx. kW/hp	20/27	30/41	
Necessary hydraulic outlets	-		
PTO rpm	540		
PTO-shaft	overload safety clutch (radial pin clutch)		
Warning panels	optional		
Electrical lightning	optional		
Weight approx. kgs	520	580	620
Assembling time h	1,0		1,5

Special equipment	reference no.	
Warning plates	716 778 0000	
Electric lighting, (to be mounted on warning plates 716 778 0000 only)	716 779 0000	
Contact wheel 15/6.00-6 (low-pressure tires), for optimum adjustment to the ground	715 572 0000	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 400/426 DN	716 765 0000	
PTO shaft with overrunning clutch, included in the delivery	716 731 0000	
PTO shaft with overrunning clutch, additional delivery	716 733 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	

Rake

Drawbar
1 rotor



Feature	Benefit
Swath is placed on the right side	• Better ergonomic position for the driver since the operating elements of modern tractors are always on the right side
Adjustable traversal inclination of the rotor via eccentric bolts	• Optimum raking
Wide-track chassis	• Optimum adjustment to the ground • Very good suitability on slopes
Coupling to a tractor linkage drawbar or a towing hitch	• Very easy coupling and uncoupling of the machine • Large working widths also possible with small tractors
Continuously adjustable linear working height adjustment via mechanical adjustment crank	• Optimum raking and ideal adjustment to the ground
Parallel lifting motion of the rotor due to hydraulic portal axle	• Large ground clearance
All tine supports can be removed	• All tine supports can be removed
The removed tine supports are stored in horizontal position at the machine	• Better ergonomic working • No risk of accidents for weaker persons
The swath cloth can be continuously adjusted	• The swath width can be adjusted in accordance with your requirements
Optionally available spring-centered contact wheel and tandem axle	• Optimum suitability on slopes • Ideal tracing of the ground

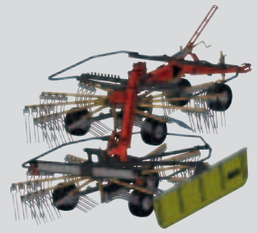
Denomination of machine	TS 425 T Hydro
Reference number	716 238 0000
Hitch type	drawbar
Working width approx. m	4,20
Swath width approx. m	0,70 - 1,55
Transport width approx. m (dismounted tine arms)	1,83
Transport length approx. m	3,46
Tine arms per rotor	12
Double tines per arm	4
Tires of rotor chassis	2 x 16/6.50-8
Power demand approx. kW/hp	30/41
Necessary hydraulic outlets	1 x SAV*
PTO rpm	540
PTO-shaft	overload safety clutch
Warning panels	optional
Electrical lightning	optional
Weight approx. kgs	540
Assembling time h	3,0

* single acting valve

Special equipment	reference no.	
Warning plates	716 778 0000	
Electric lighting, (to be mounted on warning plates 716 778 0000 only)	716 779 0000	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage	716 765 0000	
Contact wheel 15/6.00-6 (ballon tires), for optimum adjustment to the ground	716 769 0000	
Wide-angle drive shaft on one side with overload clutch, included in the delivery	716 794 0000	
Wide-angle drive shaft on one side with overload clutch, additional delivery	716 795 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	

Rakes

Drawbar
2 rotors



Feature	Benefit
Cardanic suspension of the rotors and twistable frame	• Optimal adaptation to the ground in all directions > Clean raking job
Overrunning clutch as standard and overload protection in the drive line	• Protects the power train • Low wear
Coupling to a tractor linkage drawbar or a towing hitch	• Very easy coupling and uncoupling of the machine • Large operating widths also possible with small tractors
Large-dimensioned hyper low-pressure tires 18x8.50-8	• Very smooth running during operation and transport
Parallel lifting motion of the rotor due to hydraulic portal axle	• Large ground clearance
Secondary station as a standard (TS 1502)	• For exact swaths, also at the end of the fiel
Adjustable traversal inclination of the rotors via eccentric bolts	• Exact adaptation to ground • Optimum working quality
Continuously variable hydraulic adjustment of the operating width	• High fl xibility
Positioning of 1 side swath or positioning of 2 individual swaths is standard	• Positioning of the swath is adaptable to the mass of forage
Transport width with attached tine arms less than 3 m	• Tine arms do not have to be removed for road transport

Denomination of machine	TS 1302	TS 1502
Reference number	716 116 0000	716 118 0000
Hitch type	drawbar	
Working width approx. m (one side windrow)	6,30	
Working width approx. m (two windrows)	7,00	
Swath width approx. m	0,60 - 1,90	
Transport width approx. m (mounted tine arms)	3,00	
Transport width approx. m (dismounted tine arms)	2,30	
Transport length approx. m	8,45	
Tine arms per rotor	10/10	12/12
Double tines per arm	3	4
Tires of rotor chassis	2 x 18/8.50-8 2 x 18/8.80-8	2 x 18/8.50-8 3 x 18/8.80-8
Power demand approx. kW/hp	33/45	
Necessary hydraulic outlets	1 x SAV*, 1 x DAV**	
PTO rpm	540	
PTO-shaft	wide angle, one-sided	
Overrunning clutch in the auxiliary drive	standard	
Warning panels	standard	
Electrical lightning	standard	
Weight approx. kgs	1250	1380
Assembling time h	6,0	

* single acting valve
** double acting valve

Special equipment	reference no.	
1 set of **tandem axles with wheel 18/8.50-8** (hyper ballon tires), for a smooth run and clean work at all conditions and for all types of forage, 2 sets required	716 761 0000	
Contact wheel 18/8.50-8 (hyper ballon tires) for the front rotor, for optimum adjustment to the ground	716 821 0000	
Additional **swath former** for the positioning of 2 individual swaths, recommended for large amounts of forage	716 803 0000	
Hydraulic operation for the rear swath former	716 804 0000	
Pulling eye for hitch hook	716 816 0000	
Hydraulic steering, for the delayed lift of the rear rotor, for TS 1302	716 819 0000	
Spare wheel 18/8.50-8 (hyper ballon tires) **with support**	716 829 0000	

Rakes

With transport chassis
2 rotors - lateral windrow deposition

	Feature	Benefit
1	Cardanic Suspension	• Optimal adaptation to the ground in all directions > clean raking job
2	Jet Effect	• Prevents the front tines from driving into the ground when lifting and lowering • No feed contamination
3	Rotating shaft steering with steering shaft located within the frame	• High stability • Shaft protected against damage • Precise steering even after years of service
	Overrunning clutch as standard and overload protection in the drive line	• Protects the power train • Low wear
	Adjustable longitudinal and transverse inclination of the rotors	• Exact adaptation to ground • Optimum working quality
4	Positioning of 1 side swath or positioning of 2 individual swaths is standard	• Positioning of the swath is adaptable to the mass of forage
5	Headland position with automatic height limitation	• Lifting first pa allel to ground • No need to switch off rotors in headland position • Large ground clearance
	Secondary station as a standard	• For exact swaths, also at the end of the f eld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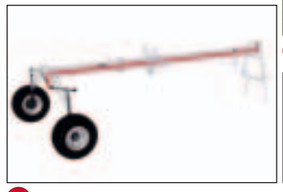
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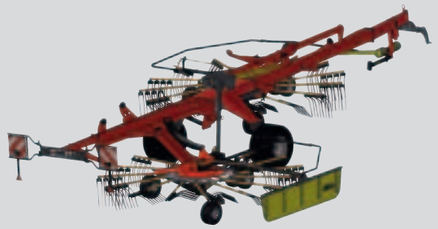
Denomination of machine	TS 1402	TS 1452	TS 1603
Reference number	716 111 0000	716 110 0000	716 114 0000
Mounting Category	I+II		
Working width approx. m (one side windrow)	6,50		7,70
Working width approx. m (two windrows)	7,00		8,40
Swath width approx. m	0,60 - 1,90		
Transport width approx. m	2,97		3,00
Transport height approx. m (mounted tine arms)	3,60		-
Transport height approx. m (dismounted tine arms)	3,30		3,65
Transport length approx. m	6,63		7,43
Tine arms per rotor	10/12	12/12	
Double tines per arm	4		4/5
Tires of rotor chassis	3 x 16/6.50-8		4 x 16/6.50-8
Tires of transport chassis	10.0/75 - 15.3		
Power demand approx. kW/hp	19/26		30/41
Necessary hydraulic outlets	1 x SAV*		
PTO rpm	540		
PTO-shaft	standard type		
Overrunning clutch in the auxiliary drive	standard		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1550	1580	2100
Assembling time h	8,0		

* single acting valve

Special equipment	reference no.	
1 ground wheel chassis TS 1402/1452 for one rotor, all 3 rotor wheels controllable, cannot be combined with tandem axle, additional delivery	716 775 0000	
1 ground wheel chassis TS 1603 for one rotor, all rotor wheels controllable, cannot be combined with tandem axle, additional delivery	716 823 0000	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 1603 (2 sets required)	716 765 0000	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 1402/1452 (2 sets required)	716 766 0000	
Additional **swath former** for the formation of 2 individual swaths, recommended for large amounts of forage	716 802 0000	
1 running wheel 11.5/80-15.3 AW for TS 1603, included in the delivery, to be ordered twice	712 856 0000	
1 running wheel 11.5/80-15.3 AW for TS 1603, additional delivery, to be ordered twice	712 855 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Wide-angle drive shaft on both sides, included in the delivery	716 789 0000	
Wide-angle drive shaft on both sides, additional delivery	716 791 0000	

Rake

With transport chassis
2 rotors - lateral windrow deposition



Feature	Benefit
Maintenance-free ball bearings at the rotor arms, huge bearing distance of 43 cm	• High stability
Double bearing of the input shaft at the rake head; profile f the power take-off shaft at the gearbox input	• Optimum power train • High stability
1 Cardanic suspension	• Optimal adaptation to the ground in all directions > Clean raking job
2 Jet effect	• Prevents the front tines from driving into the ground when lifting and lowering • No feed contamination
Overrunning clutch as standard and overload protection in the drive line	• Protects the power train • Low wear
Adjustable longitudinal and transverse inclination of the rotors	• Exact adaptation to ground • Optimum working quality
Headland position with automatic height limitation	• Lifting first pa allel to ground • No need to switch off rotors in headland position • Large ground clearance
Secondary station as a standard	• For exact swaths, also at the end of the f eld
Special folding kinematics with diagonal positioned rotors in transport position	• Transport height under 4 m • Tine arms don't have to be removed for road transport
Automatic hydraulic folding of the swath former from working in transport position	• High ease of use

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Denomination of machine	TS 2000
Reference number	716 119 0000
Mounting Category	II
Working width approx. m (one side windrow)	9,00
Working width approx. m (two windrows)	-
Swath width approx. m	0,80 - 2,20
Transport width approx. m	3,00
Transport height approx. m (mounted tine arms)	3,99
Transport height approx. m (dismounted tine arms)	3,35
Transport length approx. m	10,80
Tine arms per rotor	15/15
Double tines per arm	5
Tires of rotor chassis	2 x 16/6.50 8 2 x 18/8.50-8
Tires of transport chassis	380/55 - 17
Power demand approx. kW/hp	55/75
Necessary hydraulic outlets	1 x SAV* 1 x DAV**
PTO rpm	540
PTO-shaft	standard type
Overrunning clutch in the auxiliary drive	standard
Warning panels	standard
Electrical lightning	standard
Weight approx. kgs	2900
Assembling time h	2,5

* single acting valve
** double acting valve

Special equipment	reference no.	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Spare wheel 18/8.50-8 (hyper ballon tires) **with support**	716 829 0000	
Wide-angle drive shaft on both sides, included in the delivery	716 836 0000	
Wide-angle drive shaft on both sides, additional delivery	716 837 0000	

Rakes

With transport chassis
2-rotor central rakes

	Feature	Benefit
1	Cardanic Suspension	• Optimal adaptation to the ground in all directions • Makes for a clean raking job
2	Jet effect	• Prevents the front tines from driving into the ground when lifting and lowering • No feed contamination
3	Rotating shaft steering with steering shaft located within the frame	• High stability • Shaft protected against damage • Precise steering even after years of service
	Overrunning clutch as standard and overload protection in the driveline	• Protects the power train • Low wear
	Adjustable longitudinal and transverse inclination of the rotors	• Exact adaptation to ground • Clean raking job
4	Working-/Swath width adjustment	• 4 widths selectable (without tools) • Always lowest transport height, independent of preselected working width (***FELLA* patent**)
5	Headland position with automatic height limitation	• Lifting first pa allel to ground • No need to switch off rotors in headland position • Large ground clearance
6	Swath cloth is automatic folding	• For driving over high swaths

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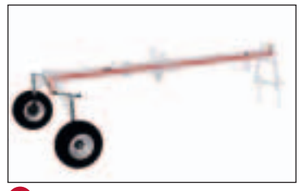

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Denomination of machine	TS 671	TS 801	TS 880
Reference number	716 104 0000	716 106 0000	716 107 0000
Mounting Category	I+II		
Working width approx. m	5,80 - 6,60	6,80 - 7,60	7,20 - 8,10
Swath width approx. m	1,20 - 1,80	1,20 - 2,00	1,20 - 2,10
Transport width approx. m	2,98		
Transport height approx. m (mounted tine arms)	3,70	-	-
Transport height approx. m (dismounted tine arms)	3,18	3,55	3,60
Transport length approx. m	4,66	5,33	
Tine arms per rotor	10/10	12/12	
Double tines per arm	4		
Tires of rotor chassis	3 x 16/6.50-8	4 x 16/6.50-8	
Tires of transport chassis	10.0/75 - 15.3		
Power demand approx. kW/hp	19/26	30/41	35/48
Necessary hydraulic outlets	1 x SAV*		
PTO rpm	540		
PTO-shaft	standard type		
Overrunning clutch in the auxiliary drive	standard		
Warning panels	standard		
Electrical lightning	standard		
Weight approx. kgs	1350	1875	1900
Assembling time h	8,0		

* single acting valve

Special equipment	reference no.	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 801/880 (2 sets required)	716 765 0000	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, for TS 671 (2 sets required)	716 766 0000	
Individual lifting device for the rotors, a total of 2 SAV required	716 774 0000	
Individual lifting device for the rotors with three-way valve, a total of 1 SAV required	716 806 0000	
1 running wheel 11.5/80-15.3 AW for TS 801/880, included in the delivery, to be ordered twice	712 856 0000	
1 running wheel 11.5/80-15.3 AW for TS 801/880, additional delivery, to be ordered twice	712 855 0000	
Flow divider, for synchronous lift of the rotors	716 817 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
Wide-angle drive shaft on both sides, included in the delivery	716 789 0000	
Wide-angle drive shaft on both sides, additional delivery	716 791 0000	

Rake

With transport chassis
2-rotor central rakes

NEW

Feature	Benefit
1 Cardanic Suspension	• Optimal adaptation to the ground in all directions • Makes for a clean raking job
2 Jet effect	• Prevents the front tines from driving into the ground when lifting and lowering • No feed contamination
3 Rotating shaft steering with steering shaft located within the frame	• High stability • Shaft protected against damage • Precise steering even after years of service
Overrunning clutch as standard and overload protection in the driveline	• Protects the power train • Low wear
Adjustable longitudinal and transverse inclination of the rotors	• Exact adaptation to ground • Clean raking job
4 6-wheel rotor chassis with • fi ed twin jockey wheel • tandem axle as standard • 18/8.50-8 tires	• Ideal adjustment to ground conditions • Even operation of the machine also in hard conditions
5 Working-/Swath width adjustment	• 4 widths selectable (without tools) • Always lowest transport height, independent of preselected working width (***FELLA* patent**)
6 Headland position with automatic height limitation	• Lifting first pa allel to ground • No need to switch off rotors in headland position • Large ground clearance
7 Swath cloth is automatic folding	• For driving over high swaths


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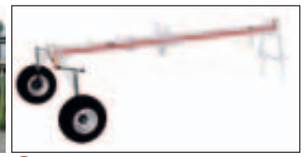
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Denomination of machine	TS 880 PRO
Reference number	716 124 0000
Mounting Category	I+II
Working width approx. m	7,20 - 8,10
Swath width approx. m	1,20 - 2,10
Transport width approx. m	2,98
Transport height approx. m (mounted tine arms)	-
Transport height approx. m (dismounted tine arms)	3,60
Transport length approx. m	5,37
Tine arms per rotor	12
Double tines per arm	4
Tires of rotor chassis	6 x 18/8.50-8
Tires of transport chassis	15.3 (11.5/80-15.3 AW)
Power demand approx. kW/hp	35/48
Necessary hydraulic outlets	1 x SAV
PTO rpm	540
PTO-shaft	standard type
Overrunning clutch in the auxiliary drive	standard
Warning panels	standard
Electrical lightning	standard
Weight approx. kgs	2000
Assembling time h	8,0

Special equipment	reference no.	
Individual lifting device for the rotors, a total of 2 SAV required	716 774 0000	
Individual lifting device for the rotors with three-way valve, a total of 1 SAV required	716 806 0000	
Flow divider, for synchronous lift of the rotors	716 817 0000	
Spare wheel 18/8.50-8 (hyper ballon tires) **with support**	716 829 0000	
Wide-angle drive shaft on both sides, included in the delivery	716 789 0000	
Wide-angle drive shaft on both sides, additional delivery	716 791 0000	

Rake

With transport chassis
4-rotor central rakes

	Feature	Benefit
1	Cardanic suspension	• Optimal adaptation to the ground in all directions • Makes for a clean raking job
2	Jet effect	• Prevents the front tines from driving into the ground when lifting and lowering • No feed contamination
3	Sturdy central tube frame with central chassis axle	• High stability • Compact transport position
4	Drawbar swivel head	• Good maneuverability
	Overrunning clutch as standard and overload protection in the drive line	• Protects the power train • Low wear
	Adjustable longitudinal and transverse inclination of the rotors	• Exact adaptation to ground • Clean raking job
5	Hydraulic adjustment of the working width	• High fl xibility
	Standard steering, synchronous lifting of the front rotors possible	• For exact swaths, also at the end of the fiel
	Headland position with automatic height limitation	• Lifting first pa allel to ground > Large ground clearance • No need to switch off rotors in headland position
	Swath cloth is automatic folding	• For driving over high swaths

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Denomination of machine	TS 4000
Reference number (hydraulic brake)	716 121 0000 (HB)
Reference number (air brake)	716 122 0000 (DB)
Mounting Category	II
Working width approx. m	12,50
Swath width approx. m	1,20 - 2,20
Transport width approx. m	2,98
Transport height approx. m (mounted tine arms)	-
Transport height approx. m (dismounted tine arms)	3,65
Transport length approx. m	8,49
Tine arms per rotor	4 x 12
Double tines per arm	4
Tires of rotor chassis	4 x 16/6.50-8
Tires of transport chassis	500/50-17
Power demand approx. kW/hp	59/80
Necessary hydraulic outlets	2 x DAV*
PTO rpm	540
PTO-shaft	standard type
Overrunning clutch in the auxiliary drive	standard
Warning panels	standard
Electrical lightning	standard
Weight approx. kgs	4200
Assembling time h	assembled

* double acting valve

Special equipment	reference no.	
1 set of **tandem axles with wheel 16/6.50-8** (super ballon tires), for a smooth run and clean work at all conditions and for all types of forage, (2 sets required), only for the 2 rear rotors	716 765 0000	
Wide-angle drive shaft on both sides, included in the delivery	716 836 0000	
Wide-angle drive shaft on both sides, additional delivery	716 837 0000	
Flow divider, for synchronous lift of the rotors	716 817 0000	
Spare wheel 16/6.50-8 10PR (super ballon tires) **with support**	716 828 0000	
2x ground wheel chassis, all rotor wheels controllable, cannot be combined with tandem axle, for rear rotors only, included in the delivery	716 824 0000	
2x ground wheel chassis, all rotor wheels controllable, cannot be combined with tandem axle, for rear rotors only, additional delivery	716 825 0000	

Notes

Notes