

OPICO LIMITED

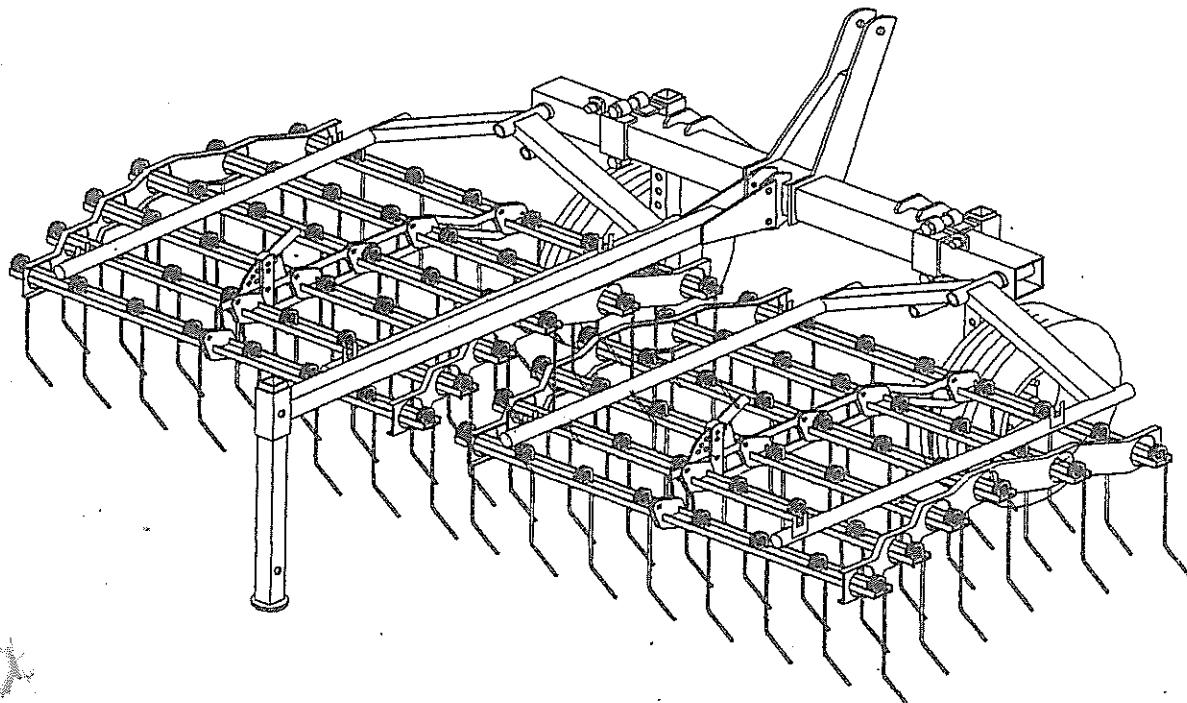
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Operating Instruction

Spring tine harrow



working width 3,00m

Quality from OPICO

OUR ADVANTAGES ARE LYING IN THE DETAIL

2000/2001



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EG-Declaration of Conformity

We, Thomas Hatzenbichler & Sohn
Fischering 2
A-9433 St. Andrä
Austria

declare that the new machine described hereafter

Make, model: Comb harrow working width m

Serial number: _____

conforms to the relevant essential health and safety requirements of the Directive 89/392/EEC.

- DIN EN 292-1, Safety of machines, tools and equipment
- DIN EN 292-2, Safety of machines, tools and equipment
- DIN EN 294, Safety of machines, tools and equipment
- DIN EN 708, Safety of agricultural machinery and soil tillage equipment
- ÖNORM V 5223, Safety of agricultural trailers
- _____
- _____



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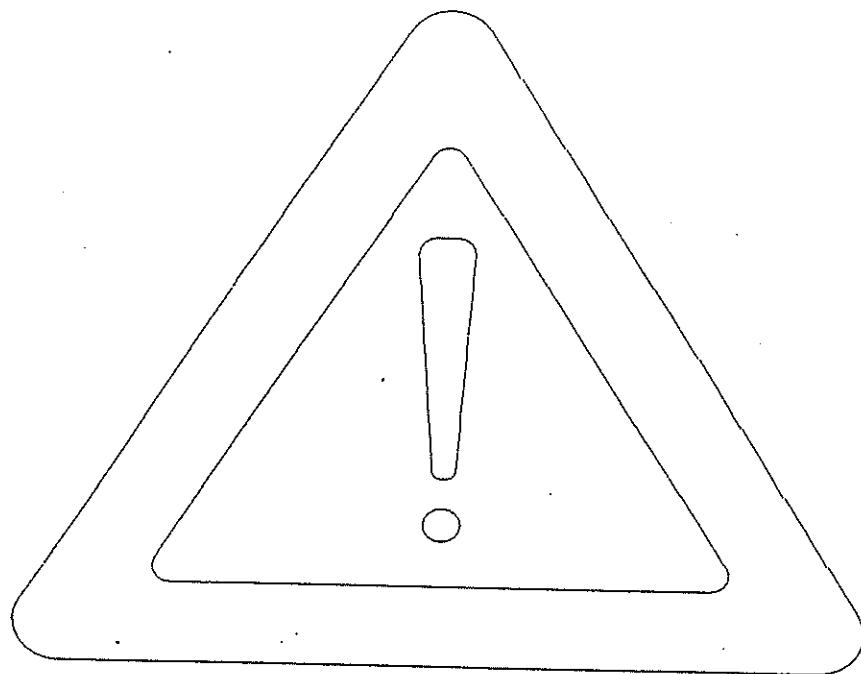
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Spring tine harrow

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ATTENTION!!! very important!!!



Safety instructions

- Do not remain in the working area of the implement
- It is prohibited to remain in the folding area of the implement during the process of folding – danger of being crushed
- Put a mechanical support to prevent the implement from lowering, if you do repair or maintenance work under the implement in the raised position on the tractor
- Riding on the implement is not allowed, either during transport or during work
- Lower the tractor linkage and machine when leaving the tractor seat (either in folded or unfolded position)

Take extra care when crossing or driving on slopes

3. Harrow assembly instructions

Assembly instructions relate to Fig. 1 below

- A. Fit the support wheels, support beam and parking stand, secure with pins
- B. Attach the tractor lower links and top link to the harrow, adjust the top link until the harrow frame is horizontal, adjust the tractor lower link stabilisers so the machine is held stable and rigid
- C. Fit the hydraulic hose coupling (hydraulic folding models only) into the tractor hydraulic service, remove the safety pin on the auto lock mechanism, pull the auto lock handle, operate the tractor spool valve to unfold wings, lower fully to the ground
NOTE: Single acting hydraulic cylinders are fitted with an accumulator pressurised at 8-10 bar (116-145 psi) when in the working position
- D. Fit the carrier forks for the harrow sections Ref. Fig. 2, securing with washer and roll pins
- E. Hang the harrow beds onto the carrier fork with chains on the outside of the carrier tube using the last chain link and secure with safety pins
- F. Fit the stabiliser bars between adjoining carrier frames, adjust so the carrier frame is horizontal and secure with safety pins. Failure to fit the stabiliser bars will result in poor machine performance and damage to the machine
- G. Raise the tractor lift arms to lift the machine clear of the ground
- H. Lift up the rear support stand and depth wheels, secure with pins
- I. Operate the tractor spool valve to fold the wings to the upright transport position. The auto lock mechanism needs to be operated every time a hydraulic model is unfolded.
- J. Re-tighten all nuts and bolts after initial use

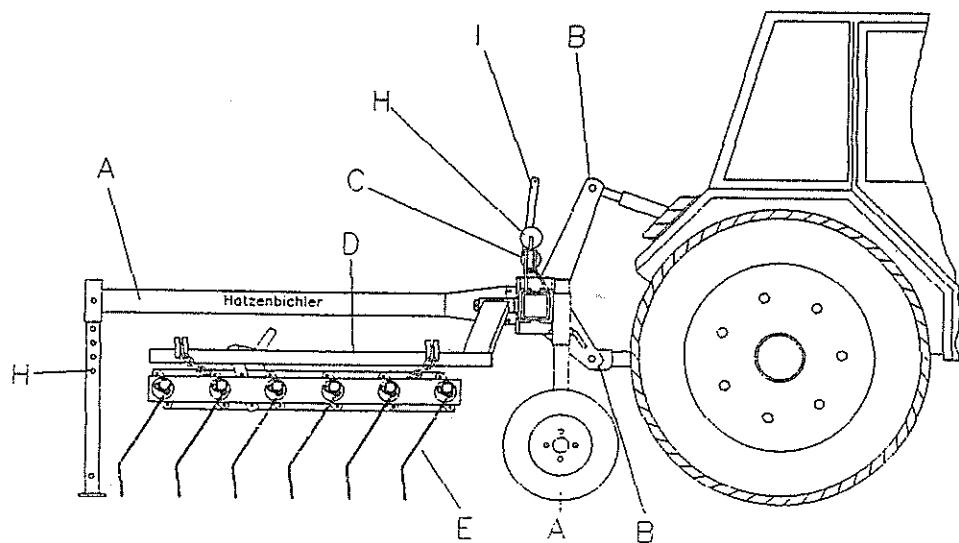
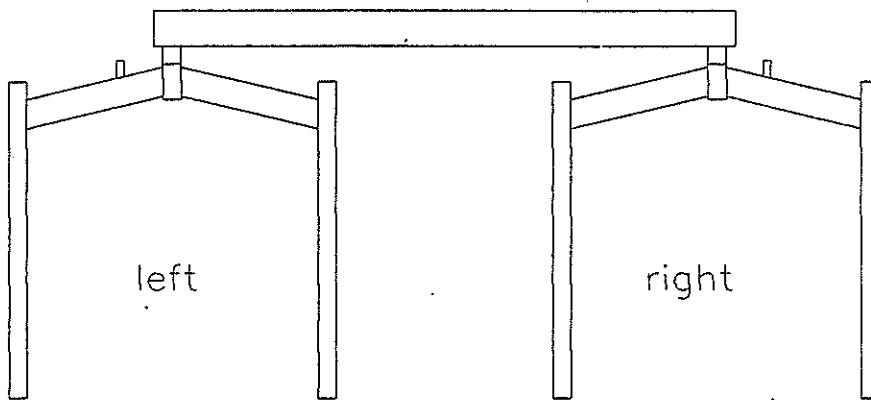


Fig. 1

Placement of carrier forks

It is important that the carrier frames are fitted in the correct position, with left and right hand forks positioned as shown in Fig. 2

If the carrier forks are incorrectly mounted the stabiliser bars will not fit or operate correctly when the machine is folded into the transport position



Spring tine harrow (working width 3m)

Fig. 2

4. Working Instructions

4.1) Basic harrow adjustments

Tine angle

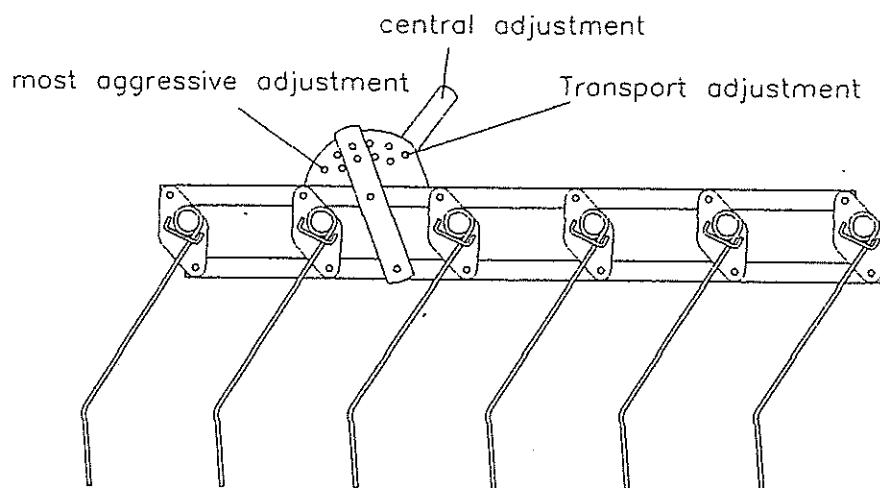


Fig. 3

1. Raise the machine clear of the ground
2. Remove the locking pin Ref. A Fig. 3 at the base of the adjusting handle
3. Operate the adjusting handle Ref. B Fig. 3 to increase / decrease the aggressiveness of the tines, there are ten possible settings. The flatter adjustment will produce less vigorous weeding than the steeper adjustment.
4. Carry out the above operation on each individual harrow bed section. (Ensure that each section is adjusted to the same setting)

Height setting

1. Park the machine on a flat area
2. Lower the machine until tine contact with the ground is made, adjust the top link to ensure the harrow bed is horizontal and tines are in even contact with the ground
3. Set the depth wheels using the locking pin to suit the required effect, this will depend on crop, soil type & moisture and operating conditions
4. The more aggressive tine setting required, the higher the wheels should be set

4.2) Work in the field

Spring tine harrow weeders can be used in a wide range of crops, including grassland, maize, winter and spring cereals, winter and spring pulses, potatoes and some vegetables crops. Different weed control strategies will be needed for different weeds, with the effectiveness of the harrow being dependent on the individual weed species present and their growth stage. Weeding timing, the number of passes and the intensity of weeding needs to be specific to the weed type present, the crop and soil conditions

4.2) Work in the field (cont)

1. Use of the spring tine harrow:

- Mechanical weed control
- Aerating the soil structure
- Activates natural nitrogen
- To maintain optimum soil condition
- Stimulating crop tillering
- Scarifying the soil surface

2. Blind Harrowing:

- Use to flush the weed bank prior to drilling this will improve crop establishment by reducing weed competition. Use immediately before or after planting to break soil cap and remove germinating weeds
- For breaking soil caps, use the strongest pressure settings

3. Grassland:

- For effective grassland management, use to rip out moss and dead thatch, open up the soil surface, improve aeration and encourage new growth. Improve manure dispersal and incorporation
- A medium to strong pressure setting should be used for a single pass in grassland, to loosen weeds, remove dead thatch and scarify the ground surface. A second pass may be required depending on conditions

4. Maize:

- Use to germinate weed seed in stale seedbeds and perform weed strikes pre drilling. Harrow pre-emergence to 'blind harrow'. Spring harrowing when maize plants are between 10-30cm
- A less vigorous, flatter setting

5. Winter Cereals:

- Use to germinate weed seed in stale seedbeds and perform weed strikes pre drilling. Weed pre-emergence & 6-7 days after sowing. When soil conditions allow, cereal crops should be autumn weeded at the 2-leaf stage (growth stage 13) onwards. Weeding in the spring should take place at the tillering stage (growth stage 22-30).
- A medium to strong pressure setting should be used for a single pass in cereals (to loosen weeds), followed by second pass at a lower pressure setting

6. Spring Cereals:

- Use to germinate seeds in stale seedbeds and perform weed strikes pre drilling. Weed pre-emergence 6-7 days after sowing. Early spring weed at the 2nd leaf stage (growth stage 13) followed up with a second weeding at tillering stage (growth stage 22-30)
- A medium to strong pressure setting should be used for a single pass in cereals (to loosen weeds), followed by second pass at a lower pressure setting

7. Field Beans:

- Use to germinate weed seed in stale seedbeds and perform weed strikes pre drilling. Early autumn or spring weeding at 8-leaf stage
- A light harrow pressure setting to minimise crop damage

8. Vegetables & Root crops:

- Pre-drilling, stale seedbed weed strikes (may knock edges of beds). Post emergence in-row weeding. Brassicas pre-emergence to germinate weed seed in stale seedbeds and perform weed strikes, three weeding passes up to 6 weeks after planting, with a maximum of 10 days gap between weeding
- A low to medium setting

4.3) Safe use of the harrow

1. Fully lower the machine to the ground, ensure the carrier fork is pressurising the harrow bed via the wear pads. Do not allow the harrow bed to operate loose, this will cause premature wear on the carrier chains and damage the machine
2. The harrow is set up correctly when the tines vibrate vigorously from side to side as the harrow moves forward. This produces the most effective weeding & scarifying action.
3. Operating speed will vary dependant on the type of work and conditions, the harrow operates best between 6-12 km/h (3.5-7.5 m.p.h)
4. The machine should be lifted clear of the ground when turning
5. Do not reverse the tractor when the machine is in contact with the ground

5. Maintenance

5.1) Daily

1. Check all frame nuts and bolts are tight
2. Check hydraulic hoses for damage
3. Check tine condition & tine bolts

5.2) Weekly

1. Lubricate all grease points on the machine
2. Maintain a maximum tyre pressure of 2.5 bar (35 psi) [16x6.50-8]
3. Check wheel nuts are tight

5.3) Storage

1. While out of use park on parking stands
2. Ensure that the tines are not under any pressure / loading and are free floating
3. Clean the machine thoroughly, and paint any bare metal
4. Check for any oil leaks on hydraulic hoses and rams
5. Grease hydraulic ram piston rod (if left unfolded)
6. Oil / grease all pivots
7. Check harrow section for wear and/or breakage

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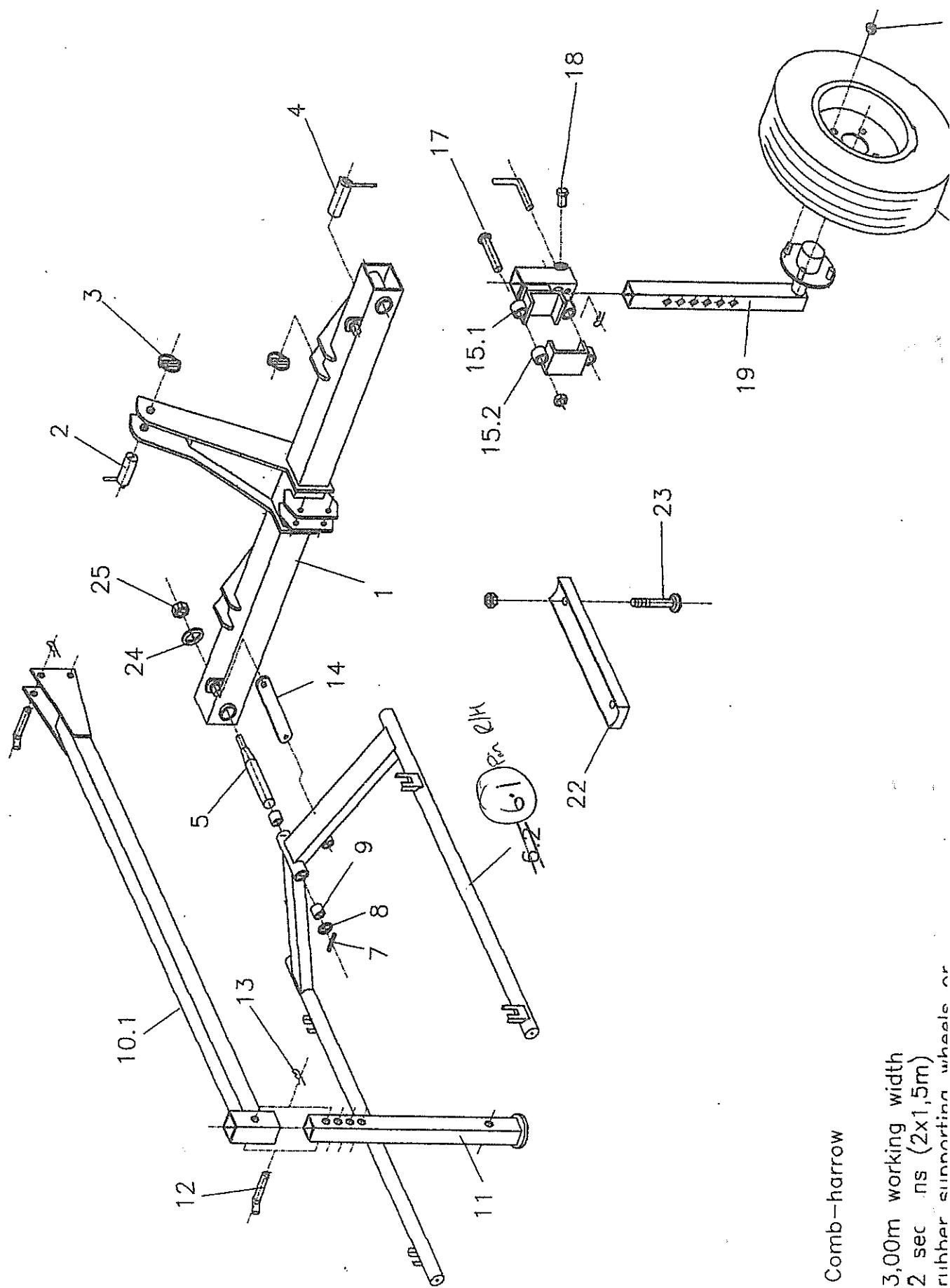
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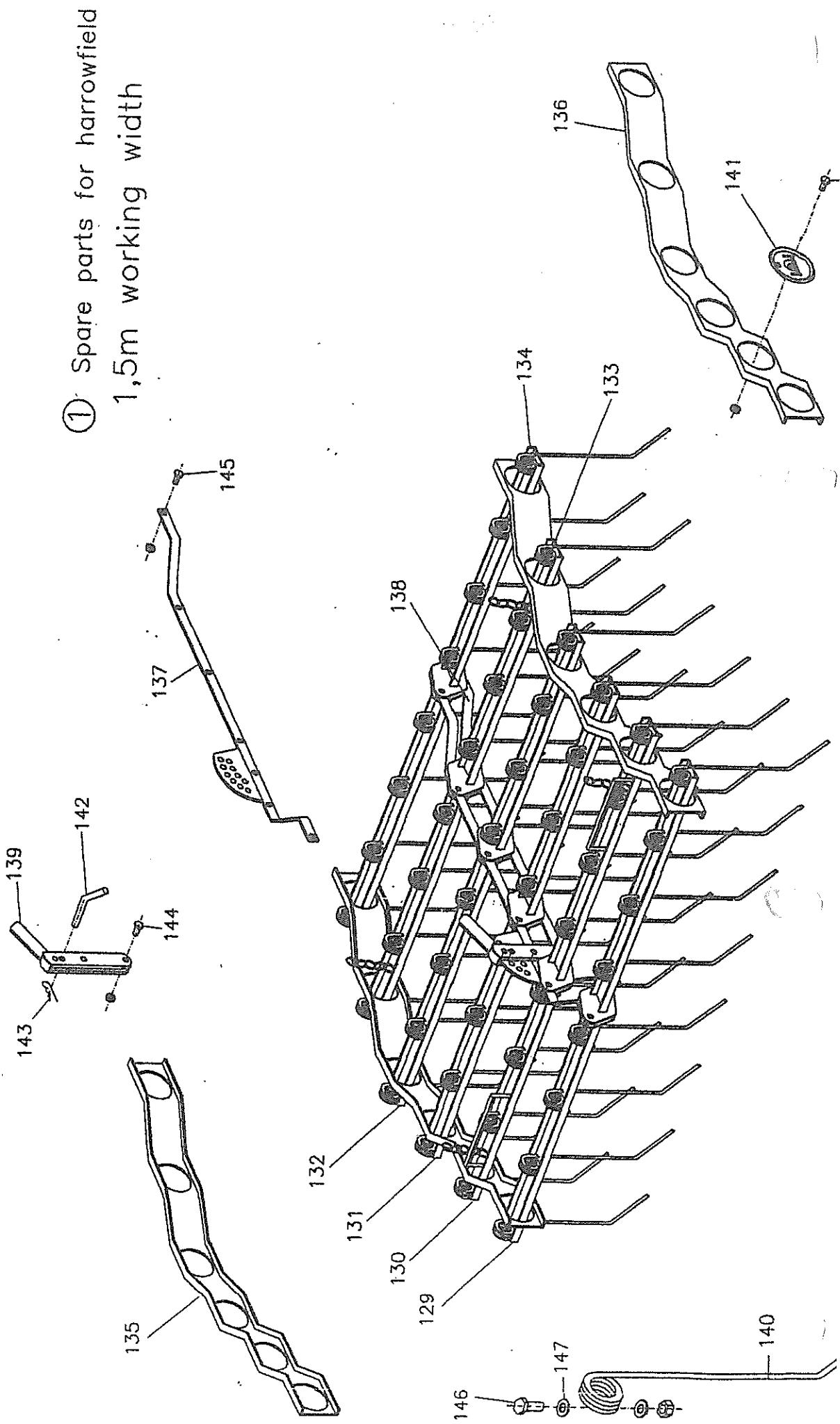
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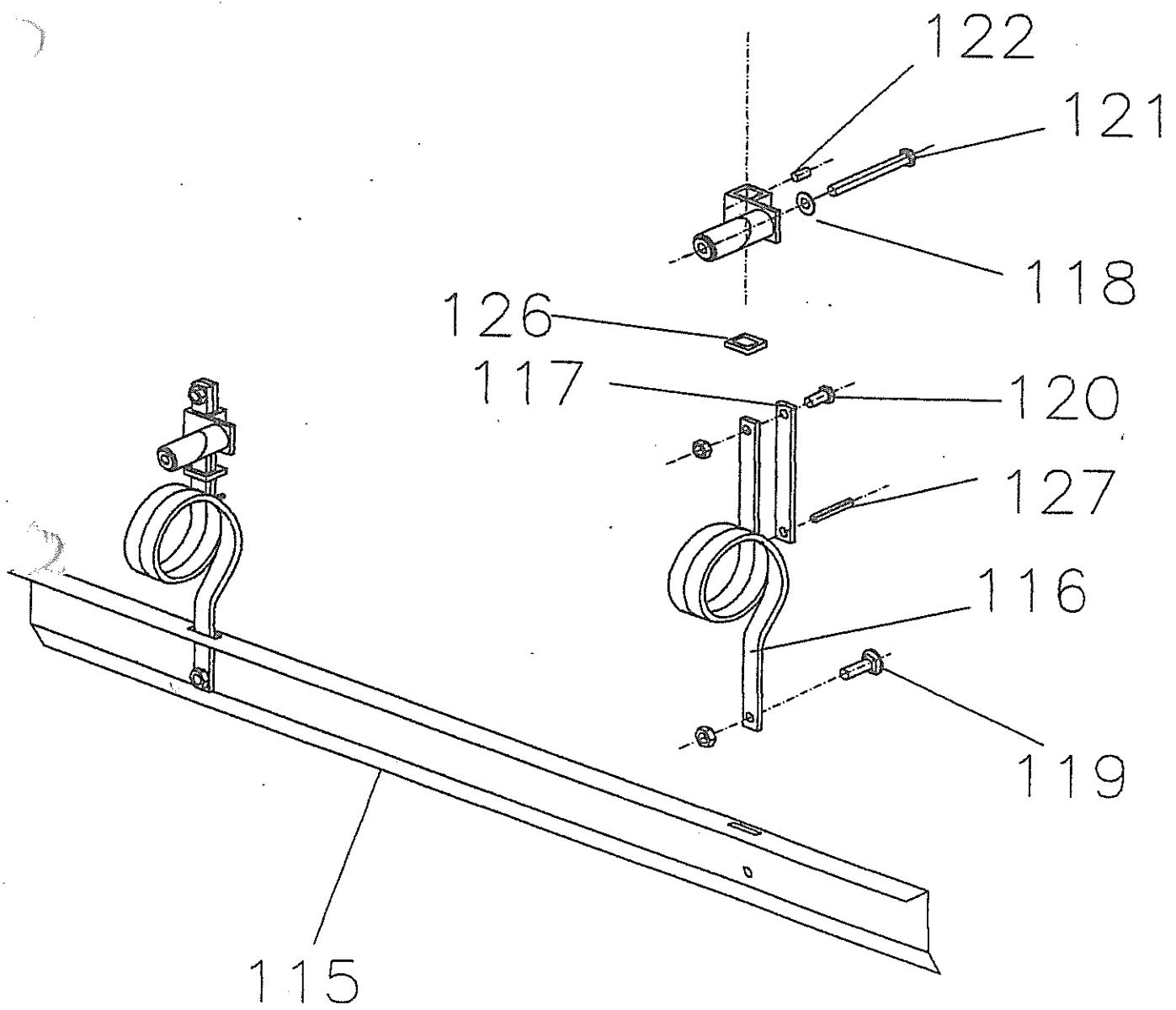
Spare part list for Harrow

for 3,00m working width





Page added to Comb Harrow working width 3-13,5m
"levelling bars" to be fitted on the carrier
for harrow section



Spare parts list for:

COMB - HARROW 1,5m to 13,5m working width

Pos. Nr.:	Art. Nr.:	Description
1	93572	centre part for 3,0m
2	9345	top link pin d=25mm w. lynch pin d=10mm
3	930225	lynch pin d=10mm
4	9346	lower link pin d=28mm w. lynch pin
5	9327	threaded pin - short (295mm), M20 w. nut
6		CARRIER FOR HARROW SECTION
6,1	93062	carrier for harrow section with pin - right
6,2	93061	carrier for harrow section with pin - left
6,3	93066	carrier for harrow section with pin - above right
6,4	93065	carrier for harrow section with pin - above left
6,5	93063	carrier for harrow section with pin right, (tree - nurseries) - above left
6,6	93064	carrier for harrow section with pin left, (tree - nurseries) - above right
6,7	93067	carrier for harrow section with stop pin
7	930222	roll pin 8x50
8	930223	washer disc A35
9	9326	glacier - bush 35x39x20
10		CARRIER FOR SUPPORT
10,1	931610	carrier for support - straight
10,2	93161	carrier for support - bent
10,3	931612	carrier for support - long f. 13,5m
11	9316	support
12	93609	pin d= 14x100 w. spring pin
13	930224	spring pin d=4mm
14	9311	flat iron 8x40
15	93202	CLAMP FOR SUPPORT WHEEL COMPL.-EXTENDED
15,1	93200	Clamp for support wheel
15,2	932001	counter clamp
16	93201	CLAMP FOR SUPPORT WHEEL COMPL.
16,1	9320111	Clamp for support wheel
17	93021	hex. bolt M16x110 w. nut
18	93022	hex. bolt M12x25
19	9315	wheel hub with rod f. rubber support wheel
20		RUBBER SUPPORT WHEEL
20,1	9313	rim with tyre 16x6,5-8
20,2	93131	wheel without rim 16x6,5-8
20,3	93132	inner tube 16x6,5-8
20,4	93125	rim for rubber support wheel 16x6,5-8
21	930226	wheel nut M12
22	9340	PVC wearing part w. nuts
23	9424TOR	cup square bolt 8x70 w. nut
24	930227	washer A20
25	93023	hex. nut M20
26	93573	centre part for 4,5m
27		SIDE ARM FOR 4,5m WORKING WIDTH
27,1	941778	side arm f. 4,5m working width right
27,2	941779	side arm f. 4,5m working width left
28	941805	folding rods for 4,5m
29	93222	folding pin threaded
30	94179	folding rods for 6m and 9m rigid
31	93610	threaded piece (quadratic) 20x20
32	93611	threaded piece (quadratic) 30x30
33	93024	hex. bolt M12x30
34	93025	hex. bolt M12x40

Spare parts list for:

COMB - HARROW 1,5m to 13,5m working width

Pos. Nr.:	Art. Nr.:	Description
35	93500	hydr. ram w. folding lock 4,5 and 5m
36	9300	FOLDING LOCK - COMPLETE f. 4,5 a. 5m on the ram
36.1	93000	lever for folding lock f. 4,5 a. 5m on the ram 25x8x400
36.2	93001	flat iron f. 4,5 a. 5m on the ram 25x8x115
36.3	93002	flat iron f. 4,5 a. 5m on the ram 30x6x100
36.4	93003	spring d=2mm, l=85mm
36.5	93026	hex. bolt M8x50 w. 2 nuts
36.6	9318S	hex. bolt M8x25 w. nut
36.7	93027	hex. bolt M8x35 w. nut
37	93205	pressure container small
38	93606	pin d=25mm, l=65mm f. hydr. folding w. cotter 6,3x50
39.1	935001	MECHANICAL FOLDING FOR COMB HARROW 4,5 AND 5m
39.2	935011	MECHANICAL FOLDING FOR COMB HARROW 6m
39.3	935002	mounting head f. mechanical folding
39.4	93028	hex. bolt M12x30 w. nut
39.5	935003	outer tube f. mec. folding, 49/49/4 l=495mm
39.6	935004	inner tube f. mec. folding, 30/30/3 l=410mm
39.7	935005	fastening f. mec. folding, thread M16x70
39.8	935006	holder for spring with tube mec. Folding
39.9	935007	spring f. mec. folding l=377mm
39.10	935008	pin d=14mm w. spring pin d=4mm
39.11	93029	adjusting bolt M16x60 w. counter nut
39.12	930210	counter nut M16
39.13	935009	pin d=25mm, l=75mm m. cotter 6,3x50
39.14	93605	pin d=25mm, l=95mm m. cotter 6,3x50
39.15	935010	holder for spring - mec. Folding
40	93574	centre part f. 5m working width
41		SIDE ARM FOR 5m WORKING WIDTH
41.1	9417710	side arm right f. 5m working width
41.2	9417711	side arm left f. 5m working width
42	941806	folding rods f. 5m
43	9302	pin d=16mm with roll pin 5x28
44	93575	centre part f. 6m
45		SIDE ARM FOR 6m WORKING WIDTH
45.1	9417712	side arm f. working width 6m right
45.2	9417713	side arm f. working width 6m left
46	941794	folding rods f. 9m rigid and 12m
47	9303	bent flat iron
48	9328	threaded pin long (330mm) w. nut M20
49	93501	hydr. ram w. folding lock (6; 7,5; 8; 9 rigid)
50	93206	pressure container - big
51	9306	FOLDING LOCK - COMPLETE f. 6m - 9m rigid on the ram
51.1	93100	lever for folding lock f. 6m - 9m rigid on ram 32x10x400
51.2	93101	flat iron f. 6m - 9m rigid on ram 32x20x145
51.3	93102	flat iron round f. 6m - 9m rigid on ram 30x6x135
51.4	93103	spring f. 6m - 9m rigid on ram d=2mm, l=85mm
51.5	93026	hex. bolt M8x50 w. 2 nuts
51.6	9318S	hex. bolt M8x25 w. nut
51.7	93027	hex. bolt M8x35 w. nut
52	93576	centre part for 7,5m and 8m working width
53		SIDE ARM FOR 7,5m working width
53.1	9417714	side arm f. 7,5m working width right
53.2	941777	side arm f. 7,5m working width left
54	93300	folding rods short f. 7,5m

Spare parts list for:

COMB - HARROW 1,5m to 13,5m working width

Pos. Nr.:	Art. Nr.:	Description
55	941793	folding rods f. 7,5m to 9m rigid, 10,5m to 13,5m working width
56	93605	pin d=25mm, l=95mm
57		SIDE ARM FOR 8m working width
57,1	9417725	side arm f. 8m working width left
57,2	9417726	side arm f. 8m working width right
58	93301	folding rods short f. 8m
59	93577	centre part f. 9m working width, rigid
60		SIDE ARM FOR 9m working width, rigid
60,1	941772	side arm f. 9m working width right, rigid
60,2	941771	side arm f. 9m working width left, rigid
61	93578	centre part f. 9m working width, scissors folding
62		SIDE ARM FOR 9m working width, SCISSORS FOLDING, inner part
62,1	941773	side arm f. 9m working width, sciss. left (inner part)
62,2	941774	side arm f. 9m working width, sciss. right (inner part)
63		SIDE ARM FOR 9m working width, SCISSORS FOLDING, outer part
63,1	941775	side arm f. 9m working width left, outer part, scissors folding
63,2	941776	side arm f. 9m working width right, outer part, scissors folding
64	93400	folding rods - bent f. 9m scissors folding
65	93607	bolt w. safety device 30x200 w. thread M20
66	93405	holder for 2 way valve
67	934051	HOLDER FOR 2 WAY VALVE
67,1	934052	holder for manometer (single acting ram)
67,2	934053	holder for manometer (double acting ram)
68	930212	hex. bolt M12x30 w. nut
69	930214	hex. bolt M12x30
70	934054	2 way valve with lock
71		HYDR. RAM W. FOLDING LOCK (SCISS.)
71,1	93502R	hydr. ram w. folding lock (sciss.) right
71,2	93502	hydr. ram w. folding lock (sciss.) left
72	935041	FOLDING LOCK 9-13,5m working width SCISSORS FOLDING COMPLETE
72,1	935042	lever for folding lock - bent, 9-13,5m sciss. on ram
72,2	935043	flat iron round 9-13,5m sciss. on ram, 30/6/150
72,3	935044	flat iron 9-13,5m sciss. on ram 32/10/145
72,4	935045	spring 9-13,5m sciss. on ram d=2mm, l=85mm
72,5	93026	hex. bolt M8x50 w. 2 nuts
72,6	93027	hex. bolt M8x35 w. nut
72,7	9318S	hex. bolt M8x25 w. nut
73	93600	CLAMP FOR SUPPORT WHEEL COMPL. - SCISSORS FOLDING
73,1	936001	clamp for support wheel - scissors folding
73,2	936002	counter clamp - scissors folding
74	93700	rods f. folding the wheels - adjusting piece f. 9m
75	93701	rods f. folding the wheels - inner part bent f. 9m
76	930213	hex. bolt M12x40 w. nut
77	93706	mounting head f. foldable support wheel
78	93800	rods for scissors folding f. 9m
79	93801	flat iron piece - bent f. scissors folding
80	93802	flat iron piece 40/6/200
81	930211	hex. bolt M12x50 w. nut
82	930215	hex. bolt M12x40 w. nut
83	930214	hex. bolt M12x20
84	930216	hex. bolt M12x40 w. nut
85	93579	centre part f. 10,5m working width
86		SIDE ARM FOR 10,5m working width INNER PART
86,1	9417715	side arm f. 10,5m working width left, inner part

4

Spare parts list for:

COMB - HARROW 1,5m to 13,5m working width

Pos. Nr.:	Art. Nr.:	Description
86,2	9417716	side arm f. 10,5m working width right, inner part
87		SIDE ARM FOR 10,5m working width OUTER PART
87,1	9417717	side arm f. 10,5m working width left, outer part
87,2	9417718	side arm f. 10,5m working width right, outer part
88	93803	rods for scissors folding f. 10,5m
89	93302	folding rods short f. 10,5m
90	93403	folding rods - bent f. 10,5m
91	93151	wheel hub with rod
92		rim with tyre (18 x 8,5)
92,1	93133	rubber support wheel w. rim 18x8,5-8
92,2	93136	wheel without rim 18x8,5-8
92,3	93137	inner tube 18x8,5-8
92,4	93138	rim f. rubber support wheel 18x8,5-8
93	93702	rods f. folding the wheels - inner part bent f. 10,5m
94	93703	rods for folding the wheels, adjustment part 10,5m
95	935710	centre part f.12m working width
96		SIDE ARM FOR 12m working width INNER PART
96,1	9417719	side arm f. 12m working width left, inner part
96,2	9417720	side arm f. 12m working width right, inner part
97		SIDE ARM FOR 12m working width OUTER PART
97,1	9417721	side arm f. 12m working width left, outer part
97,2	9417722	side arm f. 12m working width right, outer part
98	93304	folding rods short f. 12m
99	93704	rods f. folding the wheels - inner part bent f.12m
100	93705	rods f. folding the wheels, adjustment part f. 12m
101	93804	rod for scissors folding f. 12m
103	9417732	folding pin, treated with attachment for folding rods
106	93900	bracket for parallelogram behind
107		BRACKET FOR PARALLELOGRAM FRONT
107,1	93901	bracket for parallelogram front with pin right
107,2	93902	bracket for parallelogram front with pin left
107,3	93903	bracket for parallelogram with pin above right
107,4	93904	bracket for parallelogram with pin above left
108		SUPPORT FOR PARALLELOGRAM
108,1	93905	support for parallelogramm short
108,2	939051	support for parallelogramm long
109		HYDRAULIC RAM CYLINDER
109,1	93906	hydraulic ram cylinder short
109,2	939061	hydraulic ram cylinder long
110	93907	glacier bush
111	93908	distance tube
112	930217	hex bolt M12x100 with nut
113	930218	hex bolt M12x80 with nut
114	93909	manometer
115		LEVELLING BAR
115,1	9353	levelling bar 1,5m
115,2	9354	levelling bar 2m
116	93931	levelling bar spring
117	93932	support for spring
118	93933	clamp for spring
119	9424TOR	cup square bolt M8x30 w. nut
120	9316S	hex. bolt M8x30 w. nut
121	930219	hex. bolt M12x30
122	930220	threaded piece

Spare parts list for:

COMB - HARROW 1,5m to 13,5m working width

Pos. Nr.:	Art. Nr.:	Description
123		SIDE ARM FOR 13,5m working width INNER PART
123,1	9417723	side arm f. 13,5m working width left, inner part
123,2	9417724	side arm f. 13,5m working width right, inner part
124	93805	rods for scissors folding f. 13,5m
125	93571	centre part for 1,5m and 2m
126	93004	roll pin
127	930221	roll pin 6x25
128	93005	flat iron bent

Spare part list for:

Spare parts for harrowfield

Pos. No.:	Art. Nr.:	Position
129		TINE PROFILE WITHOUT TINE 1,5m WORKING WIDTH; 1.1
129,1	932016	tine profile without tine 1,5m working width; 1.1
129,2	933016	tine profile without tine 2,0m working width; 1.1
130		TINE PROFILE WITHOUT TINE 1,5m WORKING WIDTH; 1.2
130,1	932116	tine profile without tine 1,5m working width; 1.2
131,1	933116	tine profile without tine 2,0m working width; 1.2
131		TINE PROFILE WITHOUT TINE 1,5m WORKING WIDTH; 1.3
131,1	932216	tine profile without tine 1,5m working width; 1.3
131,2	933216	tine profile without tine 2,0m working width; 1.3
132		TINE PROFILE WITHOUT TINE 1,5m WORKING WIDTH; 1.4
132,1	932316	tine profile without tine 1,5m working width; 1.4
132,2	933316	tine profile without tine 2,0m working width; 1.4
133		TINE PROFILE WITHOUT TINE 1,5m WORKING WIDTH; 1.4
133,1	932416	tine profile without tine 1,5m working width; 1.4
133,2	933416	tine profile without tine 2,0m working width; 1.4
134		TINE PROFILE WITHOUT TINE 1,5m WORKING WIDTH; 1.4
134,1	932516	tine profile without tine 1,5m working width; 1.4
134,2	933516	tine profile without tine 2,0m working width; 1.4
135	93203	side profil f. harrow field left
136	932031	side profil f. harrow field right
137	932013	flat iron w. punch
138	932113	flat iron without punch
139	9362	lever f. harrow field
140		COMB HARROW TINE
140,1	9309360	comb harrow tine 6mm, l=360mm
140,2	9309380	comb harrow tine 6mm, l=380mm
140,3	93091	comb harrow tine 6mm, l=500mm
140,4	9312	comb harrow tine 7mm, l=450mm
140,5	93391	comb harrow tine 7mm, l=500mm
140,6	93392	comb harrow tine 7mm, l=700mm
140,7	9310380	comb harrow tine 8mm, l=380mm
140,8	9310	comb harrow tine 8mm, l=450mm
140,9	9310500	comb harrow tine 8mm, l=500mm
140,10	9310STROH	comb harrow tine 8mm, straight "straw"
141	93204	washer disc f. harrow field bearings
142	936011	pin d=10mm, spring pin d=4mm
143	936012	spring pin d=4mm
144	930228	hex. bolt M10x35 w. nut
145	930229	hex. bolt M10x30 w. nut
146	9309S	hex. bolt M8x25 w. disc a. nut
147	930230	washer disc A8
148		HARROW FIELD EXTENSION LEFT
148,1	93081	harrow field extension left without tine
148,2	930810	harrow field extension left, 6mm tine
148,3	930812	harrow field extension left, 7mm tine
148,4	930814	harrow field extension left, 8mm tine
149		HARROW FIELD EXTENSION RIGHT
149,1	93082	harrow field extension right without tine
149,2	930811	harrow field extension right, 6mm tine
149,3	930813	harrow field extension right, 7mm tine
149,4	930815	harrow field extension right, 8mm tine
150		HARROW FIELD COMPLETE
150,1	93041	harrow field 1,5m without tine
150,2	9304	harrow field 1,5m, 6mm tine

Spare part list for:

Spare parts for harrowfield

Pos. No.:	Art. Nr.:	Position
150,3	9336	harrow field 1,5m, 7mm tine
150,4	93361	harrow field 1,5m, Vertikatorzinken
150,5	93051	harrow field 1,5m, 8mm tine
150,6	9305	harrow field 1,5m, 8mm straw tine
150,7	9307	harrow field 2,0m, 6mm tine
150,8	9338	harrow field 2,0m, 7mm tine
150,9	9308	harrow field 2,0m, 8mm tine
151		CHAIN FOR HARROW FIELD
151,1	932020	chain for harrow field 9 chain links
151,2	932021	chain for harrow field 7 chain links