



*Operating Instructions
Declaration of Conformity
Spare Parts List*

*Culti-Pakker
1.5 m / 3.0 m / 4.0 m (rigid)
4.0 m (hydraulic)*



Important: Before using the machine, please study the Operating Instructions thoroughly to ensure that you are familiar with the safety instructions.



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DS/EN 45 014

Declaration of Conformity

HE-VA ApS
N. A. Christensensvej 34,
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declares under sole responsibility that the product:

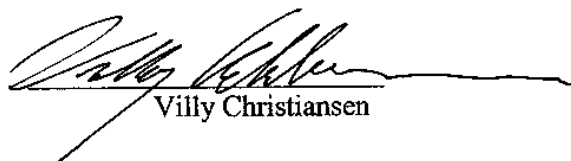
Culti-Pakker

1.5 / 3.0 / 4.0 m (rigid)
and
4.0 m (hydraulic)

No.: _____

to which this declaration relates is in conformity with the provisions of
98/37/EC (Machinery) with later Amendments

Nykøbing Mors, 3 August 2006

A handwritten signature in black ink, which appears to read "Villy Christiansen", written over a horizontal line.

Villy Christiansen

Delivery Check

Upon delivery to the dealer/supplier as well as to the customer, check the Culti-Pakker for possible damages.

Machine Description

Range of Application

The Culti-Pakker is a front-mounted packer for land packing in connection with preparation of the seedbed and seeding with combi-harrow, rotor-harrow, tine rotary cultivator etc. The Culti-Pakker may be applied on all types of soil. However, is it most suitable for loose soil types where the roller has a good carrying capacity, but is suitable for medium-heavy and heavy soil types too.

The Culti-Pakker is mounted in the Front-lift of the tractor. If the Front-lift is equipped with double-acting hydraulics, it is possible to transfer weight from the tractor onto the Culti-Pakker. In order to achieve optimum control in connection with the transfer of the weight from the tractor to the packer, the Front-Lift should be equipped with spring suspension in order to achieve a flexible connection between the tractor and the packer. Furthermore, the tractor should be with four-wheel drive.

As extra equipment, the Culti-Pakker may be equipped with Front-Harrow or Spring-Board as well as carriers for additional weights.

Technical specifications

	1.5m	3.0m	4.0m	4.0m hydr.
Working width	1.50m	3.00m	4.00m	4.00m
Total width	1.75m	3.15m	4.25m	4.30m
Transport width	1.75m	3.15m	4.25m	2.75m
Length	1.68m	1.68m	1.68m	1.68m
Height folded.....				2.05m
Weight (empty) w/o/ extra equipm.	665kg	935kg	1180kg	1410kg
Weight (w/water) w/o/ extra equipm.	1085kg	1775kg	2300kg	2390kg
Additional weight Front-Harrow	158kg	177kg	254kg	275kg
Additional weight Spring-Board.....	185kg	205kg	260kg	460kg
Maximum weight transfer from tractor.....				800kg
Noise level.....				under 70 dB (A)
Oil outlet			1 double-acting	on 4.0m hydr.
Oil outlet for Spring-Board.....		1 double-acting	at the front of the tractor	

Culti-Pakker complies with DS/ISO 8759/2, Front – Three-point suspension (Category 2).

Distance between the lift arms (balls) is 825 mm.

Operating Instructions

Start-up

Culti-Pakker

The roller is filled up with water until the desired weight is obtained.

The length of the top link is to be adjusted so that the machine is horizontal in working position.

In sharp turns, e.g. in connection with turning at the ends and reversing, the Culti-Pakker shall be lifted.

When the packer is mounted in a HE-VA Front-Lift with spring suspension, the following applies:

When transferring weight from the tractor onto the Culti-Pakker, you will get the best combination of packing and control when the Front-lift manometer shows 35-60 bar (depending on the weight of the tractor).

Front-Harrow

Before adjusting the working depth, make sure that the Culti-Packer runs horizontally. The two spindles shall be synchronised, i.e. one spindle may as a maximum be turned 5 turns before the other spindle is turned the corresponding number of turns in the same direction. For each turn of the handle, the front-harrow is lifted/lowered 5 mm.

Spring-Board

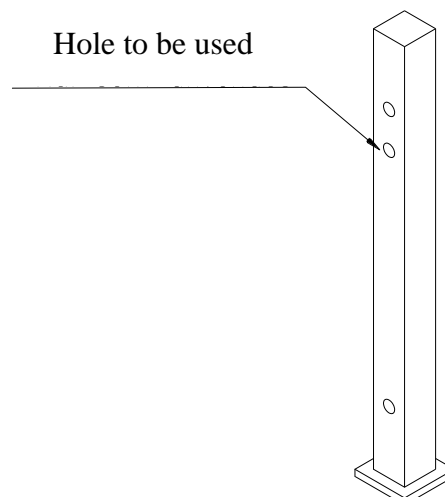
The Spring-board requires a double-acting oil outlet at the tractor. The tine angle is hydraulically controlled from the driver's cab and the depth control is made manually. The tines work independent of each other, however, they may be connected by means of a transverse locking system (extra equipment), if a greater levelling effect is required. The change-over is made easily and quickly without any tools.

Uncoupling and coupling

The Culti-Pakker is equipped with supporting legs which shall be lowered when the machine is uncoupled.

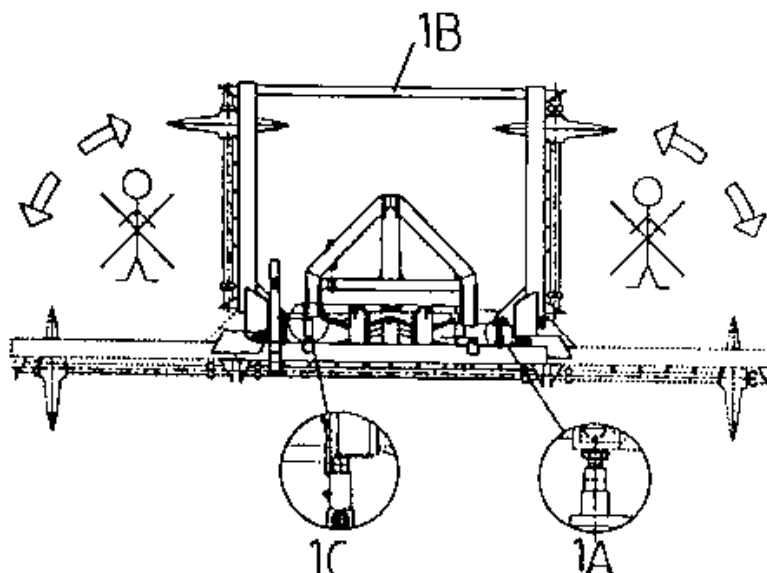
Before uncoupling, a possibly mounted Spring-Board shall be lifted and the hydraulic system is to be de-pressurized.

Furthermore, the Front-Harrow shall be lifted so that the weight of the Culti-Packer does not rest on the tine of the harrow but on the supporting legs.



Transport (hydraulic model)

For transport, the wing sections are to be lifted. The bolts at the cylinders are to be adjusted so that the wing sections are vertical (fig. 1A). Hereafter, the mechanical locking bar (fig. 1B) is to be mounted for reasons of failure in the hydraulic system. Moreover, the built-in transport lock shall be locked, to prevent the packer from swaying around during transport (fig 1C).



Lubrication

Culti-Pakker

For lubrication, maintenance and repair, the tractor shall be braked and the motor stopped. The Culti-Pakker is to be lowered or supported properly so that the packer cannot fall in event of failure in the Front-lift's or the tractor's hydraulic system. For lubrication of the hydraulic Culti-Pakker, the wing sections have to be lowered or the mechanical locking bar has to be mounted in lifted state (see the above fig. 1B).

The 1.5 – 4.0 m (rigid) Culti-Pakkers have four lubrication points, and the 4.0 m hydr. Culti-Pakker has 14 lubrication points. All Culti-Pakkers shall be lubricated after every 10 working hours as well as after the cleaning in order to press out any water and dirt. The lubrication points are located at ball bearings, supporting rollers and cylinders.

Note!

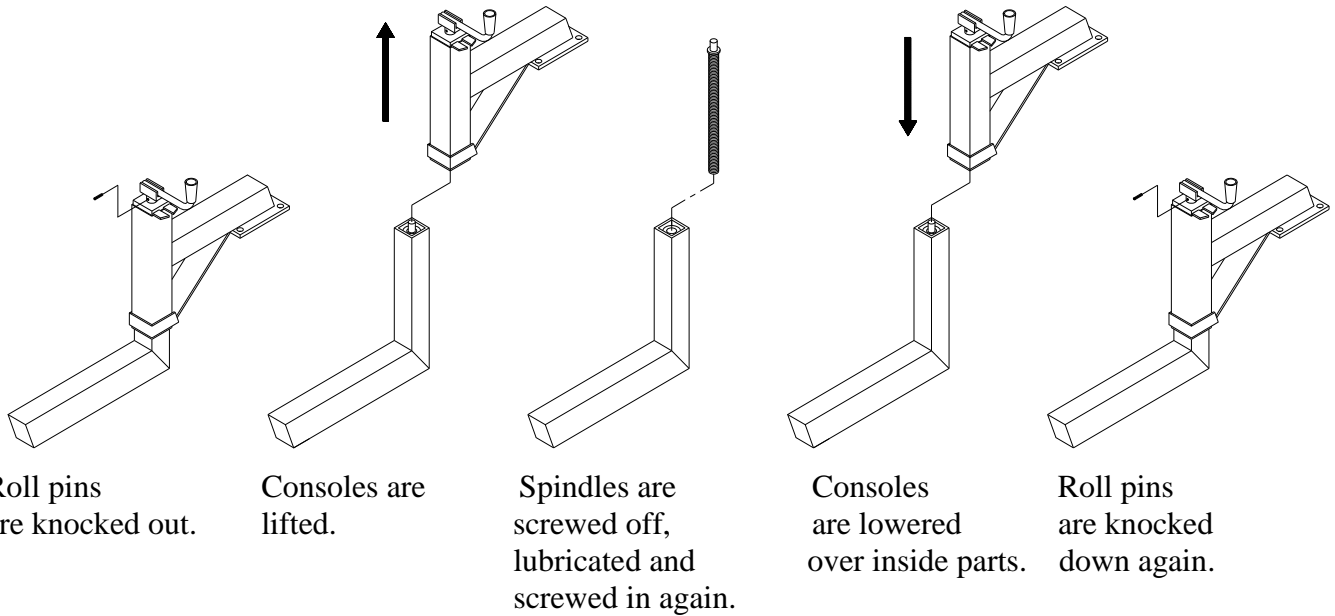
The double-sealed ball bearings should only be lubricated by 1-2 strokes so that the sealing rings are not pressed out.

Front-Harrow

The Front-Harrow's spindles are not equipped with lubrication nipples. Once a year, e.g. when the season is over and the machine is stored for the winter, the spindles should be dismantled and lubricated with ball bearing grease.

Note!

Before dismantling the front-Harrow, the harrow points should rest on the support, otherwise the harrow will fall down when the roll pins are knocked out.



Maintenance

The entire machine

After the first 10 hours of operation, tighten up all bolts.

Further check on a regular basis that all bolts are tightened.

Before the winter storage, wash and lubricate the machine. If you use high-pressure cleaner, do not spray directly on the ball bearing. After the washing, you may spray the machine with oil.

Important!

In order to avoid cold busting in the roller it has to be emptied of water before winter storage.

Scrapers

Check and adjust the scrapers regularly in relation to wear on the scrapers.

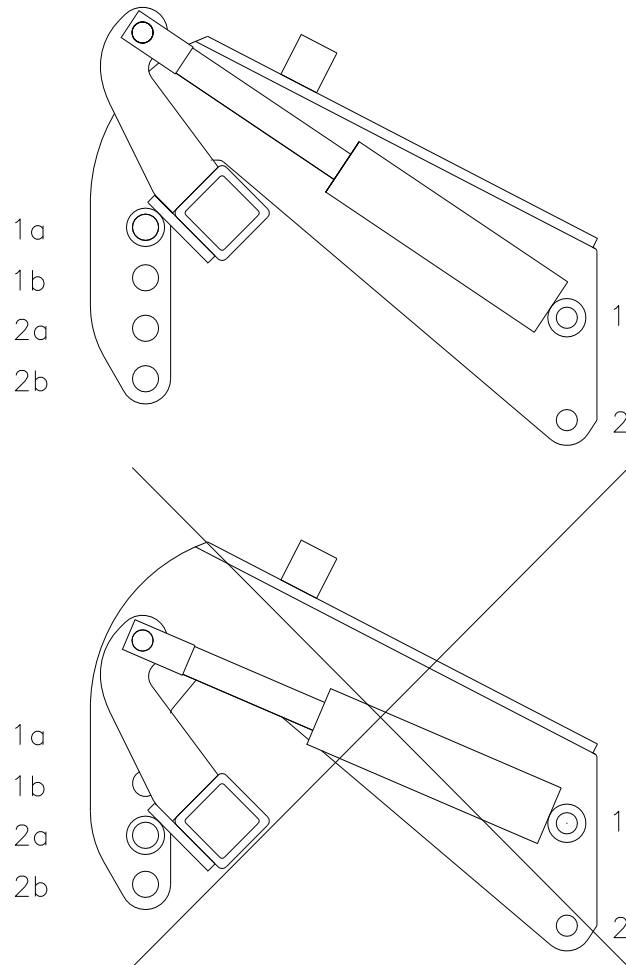
Front-Harrow/Spring-Board

Turn/replace the points before the harrow tines show signs of wear.

Spring-Board

Mounting of Cylinder on Spring-Board

The hydraulic cylinder is mounted as shown in the below figure. It is important to have the cylinder correctly mounted in order to get the correct moment on the cylinder. In the Culti-Pakker the cylinder is placed in hole 1 and hole 1a or hole 1b.

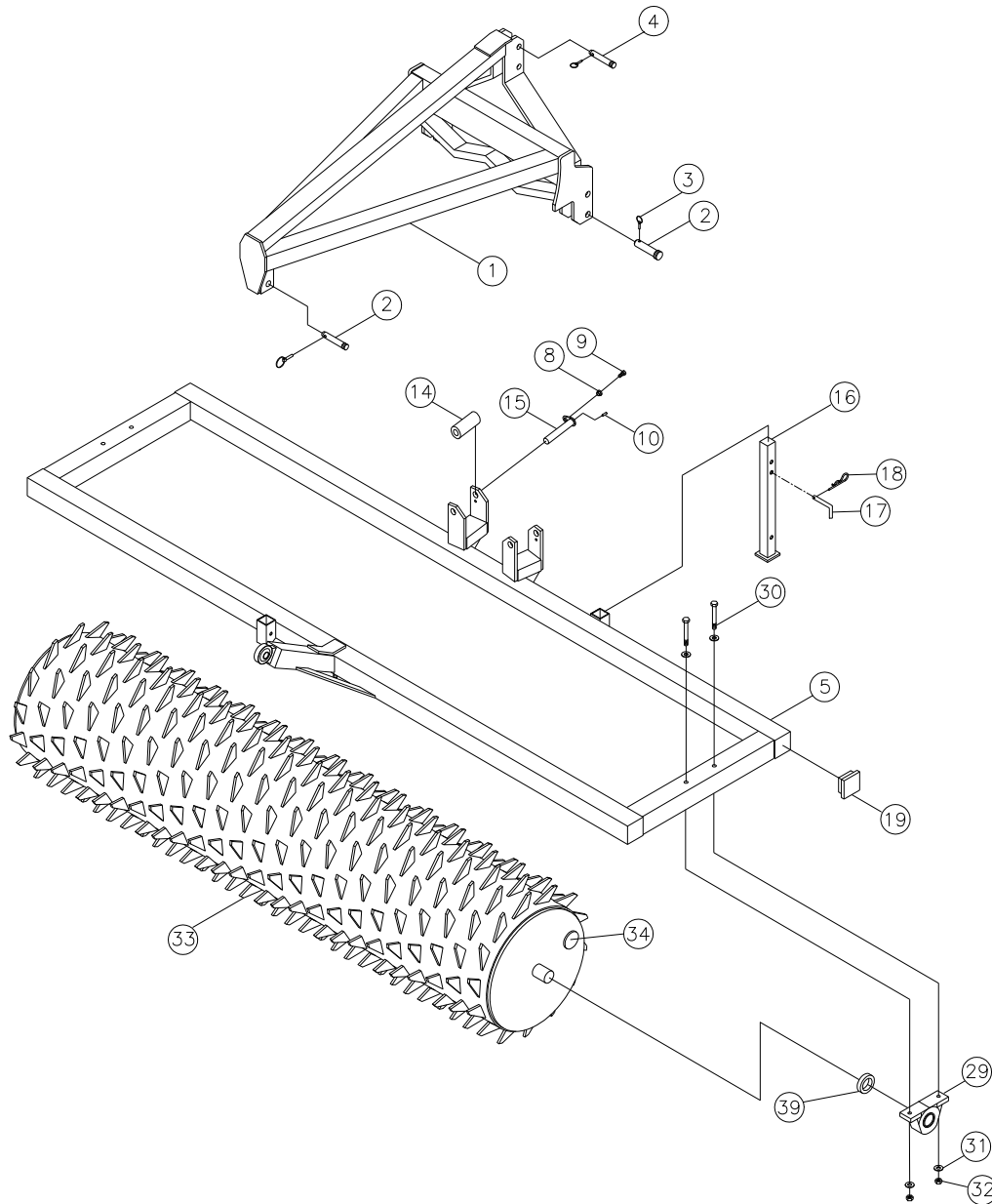


Retromounting of Front-Harrow or Spring-Board

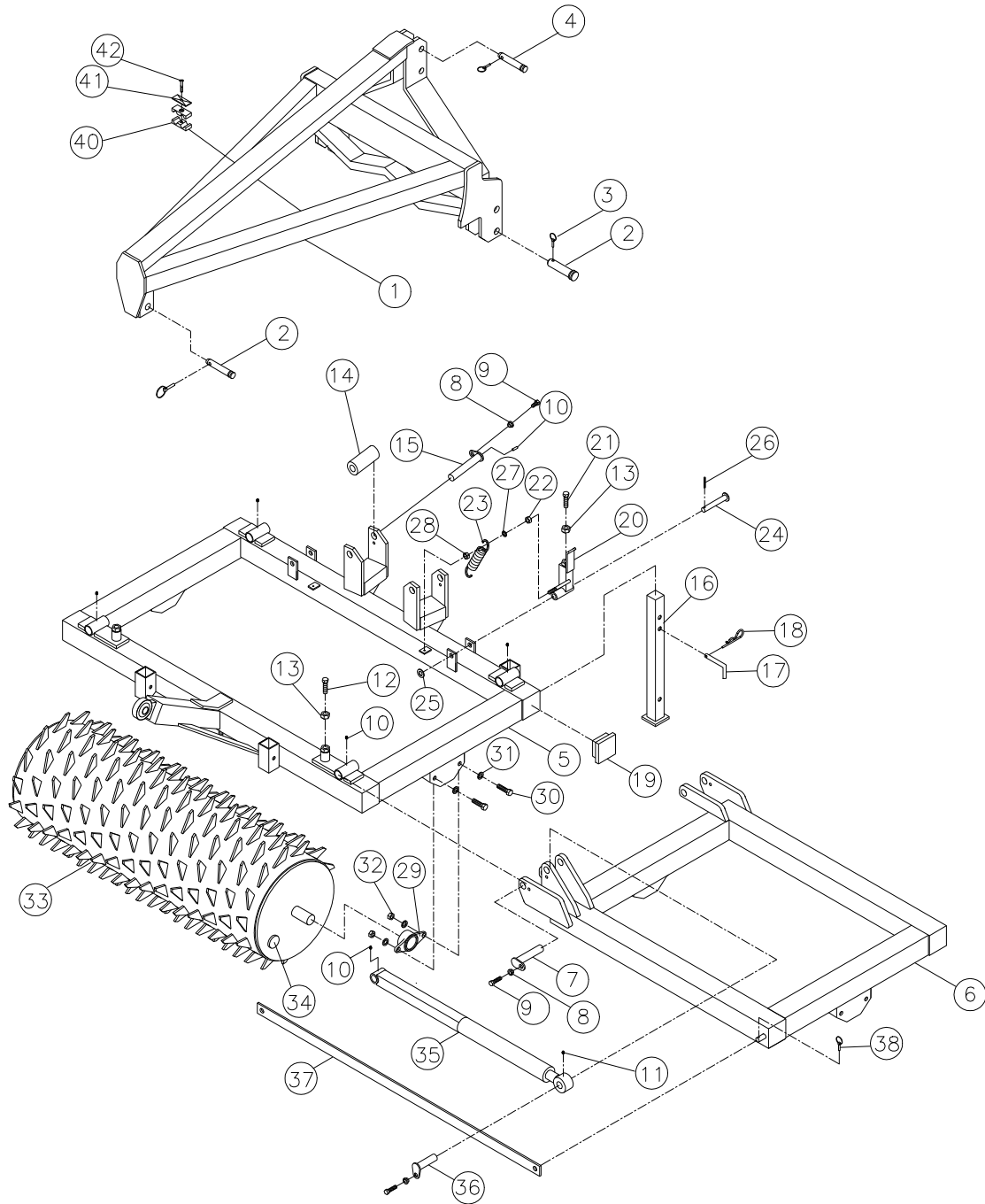
Both the Front-Harrow and the Spring-Board can be mounted directly on the frame.

Spare Parts List

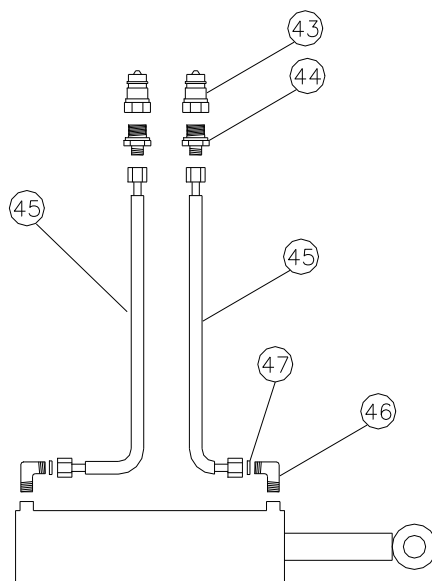
Frame 1.5 – 4.0 m (rigid)



Frame 4.0 m (hydraulic)



Hydraulic 4.0 m (hydraulic)

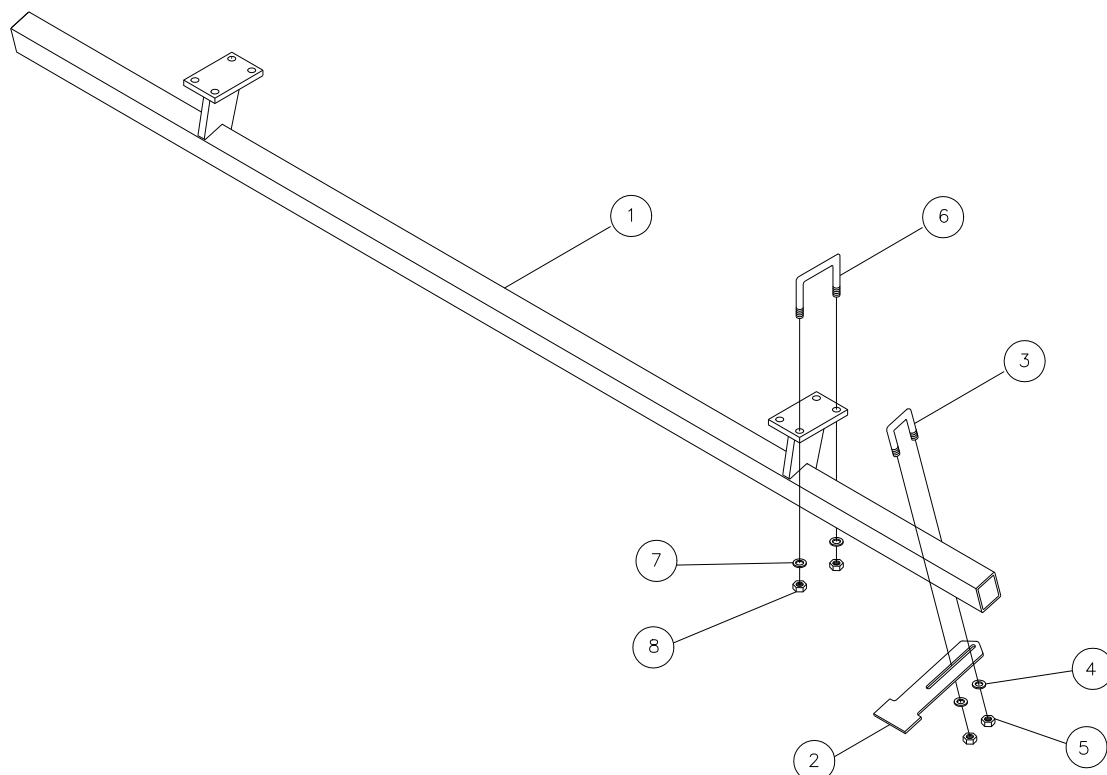


Pos.	Item no.	Designation	1.5 m	3.0 m	4.0 m	4.0 m (hydr.)
1	671100200	Top frame	1	1	1	
1	671151410	Top frame				1
2	69528096J	Pin Ø28 L=96	3	3	3	3
3	690134004	Ring pin Ø10	4	4	4	4
4	69525097J	Pin for top link Ø25 L=97	1	1	1	1
5	674157501	Frame 1.5 m	1			
5	674307501	Frame 3.0 m		1		
5	674407501	Frame 4.0 m			1	
5	674157501	Middle section 4.0 m (hydr.)				1
6	674417502	Wing section (r) 4.0 m (hydr.)				1
6	674417503	Wing section (l) 4.0 m (hydr.)				1
7	69530145G	Pin Ø30 L=145				4
8	630532600	Lock bush f/pin head	2	2	2	8
9	690101101	Bolt M12x25	2	2	2	8
10	690136029	Lubricating nipple M8	2	2	2	7
11	690136001	Lubricating nipple M6				1

Pos.	Item no.	Designation	1.5 m	3.0 m	4.0 m	4.0 m (hydr.)
12	690103146	Bolt M20x55 (set screw)				2
13	690112009	Nut M20 (lock nut)				4
14	671000100	Supporting roller f/rolling console	2	2	2	2
15	69530175I	Pin Ø30 L=175	2	2	2	2
16	671000300	Supporting leg	2	2	2	3
17	69516094A	Pin Ø16 L=94	2	2	2	3
18	690133005	Hairpin Ø4	2	2	2	3
19	690109204	Plastic plug 100x100	4	4	4	4
20	671151300	Transport lock (r)				1
20	671151301	Transport lock (l)				1
21	690101164	Bolt M20x60 (set screw)				2
22	690112006	Nut M12				2
23	690139002	Tension spring 3.5x30x160				2
24	69520118F	Pin Ø20 L=118				2
25	690117005	Facet plate Ø20				2
26	690132037	Split-pin Ø5x40				2
27	690117014	Facet plate Ø12				2
28	690113006	Self-locking nut M12				2
29	690140803	Bearing UCP 212 (Ø60)	2	2	2	
29	690140080	Bearing UCFL 209 (Ø45)				6
30	690103191	Bolt M16x150	4	4	4	
30	690103140	Bolt M16x50				12
31	690117013	Facet plate Ø16	8	8	8	24
32	690113008	Self-locking nut M16	4	4	4	12
33	674157504	Roller 1.5 m	1			
33	674307504	Roller 3.0 m		1		
33	674407504	Roller 4.0 m			1	
33	674157504	Roller 4.0 m hydr. (middle section)				1

Pos.	Item no.	Designation	1.5 m	3.0 m	4.0 m	4.0 m (hydr.)
33	674417505	Roller 4.0 m hydr. (wing section)				2
34	690109210	Plastic plug ¾"	1	1	1	3
35	671150400	Cylinder 70/40x500 (lengthened)				1
35a	690200062	Piston rod 70/40x500				1
35b	690200061	Cylinder tube 70/40x500				1
35c	690200063	Piston 70/40				1
35d	690200067	Guide bush 70/40				1
35e	690200068	Gasket set 70/40				1
36	69430107G	Pin Ø30 L=107				2
37	671150002	Locking bar				1
38	690134001	Ring pin Ø4.5				2
39	671040300	Distance bush 10 mm	2	2	2	
40	690210210	Tube-support double Ø14/Ø14				4
41	690210211	Top plate f/double tube-support				2
42	690103054	Bolt M8x40				2
43	690203001	Quick coupling ½" E402, male				2
44	690203003	Fitting, straight 10-1/2" BSP				2
45	690201060	Hydr. hose 3000 mm ¼" st/st				2
46	690203006	Fitting, 90angle 10-3/8" BSP				2
47	690207901	Restrictor 1 mm				2

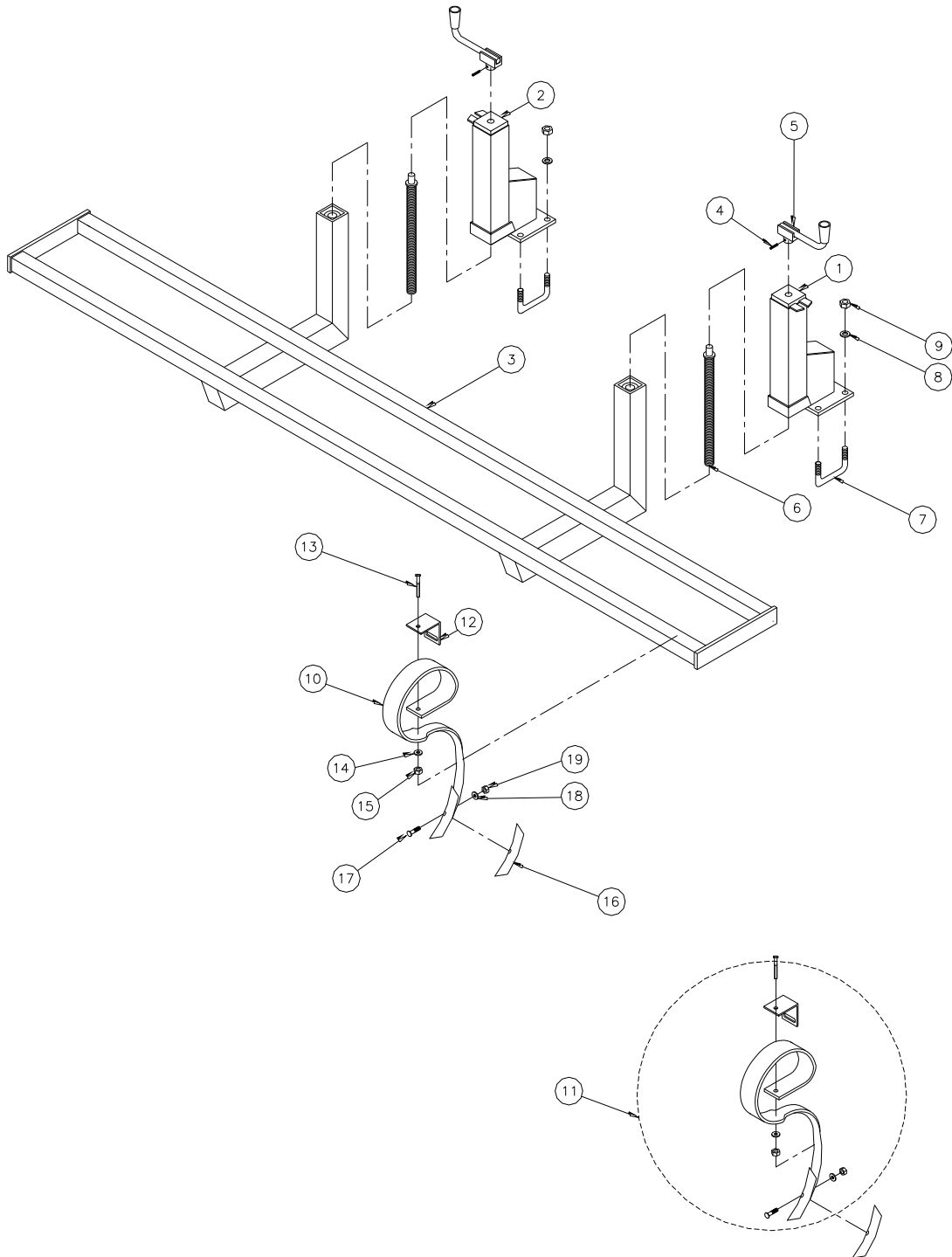
Scraper



Pos.	Item no.	Designation	1.5 m	3.0 m	4.0 m	4.0 m (hydr.)
1	674157506	Scraper bar 1.5 m	1			
1	674307506	Scraper bar 3.0 m		1		
1	674407506	Scraper bar 4.0 m			1	
1	674157506	Scraper bar 4.0 m hydr. (middle section)				1
1	674417507	Scraper bar 4.0 m hydr. (wing section)				2
2	674307557	Scraper	13	25	33	29
3	690110020	U-bolt M10x70x70x70	13	25	33	29
4	690117012	Facet plate Ø10	26	50	66	58
5	690113005	Self-locking nut M10	26	50	66	58
6	690110101	U-bolt M16x100x100x100	4	4	8	12
7	690117013	Facet plate Ø16	8	8	16	24
8	690113008	Self-locking nut M16	8	8	16	24

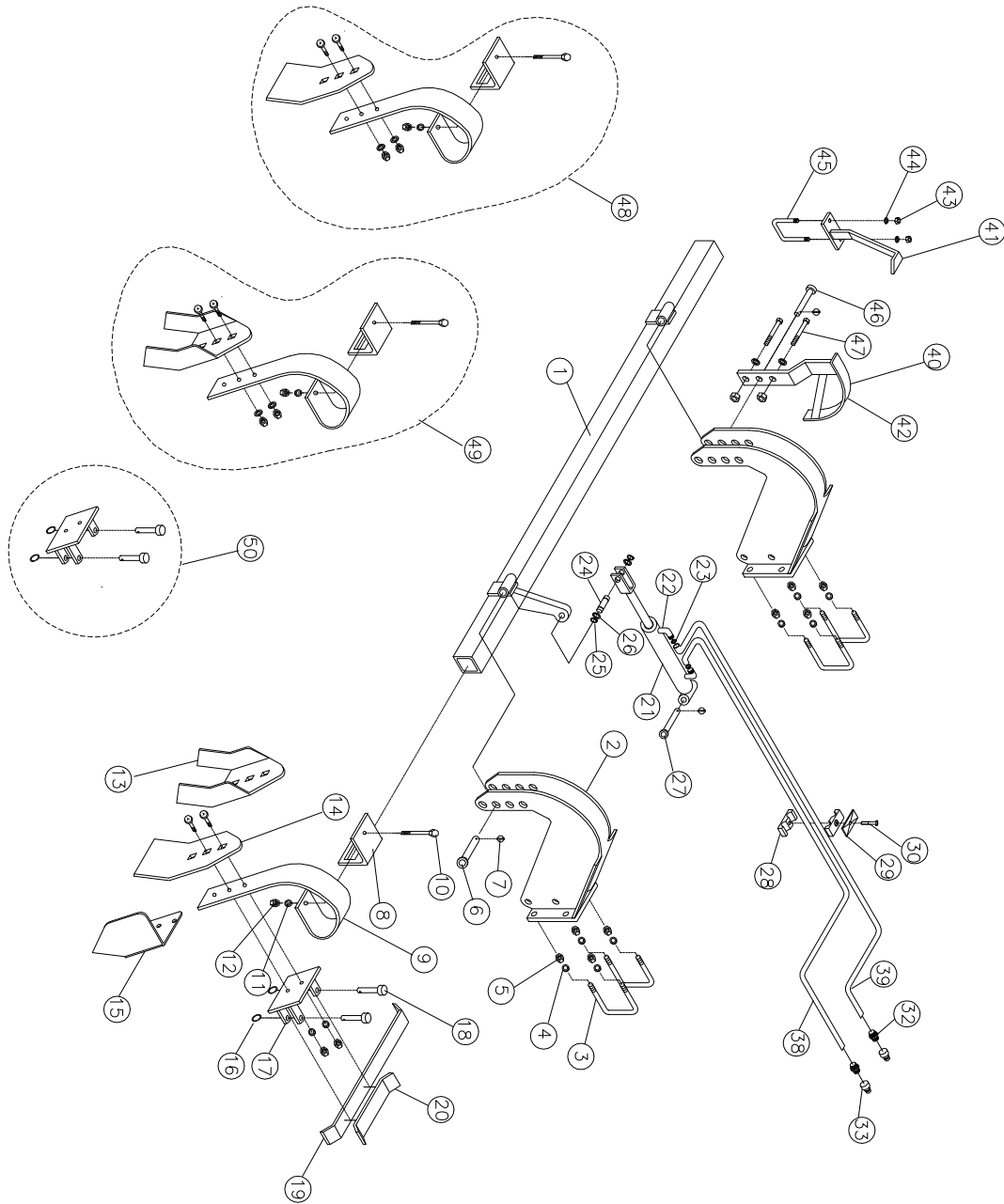
Spare Parts List – Extra Equipment

Front-Harrow

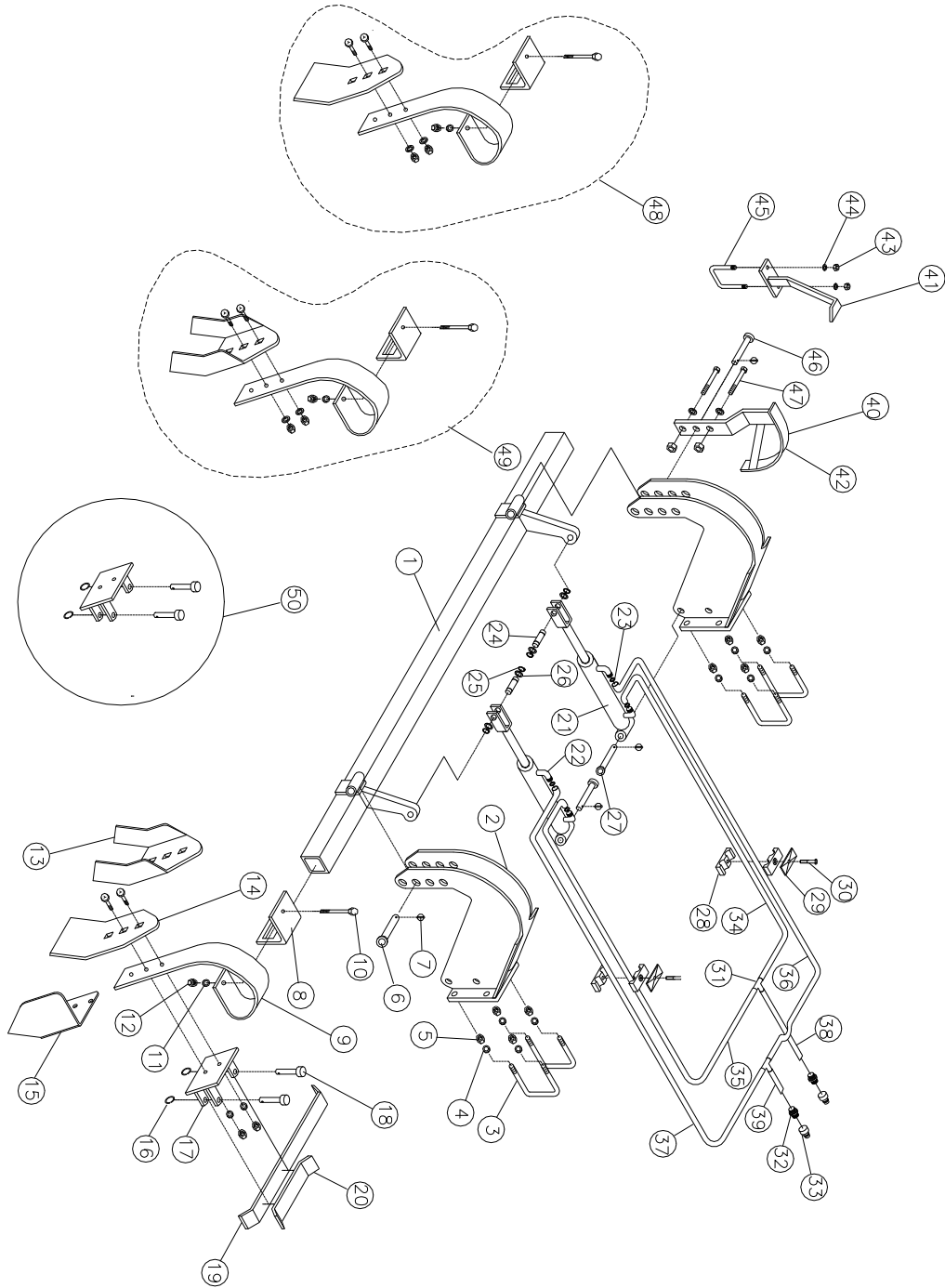


Pos.	Item no.	Designation	2.6 m	3.0 m	4.0 m	4.0 m (hydr.)
1	671090100	Spindle console (right)	1	1	1	3
2	671090200	Spindle console (left)	1	1	1	3
3	631305100	Frame 2.6 m	1			
3	631315100	Frame 3.0 m		1		
3	631325100	Frame 4.0 m			1	
3	631345100	Middle section 4.0 m hydr.				1
3	631345101	Wing section 4.0 m hydr. (right)				1
3	631345102	Wing section 4.0 m hydr. (left)				1
4	690130158	Roll pin Ø8x30	2	2	2	6
5	690304102	Crank	2	2	2	6
6	690304101	Spindle TR28x5 L=410	2	2	2	6
7	690110101	U-bolt M16x100x100x100	4	4	4	12
8	690117013	Facet plate Ø16	8	8	8	24
9	690113008	Self-locking nut M16	8	8	8	24
10	690152024	Tine w/point 45x12 mm	15	17	23	23
11	690152031	Tine w/point 45x12 mm (complete)				
12	690152026	Clamp f/tine 45x12 mm	15	17	23	23
13	690103089	Bolt M12x80	15	17	23	23
14	690117013	Facet plate Ø16	15	17	23	23
15	690113006	Self-locking nut M12	15	17	23	23
16	690152025	Point f/tine 45x12 mm	15	17	23	23
17	690109102	Hoe bolt M10x45	15	17	23	23
18	690117012	Facet plate M10	15	17	23	23
19	690113005	Self-locking nut M10	15	17	23	23

Spring-Board 2.6 m and 3.0 m (rigid)



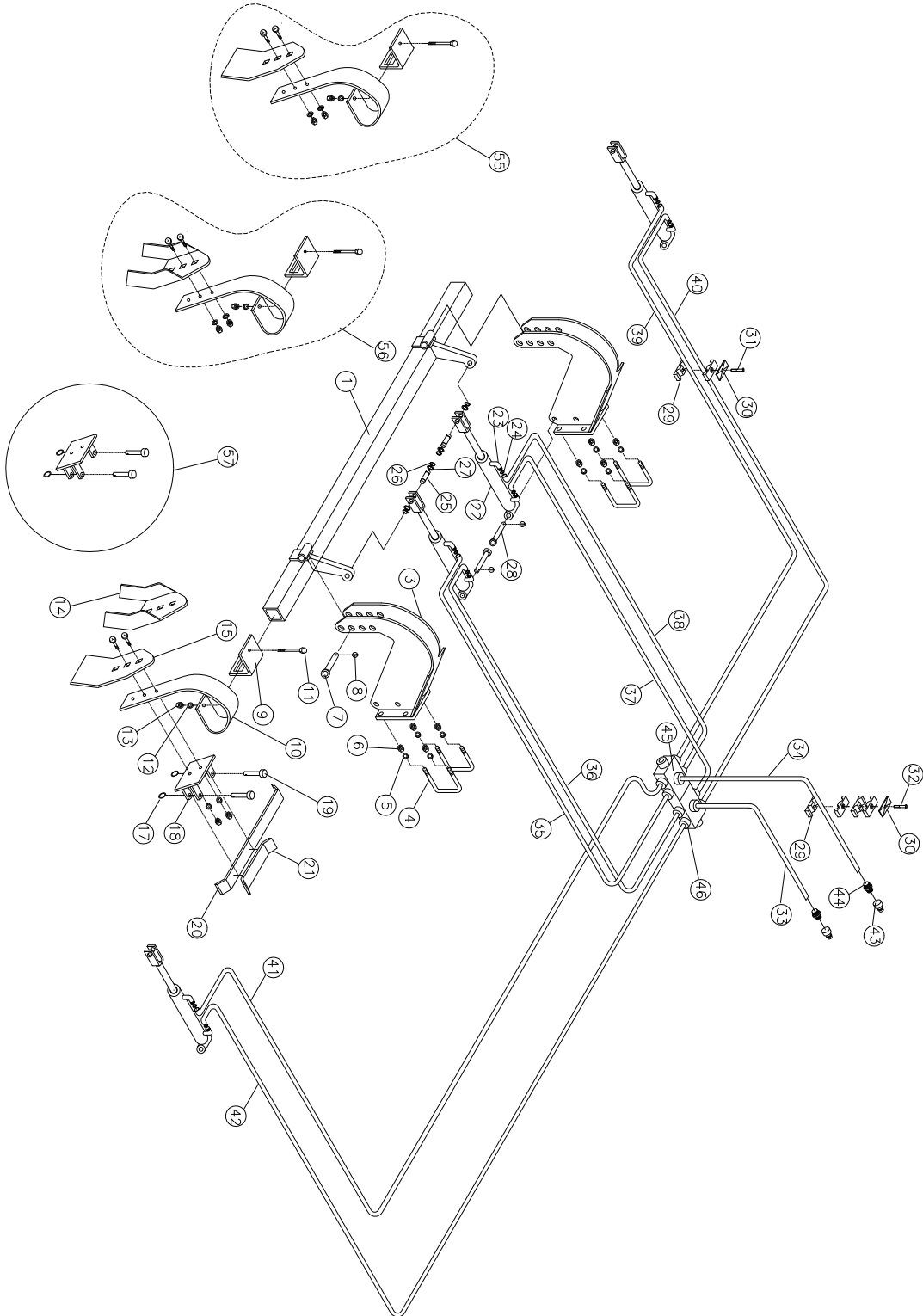
Spring-Board 4.0 m (rigid)



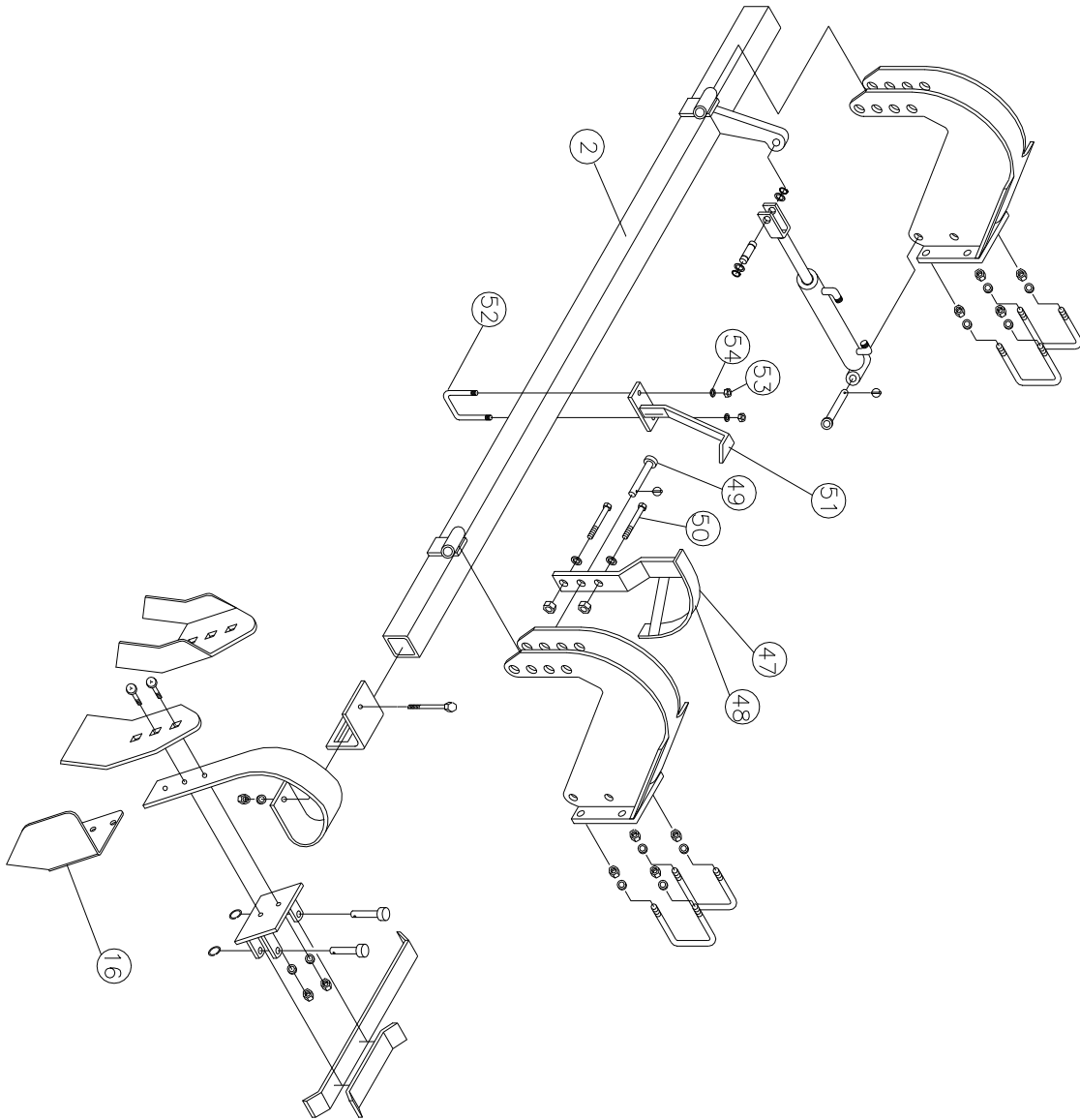
Pos.	Item no.	Designation	2.6 m	3.0 m	4.0 m
1	671840400	Bar	1		
1	671840300	Bar		1	
1	671850400	Bar			1
2	671844500	Horn	2	2	2
3	690110101	U-bolt M16x100x100x100	4	4	4
4	690117013	Facet plate Ø16	8	8	8
5	690113008	Self-locking nut M16	8	8	8
6	69525087F	Pin Ø25 L=87	1	1	1
7	690134001	Ring pin Ø4.5	3	3	4
8	633052200	Clamp f/tine	10	12	16
9	633052050	Tine (10x80)	10	12	16
10	690103098	Bolt M12x110	10	12	16
11	690117014	Facet plate Ø12	10	12	16
12	690113006	Self-locking nut M12	10	12	16
13	633052150	Slicing plates point incl. bolts	10	12	16
14	633052100	Tine point (8x150) incl. bolts	10	12	16
15	633052250	Edge equipment (l)	1	1	1
15	633052255	Edge equipment (r)	1	1	1
16	690134000	Locking ring Ø30x3	20	24	36
17	633055500	Tine bracket f/transverse locking system	10	12	16
18	69512040K	Pin Ø12,5x40	20	24	32
19	633055710	Locking bar f/transverse locking system (long)	9	11	15
20	633055700	Locking bar f/transverse locking system (short)	2	2	2
21	690200160	Cylinder 50/30x155	1	1	2
22	690203006	Fitting, 90angle 10-3/8" BSP	2	2	4
23	690207901	Restrictor 1 mm	1	1	2
24	69520046D	Pin Ø20 L=46	1	1	2

Pos.	Item no.	Designation	2.6 m	3.0 m	4.0 m
25	691372020	Seeger circlip ring Ø20	2	2	4
26	690115010	Washer Ø20/Ø28x1 mm	2	2	4
27	69520087F	Pin Ø20 L=87	1	1	2
28	690210210	Tube-support double Ø14/Ø14	4	4	6
29	690210211	Top plate f/double tube-support	2	2	3
30	690103054	Bolt M8x40	2	2	3
31	690203015	Fitting T10			2
32	690203003	Fitting, straight 10-½" BSP	2	2	2
33	690203001	Quick coupling ½" E402, male	2	2	2
34	690201053	Hydr. hose 1260 mm ¼" st/st			1
35	690201053	Hydr. hose 1260 mm ¼" st/st			1
36	690201032	Hydr. hose 1130 mm ¼" st/st			1
37	690201032	Hydr. hose 1130 mm ¼" st/st			1
38	690201060	Hydr. hose 3000 mm ¼" st/st	1	1	1
39	690201060	Hydr. hose 3000 mm ¼" st/st	1	1	1
40	633151000	Scale f/depth control	1	1	1
41	633152000	Pointer f/depth control	1	1	1
42	698500018	Label t/scale f/depth control	1	1	1
43	690113005	Self-locking nut M10	4	4	4
44	690117012	Facet plate Ø10	4	4	4
45	690110020	U-bolt M10x70x70x70mm	1	1	1
46	69525095F	Pin Ø25 L=95	1	1	1
47	690101083	Bolt M10x35	2	2	2
48	633052000	Tine w/flat tine point (complete)			
49	633052025	Tine w/slicing plates point (complete)			
50	633055510	Tine bracket f/transverse locking system (complete)			

Spring-Board middle section 4.0 m (hydraulic)



Spring-Board wing section 4.0 m (hydraulic)

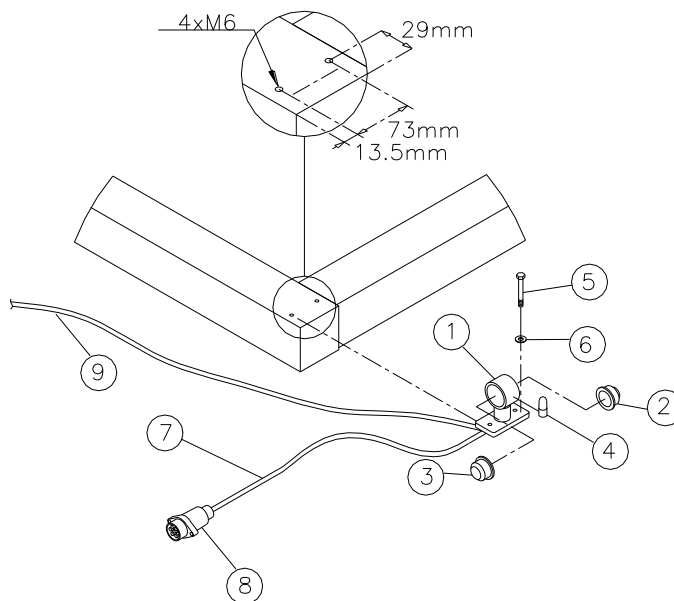


Pos.	Item no.	Designation	4.0 m (hydr.)
1	671880400	Bar (centre)	1
2	671880410	Bar (right side)	1
2	671880420	Bar (left side)	1
3	671844500	Horn	6
4	690110101	U-bolt M16x100x100x100	12
5	690117013	Facet plate Ø16	24
6	690113008	Self-locking nut M16	24
7	69525087F	Pin Ø25 L=87	5
8	690134001	Ring pin Ø4.5	10
9	633052200	Clamp f/tine	16
10	633052050	Tine (10x80)	16
11	690103098	Bolt M12x110	16
12	690117014	Facet plate Ø12	16
13	690113006	Self-locking nut M12	16
14	633052150	Slicing plates point incl. bolts	16
15	633052100	Tine point (8x150) incl. bolts	16
16	633052250	Edge equipment (l)	1
16	633052255	Edge equipment (r)	1
17	690134000	Locking ring Ø30x3	32
18	633055500	Tine bracket f/transverse locking system	16
19	69512040K	Pin Ø12,5x40	32
20	633055710	Locking bar f/transverse locking system (long)	13
21	633055700	Locking bar f/transverse locking system (short)	6
22	690200160	Cylinder 50/30x155	4
23	690203006	Fitting, 90angle 10-3/8" BSP	8
24	690207901	Restrictor 1 mm	4
25	69520046D	Pin Ø20 L=46	4

Pos.	Item no.	Designation	4.0 m (hydr.)
26	691372020	Seeger circlip ring Ø20	8
27	690115010	Washer Ø20/Ø28x1 mm	8
28	69520087F	Pin Ø20 L=87	4
29	690210210	Tube-support double Ø14/Ø14	8
30	690210211	Top plate f/double tube-support	3
31	690103054	Bolt M8x40	2
32	690103045	Bolt M8x65	1
33	690201060	Hydr. hose 3000mm ¼" st/st	1
34	690201060	Hydr. hose 3000mm ¼" st/st	1
35	690201015	Hydr. hose 710mm ¼" st/st	1
36	690201015	Hydr. hose 710mm ¼" st/st	1
37	690201015	Hydr. hose 710mm ¼" st/st	1
38	690201015	Hydr. hose 710mm ¼" st/st	1
39	690201013	Hydr. hose 1770mm ¼" st/st	1
40	690201013	Hydr. hose 1770mm ¼" st/st	1
41	690201013	Hydr. hose 1770mm ¼" st/st	1
42	690201013	Hydr. hose 1770mm ¼" st/st	1
43	690203001	Quick coupling ½" E402, male	2
44	690203003	Fitting, straight 10-½" BSP	2
45	660501440	Assembly block 12x3/8 BSP	1
46	690203002	Fitting, straight 10-3/8" BSP	10
47	633151000	Scale f/depth control	1
48	698500018	Label f/scale f/depth control	1
49	69525095F	Pin Ø25 L=95	1
50	690101083	Bolt M10x35	2
51	633152000	Pointer f/depth control	1
52	690110020	U-bolt M10x70x70x70mm	1
53	690113005	Self-locking nut M10	4

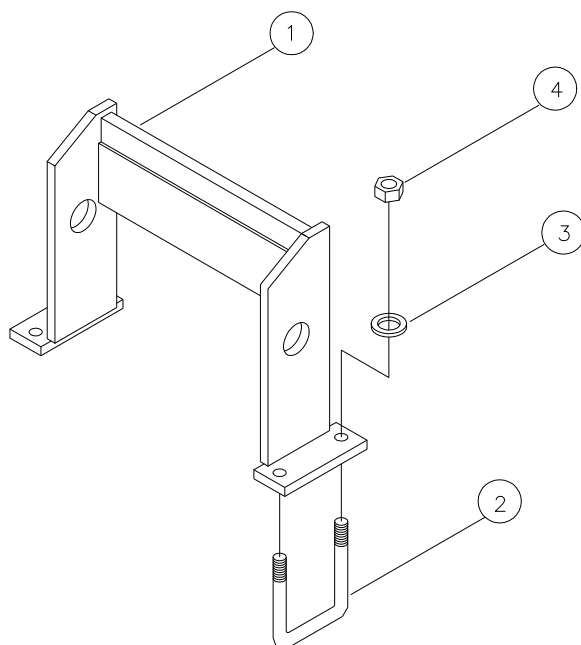
Pos.	Item no.	Designation	4.0 m (hydr.)
54	690117012	Facet plate Ø10	4
55	633052000	Tine w/flat tine point (complete)	
56	633052025	Tine w/slicing plates point (complete)	
57	633055510	Tine bracket f/transverse locking system (complete)	

Marking lights



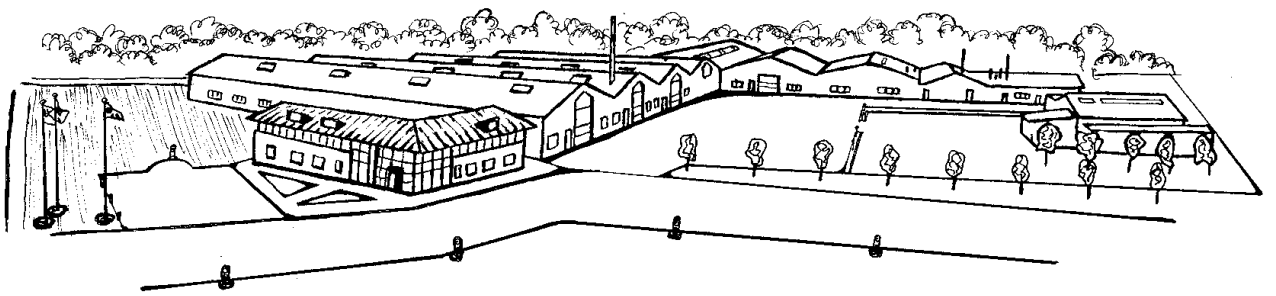
Pos.	Item no.	Designation	1.5 m	3.0 m	4.0 m	4.0 m (hydr.)
1	690160058	Marking lights	2	2	2	2
2	690160065	Glass f/marketing lights (white)	2	2	2	2
3	690160066	Glass f/marketing lights (red)	2	2	2	2
4	690160067	Bulb f/marketing lights 12V 10W – BA15s	2	2	2	2
5	690103025	Bolt M6x20	4	4	4	4
6	690117003	Facet plate Ø6	4	4	4	4
7	690160080	Cable 5 x 1 mm ² L = 4550 mm	1			
7	690160080	Cable 5 x 1 mm ² L = 5050 mm		1		
7	690160080	Cable 5 x 1 mm ² L = 5715 mm			1	
7	690160080	Cable 5 x 1 mm ² L = xxxx mm				1
8	690160070	Plug 7-poles DIN 72 577 – ISO 1724	1	1	1	1
9	690160080	Cable 5 x 1 mm ² L = 2050 mm	1			
9	690160080	Cable 5 x 1 mm ² L = 3050 mm		1		
9	690160080	Cable 5 x 1 mm ² L = 4380 mm	1		1	
9	690160080	Cable 5 x 1 mm ² L = xxxx mm				1

Weight carriers



Pos.	Item no.	Designation	3.0 m	4.0 m	4.0 m (hydr.)
1	*	Weight carrier	2	2	2
2	690110101	U-bolt M16x100x100x100			4
2	690110100	U-bolt M16x100x60x100	4	4	
3	690117013	Facet plate Ø16	8	8	8
4	690113008	Self-locking nut M16	8	8	8

* Depending on the tractor model



The design is subject to modification without notice.