



*Operating Instructions
Declaration of Conformity
Spare Parts List*

*Disc Roller
2,5 - 3,0 – 3,5 - 4,0m (1-section)*



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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EC DECLARATION OF CONFORMITY

in accordance with the EU Machinery Directive 2006/42/EC
applicable as from December 29th 2009:

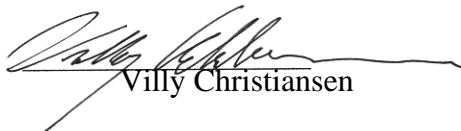
HE-VA ApS
N. A. Christensensvej 34,
DK-7900 Nykøbing Mors

hereby confirms that the following machine has been manufactured in accordance with the Council
Directive 2006/42/EC.

The declaration comprises the following machine:

Disc-Roller
2.5 - 3.0 – 3,5 - 4.0m (1-section)

Nykøbing the 29th December 2009



Villy Christiansen

The undersigned is furthermore authorised to compile technical documentation for the above machine.

Safety Instructions for Disc-Roller

Do not start-up the machine if there are persons in exposed positions** within a hazardous area*.

When persons are in exposed positions (e.g. in connection with adjustment, maintenance, attachment and uncoupling), the following conditions must be observed:

1. The machine must be lowered to firm ground.
2. The hydraulics must be relieved.
3. The tractor must be stopped and the key removed from the ignition switch.
4. The driver must ensure that no persons are staying in exposed positions during the operation.

* Hazardous area: On and under the machine within a distance of 4 m from the machine.

** Person in exposed position: Any person who is staying wholly or partly within a hazardous area.

Most accidents that happen in connection with the operation, transport and maintenance of machines are caused by non-compliance with the most elementary safety conditions.

Therefore it is vital that anybody working at the machine carefully complies with the safety instructions as well as other instructions applying to the machine.

The machine may only be operated, maintained and repaired by persons, who are familiar with this work and who are further familiar with the possible elements of danger with this particular machine.

Instructions on Unloading and Placing

The machine is supplied completely assembled by our lorry. Our specially trained drivers will assist in the unloading of the machine.

The machine must be driven from the lorry by means of a tractor on the ramps provided and according to our driver's instructions.

Afterwards place the machine on level and firm ground.

ATTENTION !! Rotary parts and loose clothes are a dangerous combination.

IMPORTANT !! In connection with the risk of parts falling down, it may endanger the lives of persons staying on the base frame of the machine, when it is operated attached to a tractor.

Safety and Instructions on Hydraulics

1. The maximum working pressure is 225 bar.
2. It is advisable to label the attachment parts at hydraulic connections between the tractor and the tool in order to eliminate incorrect operation!
3. When checking for hydraulic leaks, use suitable safety wear (eye protectors, gloves, etc.)
High-pressure hydraulic oil may penetrate the skin and cause dangerous injuries.
In case of injury, consult a doctor immediately. **RISK OF INFECTION!**
5. After operating the hydraulics, lower the machine to firm ground.
Relieve the hydraulics, stop the motor and remove the ignition key.
6. Check the hydraulic hoses on a regular basis, however, every six months as a minimum due to any cracks, wear and tear, etc. Replace any defective hoses immediately.

The life of hydraulic hoses is maximum 5 years.
New hydraulic hoses must meet the manufacturer's requirements.

INSTRUCTIONS ON TRANSPORT ON THE PUBLIC ROADS

Check before transport on public roads that the attachment of the machine at the tractor is in accordance with the local rules and regulations in force (permitted total weight, permitted axle load, transport width, lights, warning signs, etc.).

FRONT AXLE LOAD

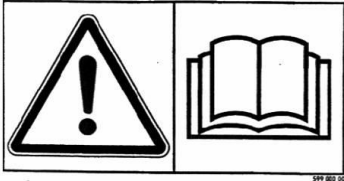
After the attachment of the machine and at maximum load, the driving properties of the tractor must be ensured. Check that the front axle is sufficiently loaded. As a minimum, the front axle load must be 20% of the tractor weight. Permitted axle load and permitted total weight for the tractor must always be observed.

NB! The driving, controlling and braking properties are affected by the attached machine combination.

Labels on the machine

You will find several labels on your Disc-Roller containing **safety** and practical instructions as regards the correct application of the machine. Please study the instructions and point out to the user the importance of the labels as well as the **safety instructions** in these Operating Instructions. Always keep the labels clean and readable – if not they must be replaced.

Safety – and other markings on the machine



Study the Operating Instructions thoroughly before any operation of the machine and observe all safety instructions.



Plate with number and year of manufacture

**HUSK - PLEASE NOTE -
ACHTUNG - ATTENTION**
**EFTERSPÆND BOLTE
TIGHTEN UP THE BOLTS
BOLZEN NACHZIEHEN
RESSERRER LES BOULONS**

Tighten up the bolts regularly. If this is not performed, our warranty obligations will no longer apply.

Maximum torque in Nm. w/lubricated thread			
Metric thread	Quality 8.8	Quality 10.9	Quality 12.9
M12	81	114	136
M14	128	181	217
M16	197	277	333
M18	275	386	463
M20	385	541	649
M22	518	728	874
M24	665	935	1120

Technical Specifications / Data

Mounted Disc Roller 2.5m - 3.0m – 3.5m and 4.0m with Ø510 mm disc and Ø600 mm profile rings

	<u>2,5m</u>	<u>3,0m</u>	<u>3,5m</u>	<u>4,0 m</u>
Working width	2,5 m	3,0 m	3,5m	4,0 m
Transport width	2,5 m	3,0 m	3,5 m	4,0 m
Machine length	2,8 m	2,8m	2,8 m	2,8 m
No of Discs	18	22	26	30
Weight with V-profile rings	1650 kg	2080 kg	2395 kg	2710 kg
No of V-profile rings::	20	24	28	32
No. of scrapers (V-profile rings):	19	23	27	31
Weight with T-profile rings::	1495 kg	1810 kg	2125 kg	2440 kg
No of T-profile rings:	20	24	28	32
No. of scrapers (T-profile rings):	19	23	27	31
No. of hydraulic outlets:	1 double-acting			
Hydraulic pressure (min.):	190 bar			
Max. working depth:	12 cm			
Working speed (recommended):	10 – 16 km/h			

**Trailed Disc Roller 3.0m – 3,5m and 4.0m
with Ø510 mm disc
and Ø600 mm profile rings**

	<u>3,0 m</u>	<u>3,5 m</u>	<u>4,0 m</u>
Working width:	3,0 m	3,5 m	4,0 m
Transport width:	3,0 m	3,5 m	4,0 m
Machine length:	5,6 m	5,6 m	5,6 m
No of Discs:	22	26	30
Weight with V-profile rings:	2630 kg	2945 kg	3260 kg
No of V-profile rings:	24	28	32
No. of scrapers (V-profile rings):	23	27	31
Weight with T-profile rings:	2360 kg	2670 kg	2990 kg
No of T-profile rings:	24	28	32
No. of scrapers (T-profile rings):	23	27	31
No. of hydraulic outlets:	2 double-acting		
Hydraulic pressure (min.):	190 bar		
Wheels:	11,5/80 x 15,3 - 10 PLY		
Wheel pressure at 15 km/h:	2,0 bar / 29 p.s.i.		
Wheel pressure at 40 km/h:	3,4 bar / 49 p.s.i.		
Max. working depth:	12 cm		
Working speed (recommended):	10 – 16 km/h		

Start-up of the machine

General Information

The machine is supplied as standard in transport position. At start-up, attach the machine to the tractor.

Important:

Check that the towing hook height is between 400 and 500 mm.
Check that the male quick-couplings of the Disc-Roller fit the female quick-couplings of the tractor.

The machine requires one double-acting outlets (mounted) or two double-acting outlets (trailed).

The hoses for the drawbar - / wheel cylinder are provided with **red** cable straps.

The hoses for the disc cylinder are provided with **green** cable straps.

Attachment, Mounted Model

1. Reverse the tractor to the machine and attach.
2. Connect all hydraulic hoses to the tractor outlets.
3. Lift the machine to maximum transport height.
4. Unfold the edge equipment to working position.
5. Now lift and lower the discs to the required working depth.

Attachment, Trailed Model

1. Reverse the tractor to the machine.
2. Connect all hydraulic hoses to the tractor outlets
3. Pressurise the drawbar - and the wheel cylinder (red) so that the machine drawbar is lifted to the suitable height.
4. Then reverse the tractor and attach the machine.
5. Now lift the machine to maximum height and tilt the depth stop backwards towards the drawbar cylinder.
6. Unfold the edge equipment to working position.
7. Now lift and lower the discs to the required working depth.

Transport

1. Fold up the edge equipment over the machine.
2. Lift the discs to the top
3. Then lift the machine to maximum transport height.
4. Now the machine is ready for transport.

Uncoupling, Mounted Model

1. Put down the machine on firm ground and relieve all hydraulic hoses.
2. Now the machine may be uncoupled.

Uncoupling, Trailed Model

1. Lift the machine up and tilt the depth stop on the drawbar forward towards the tractor.
2. Now lower the machine onto firm ground.
3. Adjust the drawbar – and wheel cylinder (red) so that the drawing bolt is loose.
4. Now the machine may be uncoupled.
5. Drive the tractor a little forward and then relieve all hydraulic hoses.

Important:

**Put the machine on level ground
and relieve the hydraulics, before
leaving the machine.**



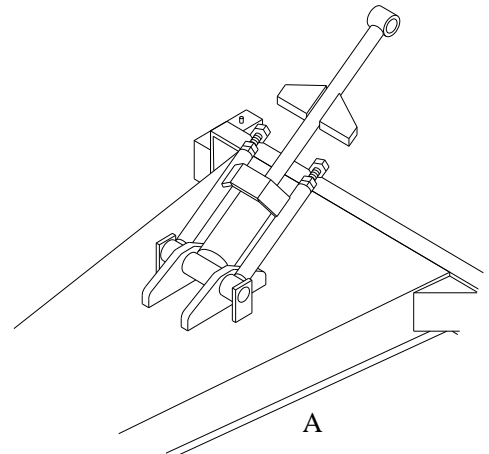
Settings og adjustments

When starting-up the Disc-Roller in the field, it is very important that the machine is parallel with the surface of the earth. The packing roller and the tractor keep the machine in an exact working depth.

Drawbar

It is important that the top link (mounted model) or the 2 adjusting bolts (A) on the drawbar (trailed model) are adjusted correctly.

Drawbar height (recommended): approx. 500mm.



Disc

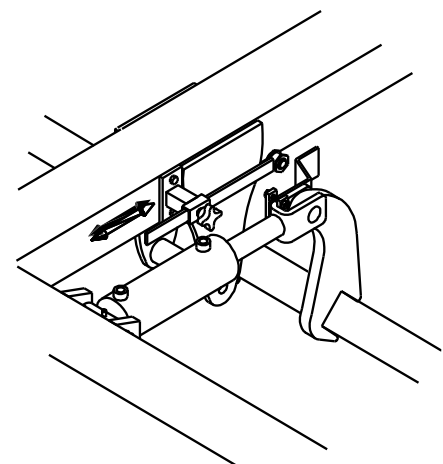
The Discs are adjusted up or down by a hydraulic Master-Slave system.

It is important that the discs are regularly lifted to the top, to reset the Master-Slave system..

The depth position is readable on the scale (standard).

The sensor can be adjusted, where el. depth stop is mounted.

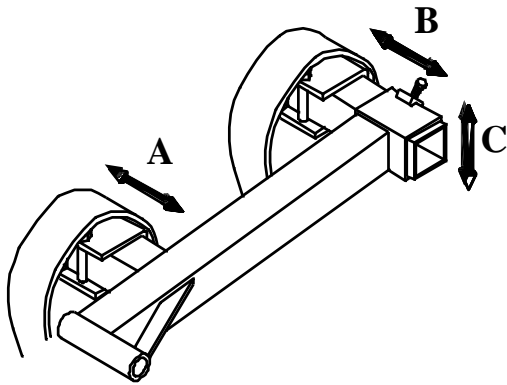
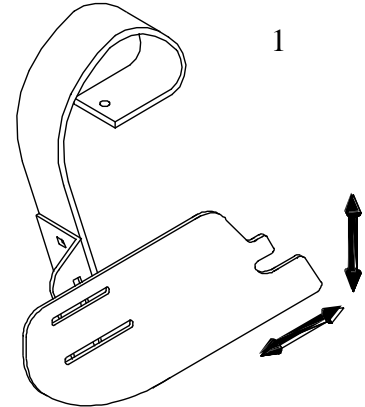
It is possible to over steer the electrical system by turning off the switch mounted in the cabin. Now the discs can pass the sensor, thereby a deeper working depth is achieved e.g. at headland and tramlines.



Edge equipment

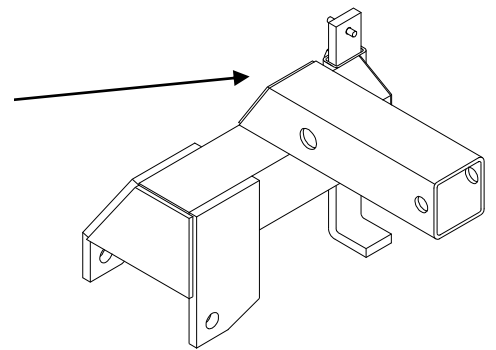
Disc-Roller is standard equipped with edge equipment. Adjust the edge plate (1), to keep the excavated soil in a row.

Keep the edge plate (1) away from the ground to avoid bending when turning.

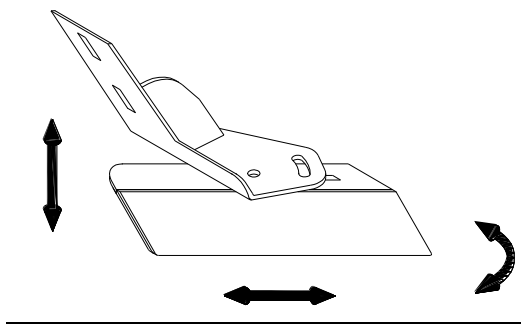


Adjust the tine for the edge plate (A), so that the material can pass the rear disc. Huge amounts of straw require greater space.

Depth stop for edge plough

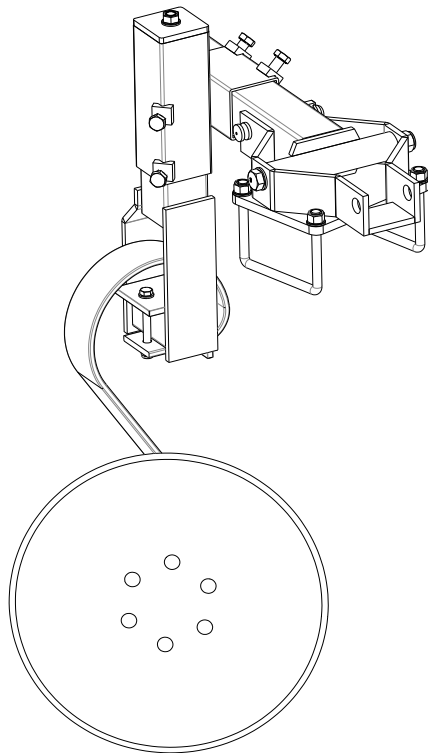


2



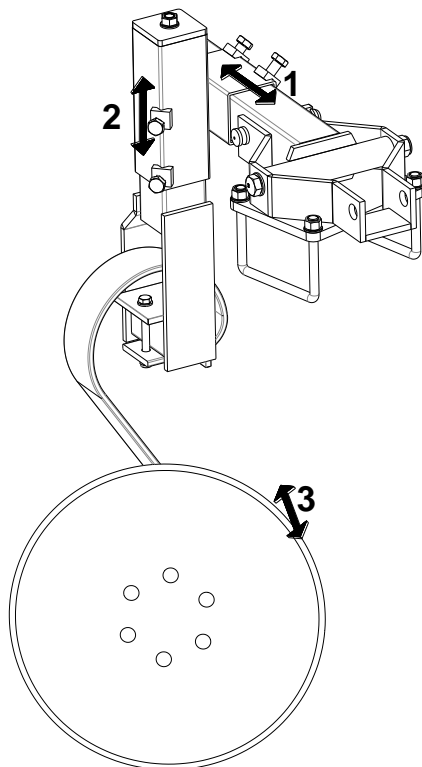
Adjust the edge plough (2) so that the material is placed in the “groove” formed by the rear disc

Edge equipment from machine no. 341738



New edge equipment for Disc-Roller.

The disc can be adjusted so that the excavated soil is collected. Keep the disc away from the ground to avoid bending when turning.



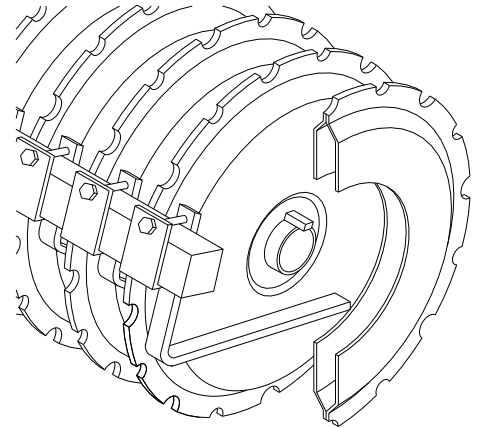
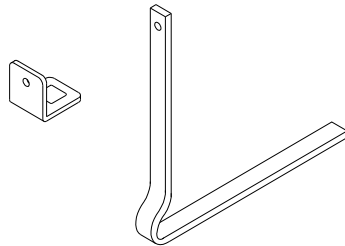
The edge equipment can be adjusted three places:

1. Loosen two bolts – move the arm out/in.
2. Use the spindle – it raises and lowers the disc. Loosen two bolts – raise/lower by the spindle and retighten the bolts.
3. Loosen one bolt – tilt the disc more or less.

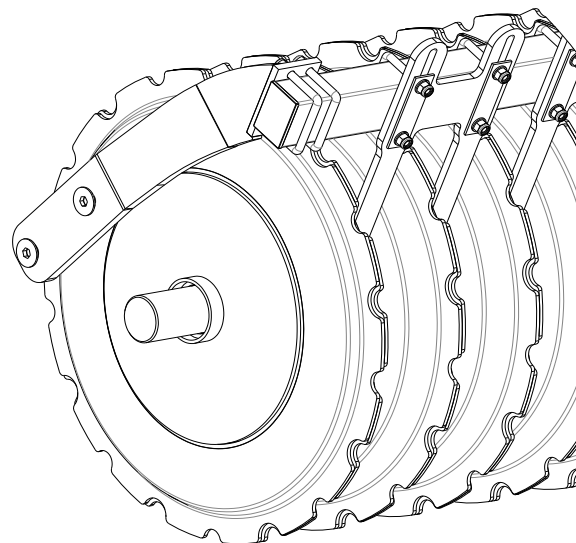
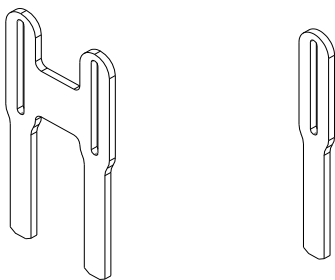
Scraper

The Disc-Roller has special designed scrapers among the packer rings.

To avoid unnecessary wear and to obtain the best scraper effect it is important to check the centering of the scrapers every day.



Scraper from 2009 - 2013:

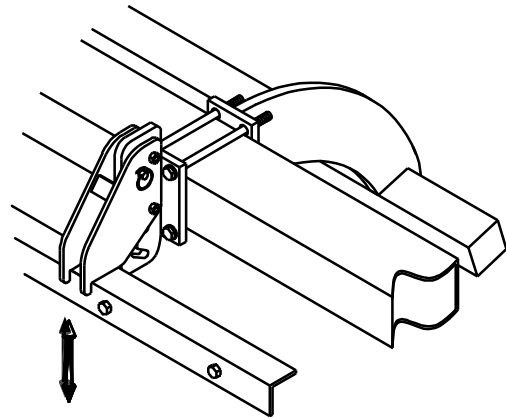


Material damperguard

The Disc-Roller can be equipped with material damper guard, ensuring that excavated soil from the discs is falling down before packing.

The material damper guard is height adjustable in 5 cm steps, by unlocking 1 pin in each bracket.

To dismount the material damper guard, unlock pins and unbolt.

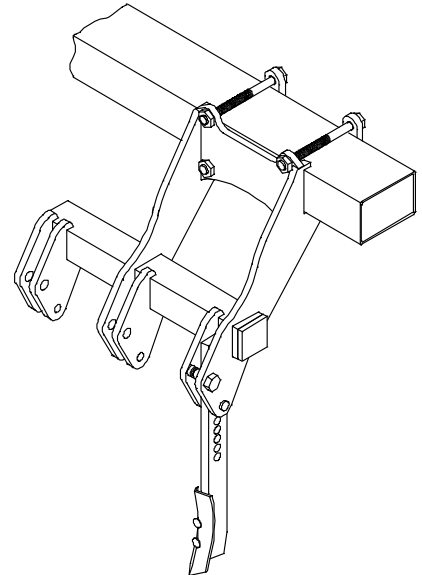


Tine eradicator set (can only be mounted on trailed models)

The trailed Disc-Roller can be equipped with tine eradicator set/ track remover, which loosens the packed soil from the tractor wheels - ensuring a uniform preparation of the soil.

The equipment is height adjustable, by unlocking 1 pin in each tine.

To dismount the tine eradicator, unlock pins and unbolt.



Maintenance and service

A. Grease hubs at the discs so that grease is appearing at the seals of the hubs.

Every 30 hours of operation grease again. If the machine is driving under difficult conditions (much dust), grease more often.

Important:

Grease hubs at the discs before wash,
to avoid water penetration into the bearings.
Grease piston rods.



B. After 10 hours of operation, retighten wheels, bearings and stop rings. Check hydraulic hoses, fittings and cylinders for leaks and retighten.

C. Every 10 hours of operation, grease all pivoting points in side sections, drawbar and wheel assembly.

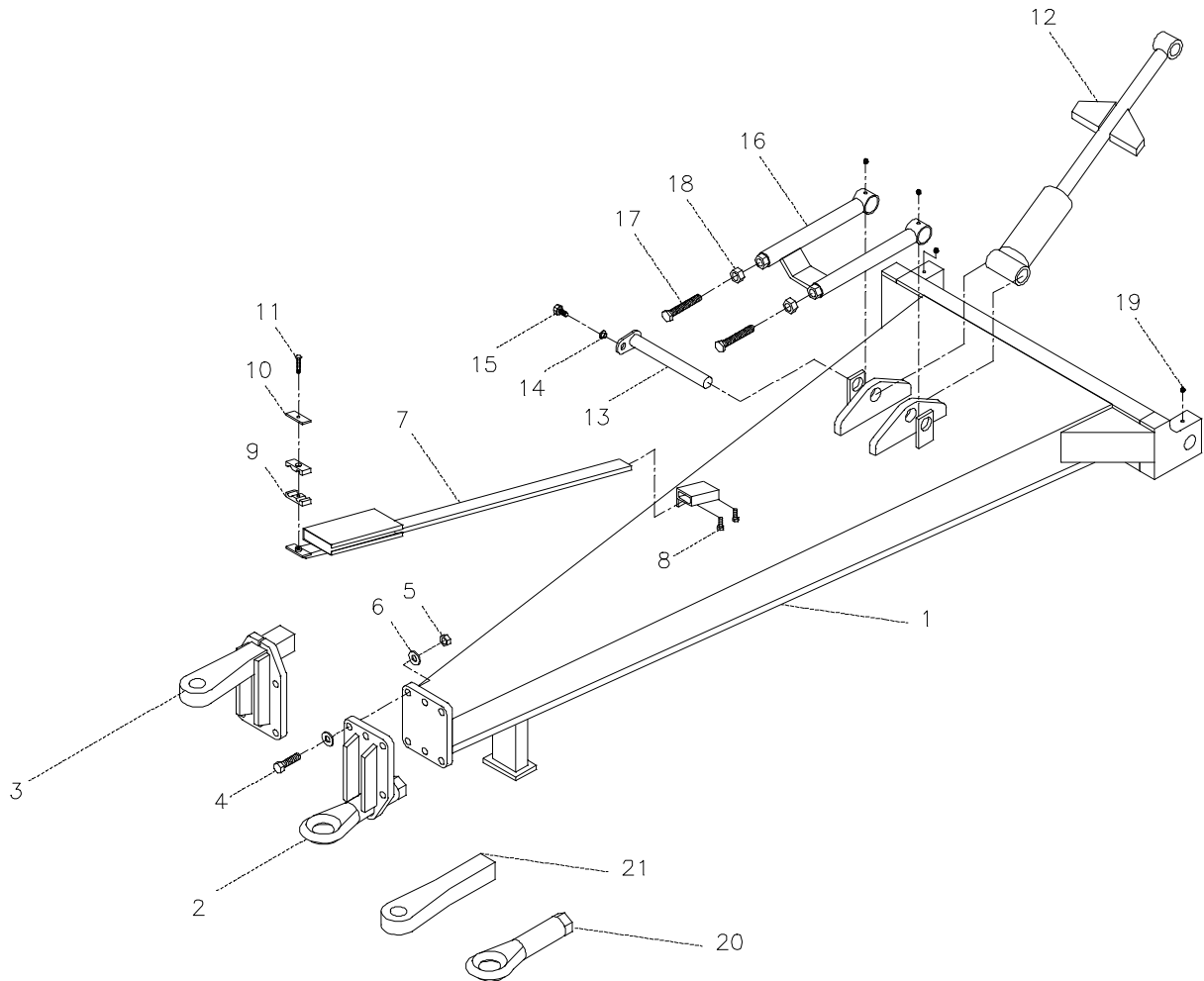
D. After end season, grease and wash machine.

Important:

Oil, type Hydro Texaco HD 32 has been
filled in the hydraulic system.

Spare parts list

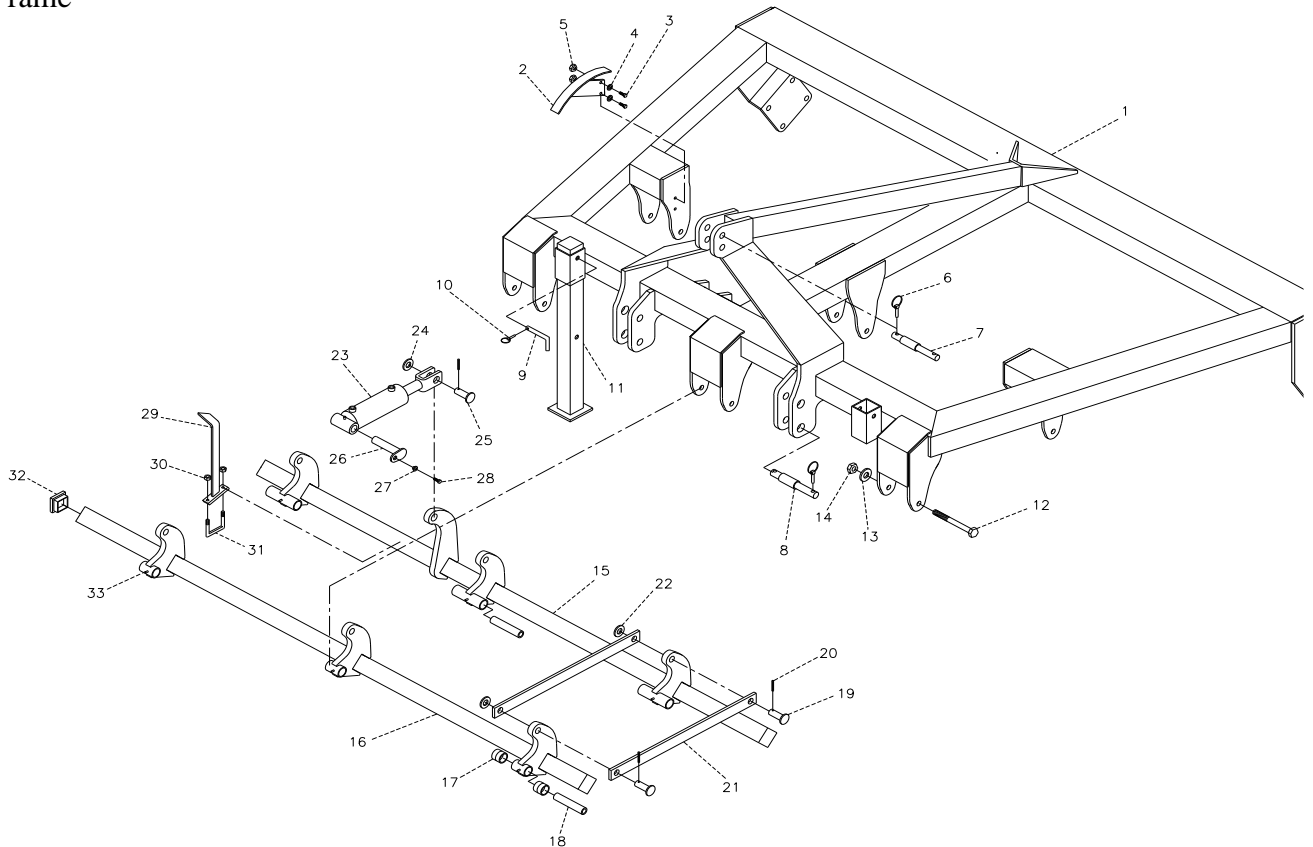
Drawbar (for trailed models)



Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	630931000	Main frame - drawbar	1	1	1
2	630931035	Front drawbar (turnable)	1	1	1
3	630931037	Front drawbar (fixed)	1	1	1
4	690103130	Bolt M16x70 10.9	6	6	6
5	690113008	Self-locking nut M16	6	6	6
6	690117013	Facet plate Ø16	12	12	12
7	630771200	Parking device f/hose on drawbar	1	1	1
8	690103075	Bolt M10x25	2	2	2
9	690210210	Tube-support double Ø14/Ø14	4	4	4

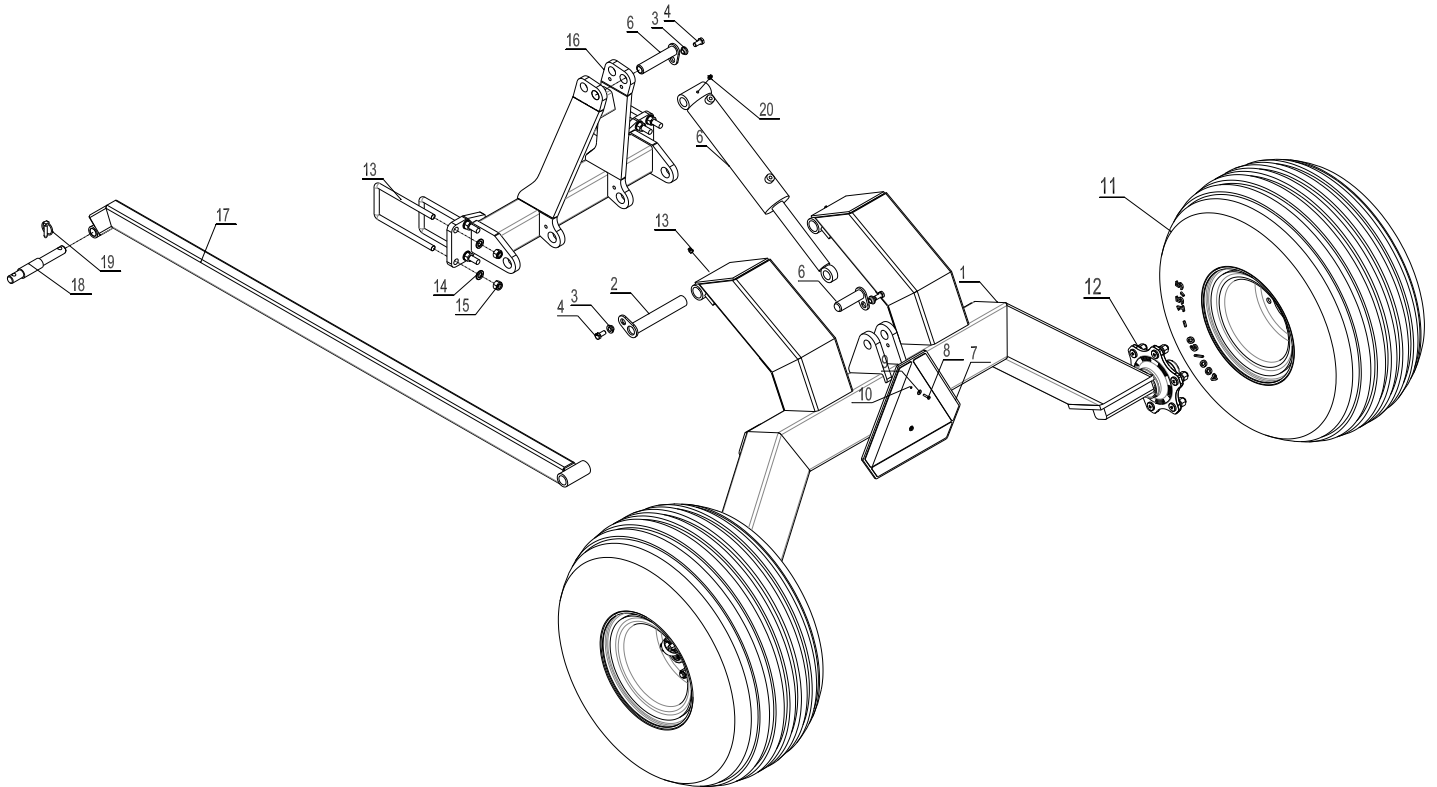
Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
10	690210211	Top plate f/double tube-support	2	2	2
11	690103054	Bolt M8x40	2	2	2
12	630931026	Cylinder 80/40x155 w/ stop bracket	1	1	1
12e	0462970	Gasket set 80/40	1	1	1
13	69435250G	Pin Ø35 L=250	1	1	1
14	630532600	Lock bush f/pin head	1	1	1
15	690101101	Bolt M12x25	1	1	1
16	630931030	Depth stop f/drawbar	1	1	1
17	690103763	Bolt M24 x 80 (set screw)	2	2	2
18	0261425	Nut M24	2	2	2
19	690136029	Lubricating nipple M8	4	4	4
20	690141211	Towing eye (turnable)	1	1	1
21	690105003	Towing eye (fixed)	1	1	1

Frame



Pos.	Item no.	Designation	2,5m	3,0m	3,5m	4,0m
1	630900000	Main frame	1	0	0	0
1	630911000	Main frame	0	1	0	0
1	630920000	Main frame	0	0	0	1
1	630911500	Main frame	0	0	1	0
2	630933260	Scale f/depth control	1	1	1	1
3	690101079	Bolt M10x25	2	2	2	2
4	690117012	Facet plate Ø10	4	4	4	4
5	690113005	Self-locking nut M10	2	2	2	2
6	690134004	Ring pin Ø10	3	3	3	3
7	69525097J	Pin for top link Ø25 L= 97 (Kat. II)	1	1	1	1
7	69525105C	Pin for top link Ø25/Ø32 L= 105 (Kat. II/III) (From machine no. 336430)	1	1	1	1
7	69532100J	Pin for top link Ø32 L= w/ Ø38 head	1	1	1	1
8	69528105C	Pin for lift arm Ø28/36 L=105 (Kat .II/III)	2	2	2	2
8	69537129B	Pin Ø37 L=129 w/handle and lock for split (From machine no. 336430)	2	2	2	2
9	69516094A	Pin for supporting leg Ø16 L = 94mm	2	2	2	2
10	690133005	Hairpin split Ø4	2	2	2	2
11	630911070	Supporting leg	2	2	2	2

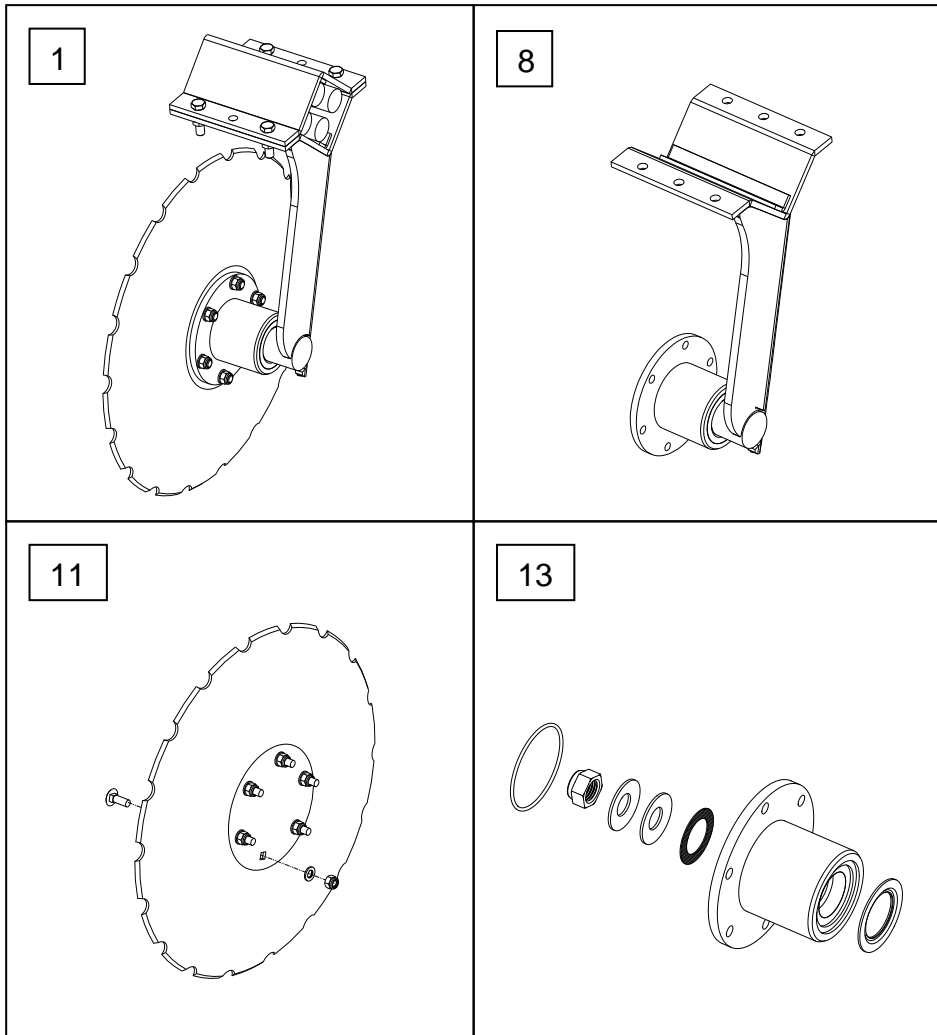
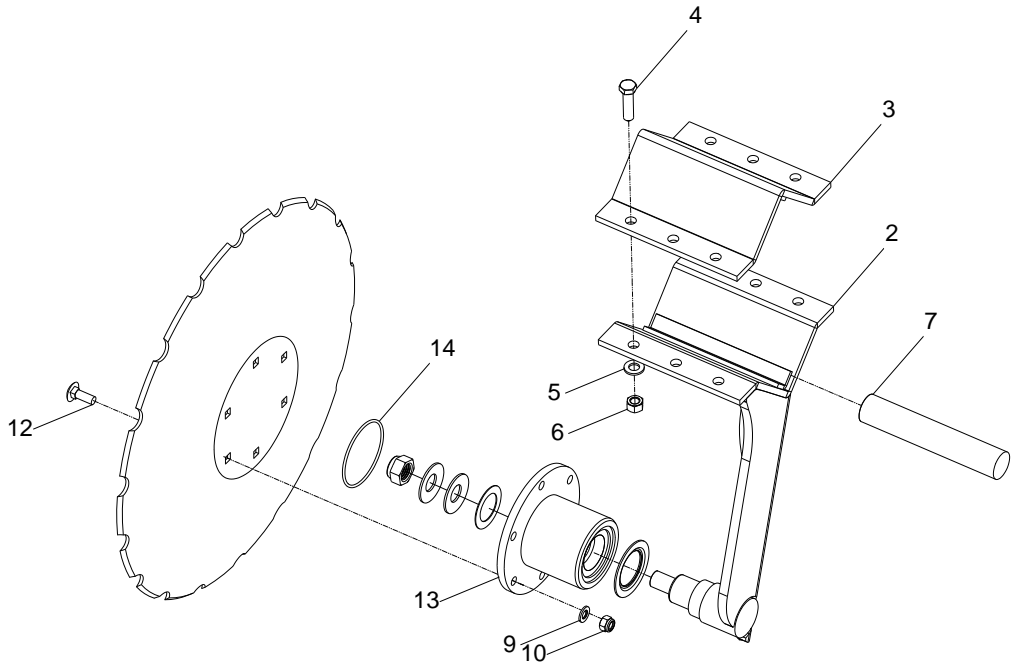
Pos.	Item no.	Designation	2,5m	3,0m	3,5m	4,0m
12	690103172	Bolt M20x200	6	6	6	8
13	690117005	Facet plate Ø20	6	6	6	8
14	690113009	Self-locking nut M20	6	6	6	8
15	690901115	Bar in the rear	1			
15	630911115	Bar in the rear	0	1	0	0
15	630929114	Bar in the rear (left)	0	0	0	1
15	630929111	Bar in the rear (right)	0	0	0	1
15	630911515	Bar in the rear	0	0	1	0
16	630901120	Bar in the front	1			
16	630911120	Bar in front	0	1	0	0
16	630929104	Bar in front (left)	0	0	0	1
16	630929101	Bar in front (right)	0	0	0	1
16	630911520	Bar in front	0	0	1	0
17	630949078	Bush L=20	12	12	12	16
18	630929130	BK-tube Ø30x5 L=148	6	6	6	8
19	69525061F	Pin Ø25 L=58	6	6	6	8
20	690130140	Roll pin Ø6x60	7	7	7	10
21	630949077	Bar: parallel movement of bars	6	6	6	8
22	690117021	Facet plate Ø27	6	6	6	8
23	690200123	Cylinder 80/40x155mm	1	1	1	0
23a	690200143	Gasket set				
23	690200640	Cylinder 85/30x155 (right)	0	0	0	1
23a	690200641	Gasket set				
23	690200620	Cylinder 80/30x155 (left)	0	0	0	1
23a	580200621	Gasket set				
24	690115014	Facet plate Ø30	1	1	1	2
25	69530060F	Pin Ø30 L=58	1	1	1	2
26	69430145G	Pin Ø30 L=145	1	1	1	2
27	630532600	Lock bush f/pin head	1	1	1	2
28	690101101	Bolt M12x25	1	1	1	2
29	630933264	Pointer for depth control	1	1	1	1
30	690113005	Self-locking nut M10	2	2	2	2
31	690110020	U-bolt M10x70x70x70	1	1	1	1
32	690109200	Plastic plug 60x60	4	4	4	8
33	690136029	Lubricating nipple M8	6	6	6	8

Wheel assembly (for trailed models)


Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	630935000	Wheel frame	1	1	1
2	69435220G	Pin Ø35 L=220	2	2	2
3	630532600	Lock bush f/pin head	5	5	5
4	690101101	Bolt M12x25	5	5	5
5	690200085	Cylinder 80/40x255	1	1	1
5e	0462970	Gasket set 80/40	1	1	1
6	69430100G	Pin Ø30 L=100	3	3	3
7	690142001	Warning triangle SMW	1	1	1
8	690103014	Bolt M5x20	2	2	2
9	690117002	Facet plate Ø5	2	2	2
10	690113002	Self-locking nut M5	2	2	2
11	690141210	Wheel 11,5/80 x 15,3 – 10 PLY	2	2	2

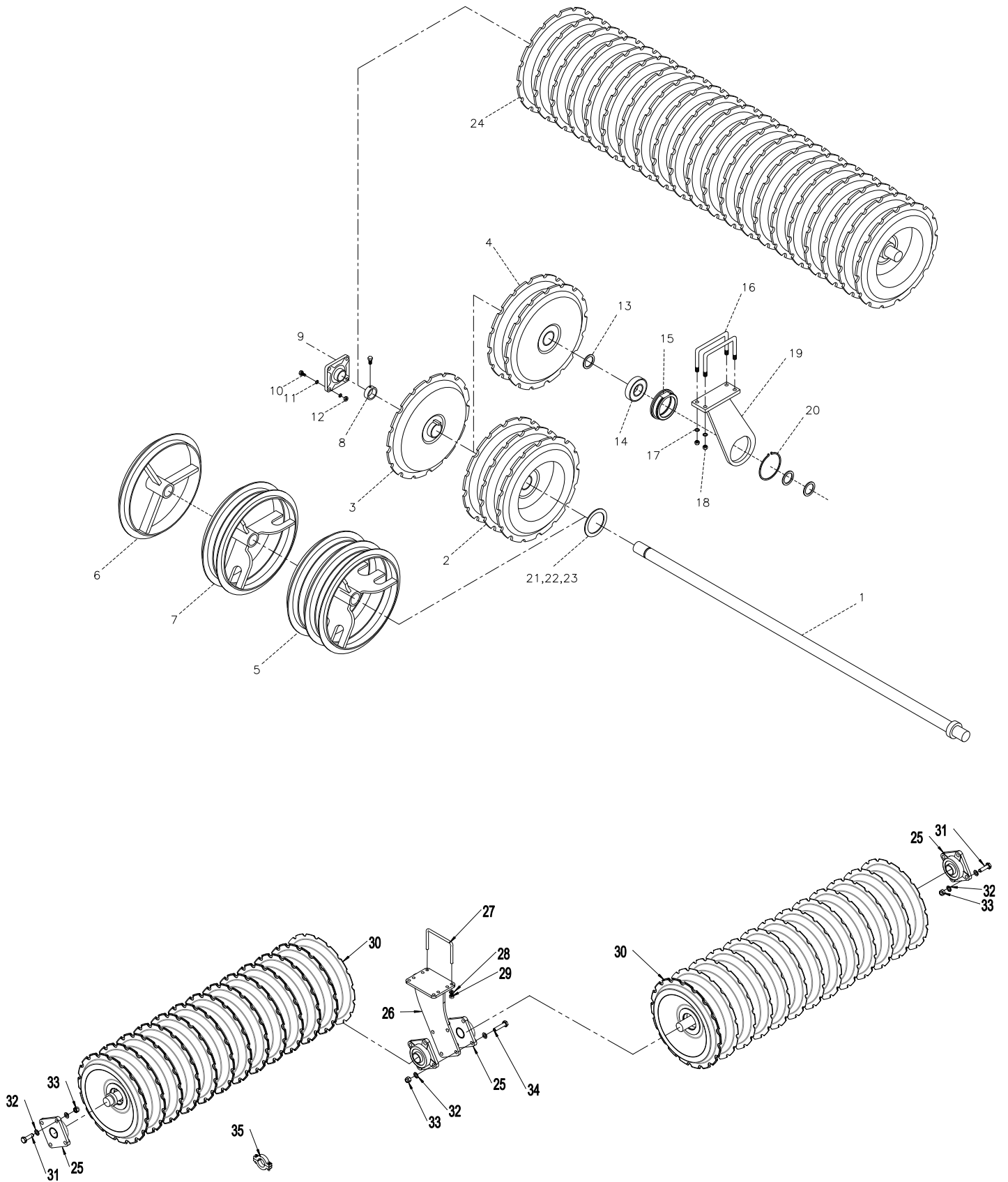
Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
12	690141025	Hub 1700 kg	2	2	2
12	690141031	Hub w/brake 2500 kg End	2	2	2
12	690141032	Hub with brake 3750 kg TVZ	2	2	2
12a	690141039	Hub bolt M18 x 1,5 x 49	12	12	12
12b	690141055	Hub nut M18	12	12	12
12f	690141314	Hub cap Ø62	2	2	2
12f	690141033	Hub cap Ø80 (hub w/brake)	2	2	2
13	690110106	U-bolt M16x200x100x200	4	4	4
13	690110406	U-bolt M18x200x100x200 (From machine no. 344738)	4	4	4
14	690117013	Facet plate Ø16	8	8	8
14	690117015	Facet plate Ø16 (From machine no. 344738)	8	8	8
15	690113008	Self-locking nut M16	8	8	8
15	690113016	Self-locking nut M18 (From machine no. 344738)	8	8	8
16	630915240	Gallows	1	1	1
17	630915254	Pressure bar between gallows and top link attachment	1	1	1
18	69525105C	Pin for top link Ø25/Ø32 L= 105 (Kat. II/III) (From machine no. 336430)	1	1	1
19	690134004	Ring pin Ø10	1	1	1
20	690136029	Lubricating nipple M8	2	2	2

Disc



Pos.	Item no.	Designation	2,5m	3,0 m	3,5 m	4,0 m
1	630949022	Complete disc (left) (front bar)				
1	630949012	Complete disc (right)(rear bar)				
2	630949026	Carrier arm (left)	9	11	13	15
2	630949016	Carrier arm (right)	9	11	13	15
3	630949046	Clamping plate for carrier arm	18	22	26	30
4	690103091	Bolt M12x45 10.9	72	88	104	120
5	690117014	Facet plate Ø12	72	88	104	120
6	690113013	Self-locking nut M12 (all-metal)	72	88	104	120
7	690210710	Rubber cord Ø35 L=205	72	88	104	120
8	630949025	Complete Carrier arm (left) (rear bar)	9	11	13	15
8	630949015	Complete Carrier arm (right) (front bar)	9	11	13	15
9	690117012	Facet plate Ø10	108	132	156	180
10	690113005	Self-locking nut M10	108	132	156	180
11	690153508	Disc (scaloped Ø508 x 4mm w/6 holes and flat centre incl. bolts)	18	22	26	30
12	690101210	Bolt M10x30 (carrier bolt)	108	132	156	180
13	630949035	Repair outfit (with hub)				
13	630949032	Repair outfit) with hub (From machine no. 344472)				
14	690140910	O- ring 80x3				

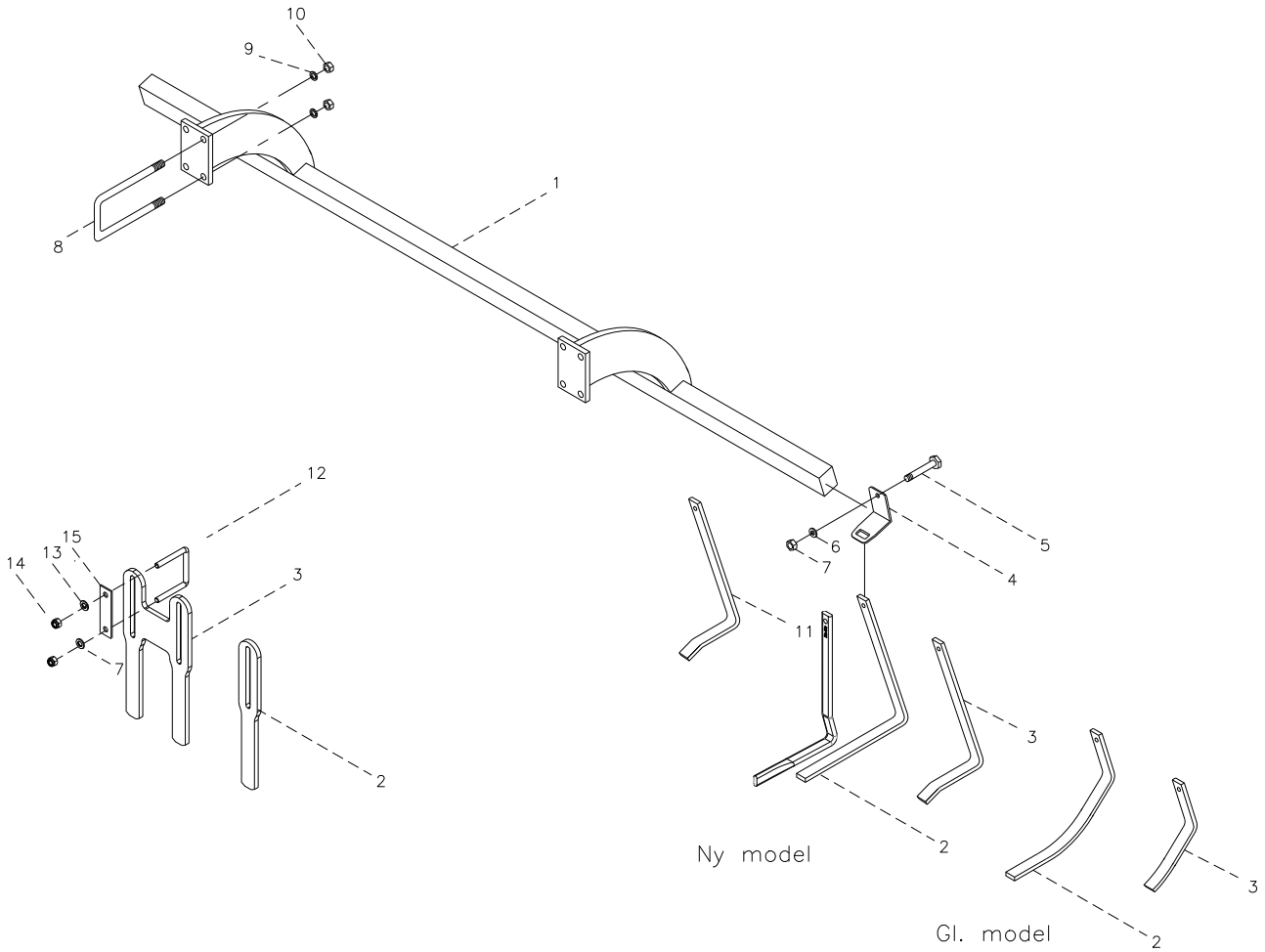
Packing roller



Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	678602435	Axle L=2435	1	0	0	0
1	678602935	Axle L=2935	0	1	0	0
1	678603935	Axle L=3935	0	0	0	1
1	678603435	Axle L=3435	0	0	1	0
2	690150037	V-profile ring, triple, Ø600mm/ Ø60mm	2	2	2	2
3	690150036	V-profile ring, single, Ø600mm/ Ø60mm	10	14	18	22
4	690150044	V-profile ring, twin, Ø600mm/ Ø60mm	2	2	2	2
5	690150058	T-profile ring, triple, Ø600mm/ Ø60mm	2	2	2	2
6	690150056	T-profile ring, single, Ø600mm/ Ø60mm	10	16	18	22
7	690150057	T-profile ring, twin, Ø600mm/Ø60mm narrow/wide	2	2	2	2
7A	690150062	T-profile ring, twin, Ø600mm/Ø60mm wide/wide	2	2	2	2
8	671040400	Stop ring w/bolts ø60	2	2	2	2
9	690140808	Ball bearing UCF 312, ø60, w/4 holes	2	2	2	2
10	690103147	Bolt M20x65	8	8	8	8
11	690117005	Facet plate Ø20	16	16	16	16
12	690113009	Self-locking nut M20	8	8	8	8
13	690137914	Support disc Ø60x75x3 DIN 988	3	3	3	3
14	690140115	Bearing UC 312	1	1	1	1
15	630764008	Bearing housing f/UC 312 bearing	1	1	1	1
16	690110105	U-bolt M16x100x200x100	2	2	2	2
17	690117013	Facet plate Ø16	4	4	4	4
18	690113008	Self-locking nut M16	4	4	4	4
19	630764006	Console for bearing	1	1	1	1
20	691370150	Seeger circlip ring Ø150 DIN 471 outside	1	1	2	1
21	690117101	Shim Ø80x60,5x1mm				
22	690117102	Shim Ø80x60,5x2mm				
23	690117103	Shim Ø80x60,5x5mm				
24	690936300	V-Profile 2435 mm from 2008	1			
24	1160468	V-Profile 2435 mm from 2013	1			
24	630916300	V-Profile 2935 mm from 2008		1		
24	1160470	V-Profile 2935 mm from 2013		1		
24	630916350	V-Profile 3435 mm from 2008			1	

Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
24	1160480	V-Profile 3435 mm from 2013			1	
24	630926300	V-Profile 3935 mm from 2008				1
24	1160481	V-Profile 3935 mm from 2013				1
		Efter maskinnummer: 348560				
25	690140808	Bearing complete UCF 312 Ø60				4
26	630920016	Console for bearing				1
27	690110105	U-bolt M16x100x200x100				4
28	0272290	Facet washer Ø16				8
29	0264090	Self-locking nut M16				8
30	7451029	V-profile Ø600 – Aksellængde 1950				2
31	0236150	Bolt M20x70 8.8				8
32	0272310	Facet washer Ø20				24
33	0264110	Self-Locking nut M20				12
34	0236180	Bolt M20x90 8.8				4
35	690150091	Spacer ring 25mm, incl bolts, washers, nuts				
35	690150090	Spacer ring 15mm, incl bolts, washers, nuts				
35	690150099	Spacer ring 20mm, incl bolts, washers, nuts				

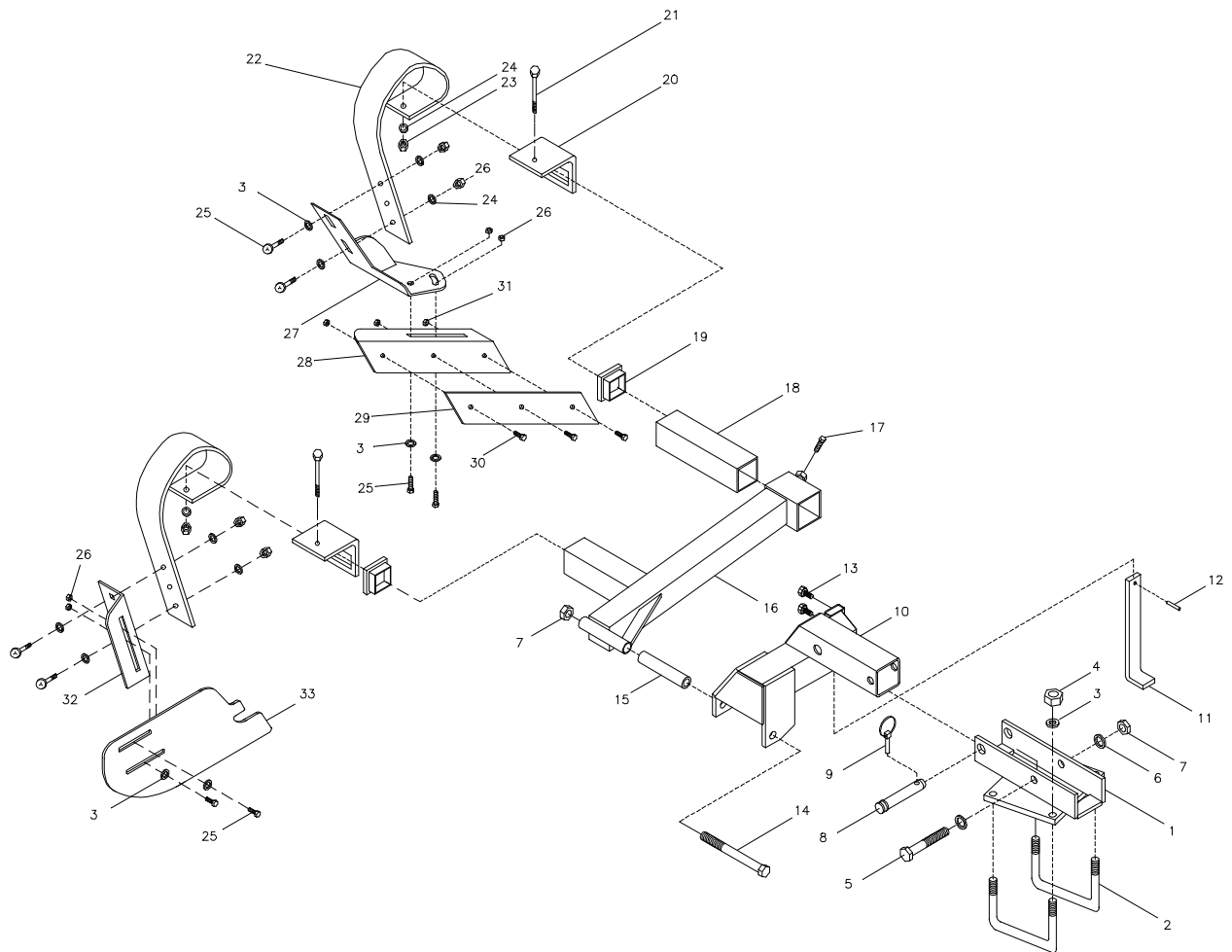
Scraper



Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	630918550	Scraper bar w/bracket (From machine no. 336262) Old model New model		1	0	0
1	630928550	Scraper bar w/bracket (right) (From machine no. 336262) Old. model New model		0	0	1
1	630928560	Scraper bar w/bracket (left) (From machine no. 336262) Old. model New model		0	0	1
1	630918650	Scraper bar w/bracket		0	1	0
1	630908555	Scraper bar w/bracket Model 2009	1			
1	630918555	Scraper bar w/bracket Model 2009		1		
1	630928555	Scraper bar w/bracket (R) Model 2009				1
1	630928565	Scraper bar w/bracket (L) Model 2009				1
1	630918655	Scraper bar w/bracket Model 2009			1	

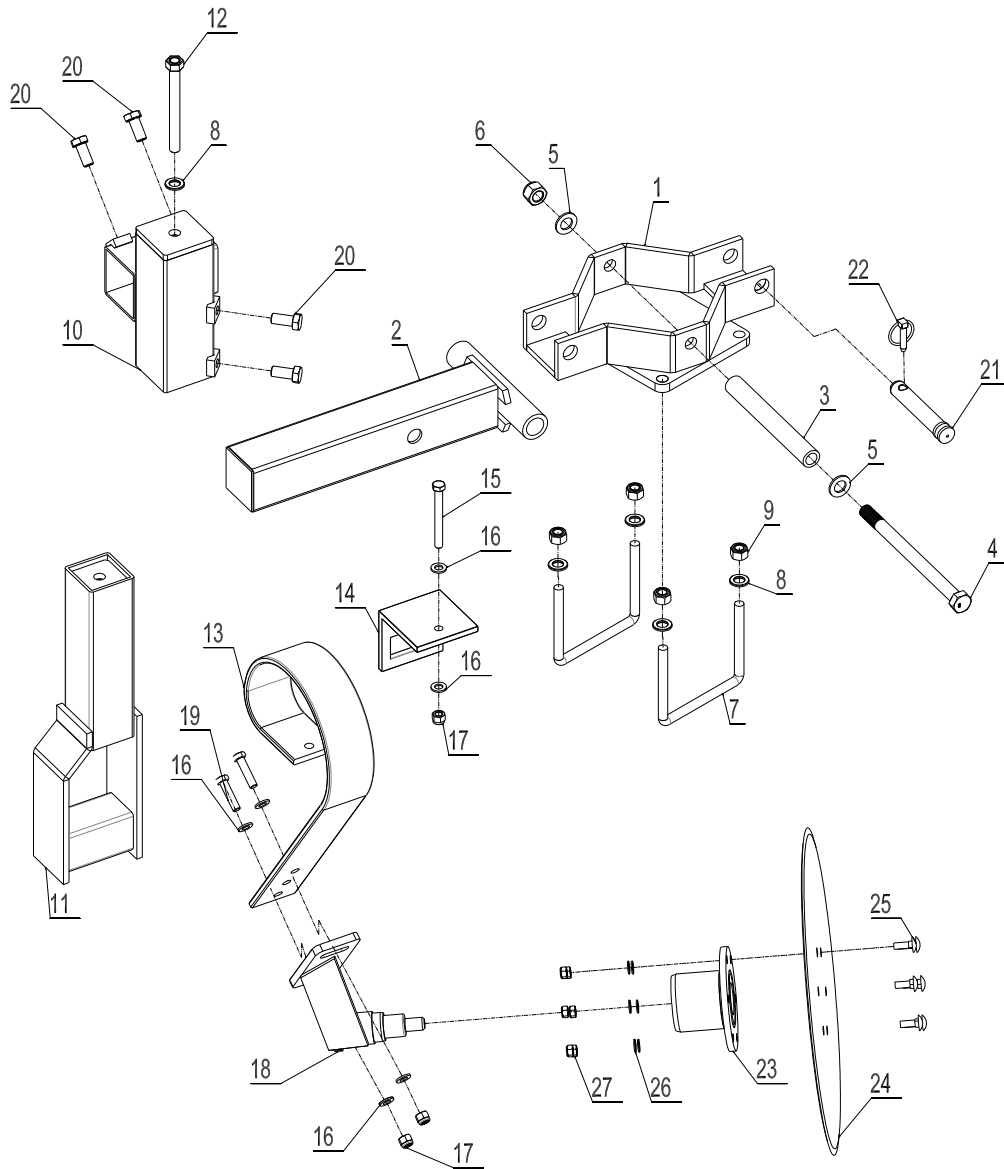
Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	630938571	Scraper bar w/bracket from 2013	1			
1	630938572	Scraper bar w/bracket from 2013		1		
1	630938573	Scraper bar w/bracket from 2013			1	
1	630938576	Scraper bar w/bracket (L) from 2013				1
1	630938577	Scraper bar w/bracket (R) from 2013				1
2	630938525	Scraper f/V-profile ring and T-profile ring (long)		20	24	28
2	630938523	Scraper f/V-profile ring and T-profile ring (long) (From machine no. 336262)(and from 2013)	16	20	24	28
2	630938520	Scraper, twisted (from 2013)	16	20	24	28
2	630938505	Scraper single 2009	1	1	2	1
3	630938527	Scraper f/V-profile ring and T-profile ring (short)		3	3	3
3	630938524	Scraper f/V-profile ring and T-profile ring (short) (From machine no. 336262)		3	3	3
3	630938506	Scraper double 2009	9	11	13	15
4	690152030	Clamp		23	27	31
4	630938522	Clamp (From machine no. 336262)		23	27	31
5	690103098	Bolt M12x110		23	27	31
5	690103086	Bolt M12x90 (From machine no. 336262)		23	27	31
6	690117014	Facet plate Ø12		23	27	31
7	690113006	Self-locking nut M12		23	27	31
8	690110106	U-bolt M16x200x100x200	4	4	4	8
9	690117013	Facet plate Ø16	8	8	8	16
10	690113008	Self-locking nut M16	8	8	8	16
11	630938526	Scraper f/ V-profile		23	27	31
12	690110025	U-bolt M10 50x70x50	19	23	27	31
13	690117012	Facet plate Ø10	38	46	54	62
14	690113005	Self-locking nut Ø10	38	46	54	62
15	630938507	Clamp for scraper 2009	19	23	27	31

Edge equipment



Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	630933275	Bracket f/edge equipment	1	1	1
2	690110103	U-bolt M16x100x150x100	2	2	2
3	690117013	Facet plate Ø16	12	12	12
4	690113008	Self-locking nut M16	4	4	4
5	690103171	Bolt M20x130	1	1	1
6	690117005	Facet plate Ø20	2	2	2
7	690113009	Self-locking nut M20	1	1	1
8	69525097J	Pin f/top link ø25 L=97	1	1	1
9	690134004	Ring pin ø10	1	1	1
10	630933277	Connecting link f/edge equipment (From machine no. 335893)	1	1	1
		Old model			
		New model			

Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
11	630933298	Depth adjusting device	1	1	1
12	690130161	Roll pin Ø8x40	1	1	1
13	690101079	Bolt M10x25	2	2	2
14	690103172	Bolt M20x200	1	1	1
15	630929130	Tube Ø30 L=148	1	1	1
16	630933285	Arm f/edge plough (From machine no. 335893)	1	1	1
		Old model New model			
	690103284	Bolt M16x100	1	1	1
		Old. model			
	690115008	Washer Ø17 x 40 x 6mm	1	1	1
		Old model			
	690112005	Nut M16	1	1	1
		Old. model			
17	690103124	Bolt M16x 35	1	1	1
18	630933287	Bar f/edge plough	1	1	1
19	690109202	Plastic plug 70x70	4	4	4
20	633052200	Clamp for tine	2	2	2
21	690103088	Bolt M12x110	2	2	2
22	633052050	Tine (10x80)	2	2	2
23	690113013	Self-locking nut M12 (all-metal)	2	2	2
24	690117014	Facet plate Ø12	6	6	6
25	690101220	Bolt M12x45 (carrier bolt)	8	8	8
26	690113006	Self-locking nut M12	8	8	8
27	630949430	Bracket f/edge plough	1	1	1
28	630949440	Edge plough	1	1	1
29	630949445	Share f/edge plough	1	1	1
30	690101210	Bolt M10x30 (carrier bolt)	3	3	3
31	690113005	Self-locking nut M10	3	3	3
32	630949420	Bracket f/edge plate	1	1	1
33	630949410	Edge plate	1	1	1
		Old model			
33	630949412	Edge plate (From machine no. 335893)	1	1	1
		Old model New model			

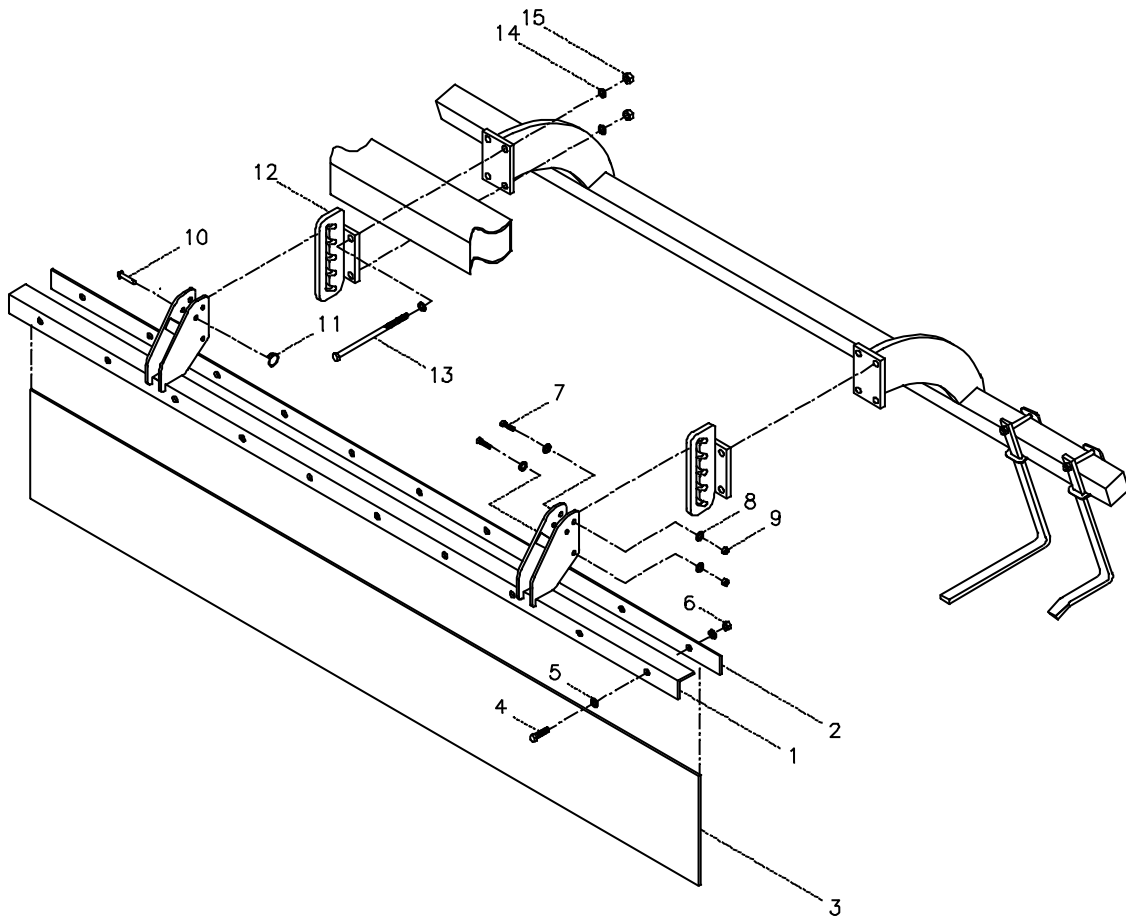
Edge equipment from machine no.341738


Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
	630943094	Complete edge equipment incl 508mm disc	1	1	1	1
1	630943088	Mounted holder	1	1	1	1
2	630943090	Mounted element	1	1	1	1
3	630943095	Tube 30x5 L= 233	1	1	1	1
4	690103285	Bolt M20x280 8.8	1	1	1	1
5	690117005	Facet plate Ø20	1	1	2	2
6	690113009	Self-locking nut M20	1	1	1	1
7	690110103	U-bolt M16x100x150x100	1	1	2	2

Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
8	690117013	Facet plateØ16	1	1	5	5
9	690113008	Self-locking nut M16	1	1	4	4
10	630943099	Mounted spindle cross	1	1	1	1
11	630943102	Mounted tine holder/spindle	1	1	1	1
12	630943109	Adjusting bolt	1	1	1	1
13	633052050	Springboard tine 80x10mm - long	1	1	1	1
14	633052200	Clamp for Spring-Board tine	1	1	1	1
15	690103098	Bolt M12x110 10.9	1	1	1	1
16	690117014	Facet plate Ø12	6	6	6	6
17	690113006	Self-locking nut M12	3	3	3	3
18	630943080	Mounted bracket	1	1	1	1
19	690103096	Bolt M12x50 8.8	2	2	2	2
20	690103117	Bolt M14x40 8.8 set-bolt	4	4	4	4
21	69525107J	Pin ø28 L=107	1	1	1	1
22	690134004	Ring pin Ø10	1	1	1	1
23	630949035	Hub	1	1	1	1
24	690153509	Disc, plain, ø508x4,0mm	1	1	1	1
25	690101210	Cariage bolt M10x30 8.8	6	6	6	6
26	690117012	Facet plate Ø10	6	6	6	6
27	690113005	Self-locking nut M10	6	6	6	6

Spare parts list - Extra equipment

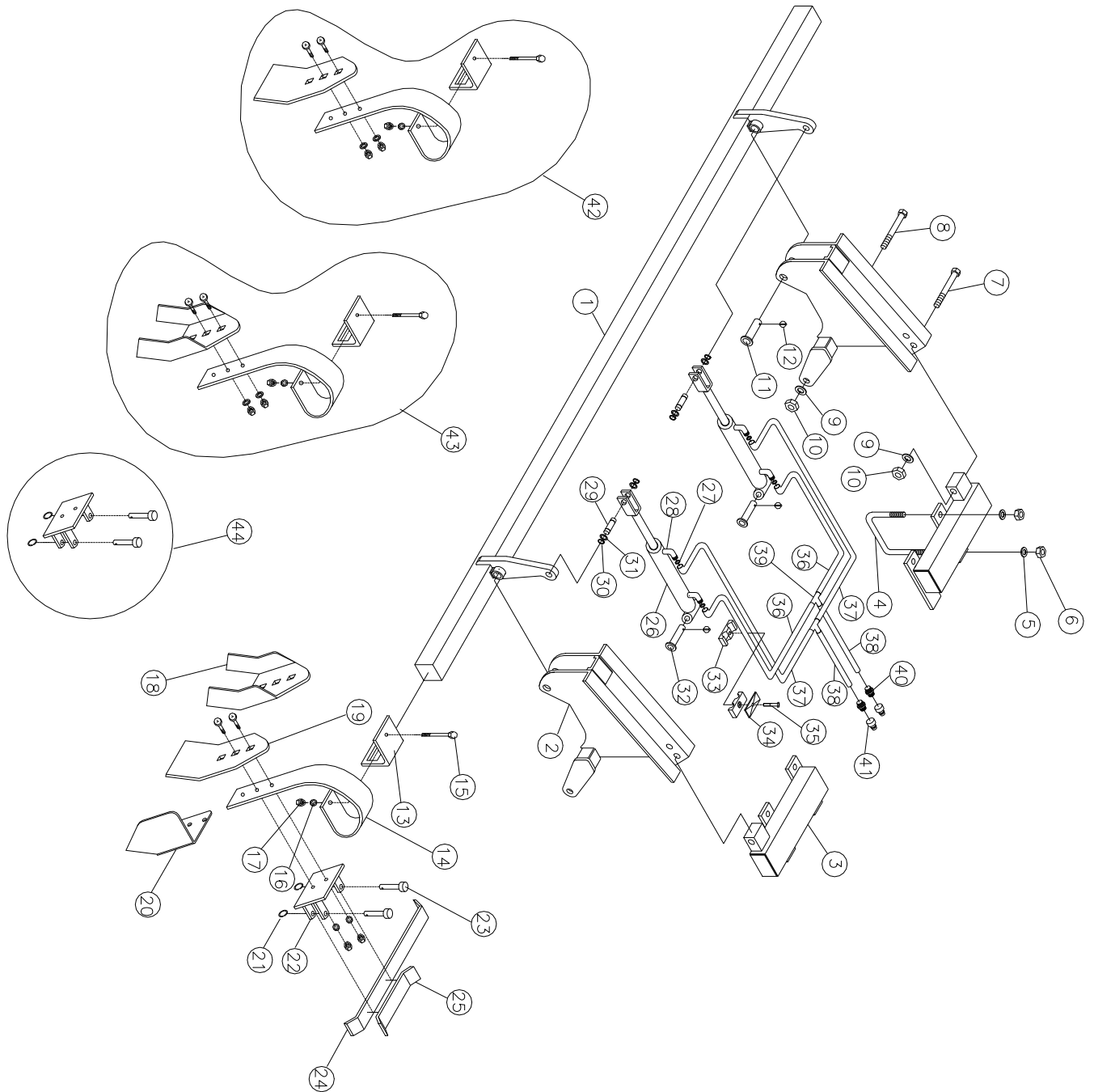
Material damper guard



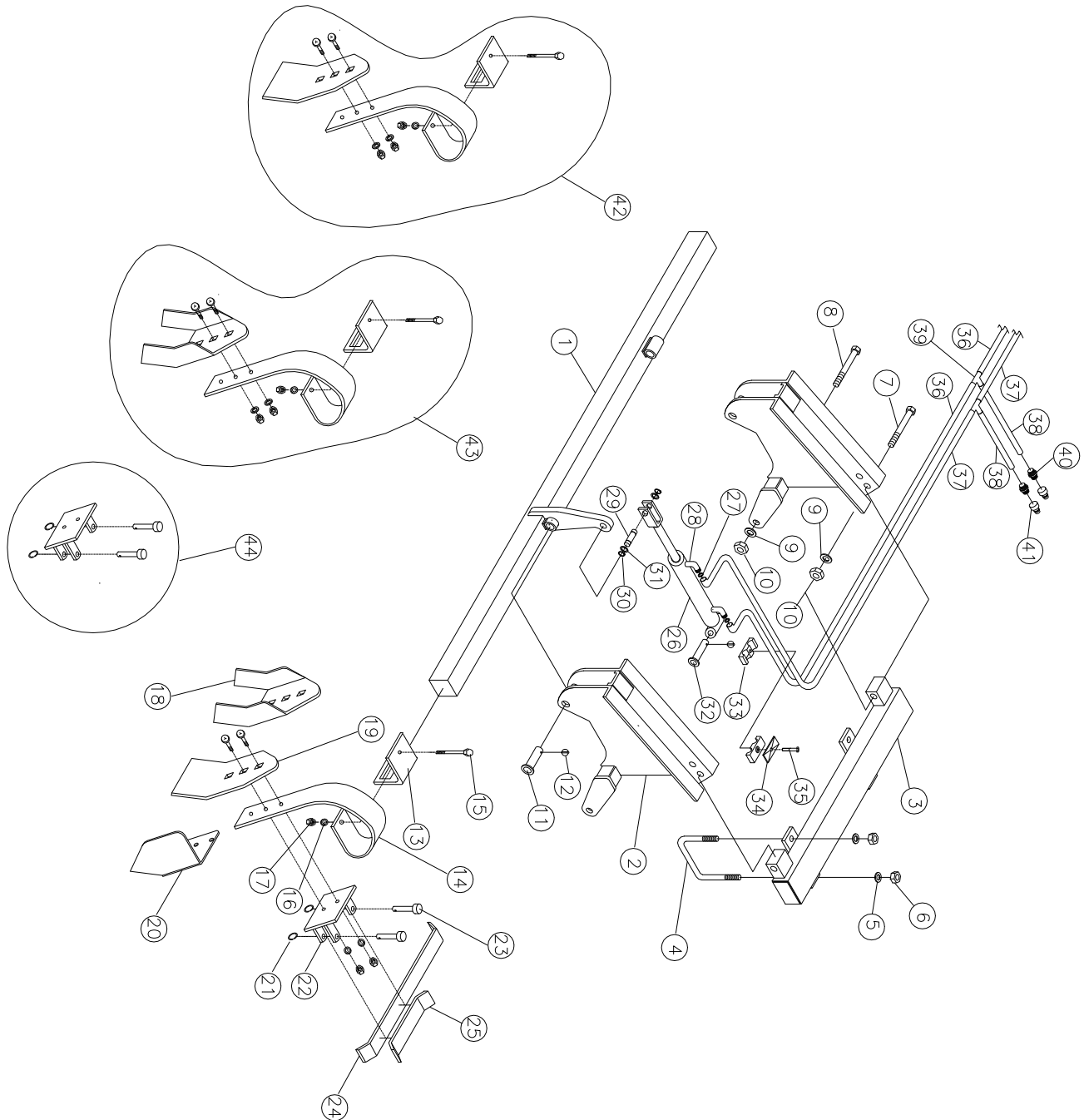
Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	630908540	Bar f/material damper guard	1	0	0	0
1	630938594	Bar f/material damper guard from 2013	1	0	0	0
1	630918540	Bar f/material damper guard	0	1	0	0
1	630938593	Bar f/material damper guard from 2013	0	1	0	0
1	630918640	Bar f/material damper guard	0	0	1	0
1	630938595	Bar f/material damper guard from 2013	0	0	1	0
1	630928540	Bar f/material damper guard	0	0	0	2
1	630938591	Bar f/material damper guard (Left) from 2013				1
1	630938592	Bar f/material damper guard (Right) from 2013				1
2	630908538	Clamping plate f/material damper guard	1			

Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
2	630918538	Clamping plate f/material damper guard	0	1	0	0
2	630928538	Clamping plate f/material damper guard	0	0	0	2
2	630918638	Clamping plate f/material damper guard	0	0	1	0
3	630908528	Rubber mat L = 2435mm	1			
3	630918528	Rubber mat L = 2980mm	0	1	0	0
3	630928528	Rubber mat L = 1980 mm	0	0	0	2
3	630918628	Rubber mat L = 3480 mm	0	0	1	0
4	690103054	Bolt M8x40	10	12	14	16
5	690117004	Facet plate Ø8	20	24	28	32
6	690113004	Self-locking nut M8	10	12	14	16
7	690103096	Bolt M12x50	4	4	4	8
8	690117014	Facet plate Ø12	8	8	8	16
9	690113006	Self-locking nut M12	4	4	4	8
10	69512040K	Pin Ø12,5 L=40	2	2	2	4
11	690134000	Locking ring 30 x Ø3	2	2	2	4
12	630938545	Suspension f/material damper guard	2	2	2	4
13	690103295	Bolt M16x260	8	8	8	16
14	690117013	Facet plate Ø16	16	16	16	32
15	690113008	Self-locking nut M16	8	8	8	16

Spring-Board 2,5m + 3,0m + 3,5 m



Spring-Board (left) 4,0m

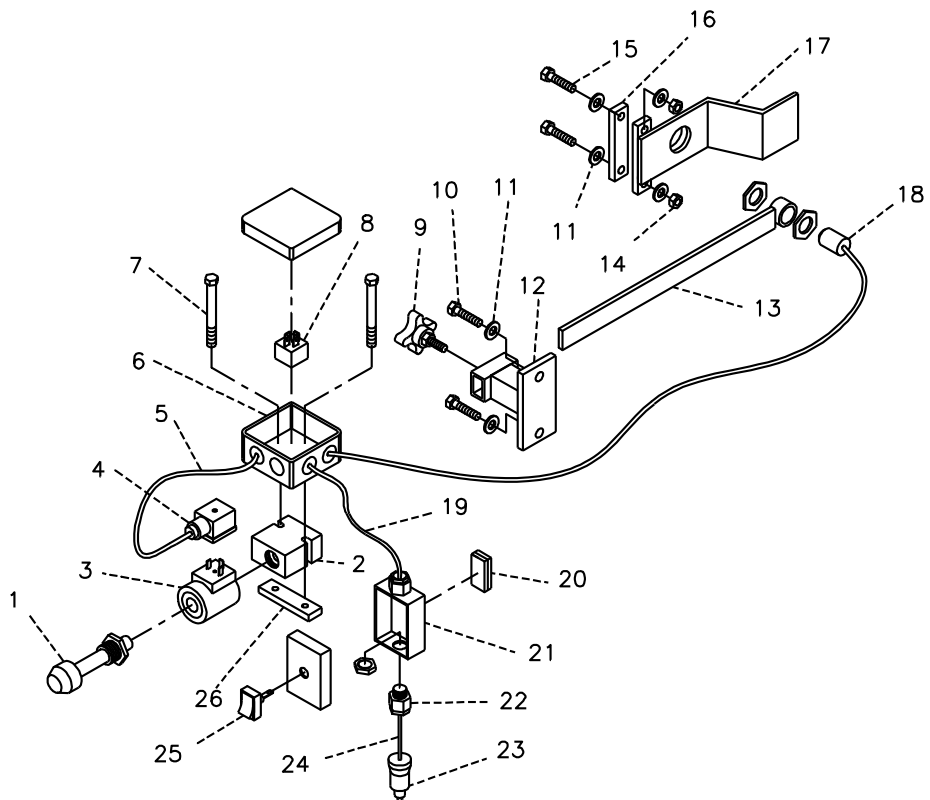
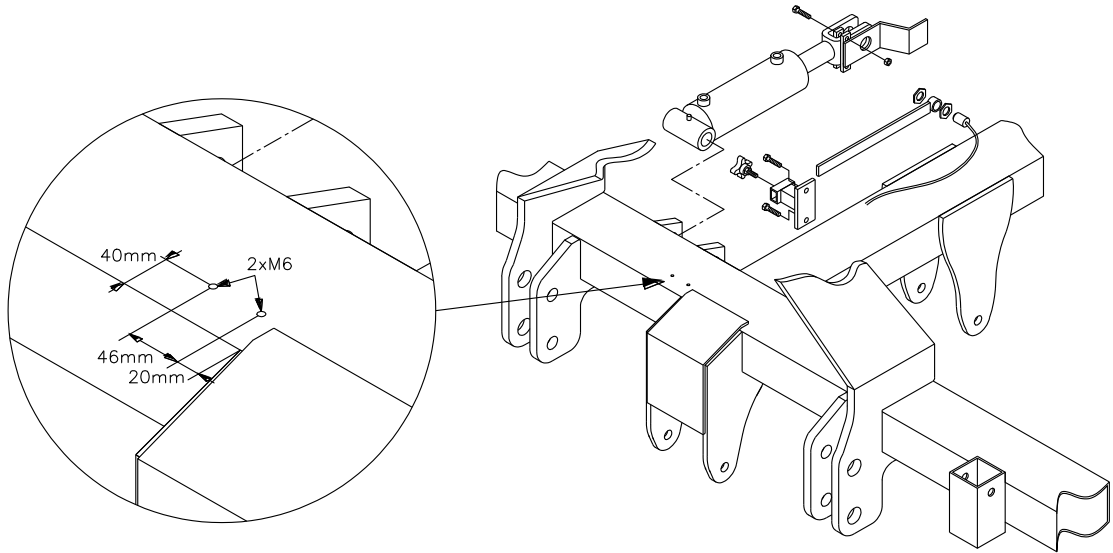


Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	633903000	Bar	1	0	0	0
1	633913000	Bar	0	1	0	0
1	633923000	Bar (left)		0	0	1
1	633923001	Bar (right)		0	0	1
1	633913500	Bar		0	1	0
2	633910020	Horn	2	2	2	4
3	633911000	Mounting bar (right)	1	1	1	0
3	633911010	Mounting bar (left)	1	1	1	0
3	633921000	Mounting bar (right)				1
3	633921010	Mounting bar (left)				1
4	690110103	U-bolt M16x100x150x100	4	4	4	4
5	690117013	Facet plate Ø16	8	8	8	8
6	690113008	Self-locking nut M16	8	8	8	8
7	690103170	Bolt M20x110	2	2	2	4
8	690103178	Bolt M20x220	2	2	2	4
9	690117005	Facet plate Ø20	4	4	4	8
10	690113009	Self-locking nut M20	4	4	4	8
11	69525087F	Pin Ø25 L=87	2	2	2	4
12	690134001	Ring pin Ø4,5	4	4	4	6
13	633052200	Clamp for tine	10	12	14	16
14	633052050	Tine (10x80)	10	12	14	16
15	690103098	Bolt M12x110 10,9	10	12	14	16
16	690117014	Facet plate Ø12	10	12	14	16
17	690113006	Self-locking nut M12	10	12	14	16
18	633052150	Slicing plates point incl. bolts	10	12	14	16
19	633052100	Tine point (8x150) incl. bolts	10	12	14	16
20	633052250	Edge equipment (L)	1	1	1	1
20	633052255	Edge equipment (R)	1	1	1	1
21	690134000	Locking ring Ø30x3	20	24	28	32
22	633055500	Tine bracket f/transverse locking system	10	12	14	16
23	69512040K	Pin Ø12,5x40	20	24	28	32
24	633055710	Locking bar f/transverse locking system (long)	9	11	13	15
25	633055700	Locking bar f/transverse locking system (short)	2	2	2	2

Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
26	690200160	Cylinder 50/30x155	2	2	2	2
26a	690200046	Gasket set 50/30				
27	690207901	Restrictor 1 mm	4	4	4	4
28	690203006	Fitting, 90angle, 10x3/8" BSP	4	4	4	4
29	69520046D	Pin Ø20 L=46	2	2	2	2
30	691372020	Seeger circlip ring Ø20	4	4	4	4
31	690115010	Washer Ø20/Ø28 x 1mm	4	4	4	4
32	69520087F	Pin Ø20 L=87	2	2	2	2
33	690210210	Tube-support double Ø14/Ø14	4	4	4	4
34	690210211	Top plate f/double tube-support	2	2	2	2
35	690103054	Bolt M8x40	2	2	2	2
36	690201053	Hydraulic hose 1260 mm ¼" st/st	2	2	2	2
37	690201018	Hydraulic hose 1460 mm ¼" st/st	2	2	2	2
38	690201029	Hydraulic hose 4300 mm ¼" st/st	2	2	2	2
39	690203015	Fitting, T10	2	2	2	2
40	690203003	Fitting, straight 10-1/2" BSP	2	2	2	2
41	690203001	Quick coupling, male E402 ½"	2	2	2	2
42	633052000	Tine w/flat tine point (complete)				
43	633052025	Tine w/slicing plates point (complete)				
44	633055510	Tine bracket f/transverse locking system (complete)				

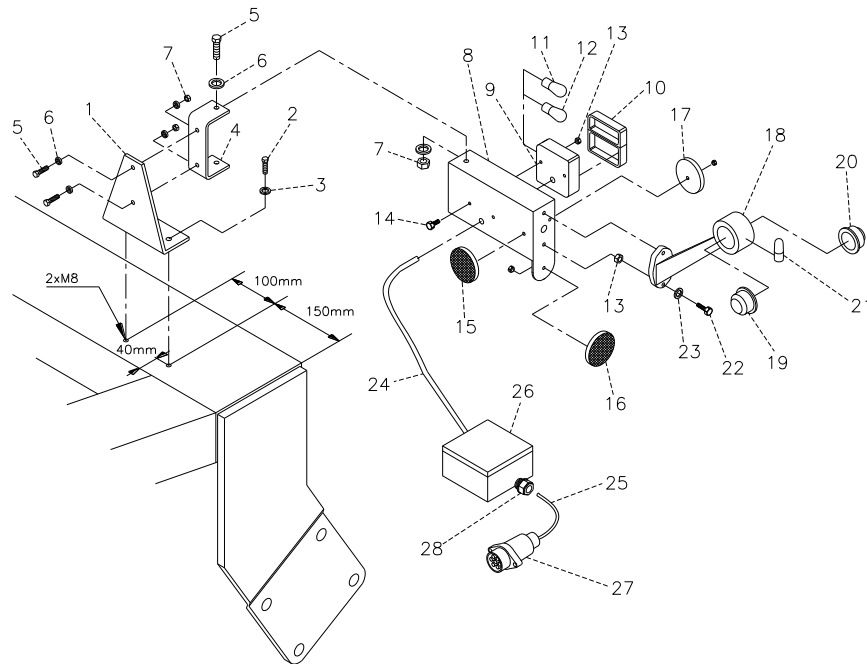
Note: Number of cables and lengths can vary according to machine type, verify, therefore, length and number before ordering spare parts

El. depth stop for disc



Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	690209460	Valve 10 NO	1	1	1	1
2	690209455	Valve block 4B 10/2 1/2"	1	1	1	1
3	690209465	Magnet coil 12VDC 20W	1	1	1	1
4	690209030	Plug f/solenoid valve DIN 43650	1	1	1	1
5	690209440	Cable 2 x 0.75 mm ² 0.32m	1	1	1	1
6	690209490	Connecting box 80x80x50	1	1	1	1
7	690103042	Bolt M6x60	2	2	2	2
8	690209450	Relay 12V/30A	1	1	1	1
9	690111080	Thumbscrew M8x20	1	1	1	1
10	690103049	Bolt M8x25	2	2	2	2
11	690117004	Facet plate Ø8	6	6	6	6
12	630949133	Bracket f/ scale/inductive sensor	1	1	1	1
13	690209435	Scale f/ inductive sensor on el. depth stop	1	1	1	1
14	690113004	Self-locking nut M8	2	2	2	2
15	690103057	Bolt M8x50	2	2	2	2
16	630939133	Clamping plate f/ sensor activator	1	1	1	1
17	630939131	Sensor activator f/ inductive sensor	1	1	1	1
18	690209445	Inductive sensor w/ 1 m cable	1	1	1	1
19	690209440	Cable 2x0.75 mm ² 4,5m	1	1	1	1
20	690210720	Velcro band L=65 mm	1	1	1	1
21	690209486	Connecting box 72x50x41	1	1	1	1
22	690209475	Connector PG11 w/nut	2	2	2	2
23	690209470	Plug 2 pol +/- 12V	1	1	1	1
24	690209440	Cable 2x0.75 mm ² 1,0m	1	1	1	1
25	690209480	Switch 0-1 (red) Ø12 hole mounting	1	1	1	1
26	630941061	Clamping plate f/valve block	1	1	1	1

Lights

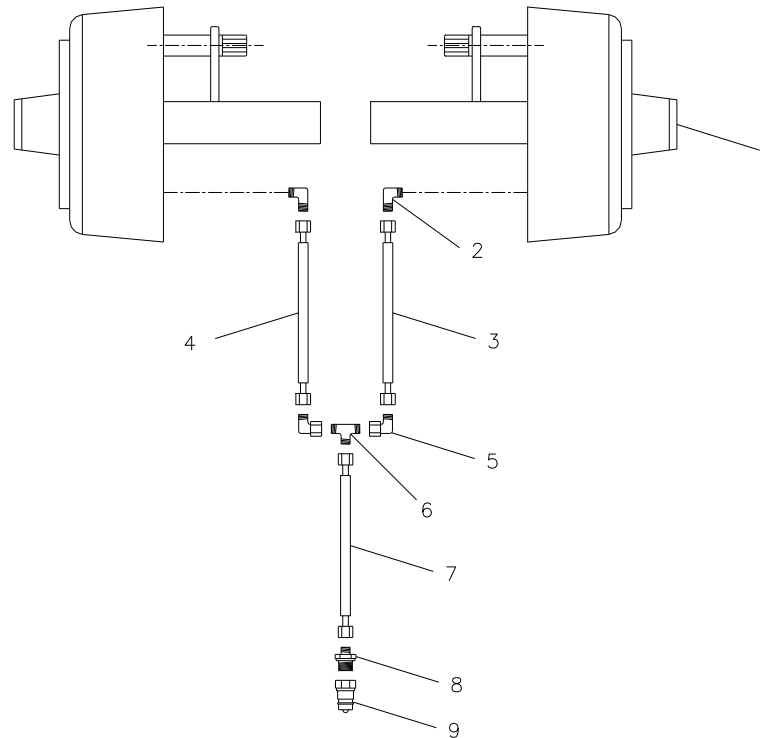


Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1	630910110	Console f/light box	2	2	2	2
2	690103048	Bolt M8x20	4	4	4	4
3	690117004	Facet plate Ø8	4	4	4	4
4	630930110	Bracket for light box	2	2	2	2
5	690103025	Bolt M6x20	8	8	8	8
6	690117003	Facet plate Ø6	16	16	16	16
7	690113003	Self-locking nut M6	8	8	8	8
8	690160010	Light box left	1	1	1	1
8	690160011	Light box right	1	1	1	1
9	690160030	Rear light (complete)	2	2	2	2
10	690160031	Glass f/rear light	2	2	2	2
11	690160032	Bulb f/flasher 12V 1x21W – BA 15 s	2	2	2	2
12	690160033	Bulb f/rear- and stoplight 12V 1x21/5W – BAY 15 d	2	2	2	2
13	690113002	Self-locking nut M5	8	8	8	8
14	690103014	Bolt M5x20	4	4	4	4
15	690160041	Reflex (white) w/screwed pin and nut	2	2	2	2

Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
16	690160042	Reflex (yellow) w/screwed pin and nut	2	2	2	2
17	690160040	Reflex (red) w/holes	2	2	2	2
18	690160060	Marking lights (left + right)	2	2	2	2
19	690160065	Glass f/marketing lights (white)	2	2	2	2
20	690160066	Glass f/marketing lights (red)	2	2	2	2
21	690160067	Bulb f/marketing lights 12V 10W – BA 15 s	2	2	2	2
22	690210100	Screw M5x16	4	4	4	4
23	690117002	Facet plate Ø5	4	4	4	4
24	690160080	Cable 5 x 1mm ² (right) L = 1,60 m	1	1	0	0
24	690160080	Cable 5 x 1mm ² (left) L = 1,30 m	1	1	0	0
24	690160080	Cable 5 x 1mm ² (right) L = 1,85 m	0	0	1	0
24	690160080	Cable 5 x 1mm ² (right) L = 1,55 m	0	0	1	0
24	690160080	Cable 5 x 1mm ² (right) L = 1,30 m	0	0	0	1
24	690160080	Cable 5 x 1mm ² (left) L = 2,65 m	0	0	0	1
25	690160080	Cable 5 x 1mm ² (mounted) L = 3,50 m	1	1	1	0
25	690160080	Cable 5 x 1mm ² (mounted) L = 4,00 m	0	0	0	1
25	690160080	Cable 5 x 1mm ² (trailed) L = 6,50 m	1	1	1	0
25	690160080	Cable 5 x 1mm ² (trailed) L = 7,50 m	0	0	0	1
26	690209492	Connecting box 105x105x60	1	1	1	1
27	690160070	Plug 7-poles DIN 72 577 – ISO 1724	1	1	1	1
28	690209475	Male connector PG11 w/nut	3	3	3	3

Note: Number of cables and lengths can vary according to machine type, verify, therefore, length and number before ordering spare parts

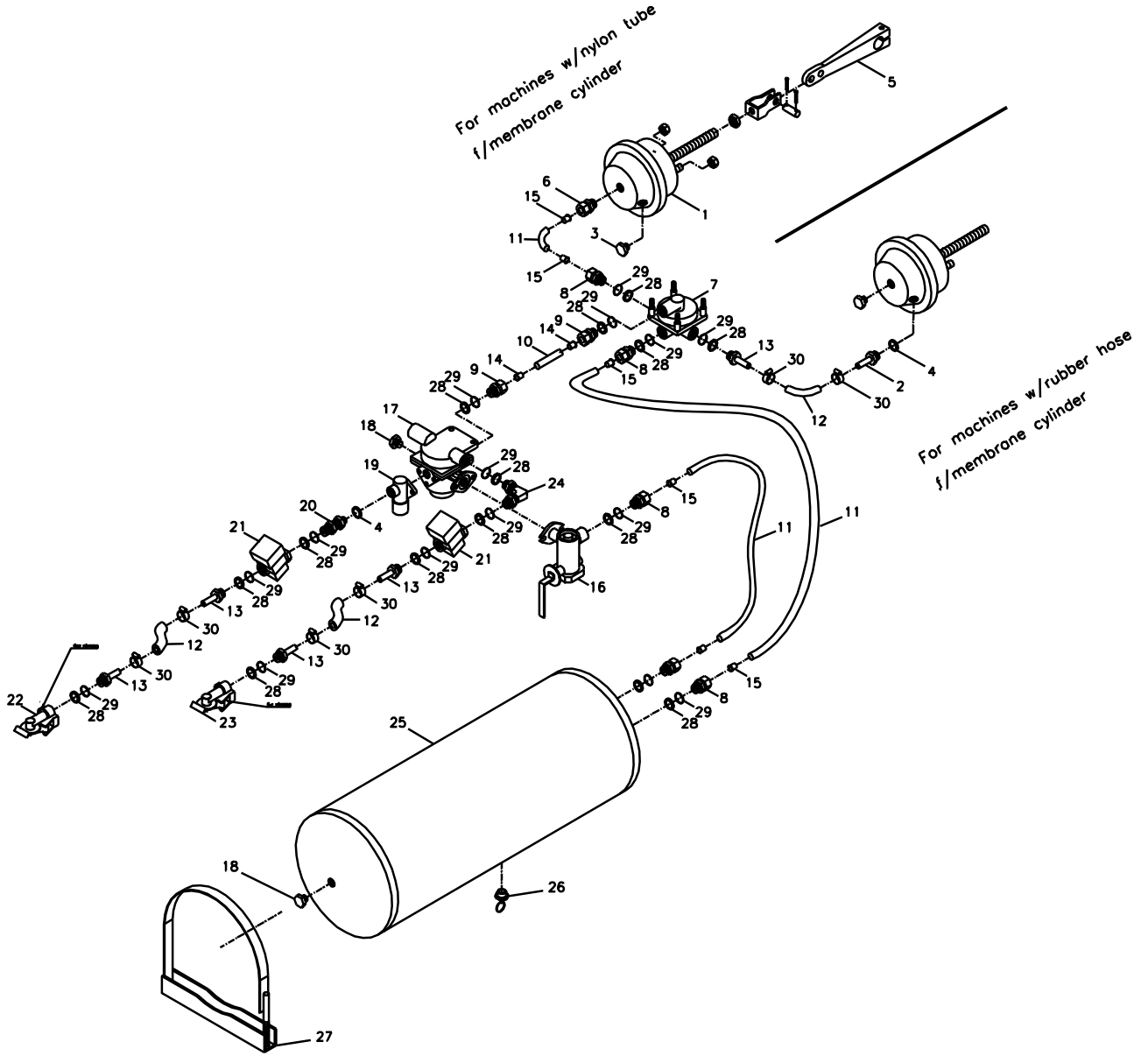
Hydraulic brakes



Pos.	Item no.	Designation	2,5 m	3,0 m	3,5 m	4,0 m
1		See pos. 12, page 18	2	2	0	0
1		See pos. 12, page 18	0	0	0	2
1		See pos. 12, page 18	0	0	2	0
2	690203006	Fitting, 90angle, 10x3/8" BSP	2	2	2	2
3	690201020	Hydraulic hose 1625 mm 1/4"	1	1	1	1
4	690201020	Hydraulic hose 1625 mm 1/4"	1	1	1	1
5	690203016	Fitting, 90angle 10 mm	2	2	2	2
6	690203015	Fitting, T10	1	1	1	1
7	690201012	Hydraulic hose 6000mm 1/4"	1	1	1	1
8	690203003	Fitting, straight 10-1/2" BSP	2	2	2	2
9	690203001	Quick coupling, male E402 1/2"	2	2	2	2

Note: Number of hoses and lengths can vary according to machine type, verify, therefore, length and number before ordering spare parts

Air brakes

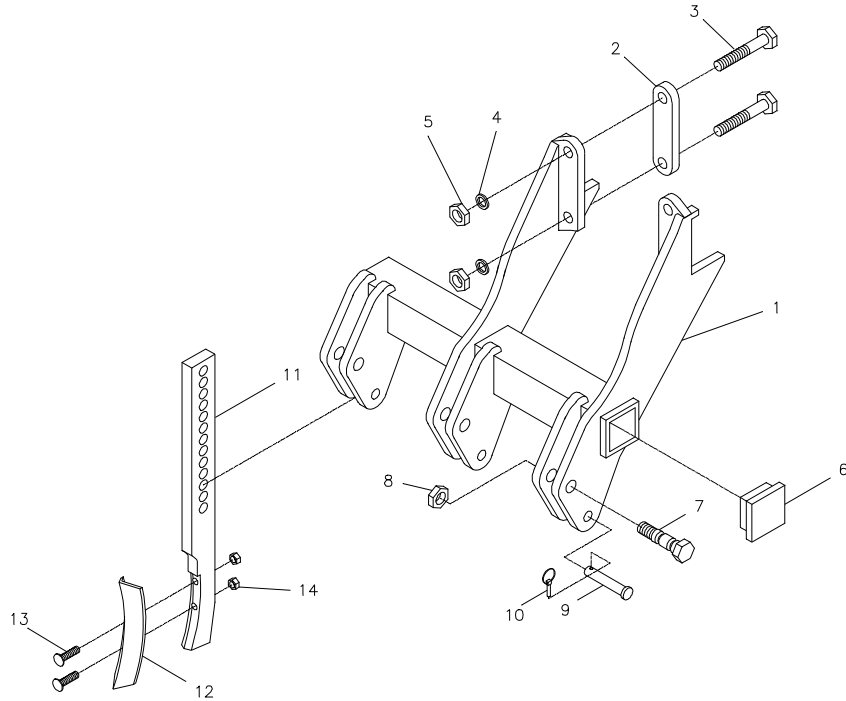


Pos.	Item no.	Designation	w/nylon tube f/membrane cyl.	w/rubber hose f/membrane cyl.
1	690190001	Membrane cylinder 16"	2	2
2	690190070	Hose fitting M16x1.5 w/ Ø12	0	2
3	690190005	Test fitting, straight M16x1.5	2	2
4	690208102	Bonded seal PP 45-12	1	3
5	690190010	Mounting set, short U-bracket	2	2
6	690202930	Fitting, straight M16x1.5, Ø15 hose	2	0
7	690190015	Relay valve M22x1.5	1	1
8	690202941	Fitting, straight M22x1.5, Ø15 hose	6	4
9	690202940	Fitting, straight M22x1.5, Ø10 hose	2	2
10	690190080	Nylon tube Ø10x1mm	1	1
11	690190085	Nylon tube Ø15x1.5mm	4	2
12	690190105	Hose Ø14.5x5mm	2	4
13	690190073	Hose fitting M22x1,5, w/Ø12	4	6
14	690190090	Support bushing f/tube Ø10x1.5mm	2	2
15	690190095	Support bushing f/tube Ø15x1.5mm	8	4
16	690190020	Brake power regulator M22x1.5	1	1
17	690190025	Trailer air brake valve M22x1.5	1	1
18	690190026	Plug	2	2
19	690190035	Relief valve	1	1
20	690203420	Fitting, straight M16x1.5+M22x1.5	1	1
21	690190040	Filter M22x1.5	2	2
22	690190045	Hose coupling M22x1.5 (red)	1	1
23	690190046	Hose coupling M22x1.5 (yellow)	1	1
24	690190030	V-fitting M22x1.5	1	1
25	690190050	Air receiver 40 l	1	1
26	690190051	Drainage valve	1	1
27	690190052	Suspension for air receiver	2	2
28	690190060	Pressure ring M22x1.5	15	15
29	690190065	O-ring M22x1.5	15	15
30	690109305	Hose clamp 15-24 mm	4	8

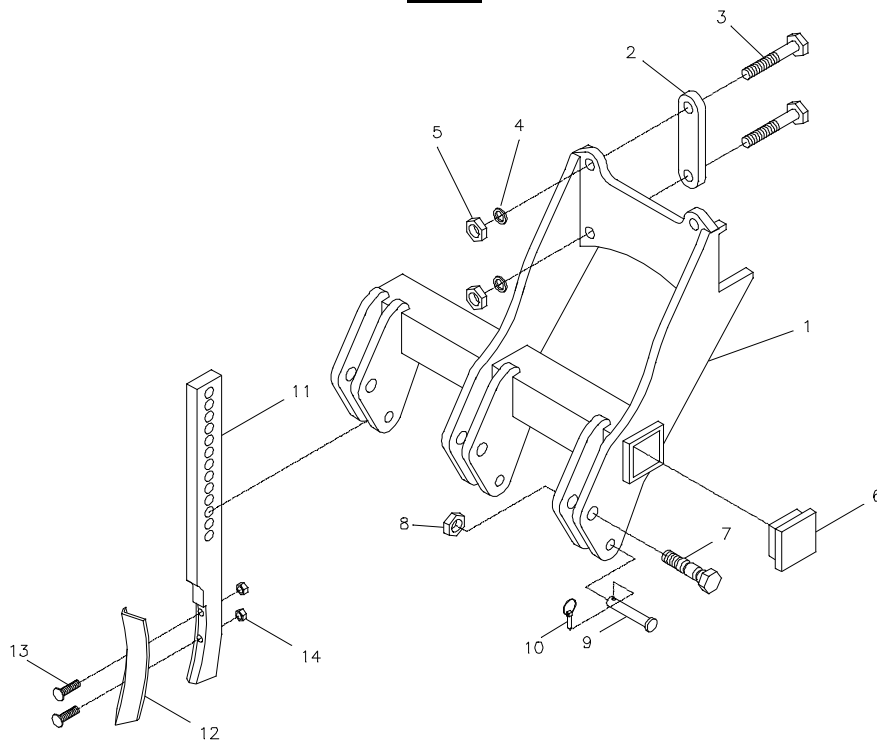
Tine eradicator set

Can only be mounted on trailed models

3,0 m + 3,5 m



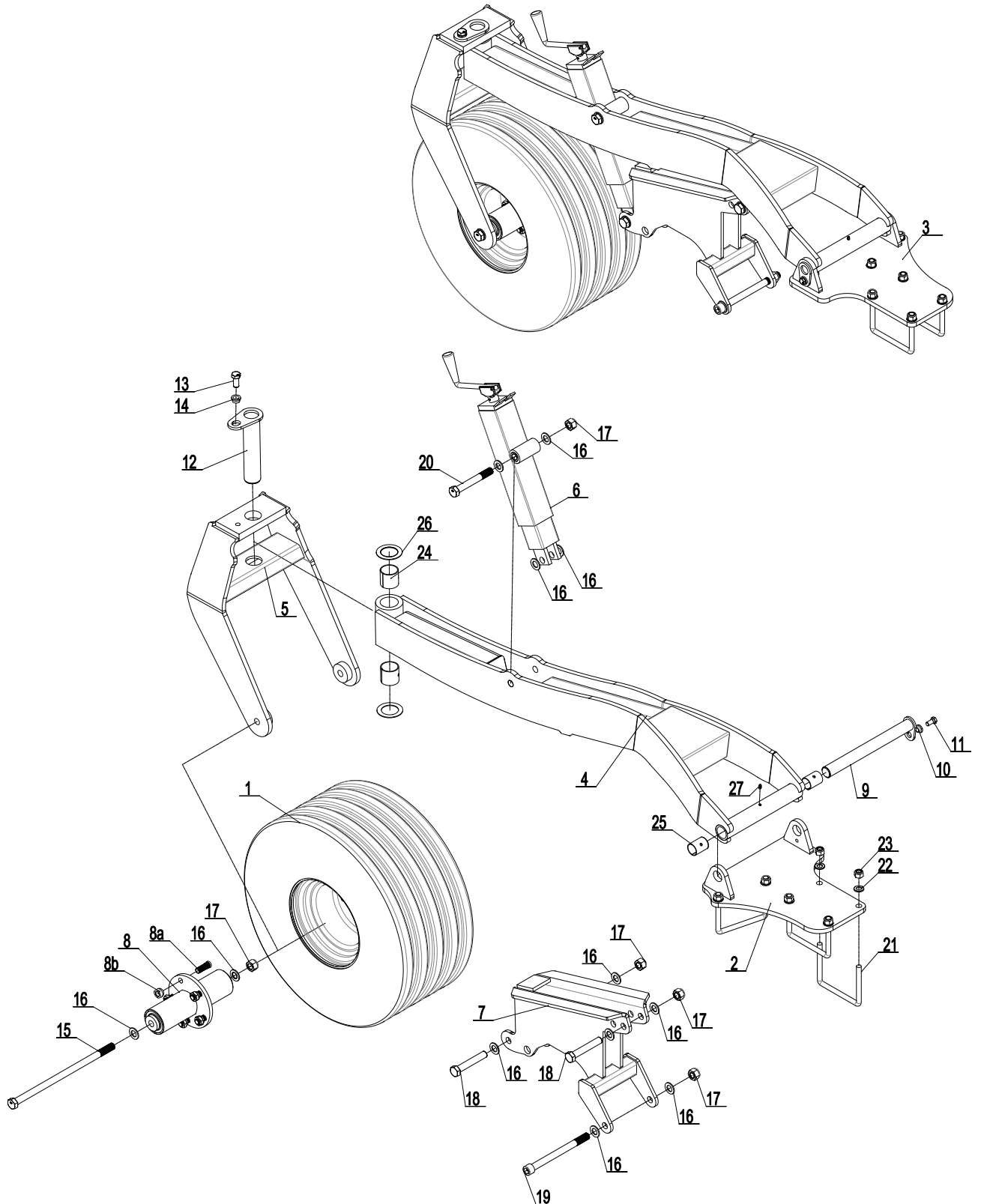
4,0 m



Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	630919025	Bracket for tine support (right)	1	1	0
1	630919020	Bracket for tine support (left)	1	1	0
1	630919015	Bracket for tine support (right)	0	0	1
1	630919005	Bracket for tine support (left)	0	0	1
2	630919016	Mounting plate	4	4	4
3	690103195	Bolt M16x200	8	8	8
4	690117013	Facet plate Ø16	8	8	8
5	690113008	Self-locking nut M16	8	8	8
6	690109200	Plastic plug 60x60	4	4	4
7	690152045	Spring bolt M20x85	6	6	6
8	690113009	Self-locking nut M20	6	6	6
9	69516074J	Pin Ø16 L=74	6	6	6
10	690134001	Ring pin Ø4,5	6	6	6
11	690152042	Tine eradicator	6	6	6
12	690152044	Tine eradicator point	6	6	6
13	690101625	Bolt M10x70 (plough bolt)	12	12	12
14	690113005	Self-locking nut M10	12	12	12

Supporting wheel (model for Spring-Board)

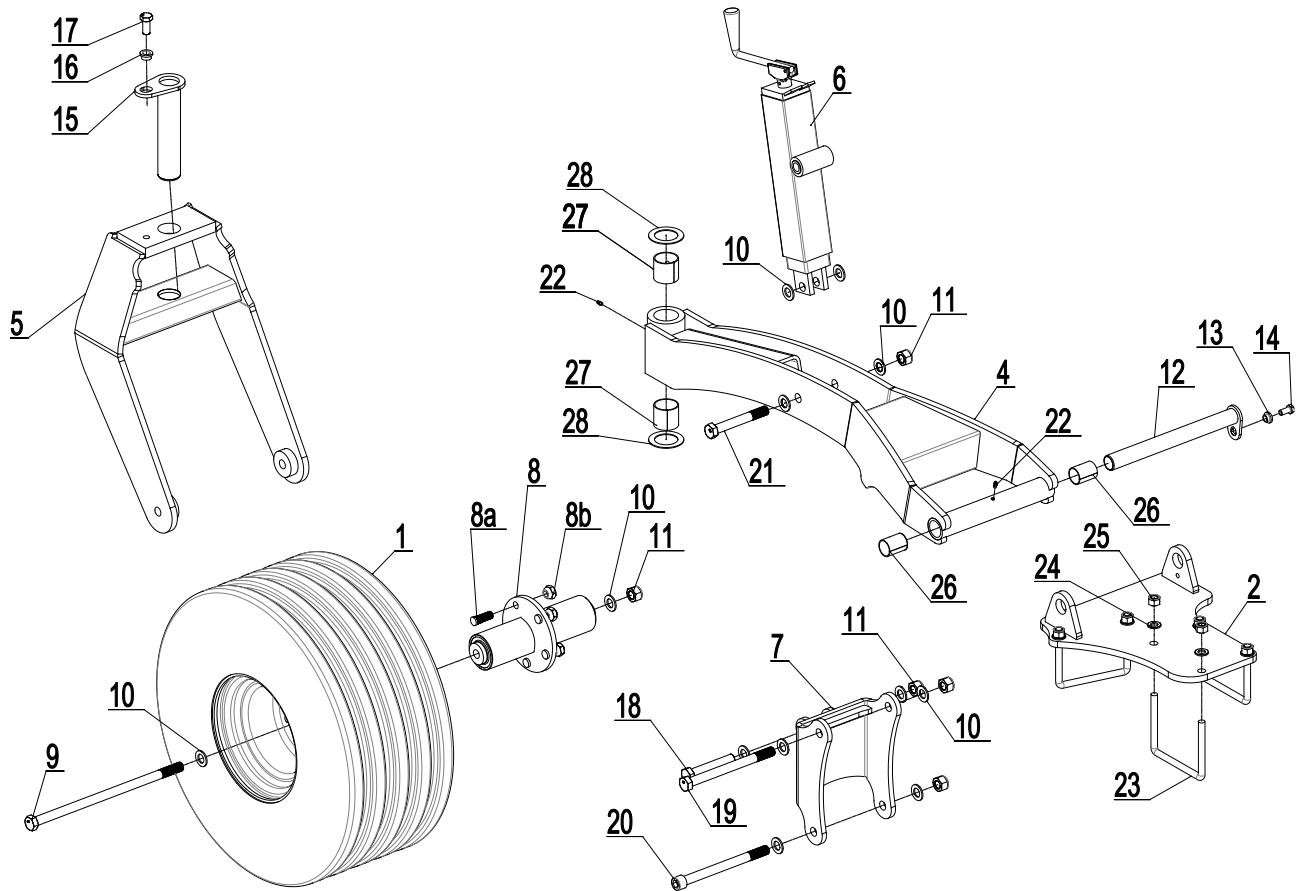
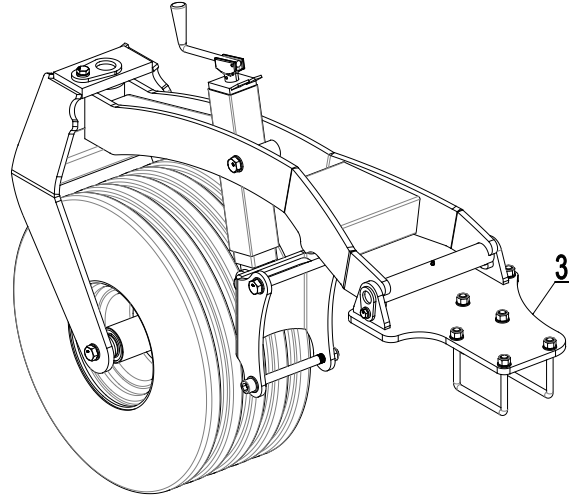
from machin no.: 344861



Pos.	Item no.	Designation	4.0m	5.0m
1	0395650	Wheel 300/65x12, Complete	2	2
2	630910723	Rear bracket, left supporting wheel	1	1
3	630910752	Rear bracket, right supporting wheel	1	1
4	630910719	Wheel assembly f/Spring-Board	2	2
5	630910729	Wheel suspension	2	2
6	675101001	Complete spindle	2	2
7	633910030	Spring-Board horn f/ supporting wheel	2	2
8	630910750	Hub 5-M16/94-140 - Hub lenght 320mm - M20	2	2
8a	0395271	Hub bolt M16 x 1,5 x 50	10	10
8b	0395291	Hub nut M16 x 1,5 R19	10	10
9	69435355G	Pin Ø35 L=355	2	2
10	630532600	Lock bush for pin head f/M12 bolt	2	2
11	690101101	Bolt M12x25 8.8	2	2
12	69450230G	Pin Ø50 L=230	2	2
13	690103124	Bolt M16x35 8.8	2	2
14	630532700	Lock bush for pin head f/M16 bolt	2	2
15	690103286	Bolt M20x420 8.8	2	2
16	690117005	Facet plate Ø20	24	24
17	690113009	Self-locking nut M20	10	10
18	690103159	Bolt M20x120 8.8	4	4
19	690103002	Hexagon bolt M20x240 12.9	2	2
20	690103163	Bolt M20x150 8.8	2	2
21	690110103	U-bolt M16x100x150x100	6	6
22	690117013	Facet disc Ø16	12	12
23	690113008	Self-locking nut M16	12	12
24	690140710	Bearing bush Ø50/55 L=50	4	4
25	690140716	Bearing bush Ø35/39 L=50	4	4
26	690140712	Sliding washer Ø52/Ø78x2	4	4
27	690136001	Lubrication nipple M6,	4	4

Supporting wheel (model without Spring-Board)

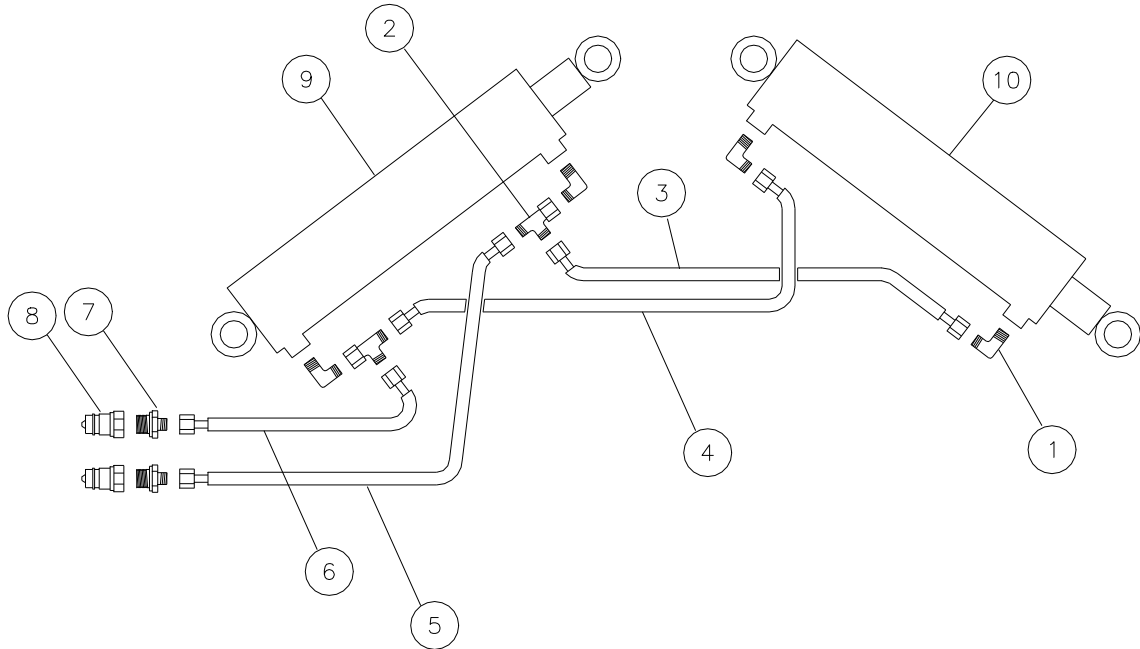
from machin no.: 344861



Pos.	Item no.	Designation	4.0m	5.0m
1	0395650	Wheel 300/65x12, Complete	2	2
2	630910723	Rear bracket, left supporting wheel	1	1
3	630910752	Rear bracket, right supporting wheel	1	1
4	630910732	Wheel assembly	2	2
5	630910729	Wheel suspension	2	2
6	675101001	Complete spindle	2	2
7	630910745	Suspension for spindle	2	2
8	630910750	Hub 5-M16/94-140 - Hub lenght 320mm - M20	2	2
8a	0395271	Hub bolt M16 x 1,5 x 50	10	10
8b	0395291	Hub nut M16 x 1,5 R19	10	10
9	690103286	Bolt M20x420 8.8	2	2
10	690117005	Facet plate Ø20	24	24
11	690113009	Self-locking nut M20	10	10
12	69435355G	Pin Ø35 L=355	2	2
13	630532600	Lock bush for pin head f/M12 bolt	2	2
14	690101101	Bolt M12x25 8.8	2	2
15	69450230G	Pin Ø50 L=230	2	2
16	630532700	Lock bush for pin head f/M16 bolt	2	2
17	690103124	Bolt M16x35 8.8	2	2
18	690103159	Bolt M20x120 8.8	2	2
19	690103183	Bolt M20x240 8.8	2	2
20	690103002	Hexagon bolt M20x240 12.9	2	2
21	690103163	Bolt M20x150 8.8	2	2
22	690136001	Lubrication nipple M6,	4	4
23	690110103	U-bolt M16x100x150x100	6	6
24	690117013	Facet disc Ø16	12	12
25	690113008	Self-locking nut M16	12	12
26	690140716	Bearing bush Ø35/39 L=50	4	4
27	690140710	Bearing bush Ø50/55 L=50	4	4
28	690140712	Sliding washer Ø52/Ø78x2	4	4

Spare parts list - Hydraulics

Hydraulics between drawbar and wheel frame

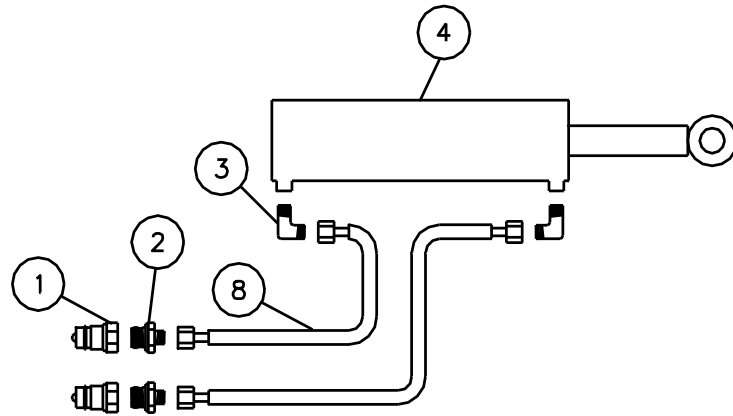


Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	690203106	Fitting, 90angle, 10-3,8" BSP	4	4	4
2	690203017	Fitting T12L, premounted w/O-ring	2	2	2
3	690201237	Hydraulic hose 2800mm 3/8" st/st	1	1	0
3	690201231	Hydraulic hose 3320mm 3/8" st/st	0	0	1
4	690201236	Hydraulic hose 3000mm 3/8" st/st	1	1	0
4	690201232	Hydraulic hose 3520mm 3/8" st/st	0	0	1
5	690201232	Hydraulic hose 3520mm 3/8" st/st	1	1	1
6	690201231	Hydraulic hose 3320mm 3/8" st/st	1	1	1
7	690203103	Fitting, straight, 12- 1/2" BSP	2	2	2
8	690203001	Quick coupling, male E402 1/2"	2	2	2
9		See pos. 12, page 14	1	1	1
10		See pos. 23, page 18	1	1	1

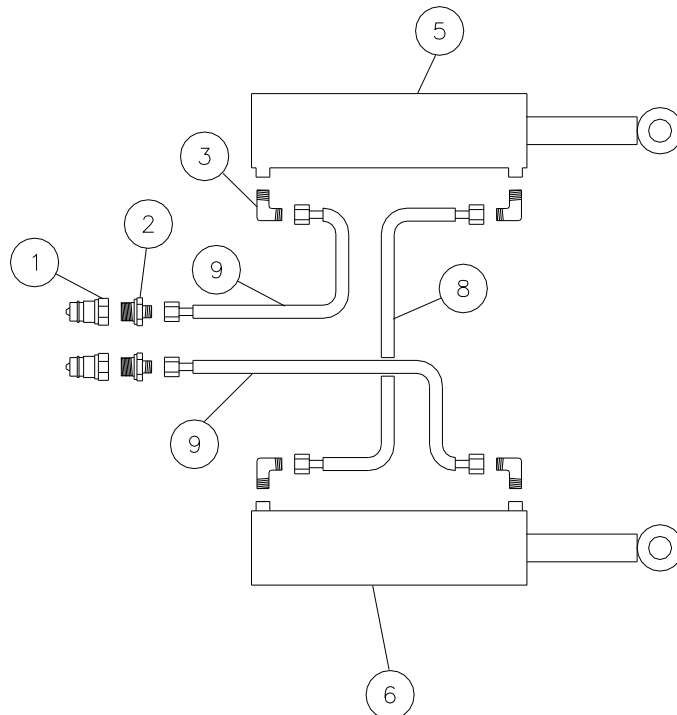
Note: Number of hoses and lengths can vary according to machine type, verify, therefore, length and number before ordering spare parts

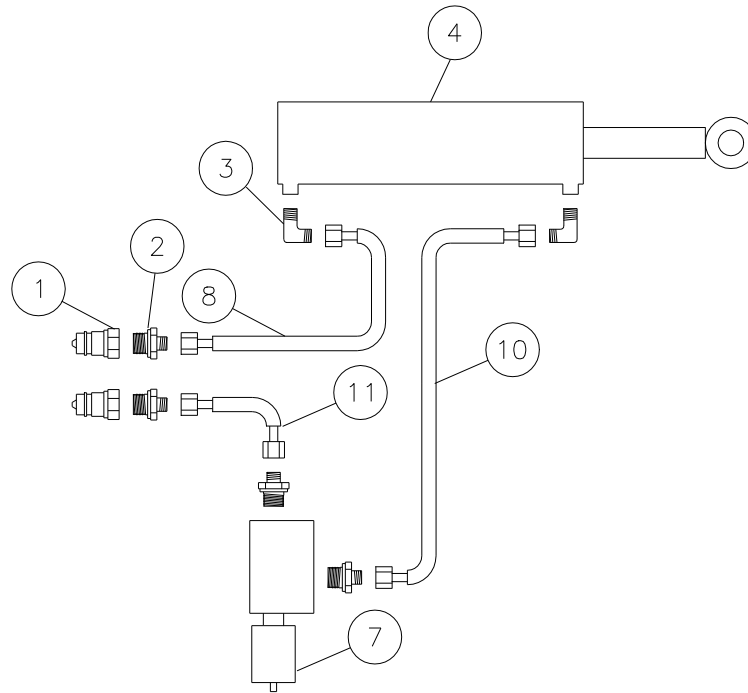
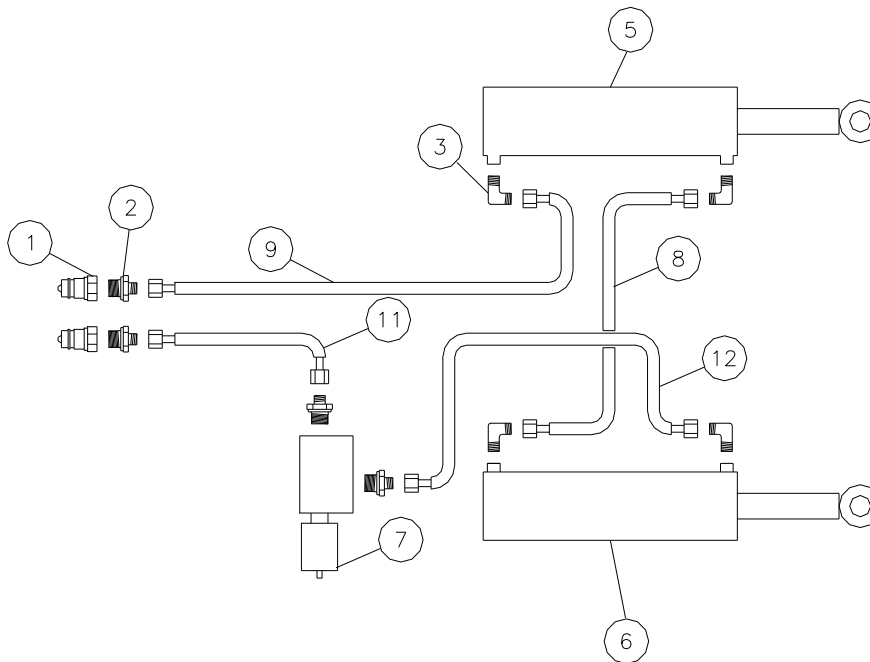
Hydraulics for adjustment of disc

3.0 m + 3,5 m without el. depth stop



4.0 m without el. depth stop



3.0 m + 3,5 m with el. depth stop**4.0 m with el. depth stop**

Note: Number of hoses and lengths can vary according to machine type, verify, therefore, length and number before ordering spare parts

Without el. depth stop

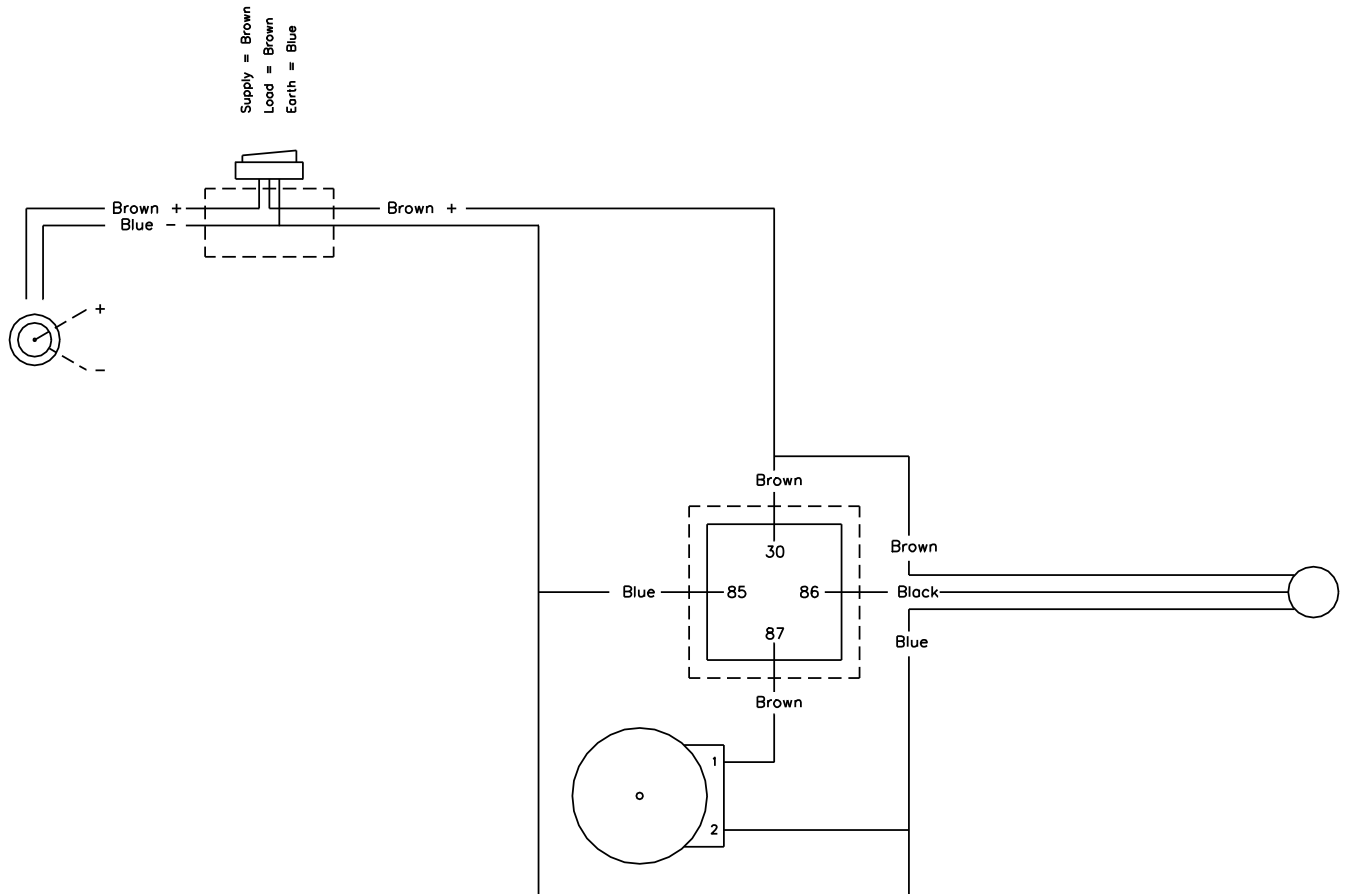
Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	690203001	Quick coupling male E402 1/2"	2	2	2
2	690203003	Fitting, straight, 10-1/2"BSP	2	2	2
3	690203006	Fitting, 90angle, 10-3/8"BSP	2	4	4
4		See pos. 23, page 18	1	1	0
5		See pos. 23, page 18	0		1
6		See pos. 23, page 18	0		1
8	690201045	Hydraulic hose 4800mm 1/4" st/st (trailed)	2	2	0
8	690201021	Hydraulic hose 2300mm 1/4" st/st (mounted)	2	2	0
8	690201021	Hydraulic hose 2300mm 1/4" st/st (trailed and mounted)	0	0	1
9	690201004	Hydraulic hose 4950mm 1/4" st/st (trailed)	0	0	2
9	690201033	Hydraulic hose 2500mm 1/4" st/st (mounted)	0	0	2

With el. depth stop

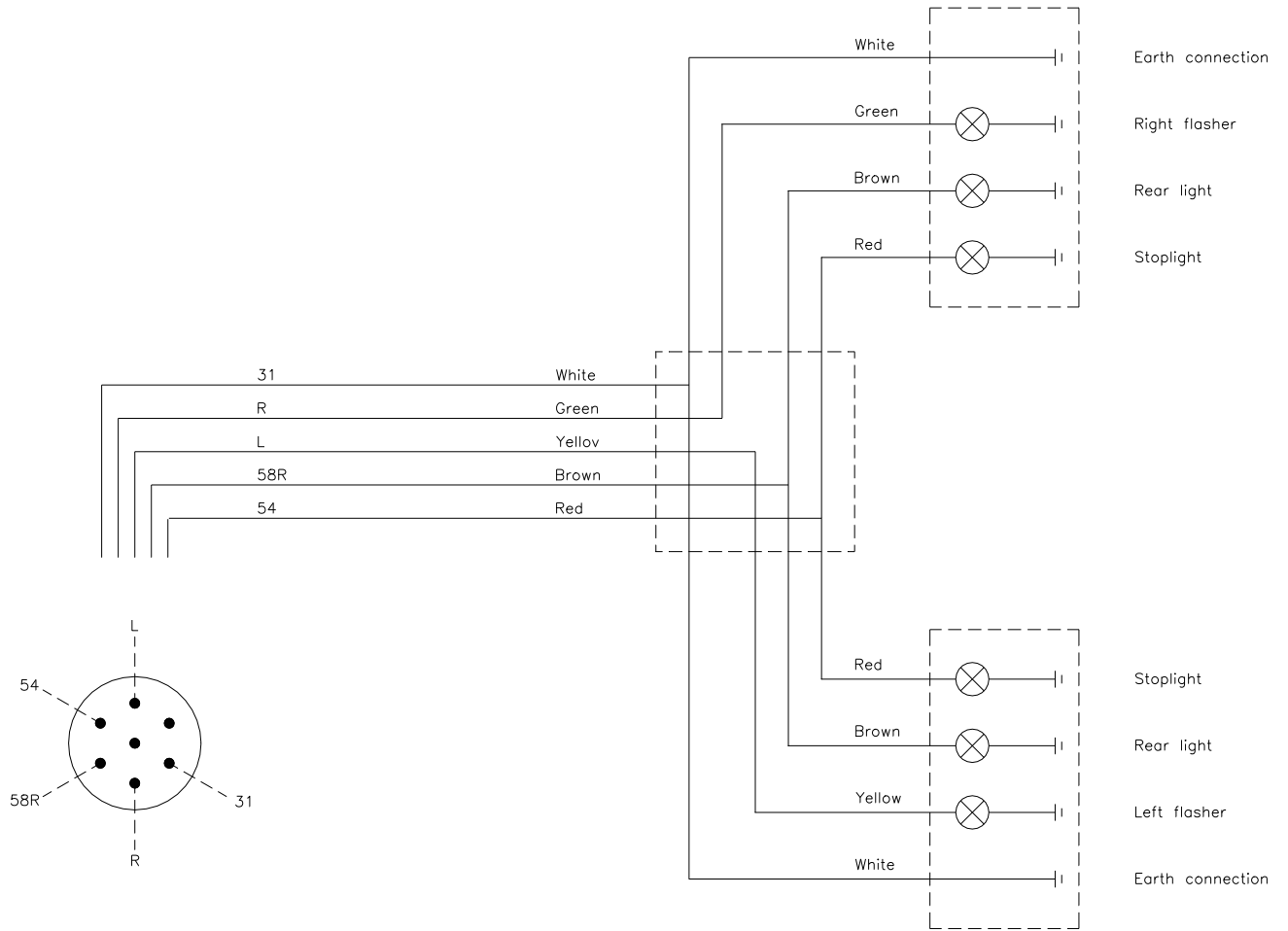
Pos.	Item no.	Designation	3,0 m	3,5 m	4,0 m
1	690203001	Quick coupling male E402 1/2"	2	2	2
2	690203003	Fitting, straight, 10-1/2"BSP	4	4	4
3	690203006	Fitting, 90angle, 10-3/8"BSP	2	2	4
4		See pos. 23, page 18	1	1	0
5		See pos. 23, page 18	0	0	1
6		See pos. 23, page 18	0	0	1
7	690209453	Depth stop valve, electric (complete)	1	1	1
8	690201045	Hydraulic hose 4800mm 1/4" st/st (trailed)	1	1	0
8	690201021	Hydraulic hose 2300mm 1/4" st/st (mounted)	1	1	0
8	690201021	Hydraulic hose 2300mm 1/4" st/st (trailed and mounted)	0	0	1
9	690201004	Hydraulic hose 4950mm 1/4" st/st (trailed)	0	0	1
9	690201033	Hydraulic hose 2500mm 1/4" st/st (mounted)	0	0	1
10	690201015	Hydraulic hose 710mm 1/4" st/st (trailed and mounted)	1	1	0
11	690201003	Hydraulic hose 4550mm 1/4" st/st (trailed)	1	1	1
11	690201068	Hydraulic hose 1950mm 1/4" st/st (mounted)	1	1	1
12	690201053	Hydraulic hose 1260mm 1/4" st/st (trailed and mounted)	0	0	1

Diagrams

El. depth stop

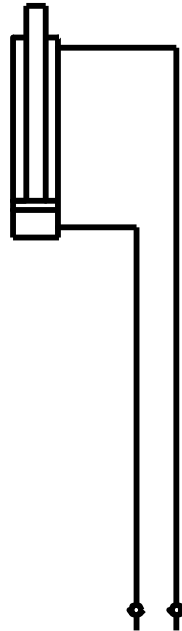


Lights

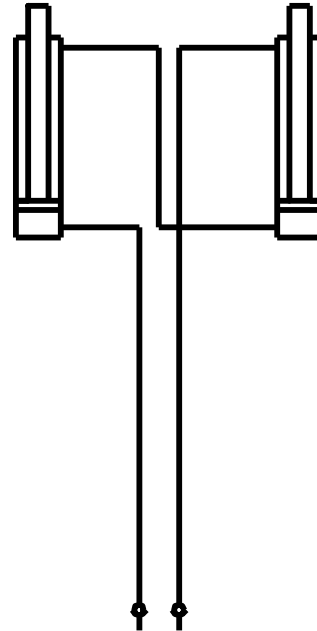


Hydraulics f/depth stop

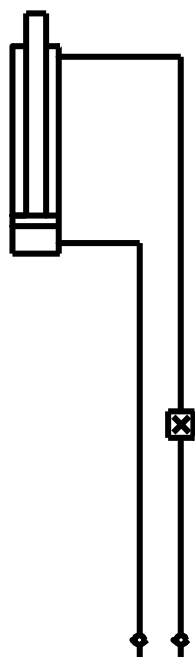
3,0 m + 3,5 m



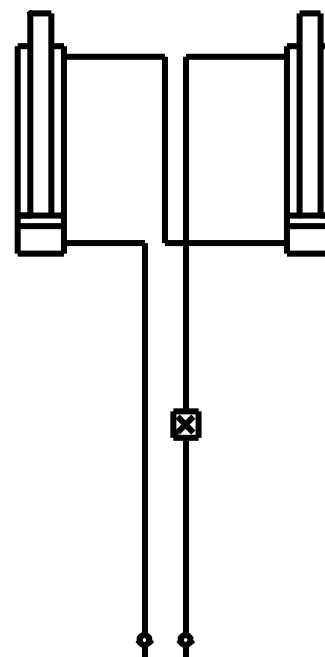
4,0 m

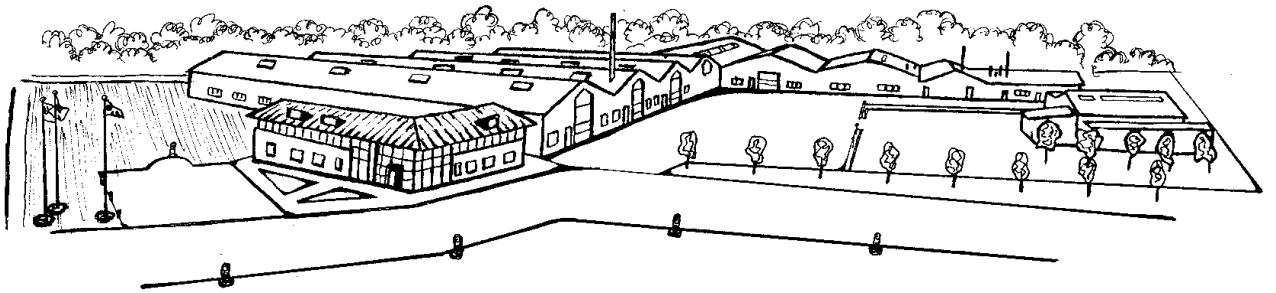
Hydraulics f/el. depth stop

3,0 m + 3,5 m



4,0 m





The design is subject to modification without notice