

UK

HE-VA

Operating Instructions
Spare Parts List
Declaration of Conformity

as it looks

As good as it looks

As good as it looks

As good as it looks

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Warning: Be sure to read the operation instructions before using the machine.

Vip-Roller

3,30 - 3,70 - 4,10 - 4,50 m



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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:

Vip - Roller 3,3m – 3,7m – 4,1m – 4,5m

Nykøbing the 29th December 2009

A handwritten signature in black ink, appearing to read 'Villy Christiansen', is written over a horizontal line.

Villy Christiansen

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

Description of the machine

Simple and strong roller.

Vip-Roller is a maneuverable roller with a low traction requirement and a strong and robust construction that ensures a long service life and high operational reliability.

The roller follows the contours of the field using the movable side joints and the horizontal position of the side joints in the transport brackets means that the roller is automatically locked during transport and the hydraulic system is relieved.

Read the manual before operating the roller and strictly follow the safety instructions

Delivery Check

Check the roller for any damages. Check the hydraulic hoses for cuts and squeezing damages. Check also that the other hydraulic components have not been damaged during transport.

Check that the frame construction has not been damaged. You should also check that the roller blocks have not been exposed to impacts, which may have damaged the cast roller rings or the double-sealed ball bearings.

Finally check that the transport wheels are tightened and OK. Check the air pressure:

200/60 x 14,5 - 10pr.= 4 bar/55 psi

Instructions for unloading and final assembly

In order to minimize the roller's space during transport, the roller is supplied partially separated from the factory. If the machine is delivered unassembled, it must therefore be completely installed first.

Transport Brackets

At delivery the machine is mounted with brackets for hoisting gear, which is not painted.

These brackets are for attachment of chains or straps, when loading or unloading the machine from the transport vehicle, and they must be dismantled before use.



Specifications

3-section hydraulic wheel-mounted field roller with free movability in all sections. Used for rolling of stones and packing of the top soil. The roller is available with a working width of 3.3 m or 8.2 m and with three different ring types: Cambridge-, Cam-, Star-, 2D wave-, and Crosskill rings.

Technical Specifications

Work Width	3,3 m	3,7m	4,1 m	4,5m
Total Width (unfolded)	3,6 m	4,0 m	4,4 m	4,8 m
Length	3,2 m	3,2 m	3,2 m	3,2 m
Width in transportposition	2,45 m	2,45 m	2,45 m	2,45 m
Height in transportposition	1,6 m	1,6 m	1,6 m	1,6 m
Pressure on towing eye in transport position (% of total weight)	ca. 40 %	ca. 40 %	ca. 40 %	Ca. 40%
Wheel assembly, standard	10.0/80x12 – 10 PLY	10.0/80x12 – 10 PLY	10.0/80x12 - 10 PLY	10,0/80x12 - 10 PLY
Tyre pressure	3,8 bar / 55 psi			
Oil pressure	min. 150 bar			
Hydraulic outlets	1 single-acting and 1 double-acting			
Quick-couplings, standard	Sterling type E 402			
Hydraulic oil	Hydro Texaco HD32			

	Width 3,3 m		Width 3,7 m		Width 4,1 m		Width 4,5 m	
Ringtype	No. of ringes	Weight kg	No. of ringes	Weight kg	No. of ringe	Weight kg	No. of rings	Weight kg
Cambridge, Ø510 mm, 3 spokes	63	1500	71	1640	79	1870	87	2020
Cambridge, Ø510 mm, 8 spokes	63	1739	71	1910	79	2170	87	2190
Cambridge, Ø560 mm, 9 spokes	63	1830	71	2000	79	2260	87	2450
Star ring 450/500 mm	60	1520	68	1670	76	1890	84	2050
Cam ring, Ø550 mm	22	1090	25	1150	28	1330	30	1420
Crosskill, Ø485/Ø530 mm	33	1430	37	1570	41	1780	45	1890
2D-Corrugated 500 mm, 8 spokes	41	1470	46	1610	51	1830	57	1910
2D-Corrugated 550 mm, 9 spokes	41	1730	46	1900	51	2160	57	2140

Operating Instructions

Attachment

On delivery the roller is in transport position. At start-up the roller is attached to the tractor.

Important:

Check that the towing hook height is between **400 and 500 mm**.

Raise the support leg and located it in the transport fittings of the tail.

Now mount the hydraulic hoses (3) in the tractor PTO.

Important:

Check that the factory-mounted male ends fit the female ends of the tractor.

Now pressurise the tip cylinder (red) so that the side sections are tipped free of the transport fittings. Then pressurise the side sections (blue) so that the sections are turned backward, as far as possible.

Then unpressurise the tip cylinder and the roller will tip forward down to working position. When the Tip-Cylinder is totally down, let the hydraulic lever go and the roller is ready for use.

Important:

For the first change-over, the attachment of the centre section against the tail must be adjusted so that the roller sections are **horizontal in driving direction**.

Transport

At change-over for transport, the roller is tipped totally backward by pressurising the tip cylinder.

Now pressurise the side section cylinder so that these turn forward, towards the stop on the transport fittings of the tail.

When both sides lie in parallel with the tail, they are lowered down into the transport fittings by unpressurising the tip cylinder.

Now relieve the hydraulics totally, and the roller is ready for transport.

Complaints

Complaints are handled at the dealer's workshop during normal working hours. If it is not possible to carry out the work within normal working hours, overtime payment will be required. Machines submitted for complaint work must be delivered in a cleaned condition.

Maintenance

- After 10 hours of operation, tightening of wheels, bearings and stop rings must be done.
- Hoses, fittings and cylinders must be checked for any leaks and rethightened.
- After 30 hours of operating, lubricate the pin of the cylinder and the drawbar lubrication point with grease
- When the season is done the roller must be cleaned, lubricated and a thin layer of oil sprayed an all painted parts
- Glossy piston rods must be protected by grease.

IMPORTANT

Bearings must only be lubricated with 1-2 strokes, otherwise the sealing rings can be released.

When rolling

Speed: max. 10 km/h.

When turning, drive in wide curves as far as possible.

The turning should be performed no sharper, than all roller rings are still rotating forward.

Only lower the wheels when making ready for transport position.

Do not drive over any large stones, which are not moveable.

Lubrication

At every 10 hours operation: - every roller sections suspension

At every 30 hours operation: - wings bushings hinged to wheel frame
- bearings
- cylinders
- wheel frame bushings hinged to chassis

Once a year:- the support leg

IMPORTANT

Bearings must only be lubricated with 1-2 strokes, otherwise the sealing rings can be released.

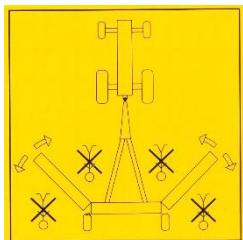
IMPORTANT

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

Safety – and other markings on the machine



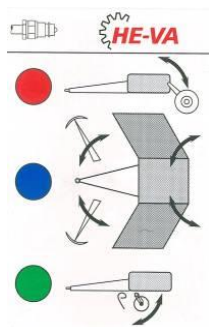
Study the Operating Instructions thoroughly before any operation of the machine and observe all safety instructions.
Item number: 1305028



Take care that no persons are within the machine's hazardous area during the unfolding and folding procedure.
Item number: 1305029



Plate with number and year of manufacture.



Indication Labels for the machine's hydraulic systems:
Item number: 1305031

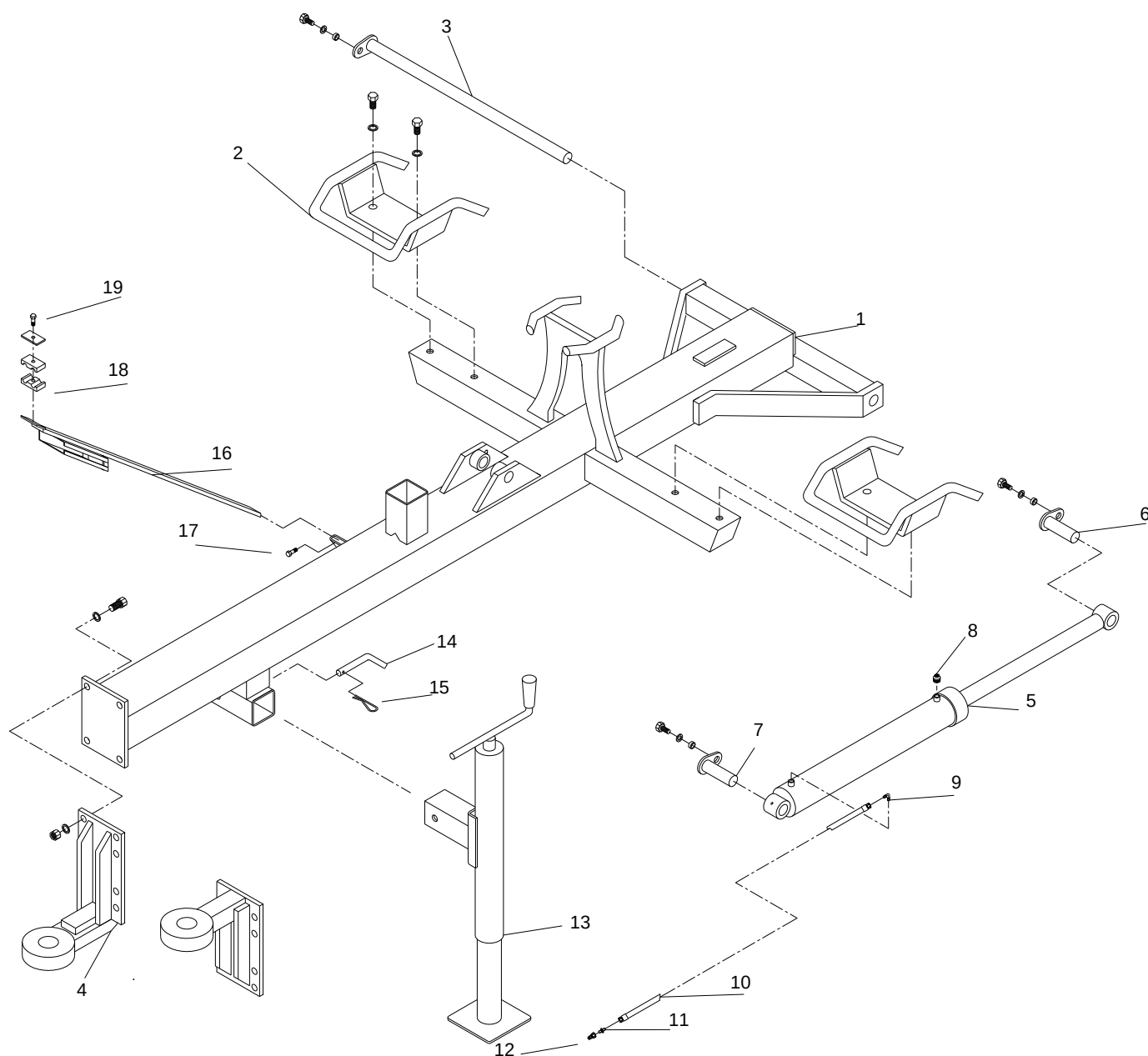


Tighten up the bolts regularly. If this is not performed, our warranty obligations will no longer apply.
Item number: 1305030

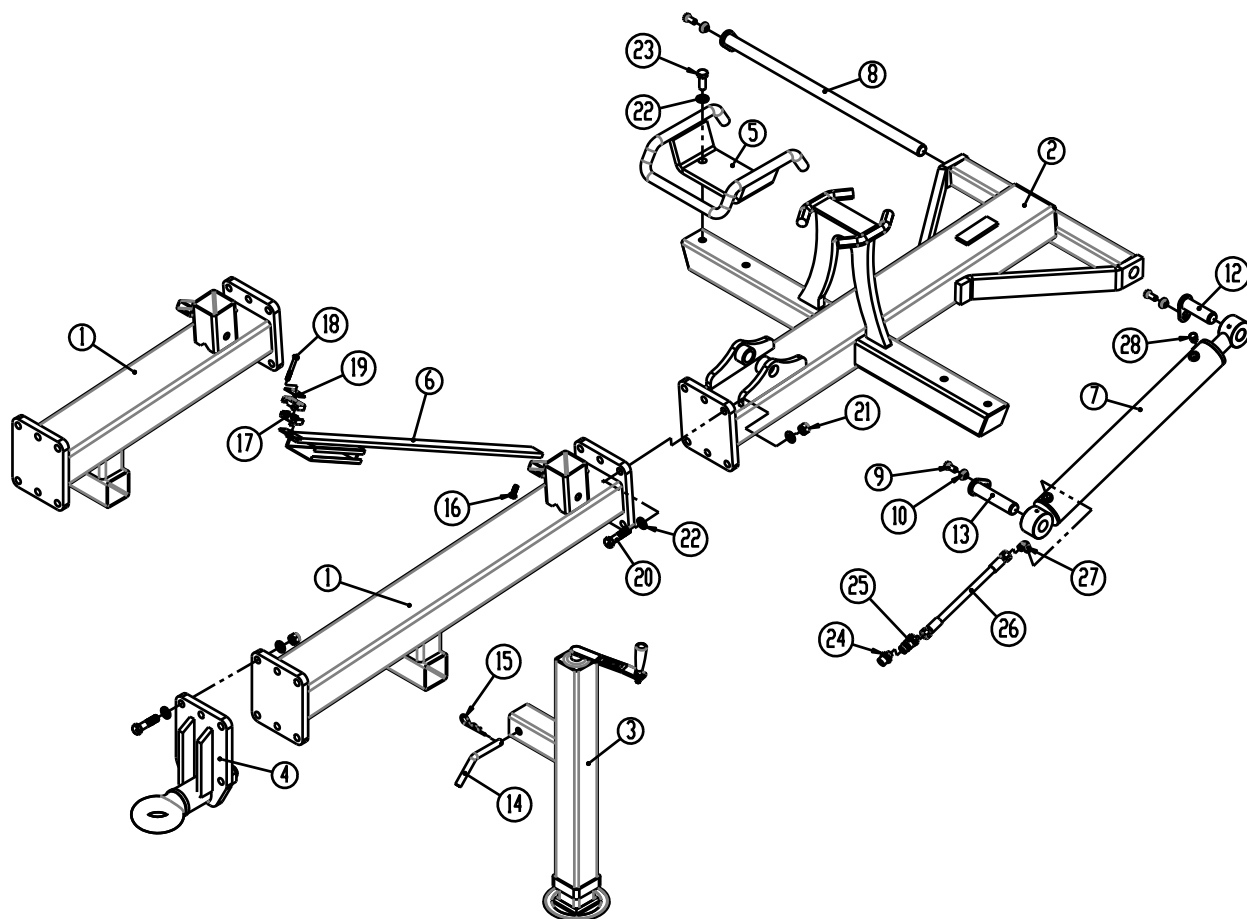
Maximum torque in Nm. w/lubricated thread			
Metric thread	Quality 8.8	Quality 10.9	Quality 12.9
M10x1,5	47	65	79
M12x1,75	81	114	136
M14x2,0	128	181	217
M16x2,0	197	277	333
M18x2,5	275	386	463
M20x2,5	385	541	649
M22x2,5	518	728	874
M24x3,0	665	935	1120
Wheel nut M18x1,5 fine thread			385 Nm
Wheel nut M22x1,5 fine thread			550 Nm

Spare Part List

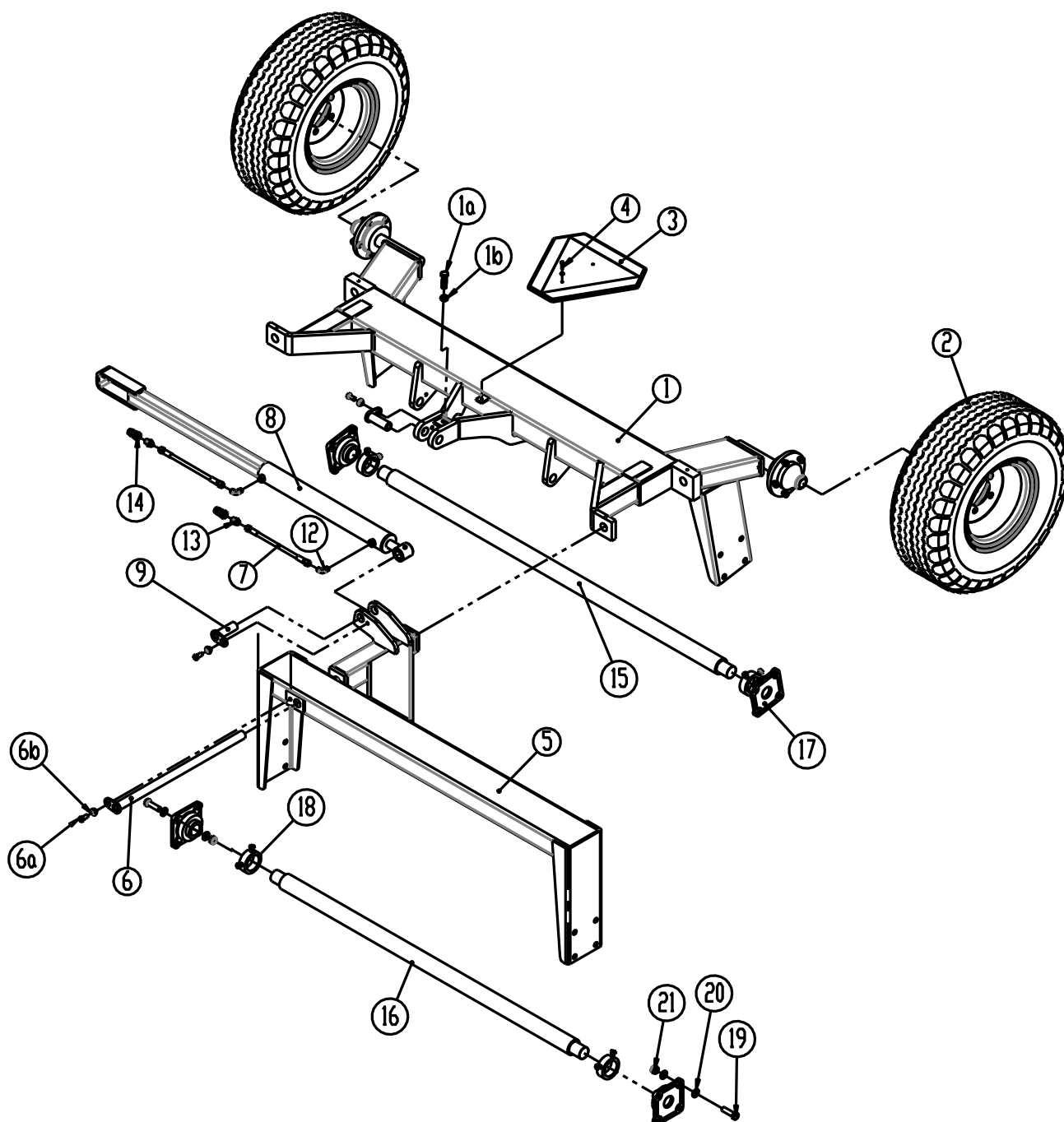
Drawbar before machinenumber 356497



Pos	Item number	Designation/Dimension	3,3m	3,7m	4,1m	4,5m
1	631631000	Drawbar 3,3 – 4,5m before serial number 356497	1	1	1	1
2	631530200	Transport bracket Ø380/450mm	2	2	2	2
2	631530030	Transport bracket Ø500/550/Crosskill	2	2	2	2
2a	690101143	Bolt M16x35	4	4	4	4
2b	690117013	Faced plate Ø16	4	4	4	4
3	69430685G	Pin Ø30 L=685	1	1	1	1
3a	690101101	Bolt M12x25	1	1	1	1
3b	630532600	Locking sleeve for pinhead	1	1	1	1
3c	690117014	Facet washer Ø12	1	1	1	1
4	631630300	Front drawbar DK/N	1	1	1	1
4a	631630400	Front drawbar D	1	1	1	1
4b	690113008	Self locking nut M16	4	4	4	4
4c	690117014	Facet washer Ø16	8	8	8	8
4d	690103127	Bolt M16x50	4	4	4	4
5	690200060	Cylinder 70/40x500 Ø30/Ø30	1	1	1	1
5a	690200068	Gasket set 70/40 mm	1	1	1	1
6	631630510	Pin Ø30 L=95	1	1	1	1
7	631630520	Pin Ø30 L=135	1	1	1	1
7a	690103090	Bolt M12x25	2	2	2	2
7b	690117014	Facet washer Ø12	2	2	2	2
7c	630532600	Locking sleeve for pinhead	2	2	2	2
8	690206001	Filter plug (ventilation)3/8	1	1	1	1
9	690203006	Fitting 90° 3/8"	1	1	1	1
10	690201060	Hydr. Hose L=3000 mm ¼" st/st	1	1	1	1
11	690203003	Fitting, straight 101/2" BSP	1	1	1	1
12	690203001	Quick-coupling E402	1	1	1	1
13	690141100	Support leg 3500kg	1	1	1	1
14	630552100	Pin Ø16	1	1	1	1
15	690133005	Split pin Ø4,5	1	1	1	1
16	630771200	Parking device for hydr. hose	1	1	1	1
17	690101080	Bolt M10x25	2	2	2	2
18	690210210	Tube support double	2	2	2	2
19	690103055	Bolt M8x65	1	1	1	1
19a	690210211	Top plate	1	1	1	1

Drawbar From machine no. 356497

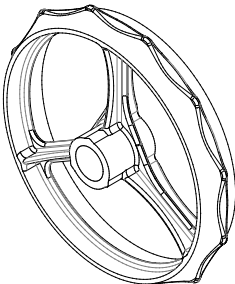
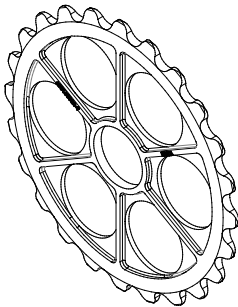
Pos	Varenummer	Betegnelse	3,3m	3,7m	4,1m	4,5m
1	1205155	Drawbar, Front 3,3 – 3,7m	1	1		
1	1205021	Drawbar, Front 4,1 – 4,5 m			1	1
2	1205024	Drawbar, Rear 3,3 – 4,5 m	1	1	1	1
3	690141095	Support leg 3500 kg	1	1	1	1
4	630757028	Rotatable Towing eye, Ø50	1	1	1	1
5	30645100	Transport bracket	2	2	2	2
6	630771200	Parking device for hydr. hose	1	1	1	1
7	690200060	Cylinder ø70/ø40-500	1	1	1	1
7a	690200068	Gasket set 70/40 mm	1	1	1	1
8	69430690	Pin Ø30 L=690	1	1	1	1
9	690101101	Bolt M12x25 8.8	3	3	3	3
10	630532600	Locking sleeve for pinhead	3	3	3	3
12	69430095G	Pin Ø30 L=95	1	1	1	1
13	69430135G	Pin Ø30 L=135	1	1	1	1
14	69516094A	Pin Ø16 L=94mm	1	1	1	1
15	690133005	Split pin Ø4,5	1	1	1	1
16	0235040	Bolt M10x25mm 8.8	2	2	2	2
17	690210210	Tube support double Ø14-14mm, green	1	1	1	1
18	690103055	Bolt M8x60 8.8	1	1	1	1
19	690210211	Topplate for double support	1	1	1	1
20	0235850	Bolt M16x65 8.8	6	6	6	6
21	0264090	Self locking nut M16	6	6	6	6
22	0272290	Facet washer Ø16 - DIN125B	16	16	16	16
23	0235790	Bolt M16x40 8.8	4	4	4	4
24	690203003	Fitting, straight 101/2" BSP	1	1	1	1
25	0444020	Quick-coupling 1/2", male	1	1	1	1
26	0454440	Hydr. Hose 1495 mm 3/8" st/st	1	1	1	1
27	690203006	Fitting 90° 3/8"	1	1	1	1
28	690206001	Filter plug (ventilation)3/8"	1	1	1	1

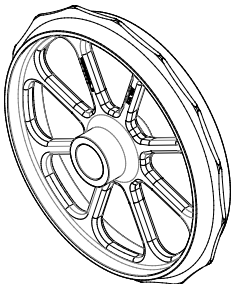
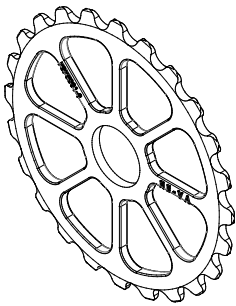
Centre Frame/Side Section

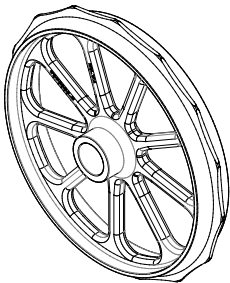
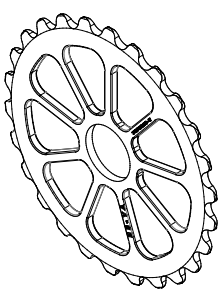
Pos.	Item no.	Designation/Dimension	3,3m	3,7m	4,1m	4,5m
1	631630900	Centre frame	1	1	1	1
1	1205267	Centre frame, From machine no. 356497	1	1	1	1
1a	0235810	Stop bolt M16x50	1	1	1	1
1b	0261392	Lock nut M16	1	1	1	1
2	690141010	Wheel 200/60 x 14,5 – 10PR.	2	2	2	2
3	690142001	warning triangle	1	1	1	1
4	0234340	Bolt M6x20	2	2	2	2
4	0272240	Facet washer Ø6	4	4	4	4
4	0264040	Self lock nut M6	2	2	2	2
5	631633033	Side section, left	1			
5	1205283	Side section, left From machine.no. 356497	1			
5	631633133	Side section, right	1			
5	1205282	Side section, right From machine no. 356497	1			
5	631633037	Side section, left		1		
5	1205281	Side section, left From machine.no. 356497		1		
5	631633137	Side section, right		1		
5	1205280	Side section, right Fom machine no. 356497		1		
5	631633041	Side section, left			1	
5	1205279	Side section, left From machine.no. 356497			1	
5	631633141	Side section, right			1	
5	1205278	Side section, right Fom machine no. 356497			1	
5	631633045	Side section, left				1
5	1205275	Side section, left From machine.no. 356497				1
5	631633145	Side section, right				1
5	1205270	Side section, right Fom machine no. 356497				1
6	631630540	Pin Ø30 L=630	2	2	2	2
6a	690101101	Bolt M12x25	5	5	5	5
6b	630532600	Lock bushing for pin head	5	5	5	5
7	690201003	Hydr.hose L=4550 ¼" st/st	2	2	2	2
8	631632200	Hydr.cylinder 60/30 x500 (extended)	1	1	1	1
8a	690200077	Gasket kit 60/30	1	1	1	1
9	69430090G	Pin Ø30 L=90	3	3	3	3
12	690203006	Fitting, angle 10-3/8" BSP	2	2	2	2
13	690103003	Fitting, straight 10-1/2" BSP	2	2	2	2
14	0444020	Quickcoupling 1/2" BSP ISO567	2	2	2	2
15	678651736	Axel 1736mm Ø60 (ST70). Recessed to Ø45	1	1	1	1
16	678651136	Axel 1136mm Ø60 (ST60). Recessed to Ø45	2			

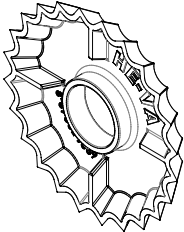
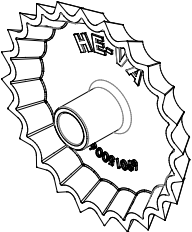
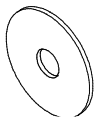
16	678651336	Axel 1336mm Ø60 (ST60). Recessed to Ø45		2		
16	678651536	Axel 1536mm Ø60 (ST60). Recessed to Ø45			2	
16	678651736	Axel 1736mm Ø60 (ST60). Recessed to Ø45				2
17	690140075	Bearing UCF 209	6	6	6	6
18	630651200	Stop ring w/bolts	6	6	6	6
19	0235830	Bolt M16x55 8.8	24	24	24	24
20	0272290	Facet washer Ø16 - DIN125B	48	48	48	48
21	0264090	Self locking nut M16	24	24	24	24

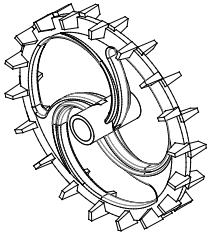
Roller Rings

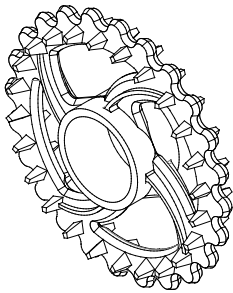
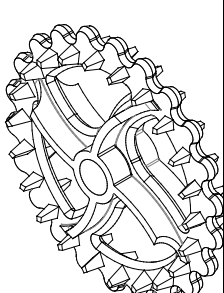
Cambridge rings Ø510 mm with 3 spokes		Description	Quality	Part no.
		Pos. 3 Hub 104 mm	GG25	690150030
		Pos. 3 Hub 104 mm	GGG50	690150088
		Pos. 3 Hub 80 mm	GGG50	690150087
		Pos. 3 Hub 72 mm □	GGG50	630764031
		Pos. 3 Hub 82 mm □	GGG50	630764030
		Pos. 4	GG25	690150032
Pos. 3 510 mm Lenient (3 spokes)	Pos. 4 510 mm Breaker			

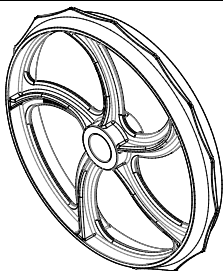
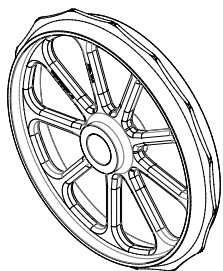
Cambridge rings Ø510 mm with 8 spokes		Description	Quality	Part No.
		Pos. 8 Hub 104 mm	GG25	7375003
		Pos. 8 Hub 104 mm	GGG50	7375010
		Pos. 8 Hub 80 mm	GG25	7375004
		Pos. 8 Hub 80 mm	GGG50	7375008
		Pos. 8 Hub 72 mm a/bearing	GGG50	7375025
		Pos. 8 Hub 82 mm a/bearing	GGG50	7375026
		Pos. 9	GG25	7375001
		Pos. 9	GGG50	7375013
Pos. 8 510 mm Lenient (8 spokes)	Pos. 9 510 mm Breaker (8 spokes)			

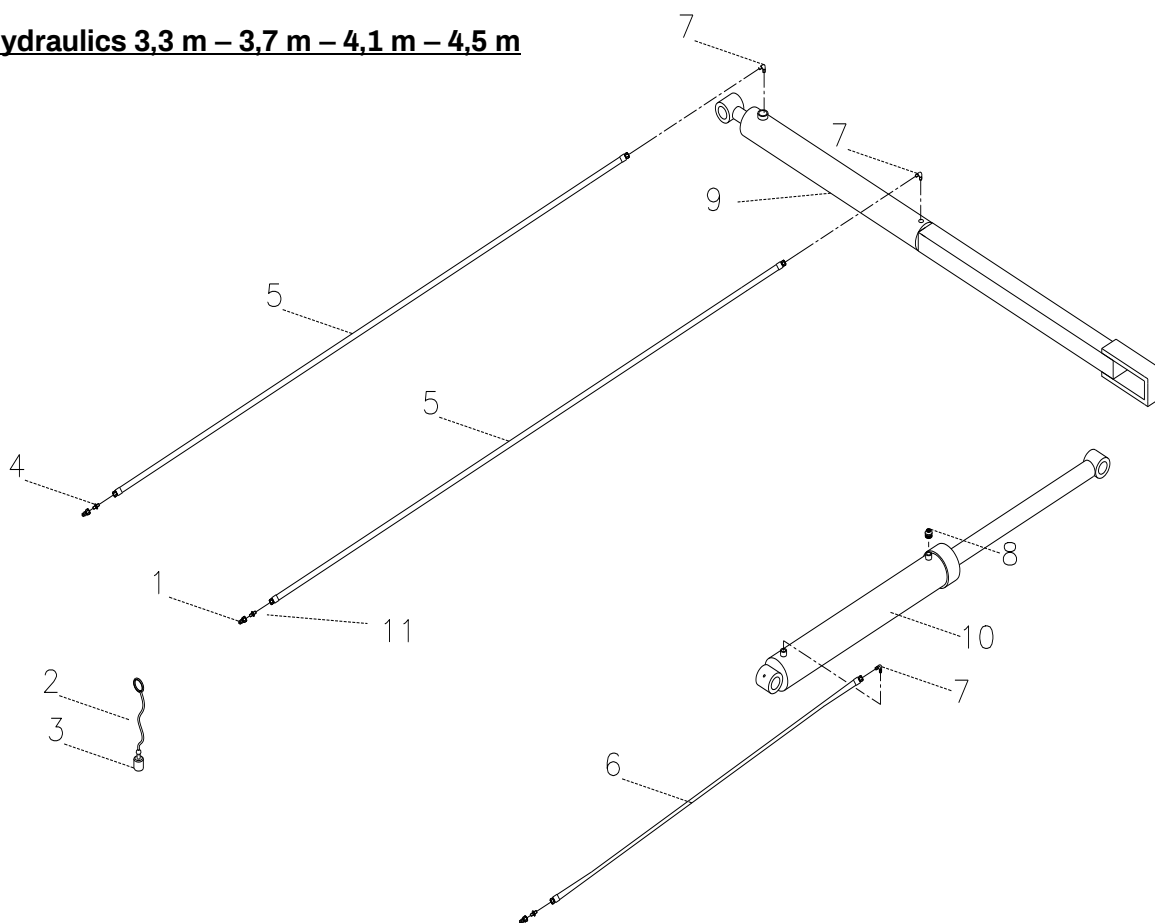
Cambridge rings Ø560 mm with 9 spokes		Description	Quality	Part No.
		Pos. 10 Hub 104 mm	GG25	7375005
		Pos. 10 Hub 104 mm	GGG50	7375009
		Pos. 10 Hub 80 mm	GG25	7375007
		Pos. 10 Hub 80 mm	GGG50	7375011
		Pos. 10 Hub 72 mm a/bearing	GGG50	7375023
		Pos. 10 Hub 82 mm a/bearing	GGG50	7375024
		Pos. 11	GG25	7375000
		Pos. 11	GGG50	7375012
Pos. 10 560 mm Lenient (9 spokes)	Pos. 11 560 mm Breaker (9 spokes)			

Star ring Ø450/Ø500 mm			Description	Quality	Part no.
			Pos. 17 Ø500/Ø135	GGG50	690150063
			Pos. 18 Ø450	GGG50	690150064
			Pos. 19 Mountingplate		690150112
Pos. 17 500 mm	Pos. 18 485 mm	Pos. 19 235 mm			

Cam ring		Description	Quality	Varenr.
		Pos. 16 Hub 155 mm	GG25	690150007
Pos. 16 550 mm Cam ring				

Crosskill ring 485/530 mm – 550/600 mm			Description	Quality	Part no.
			Pos. 22 530 mm	GG25	690150011
			Pos. 23 485 mm	GG25	690150034
			Pos. 22 600 mm	GG25	690150075
			Pos. 23 550 mm	GG25	690150074
			Pos. 24 Hub Ø104		690150076
Pos. 22 Loose Crosskill	Pos. 23 Fixed Crosskill	Pos. 24 Hub			

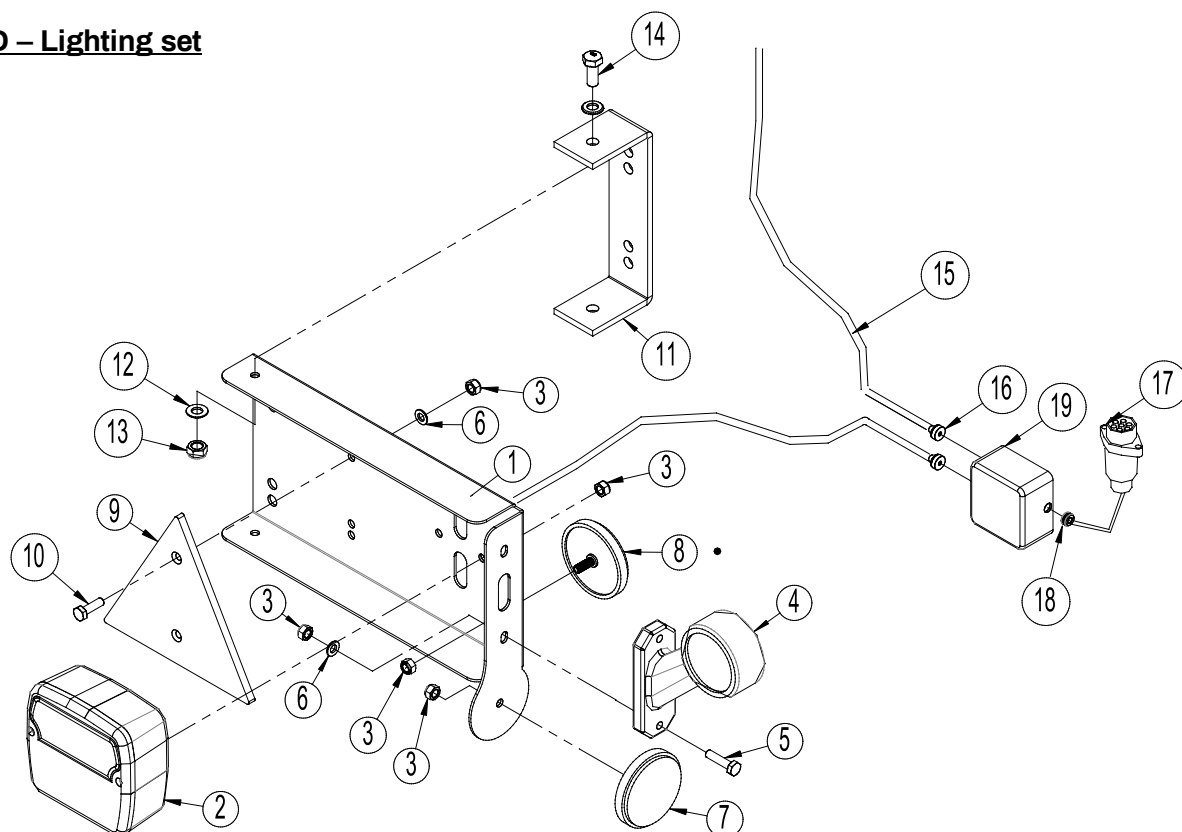
2D Rings		Description	Quality	Part no.
		Pos. 14 Ø500	GG25	690150105
		Pos. 14 Ø550	GGG50	690150109
		Pos. 14 Ø600	GGG50	690150082
Pos. 14 2D ring (5 spokes)	OBSOLETE!	Description	Quality	Part no.
		Pos. 15 Ø500	GG25	7375004
		Pos. 15 Ø550	GG25	7375007
		Pos. 15 Ø600	GG25	690150111
		Pos. 15 Ø500 Hub 67 mm a/bearing	GGG50	7375049
		Pos. 15 Ø500 Hub 72 mm a/bearing	GGG50	7375025
		Pos. 15 Ø550 Hub 67mm a/bearing	GGG50	7375050
		Pos. 15 Ø550 Hub 72 mm a/bearing	GGG50	7375023
		Pos. 15 Ø600 Hub 67mm a/bearing	GGG50	7375051
		Pos. 15 Ø600 Hub 72 mm a/bearing	GGG50	7375021
Pos. 15 2D rings (8-9-10 spokes)				

Hydraulics 3,3 m – 3,7 m – 4,1 m – 4,5 m

Pos.	Item No.	Designation	Qtr.
1	690203001	Quick-coupling ½" E402	3
2	690210001	Dust cap blue (END)	2
3	690210002	Dust cap red (END)	1
4	690203003	Fitting straight 10-1/2" BSP	3
5	690201011	Hydr.hose. 1/4" L=5350 mm	2
6	690201005	Hydr. hose ¼" L=3300 mm	1
7	690203006	Fitting , 90° 10-3/8" BSP	3
8	690206001	Filter plug (ventilation) 3/8"	1
9	630650500	Wing cylinder complete, 70/40x600 ø30	1
10	690200xxx	See position 6 page 8	1
11	690207901	Throttle 1 mm	2

Note:

Check number and measurements of all hoses before ordering the spare parts.

LED – Lighting set

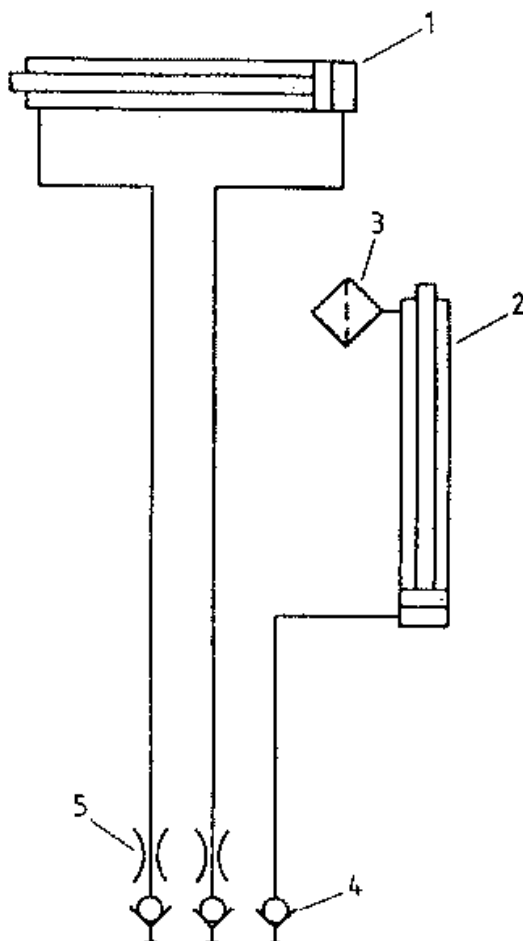
Pos.	Item No.	Designation	Quantity
1	7357505	Lightbox (L)	1
	7357508	Lightbox (R)	1
2	7357504	Rear light	2
3	0264030	Locking nut M5	16
4	7357507	Marking lights (L)	1
	7357509	Marking lights (R)	1
5	0234340	Bolt M5x25	4
6	0272240	Facet plate Ø5	8
7	0656240	Reflex, yellow	2
8	0656250	Reflex, white	2
9	690160017	Reflex, red	2
10	0234330	Bolt M6x20	4
11	7357516	Bracket	2
12	0272250	Facetplate Ø8	16
13	0264050	Locking nut M8	8
14	0234750	Bolt M8x20	4
15	690160080	Cable 5 x 1mm ² (Inform about lenght by ordering sparepart)	
16	7357545	Rutaseal nipple M20 8-12mm Grey RAL7001	2
17	690160070	Plug 7 poles DIN 72 577 – ISO 1724	1
18	7357546	Rubberbushing Nr. 38A Ø10/3 black	1
19	0520492	Junction box 105x105x60	1

Note:

Check number and measurements of all cables before ordering the spare parts.

Hydraulic Diagram

Hydraulic Diagram for 3,3 – 3,7 – 4,1 – 4,5 m

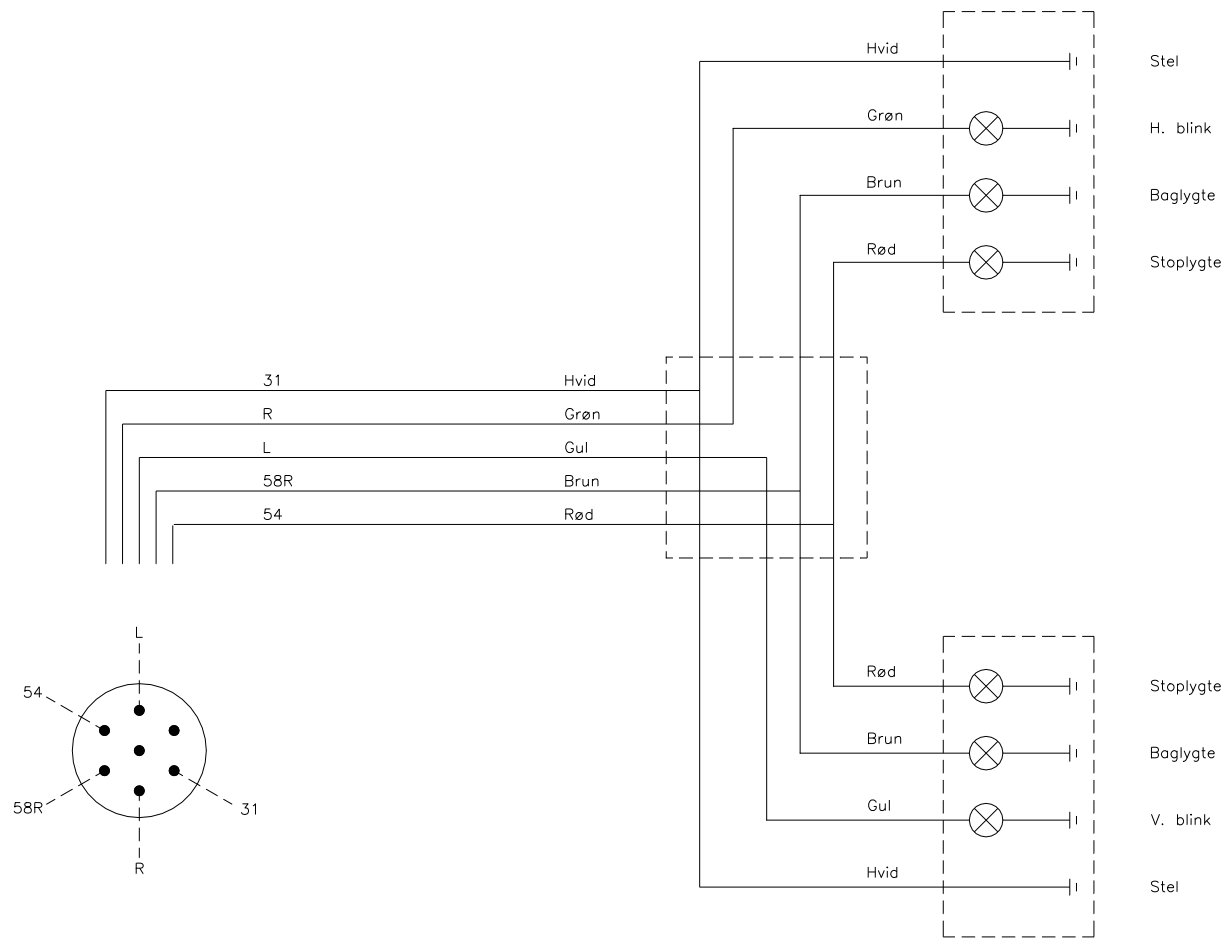


Pos.	Item No.	Designation	Qty.
1	630650600	Wing cylinder 70/40x600 ø30	1
2	690200120	Cylinder 80/40x600 ø30/ø30 (see position 6 page 8)	1
3	690206001	Filter plug F38 3/8"	1
4	690203001	Quick-coupling E402	3
5	690207901	Throttle 1 mm	2

Note:

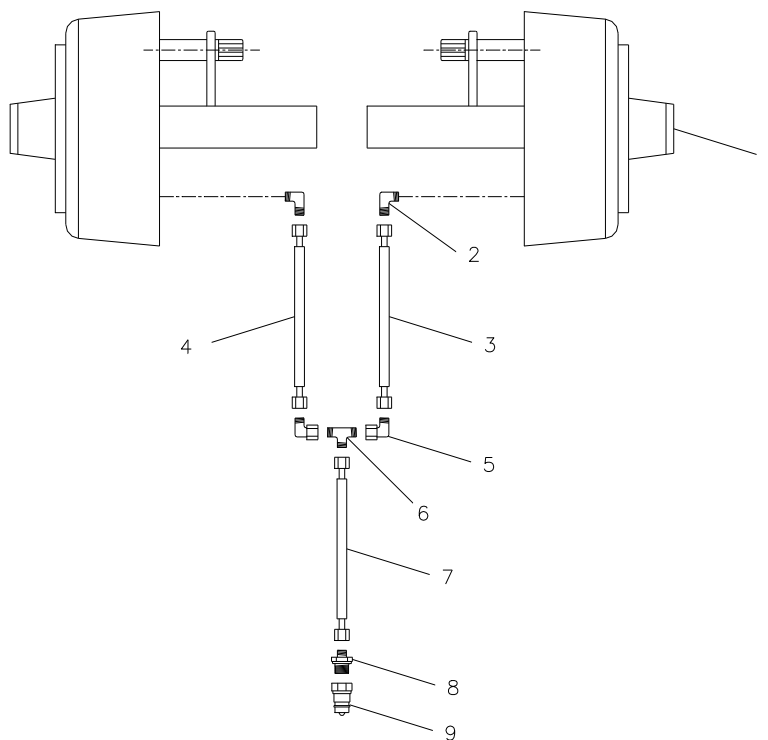
Check number and measurements of all cables before ordering the spare parts.

Lighting set: El. Diagram



Extra equipment

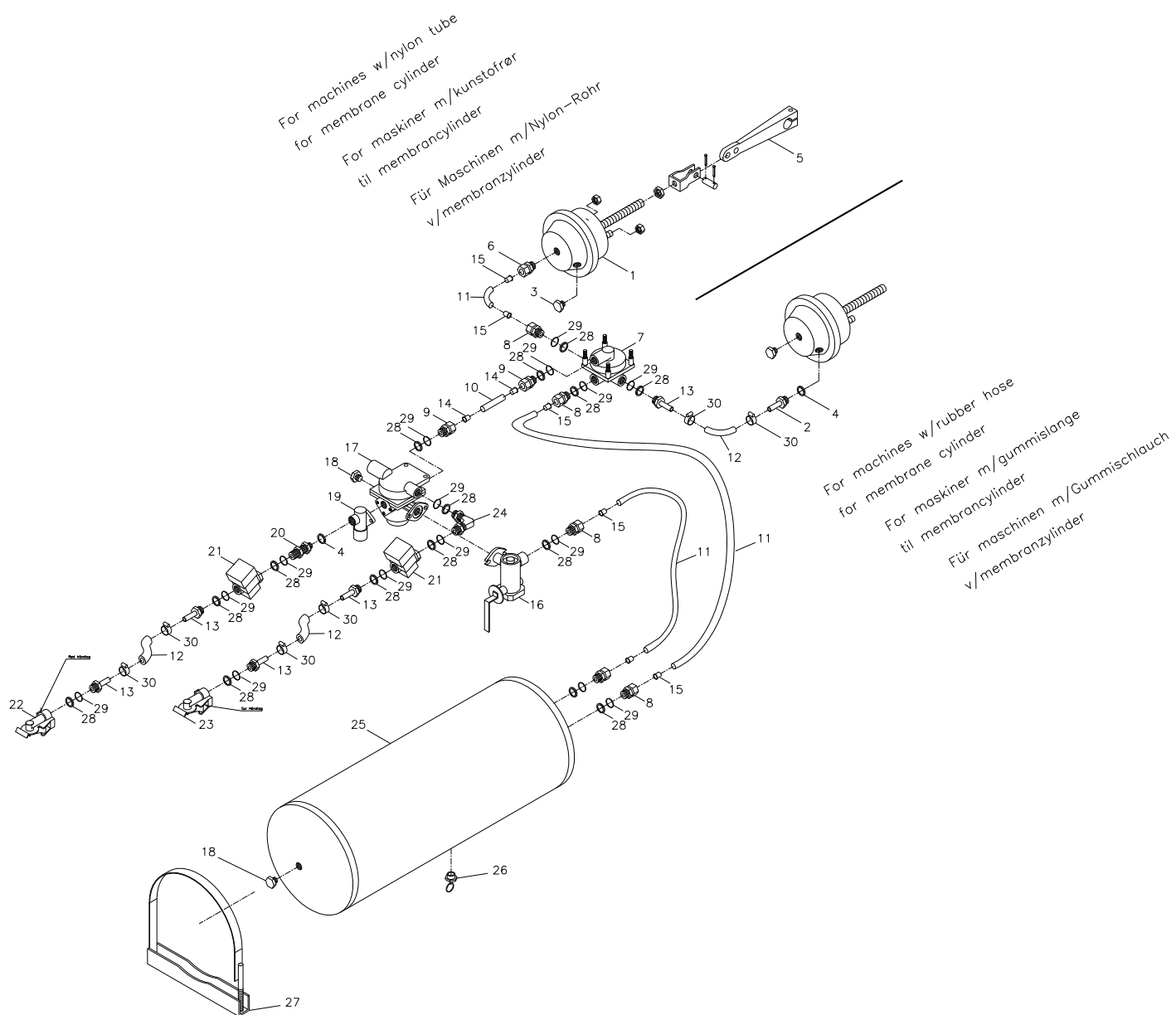
Hydraulisc brakes



Pos.	Item No.	Designation	Qty.
2	690203006	Fitting 90 ° 10-3/8" BSP	2
3	690201018	Hydraulic hose 1480mm ¼" st/st	1
4	690201053	Hydraulic hose 1260mm ¼" st/st	1
5	690203016	Fitting 10mm	2
6	690203015	Fitting T10	1
7	690201025	Hydraulic hose 5640mm ¼" st/st	1
8	690203003	Fitting straight 10-1/2" BSP	2
9	690203001	Quick coupling E402 ½"	2

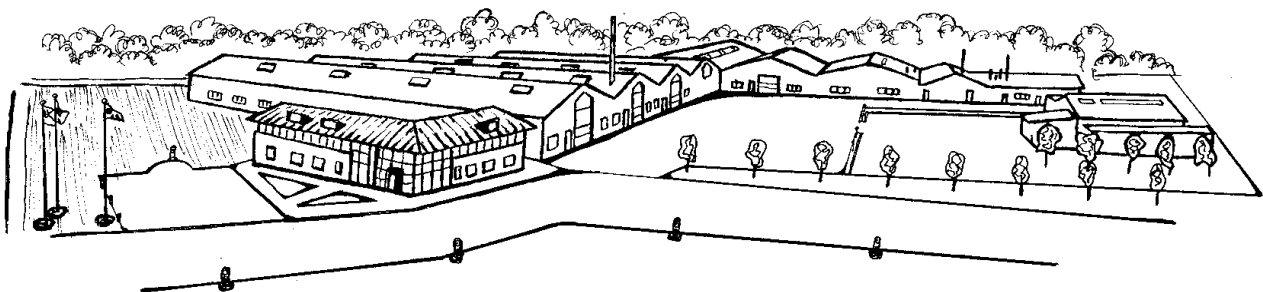
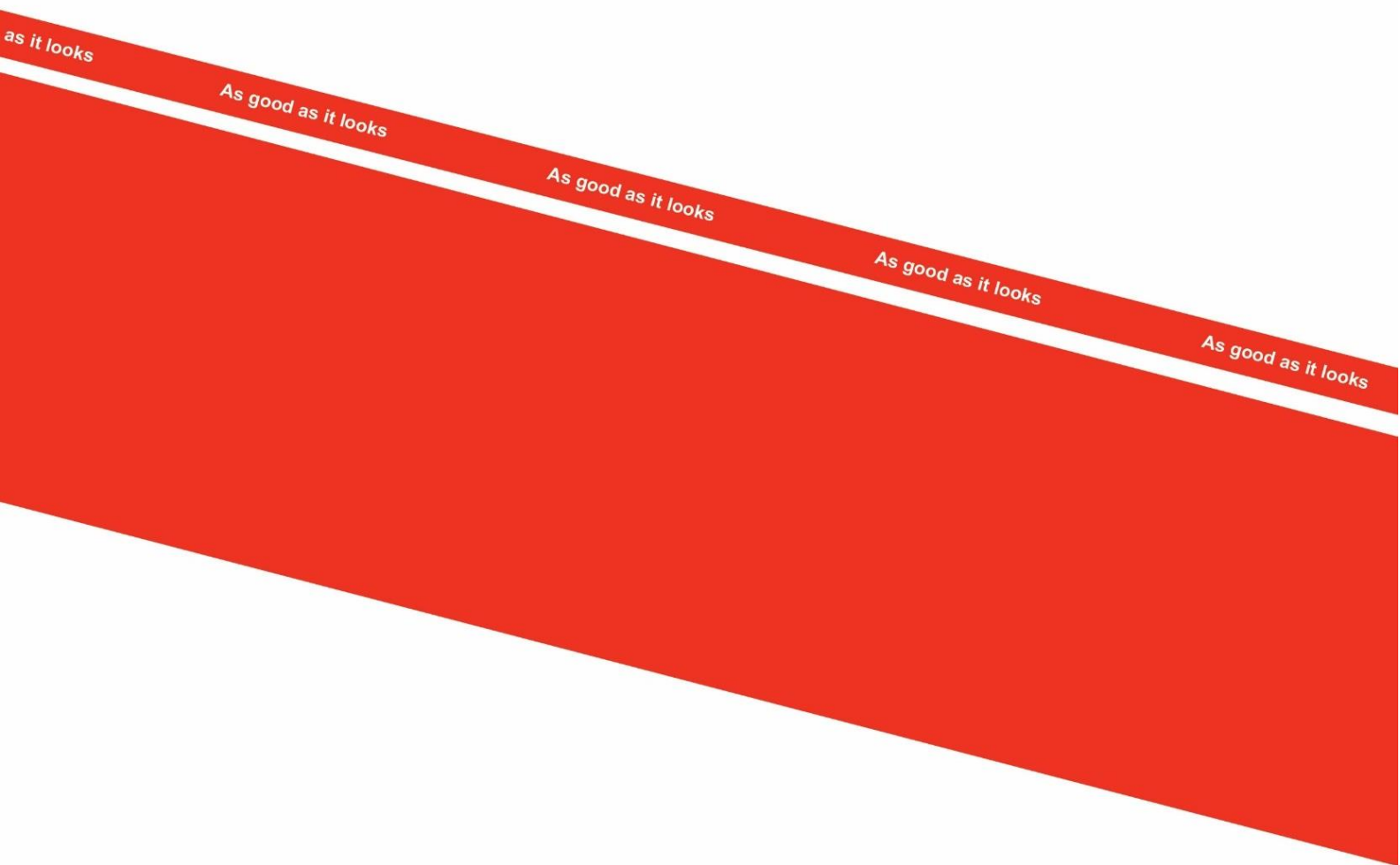
Note:

Check number and measurements of all cables before ordering the spare parts.

Pneumatic brakes

Pos.	Item no.	Designation	w/nylon tube f/ membrane cyl.	w/rubber hose for membrane cyl.
1	690190001	Membrane cylinder 16"	2	2
2	690190070	Hose fitting M16x1,5 m/ Ø12 fitting	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, lige 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, m/Ø12 fitting	4	6
14	690190090	Support bushing for tube Ø10x1,5mm	2	2
15	690190095	Support bushing for 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 40ltr	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	Clamp 15-24 mm	4	8

Notes



The design is subject to modification without notice.