



***Declaration of Conformity
Operating Instructions
Spare Part List***

**He-Va Vip-Roller
5.4 – 6.3 – 7.3– 8.2 m**



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:

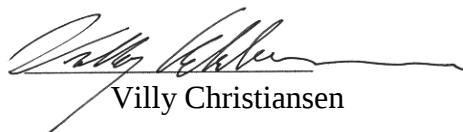
HE-VA ApS
N. A. Christensensvej 34,
DK-7900 Nykøbing Mors

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

The declaration comprises the following machine:

Vip – Roller 5.4m – 6.3m – 7.3m - 8.2m

Nykøbing the 29th December 2009

A handwritten signature in black ink, appearing to read "Villy Christiansen".
Villy Christiansen

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

1. 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 in the tyres: approx. 3.8 bar / 55 psi

2. 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 5.4 m or 6.3 m and with three different ring types: Cambridge, cam and Crosskill rings.

2.1 Technical Specifications

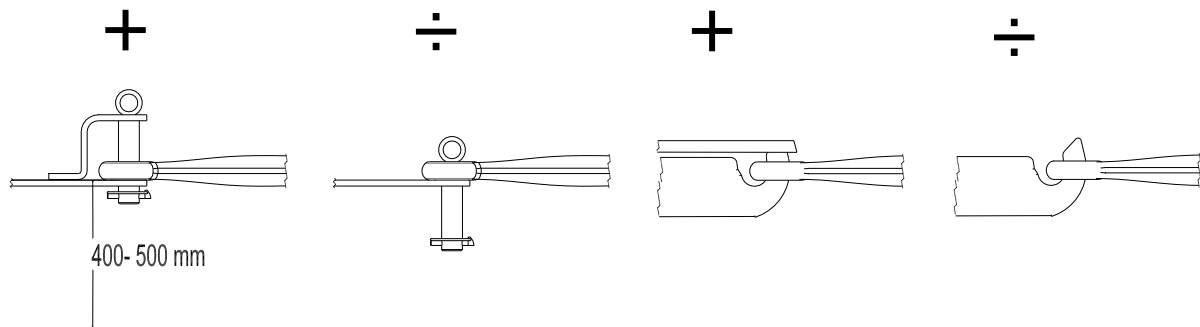
	5.4 m	6.3m	7.3 m	8.2m
Working With	5.7 m	6.6 m	7.6 m	8,2 m
Length	3.4 m	3.8 m	4.8 m	5,3 m
Transport width	2.45 m	2.45 m	2.45 m	2,45 m
Transport height	1,6 m	1,6 m	1,6 m	1,6 m
Pressure on pintle eye in transport position (% of total weight)	ca. 40 %	ca. 40 %	ca. 40 %	Ca. 40%
Wheel assembly, standard	10.0/75x15.3 – 10 PLY	10.0/75x15.3 – 10 PLY	11.5/80x15.3 - 10 PLY	11.5/80x15.3 - 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: system is filled with	Hydro Texaco HD32			

	Width 5.4 m		Width 6.3 m		Width 7.3 m		Width 8.2 m	
Ringtype	Qty rings	Weight kg	Qty rings	Weight kg	Qty rings	Weight kg	Qty rings	Weight kg
Cambridge, Ø45 cm/18''	105	1840	129	2460	143	2650	157	3378
Cambridge, Ø51 cm/21''	105	2015	129	2670	143	3030	157	3820
Knast, Ø55 cm	36	1530	42	2120	48	2285	55	2920
Crosskill, Ø48/Ø53 cm	54	1980	63	2550	73	2830	81	3495
2D-Corrugated	69	1960	78	2520	90	2670	102	3460
Plain 505mm	18	1720	21	2170	24	2290	27	3010

3. Operating Instructions

3.1 Attachment

On delivery the roller is in transport position. When the roller is attached, check that the towing hook height is 400-500 mm. Reverse the tractor, put in and secure the draw bolt.



Raise the support leg and place it in the transport fittings on top of the tail. Now fit the three hydraulic hoses. The roller requires one double-acting and one single-acting PTO.

Now fit the hydraulic in the hydraulic outlets of the tractor.

IMPORTANT: Check that the male end mounted by the factory fits the female end of the tractor.

Now pressurise the tip cylinder so that the side sections are tipped free of the transport fittings. Then the side sections are turned out by means of the wing cylinder.

Now the roller is hydraulically tipped into working position by means of the tip cylinder.

3.2 Transport

At change-over for transport, the roller is tipped totally backward by pressurising the tip cylinder. Now pressurise the wing cylinder so that the side sections 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.

4. Maintenance

- A.** After approximately 10 hours of operation, the wheels, ball bearings, check pawl console and stop rings must be retightened. Check hoses, fittings and cylinders for any leaks and retighten.
- B.** After every approximately 30 hours of operation, lubricate the tip cylinder rivets and the two lubricating points of the side sections with grease.
- C.** After the season, clean the roller and lubricate with grease and oil.

NOTE:

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

4.1 Rolling

Speed: max. 10 km/h.

When turning, drive in wide curves as far as possible. The turning should not be performed so sharply that all roller rings cannot still rotate forward.

Only lower the wheels in connection with folding up for transport position.

Do not drive over large and earthfast stones.

4.2 Lubrication

After every 10 hours of operation, lubricate

- the suspension of the individual roller sections
- the hinges of the outer sections on the inner section.

After every 30 hours of operation, lubricate

- the vertical hinge of the inner wings
- the ball bearings
- the cylinders
- the hinges of the wheel frame on the chassis

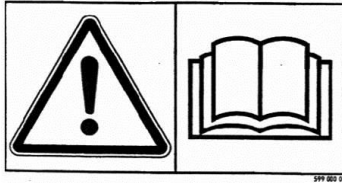
Once a year, lubricate

- the support leg

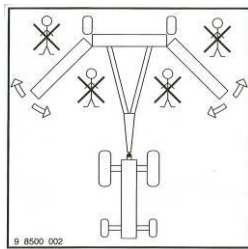
IMPORTANT

Only lubricate the ball bearings 1-2 strokes as the sealing rings may otherwise be pushed out.

4.3 Safety – and other markings on the machine



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



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



Plate with number and year of manufacture

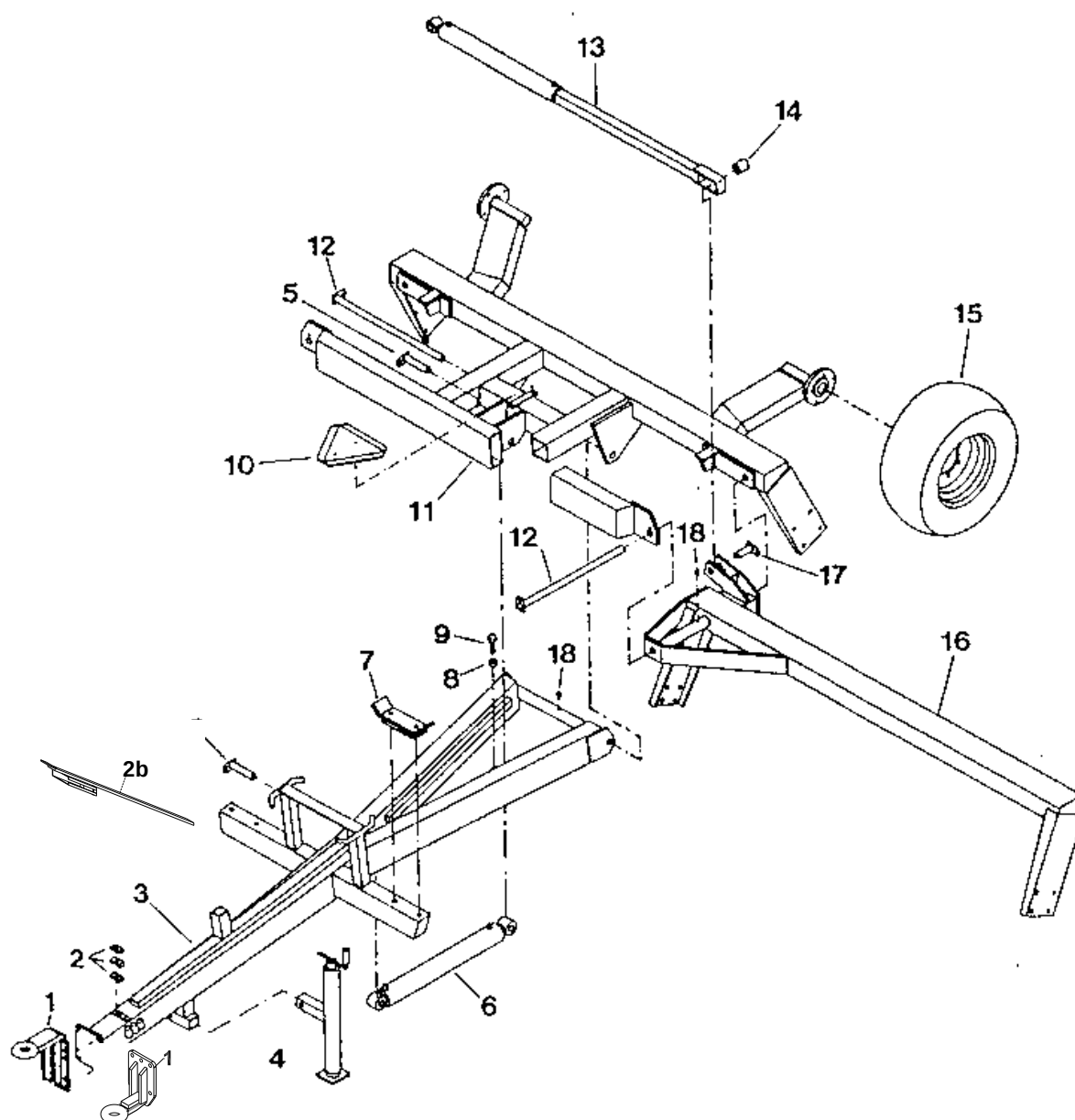
**HUSK - PLEASE NOTE -
ACHTUNG - ATTENTION**
EFTERSPÆND BOLTE
TIGHTEN UP THE BOLTS
BOLZEN NACHZIEHEN
RESSERRER LES BOULONS

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

5. Spare Part List

5.1 Tail, Chassis, Centre Section, Wheel Frame, etc.

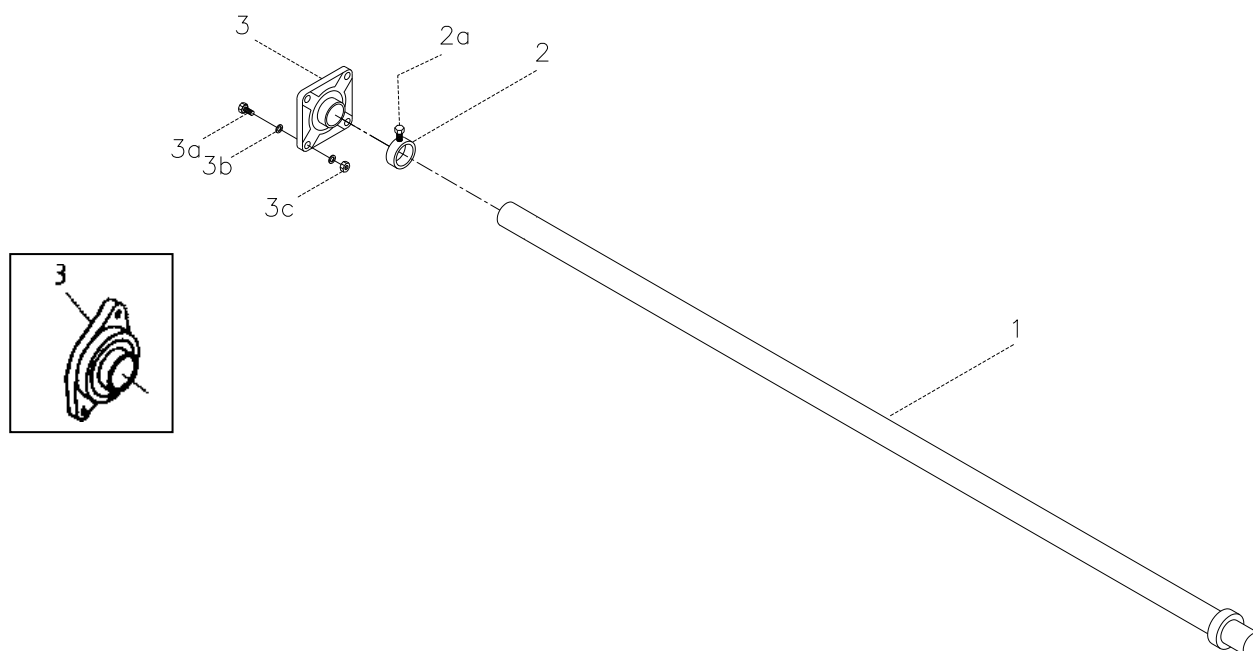


Pos	Itemnumber	Designation	5.4 m	6.3 m	7.3 m	8,2m
1	631630300	Front drawbar (danish)	1	1	1	
1	631630400	Front drawbar (german)	1	1	1	
1	631630500	Front drawbar (italien)	1	1	1	
1	630757019	Front drawbar (Drawbar solid Ø50) From machine number: 343424	1	1	1	1
1a	690103126	Bolt M16x45mm	4	4	4	
1b	690113008	Self locking nut M16	4	4	4	
1c	690103558	Bolt M16x65mm 8.8 From machine number: 343424	6	6	6	6
1d	690113008	Self locking nut M16 From machine number: 343424	6	6	6	6
1e	690117013	Faceted disc Ø16 From machine number: 343424	12	12	12	12
2	690210210	Double hose support Ø14 mm	2	2	2	2
2	690210211	Top plate	2	2	2	2
2a	690102050	Bolt M8x35 mm	2	2	2	2
2b	630771200	Parking device f/hydr. hose on drawbar	1	1	1	1
3	630640100	Drawbar	1			
3	630640105	Drawbar from machine number: 343424	1			
3	630650100	Drawbar		1		
3	630650106	Drawbar from machine number: 343424		1		
3	630660100	Drawbar			1	
3	630660106	Drawbar from machine number: 343424			1	
3	631660100	Drawbar				1
4	690141100	Support leg	1	1	1	
4	690141095	Support leg from machine number: 343424	1	1	1	1
4a	630552100	Pin	1	1	1	1
4b	690133005	Split-pin Ø4mm	1	1	1	1
5	69430135G	Pin Ø30 L=135	2	2		
5	69440135G	Pin Ø40 L=135			2	2
5a	690101101	Bolt M12x25	2	2	2	2
5b	630532600	Locking sleeve for pin head	2	2	2	2
6	690200120	Cylinder 80/40x600, Ø30/Ø30	1	1		
6	690200113	Cylinder 100/50x600 Ø40/Ø40			1	1

Pos	Item.No.	Designation	5.4 m	6.3 m	7.3 m	8.2m
7	6305300300	Transport brackets Ø470mm	2	2	2	2
7	630530400	Transport brackets Ø530mm	2	2	2	2
7	630530500	Transport brackets Ø550mm	2	2	2	2
8	690112009	Nut M20	1	1	1	1
9	690101164	Bolt M20x60	1	1	1	1
10	690142001	Warning triangle	1	1	1	1
10a	690103015	Bolt M5x25	2	2	2	2
10b	690117002	Faceted disc Ø5	2	2	2	2
10c	690113002	Self locking nut M5	2	2	2	2
11	630650200	Center frame for axle Ø50 END	1	1		
11	630651000	Center frame for axle Ø60 turned down to Ø45	1	1		
11	630660200	Center frame			1	1
11a	690141025	Hub 7050.6 – M18/160-205 1700 kg	2	2	2	2
11a	690141032	Hub /w brakes 3750 kg	2	2	2	2
11b	690141039	Hub bolt M18 x 1.5 x 49	12	12	12	12
11c	690141055	Hub nut M18 x 1.5	12	12	12	12
11d	690140101	Bearing 30206	2	2	2	2
11e	690140103	Bearing 30208	2	2	2	2
11f	690141075	Sealing ring	2	2	2	2
11g	690141314	Hub cover Ø62 mm	2	2	2	2
12	69430685G	Pin Ø30 L=685 mm	3	3		
12	69440685G	Pin Ø40 L=685 mm			3	3
12a	690101101	Bolt M12x25	2	2	2	2
12b	630532600	Locking sleeve for pin head	2	2	3	3
13	630650500	Wing cylinder 70/40x600, Ø30	1	1	1	1
14	630650600	Bush Ø45/Ø31 L=50mm	1	1	1	1
15	690141310	Wheel10.0/75x15.3 – 10 PLY	2	2	2	
15	690141210	Hjul 11.5/80x15,3 - 10 PLY			2	2
16	630640400	Outer left section f/ axle Ø50 END	1			
16	630650400	Outer left section f/ axle Ø50 END		1		
16	630640900	Outer left section f/ axle Ø60	1			
16	630650900	Outer left section f/ axle Ø60		1		
16	630660400	Outer left section f/ axle Ø60			1	

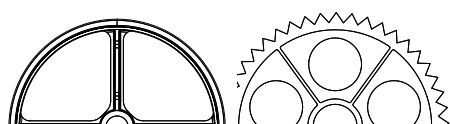
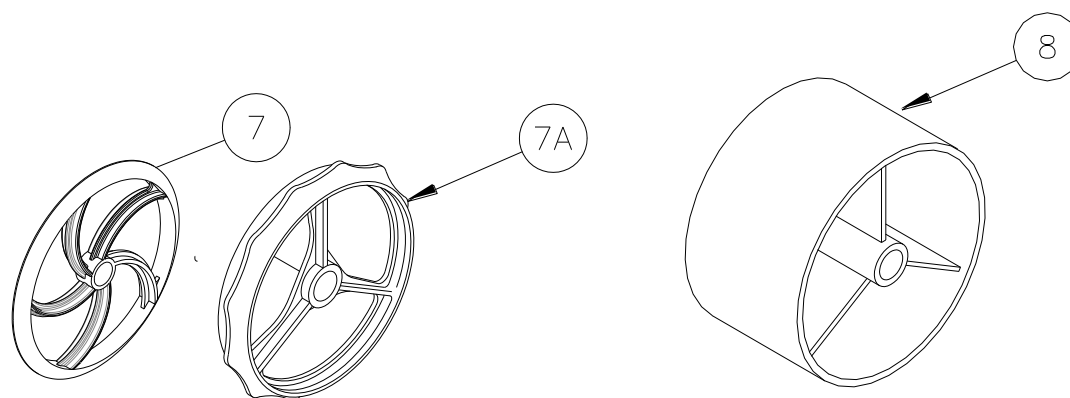
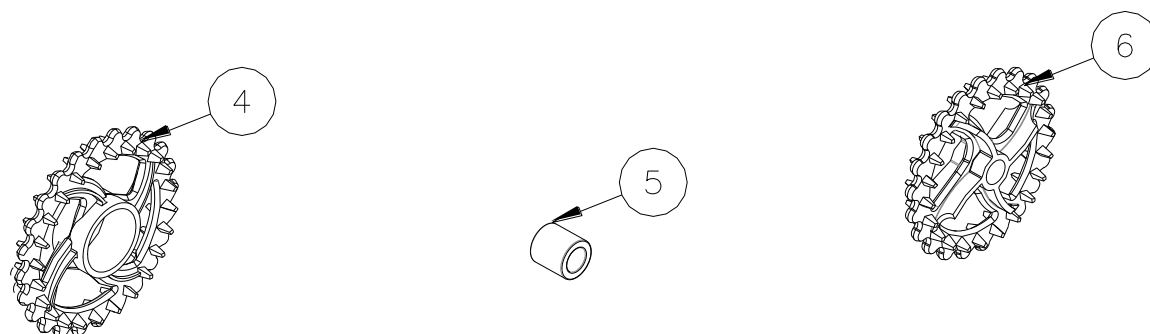
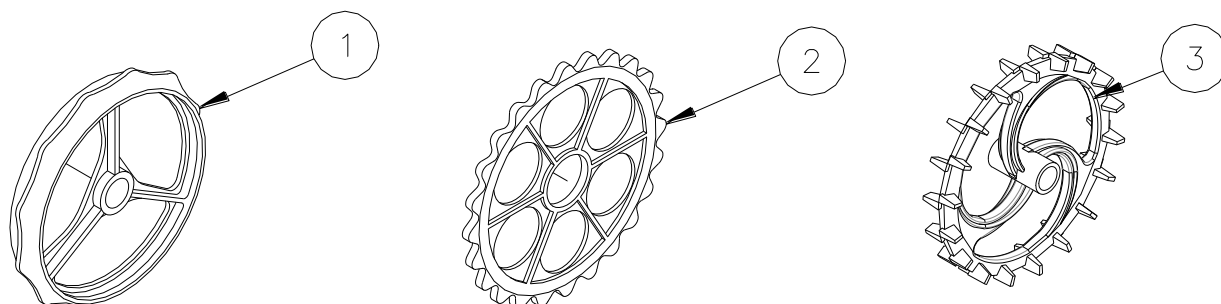
16	631660200	Yderled venstre for aksel Ø60				1
16	630640300	Outer right section f/ axle Ø50	END	1		
16	630650300	Outer right section f/ axle Ø50	END		1	
16	630660600	Outer right section f/ axle Ø50	END			1
16	630640800	Outer right section f/ axle Ø60		1		
16	630650800	Outer right section f/ axle Ø60			1	
16	630660700	Outer right section f/ axle Ø60				1
16	631660300	Yderled højre for aksel Ø60				1
17	69430090G	Pin Ø30 L=90		2	2	
17	69440090G	Pin Ø40 L=90				2
17a	690101101	Bolt M12x25		2	2	2
17b	630532600	Locking sleeve for pinhead		2	2	2
18	690113029	Lubrication nipple M8x1,25		3	3	3

5.2 Axles and Bearings

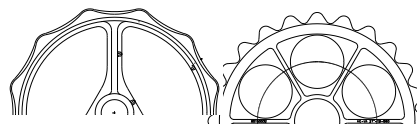


Pos	Item number	Designation	5.4	6.3	7.3	8.2
1	678542370	Axle for center section Ø50 St70 L=2370 END	1			
1	678541940	Axle for side section Ø50 St70 L=1940 END	2			
1	678652370	Axle for center section Ø60 St70 L=2370	1			
1	678651940	Axle for side section Ø60 St70 L=1940	2			
1	678542370	Axle for center/side section Ø50 St70 L=2370 END		3	1	
1	678652370	Axle for center/side section Ø60 St70 L=2370		3	1	1
1	678542913	Axle for side section Ø50 St70 L=2913 END			2	
1	678602913	Axle for side section Ø60 St70 L=2913			2	
1	678603283	Axle for center/side section Ø60 St70 L=3283				2
2	630552300	Stopring w/bolt Ø50mm END	6	6	6	
2	630651200	Stopring w/bolt Ø60mm	6	6	6	6
2a	690101080	Bolt M10x25	12	12	12	12
3	690140801	Bearing SFT45	6	6	6	
3	690140804	Bearing SFT60	6	6	6	6
3	690140075	Bearing UCF209 from year 1996	6	6	6	
3a	690103128	Bolt M16x55 8.8	24	24	24	24
3b	690117013	Faceted disc Ø16	48	48	48	48
3c	690113008	Self locking nut M16	24	24	24	24

5.3 Roller Rings



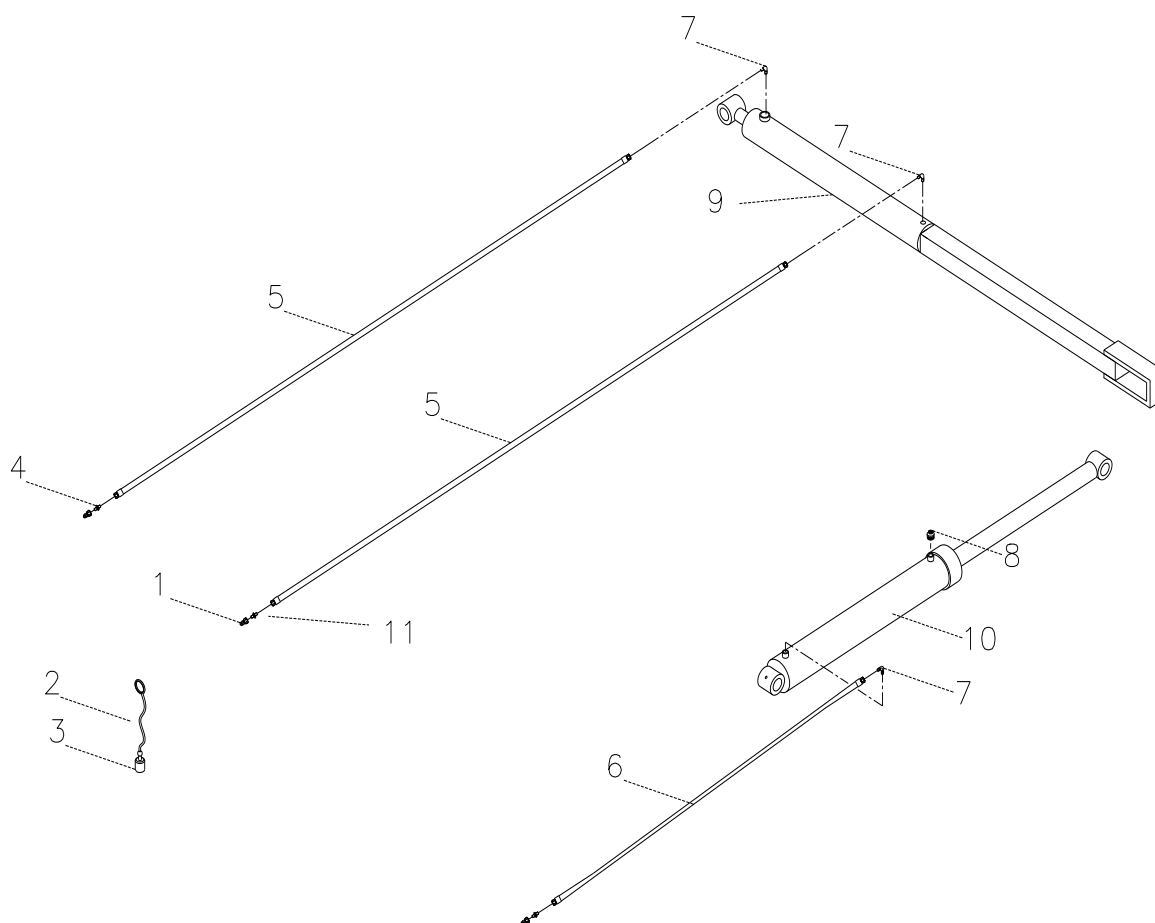
Aggressive



Lenient

Pos	Item number	Designation	5,4	6,3	7,3	8.2
1	690150001	Cambridge smooth 15" (ø50) Aggressive END	55	63	73	
2	690150004	Cambridge serrated 15" (ø50) Aggressive END	52	60	70	
1	690150031	Cambridge smooth 18" (ø50) Lenient END	55	63	73	
1	690150017	Cambridge smooth 18" (ø50) Aggressive END	55	63	73	
1	690150039	Cambridge smooth 18" (ø60) Lenient	55	63	73	81
2	690150033	Cambridge serrated 18" (ø50) Lenient END	52	60	70	
2	690150018	Cambridge serrated 18" (ø50) Aggressive END	52	60	70	
2	690150040	Cambridge serrated 18" (ø60) Lenient	52	60	70	76
1	690150019	Cambridge glatring 21" (ø50) Aggressive END	55	63	73	
1	690150030	Cambridge glatring 21" (ø60) Lenient	55	63	73	81
1	690150024	Cambridge glatring 21" (ø60) Aggressive	55	63	73	81
2	690150009	Cambridge serrated 21" (ø50) Aggressive END	52	60	70	
2	690150032	Cambridge serrated 21" (ø60) Lenient	52	60	70	76
2	690150025	Cambridge serrated 21" (ø60) Aggressive	52	60	70	76
3	690150007	Cam 22" (ø50)	36	42	48	55
4	690150011	Loose crosskill-ring 530 mm	26	30	35	39
5	690150012	Hub f/ loose crosskill-ring Ø50 END	26	30	35	
5	690150035	Hub f/ loose crosskill-ring Ø60	26	30	35	39
6	690150010	Crosskill-ring ø485 mm (ø50) END	29	33	35	
6	690150034	Crosskill-ring ø485 mm (ø60)	29	33	35	42
7	690150013	Corrugated ring ø500 mm END from april 2011	113	129	146	
7a	690150042	2D Corrugated ring NEW from april 2011	69	78	90	102
8	690150028	Plain ring ø505 mm (ø60)	19	21	24	27

5.4 Hydraulics 5.4 m - 6.3 m - 7.3 m - 8.2 m

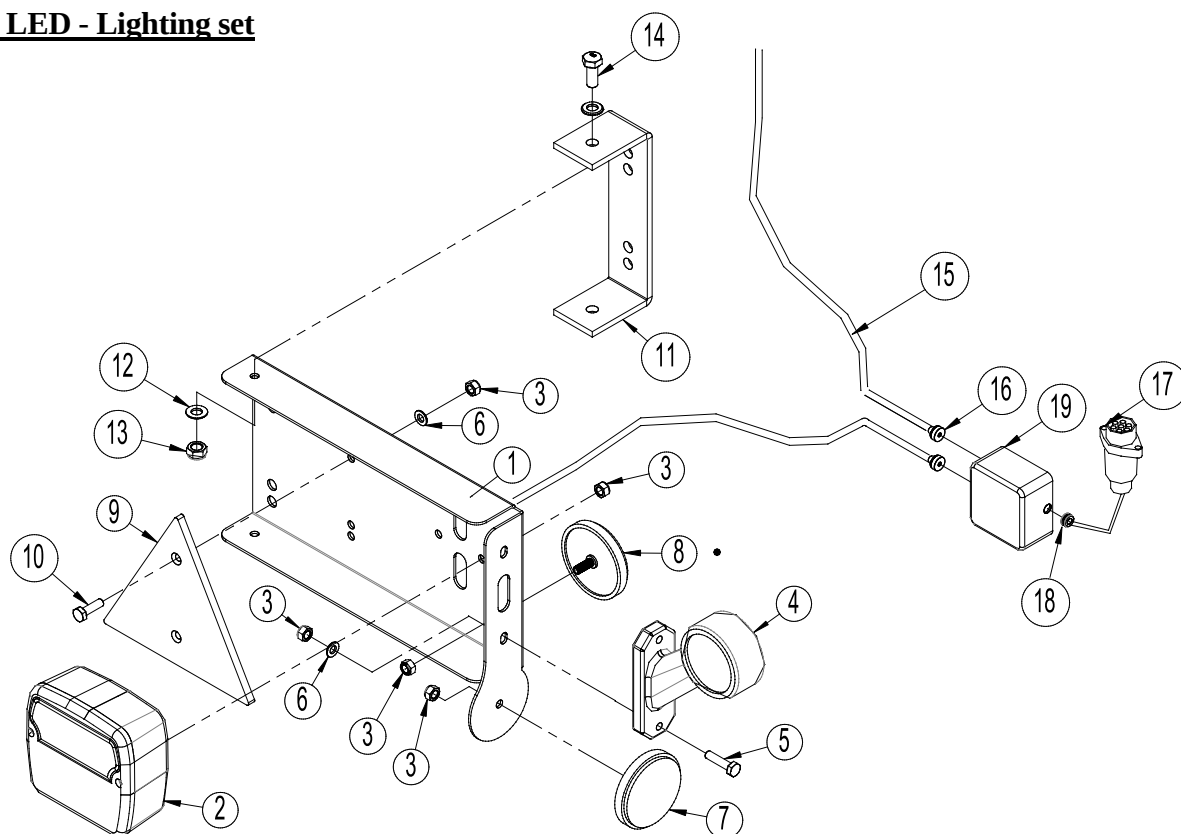


Pos.	Itemnumber	Designation	Qtr.
1	690203001	Quick-coupling ½" E402	3
2	690210001	Dust cap blue (END)	2
3	690210002	Dust cap red (END)	1
4	690203003	Fitting straight 10-1/2" BSP	3
5	690201011	Hydr.hose. 1/4" L=5350 mm	2
6	690201005	Hydr. hose ¼" L=3300 mm	1
7	690203006	Fitting , 90° 10-3/8" BSP	3
8	690206001	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.

5.5 LED - Lighting set



Pos.	Vare nr.	Betegnelse	Antal
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	692160017	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:

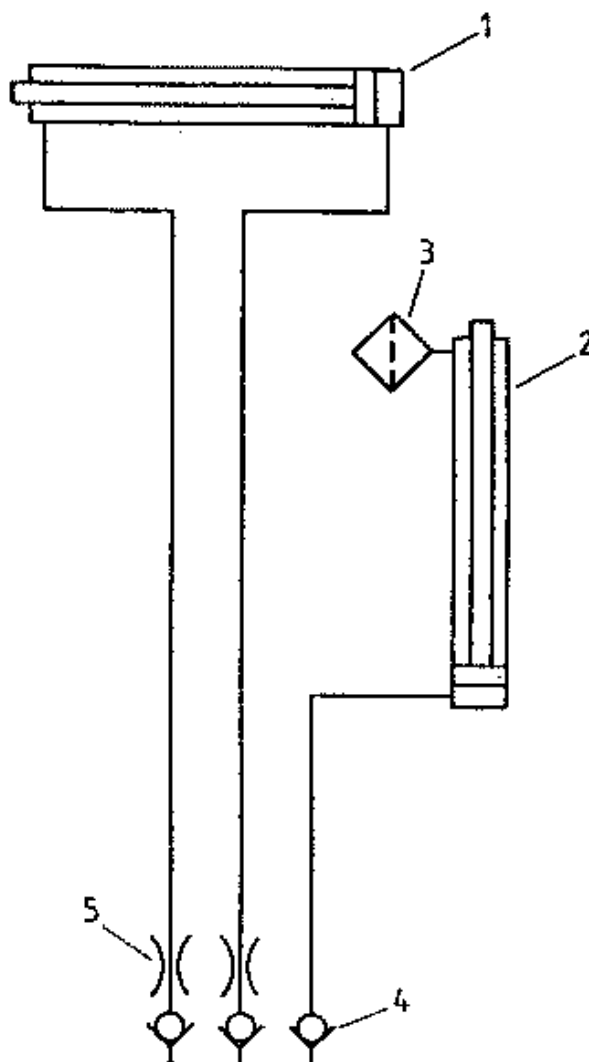
Check number and measurements of all cables before ordering the spare parts.

6. Hydraulic

6.1 Hydraulic - 6.3 m - 7.3m and

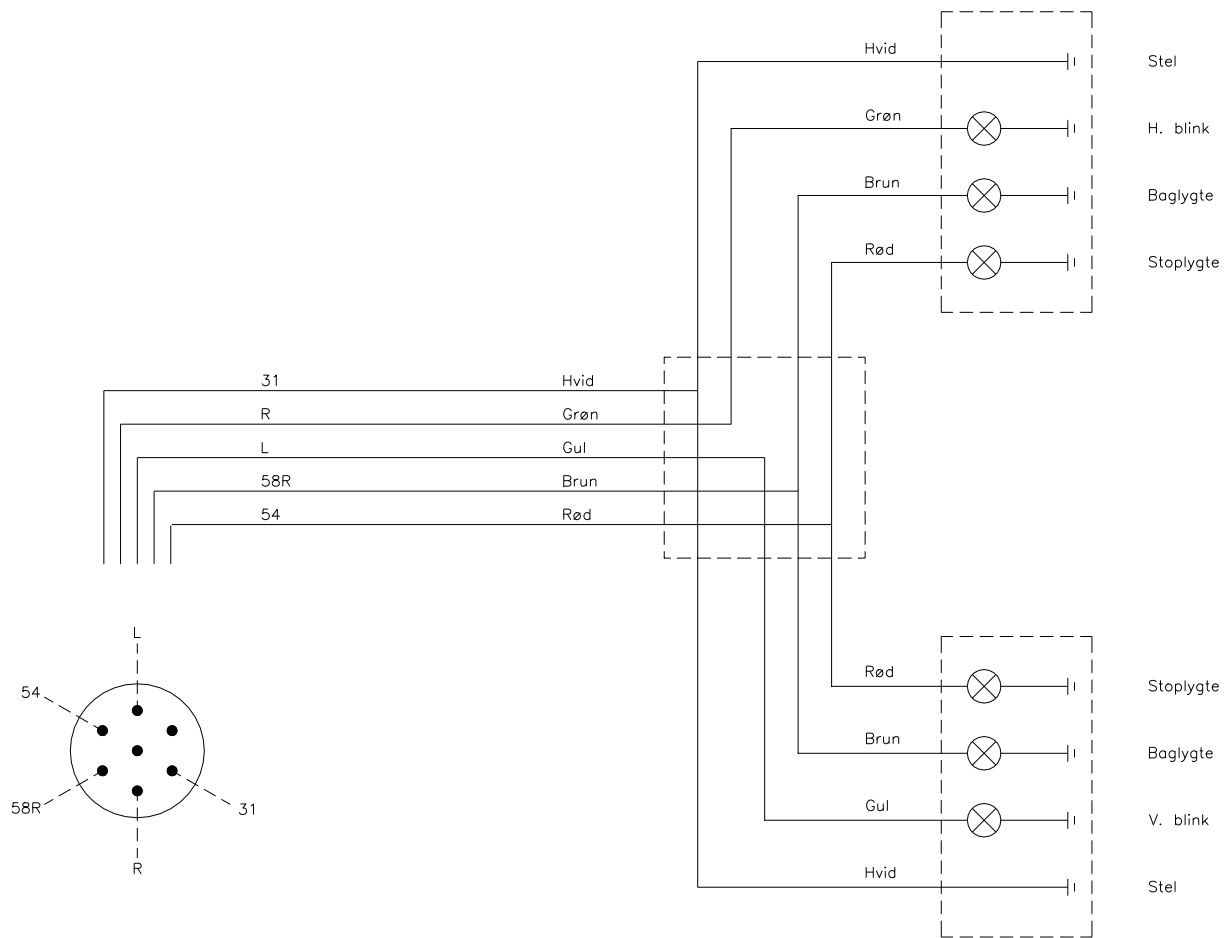
Diagram

Diagram for 5.4 m 8.2m



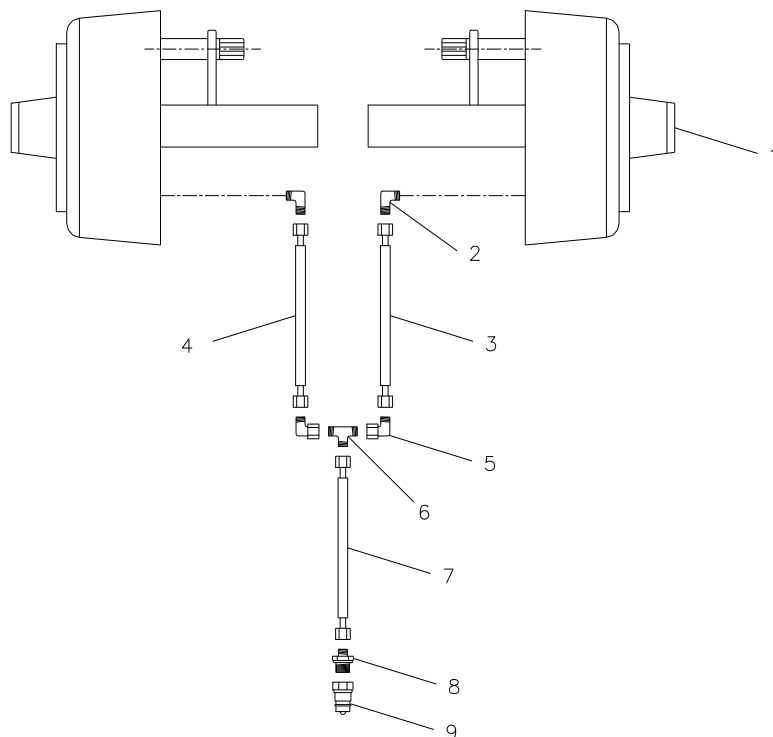
Pos.	Itemnumber	Designation	Qty.
1	630650600	Wing cylinder 70/40x600 ø30	1
2	690200120	Cylinder 80/40x600 ø30/ø30 (see position 6 page 8)	1
3	690206001	Filter plug F38 3/8"	1
4	690203001	Quick-coupling E402	3
5	690207901	Throttle 1 mm	2

6.2 Lighting set: El. diagram



7. Extra equipment

7.1 Hydraulisc brakes

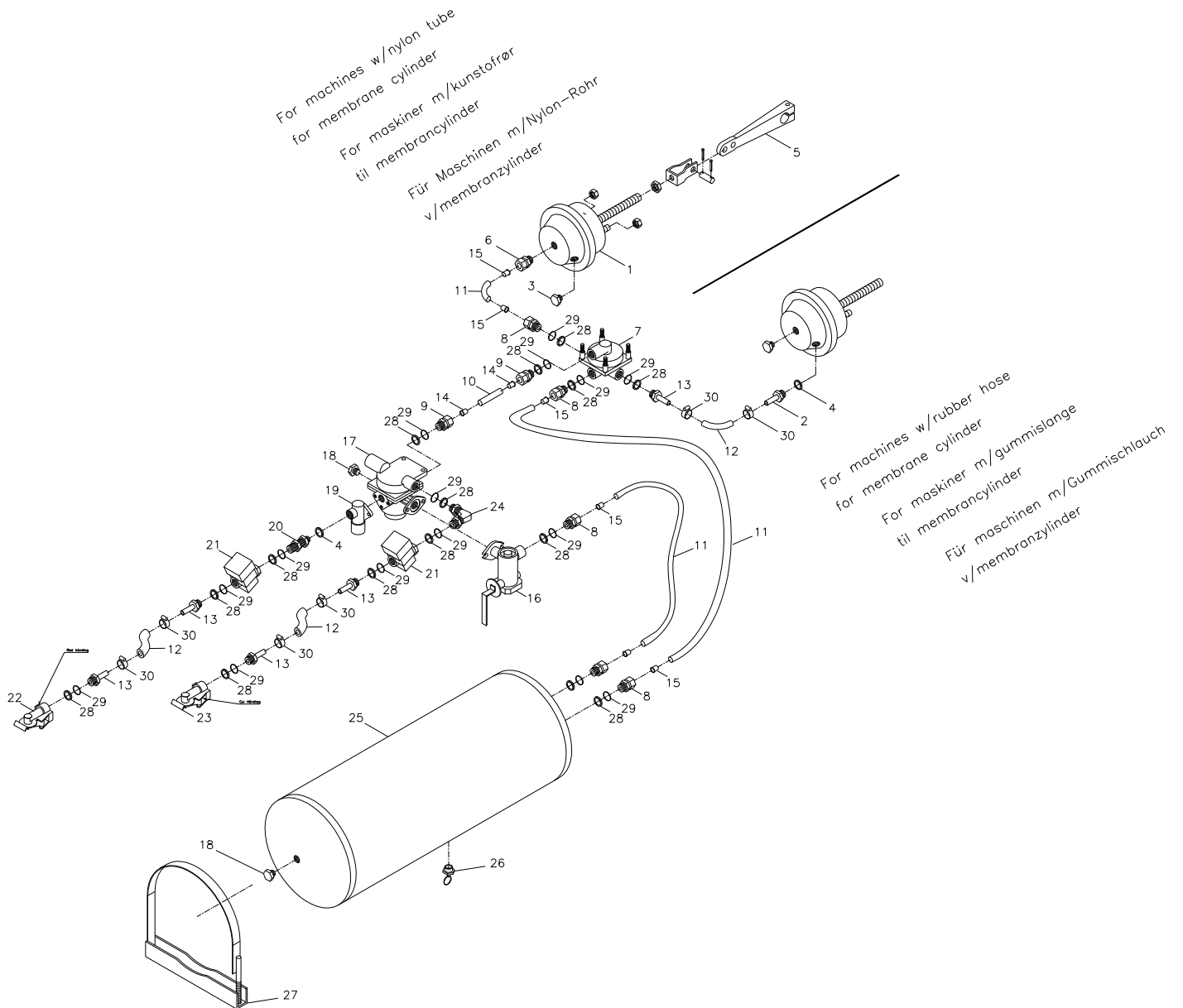


Pos.	Vare nr.	Betegnelse	Stk.
2	690203006	Fitting 90 ° 10-3/8" BSP	2
3	690201018	Hydraulic hose 1480mm 1/4" st/st	1
4	690201053	Hydraulic hose 1260mm 1/4" st/st	1
5	690203016	Fitting 10mm	2
6	690203015	Fitting T10	1
7	690201025	Hydraulic hose 5640mm 1/4" st/st	1
8	690203003	Fitting straight 10-1/2" BSP	2
9	690203001	Quick coupling E402 1/2"	2

Note:

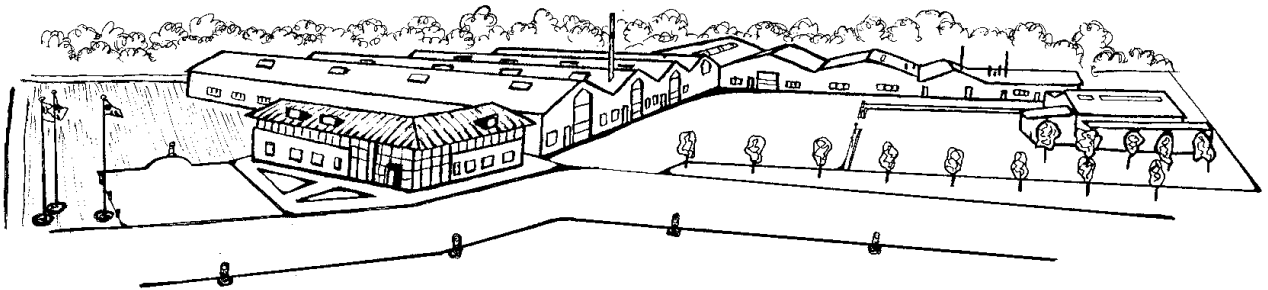
Check number and measurements of all hoses before ordering the spare parts.

7.2 Air brake



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

8. Notes



The design is subject to modification without notice.