

Assembly Manual

Wildkrautbürste WRM-145 WRM-200



Contents

1. Setup of the steel construction without belt drive	3
2. Structure – belt drive with direction of rotation and speed	5
2.1. Direction of rotation	5
2.2. Belt drive 2000 rpm	6
2.3. Belt drive 1000 rpm	7
3. Hydraulic variants	8
3.1. Tractor has only one hydraulic circuit, pivot brush head mechanically	8
3.2. Variant 2 – tractor has two hydraulic circuits, pivot brush head hydraulically	12
3.3. Variant 3 – tractor has 1 hydraulic circuit, pivot brush head hydraulically	15
4. Lubricating schedule	18
5. Pictogram arrangement	19
6. Function check	21

This manual explains the assembly of the WRM-M 145 and 200 weed brush. The machine is available in two versions. In this regard, only the arm assembly and the drive assemblies differ. Everything else is the same.

The manual deals with the following:

- Setup of the steel construction
- In section 1.2 the tightening torque of screw connections and the grub screws in taper-lock bushes is shown
- Setup of the belt drive and the correct arrangement for rotational speed and direction of rotation
- The various hydraulic designs
- The arrangement of the pictograms
- The machine must be greased prior to delivery (see Lubricating schedule)
- A function check must be performed before delivery

1. Setup of the steel construction without belt drive

1.1. Drawings and assemblies

Description	Project	Drawing no.	Part number	File name
Attachment bracket, assembly	WRM-GRU-001	10.00.000	00 002 390	201807-328_115217.iam
Arm, assembly	WRM-GRU-001	20.00.000	00 002 393	201807-329_115219.iam
Pivot bracket, assembly	WRM-GRU-001	30.00.000	00 002 392	201807-331_115225.iam
Holder, assembly	WRM-GRU-001	40.00.000	00 002 391	201807-333_115229.iam

Short arm

Description	Project	Drawing no.	Part number	File name
Arm, assembly	WRM-ARM-001	10.00.000	00 002 394	201804-323_113078.iam

Long arm

Description	Project	Drawing no.	Part number	File name
Arm, assembly	WRM-ARM-002	10.00.000	00 002 395	201804-324_113084.iam

Splash guard

Description	Project	Drawing no.	Part number	File name
Splash guard	WRM-SPS-001	10.00.000	00 002 397	201803-366_112304.iam

See the current spare parts lists on T-drive

1.2. Torque tables

Unless otherwise specified in the drawings, tighten screws to the torque shown in the tables:

1.2.1. Table for threaded unions with standard thread

Ab- messung x P	Vorspannkraft F_V [N]					Anziehdrehmoment M_A [Nm]				
	4.6	5.6	8.8	10.9	12.9	4.6	5.6	8.8	10.9	12.9
M 4 x 0,7	1.280	1.710	4.300	6.300	7.400	1,02	1,37	3,3	4,8	5,6
M 5 x 0,8	2.100	2.790	7.000	10.300	12.000	2,0	2,7	6,5	9,5	11,2
M 6 x 1,0	2.960	3.940	9.900	14.500	17.000	3,5	4,6	11,3	16,5	19,3
M 8 x 1,25	5.420	7.230	18.100	26.600	31.100	8,4	11	27,3	40,1	46,9
M 10 x 1,5	8.640	11.500	28.800	42.200	49.400	17	22	54	79	93
M 12 x 1,75	12.600	16.800	41.900	61.500	72.000	29	39	93	137	160
M 14 x 2,0	17.300	23.100	57.500	84.400	98.800	46	62	148	218	255
M 16 x 2,0	23.800	31.700	78.800	115.700	135.400	71	95	230	338	395
M 18 x 2,5	28.900	38.600	99.000	141.000	165.000	97	130	329	469	549
M 20 x 2,5	37.200	49.600	127.000	181.000	212.000	138	184	464	661	773
M 22 x 2,5	46.500	62.000	158.000	225.000	264.000	186	250	634	904	1.057
M 24 x 3,0	53.600	71.400	183.000	260.000	305.000	235	315	798	1.136	1.329
M 27 x 3,0	70.600	94.100	240.000	342.000	400.000	350	470	1.176	1.674	1.959
M 30 x 3,5	85.700	114.500	292.000	416.000	487.000	475	635	1.597	2.274	2.662
M 33 x 3,5	107.000	142.500	363.888	517.000	605.000	645	865	2.161	3.078	3.601
M 36 x 4,0	125.500	167.500	427.000	608.000	711.000	1.080	1.440	2.778	3.957	4.631
M 39 x 4,0	151.000	201.000	512.000	729.000	853.000	1.330	1.780	3.597	5.123	5.994

1.2.2. Table for taper-lock bushes

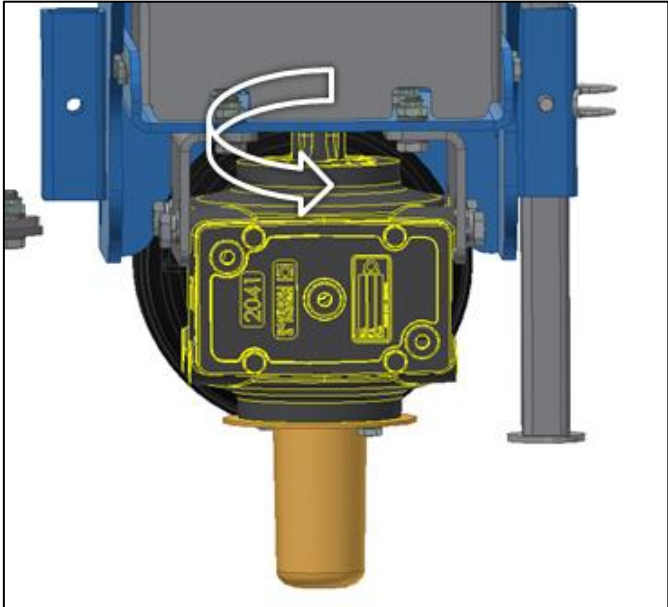
BUCHSE BUSH DOUILLE	SCHRAUBEN-ANZUG S MOMENT(Nm) SCREW TIGHTENING TORQUES(Nm) COUPLE DE SERRAGE(Nm)	SCHRAUBEN SCREW VIS	
		ANZAHL QUANTITY QUANTITE	GROÖE SIZE TAILLE
1008 1108	5,6	2	1/4" BSW
1310 1315	20	2	3/8" BSW
1210 1215	20	2	3/8" BSW
1610 1615	20	2	3/8" BSW
2012	31	2	7/16" BSW
2517	48	2	1/2" BSW
3020 3030	90	2	5/8" BSW
3535	90	3	1/2" BSW
4040	170	3	5/8" BSW
4545	192	3	3/4" BSW
5050	271	3	7/8" BSW

2. Structure – belt drive with direction of rotation and speed

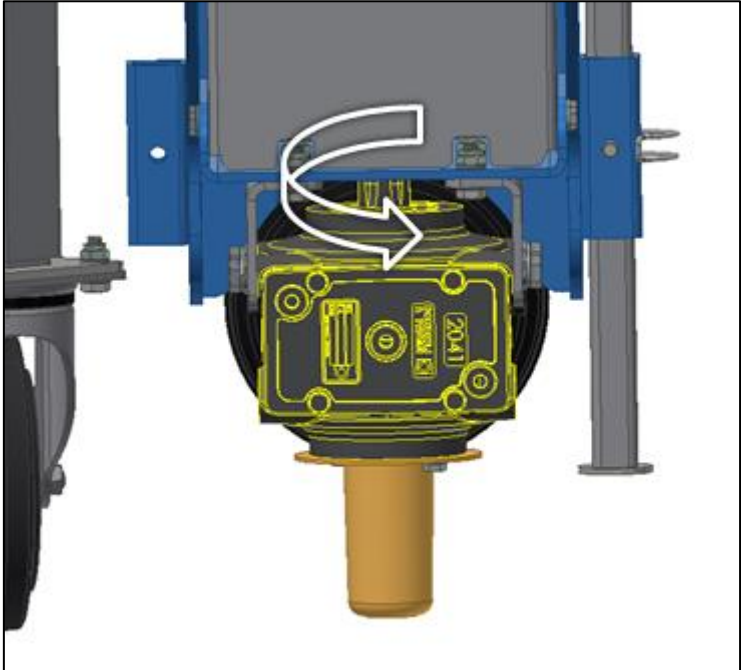
2.1. Direction of rotation

The gearbox determines the direction of rotation. Turning over the gearbox changes the direction of rotation. Shown here for operation on the right side of the vehicle. If the machine is intended for operation on the left side of the vehicle, the arrangement is precisely the opposite.

Install arrangement for **CCW**



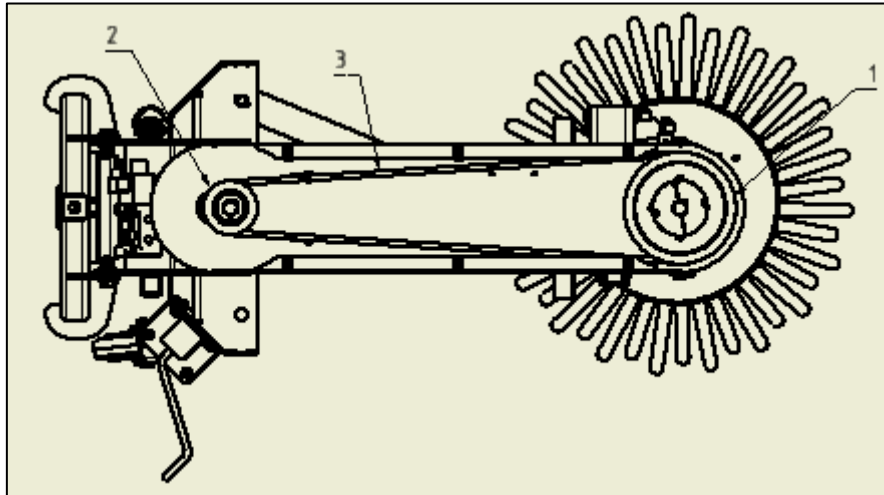
Install arrangement for **CW**



For driving operation on the left side the shaft must turn in the opposite direction.

2.2. Belt drive 2000 rpm

For all belt drives the belt pulleys must be aligned to the same height. The screws of the taper-lock bushes must be tightened with the correct torque for the size. At the end of installation, you must check the direction of rotation.



Short arm:

Item	Quantity	Description	Article number:
1	1	Belt pulley SPA 212-04, TP 3020	02 000 754
2	1	Belt pulley SPA-Ø100-4-TP1610	02 000 753
3	4	V-belt XPA 2240 Ld	02 000 747

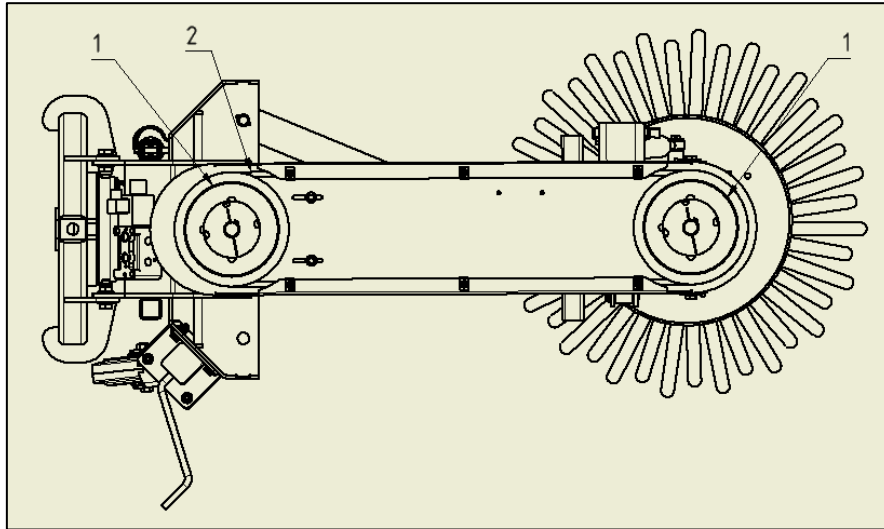
Drive set, mechanical	WRM-AME-001	10.00.000	00 002 399	201807-303_115090.iam
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Long arm:

Item	Quantity	Description	Article number:
1	1	Belt pulley SPA 212-04, TP 3020	02 000 754
2	1	Belt pulley SPA-Ø100-4-TP1610	02 000 753
3	4	V-belt XPA 2800 Ld	02 000 749

Drive set, mechanical	WRM-AME-003	10.00.000	00 002 401	201807-345_115321.iam
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2.3. Belt drive 1000 rpm



Short arm:

Item	Quantity	Description	Article number:
1	2	Belt pulley SPA 212-04, TP 3020	02 000 754
2	4	V-belt SPA 2432 Ld	02 000 748

Drive set, mechanical	WRM-AME-002	10.00.000	00 002 400	201807-344_115318.iam
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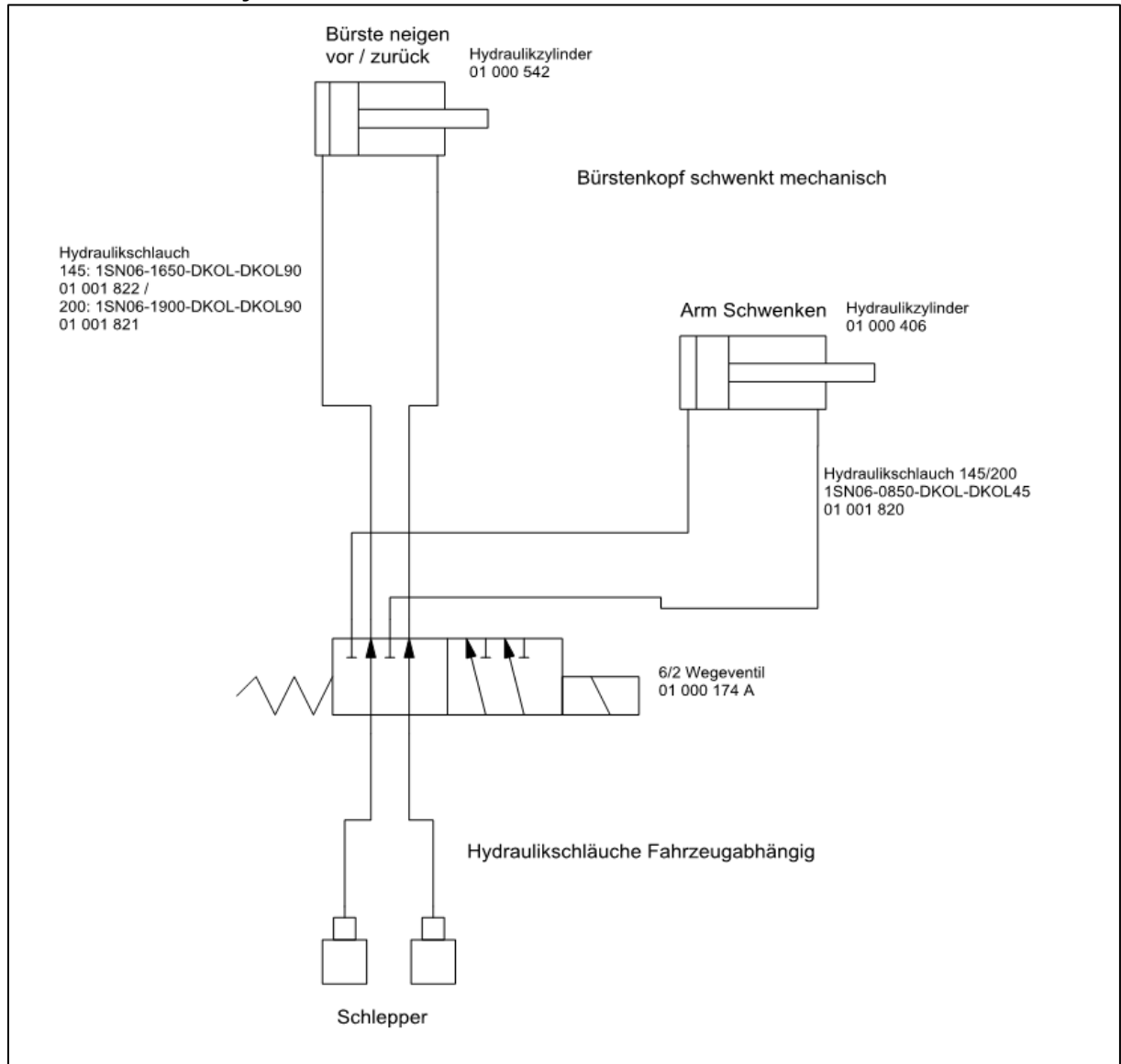
Long arm:

Item	Quantity	Description	Article number:
1	2	Belt pulley SPA 212-04, TP 3020	02 000 754
2	4	V-belt SPA 2982 Ld	02 000 750

Drive set, mechanical	WRM-AME-004	10.00.000	00 002 402	201807-347_115328.iam
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3. Hydraulic variants

3.1. Tractor has only one hydraulic circuit, pivot brush head mechanically



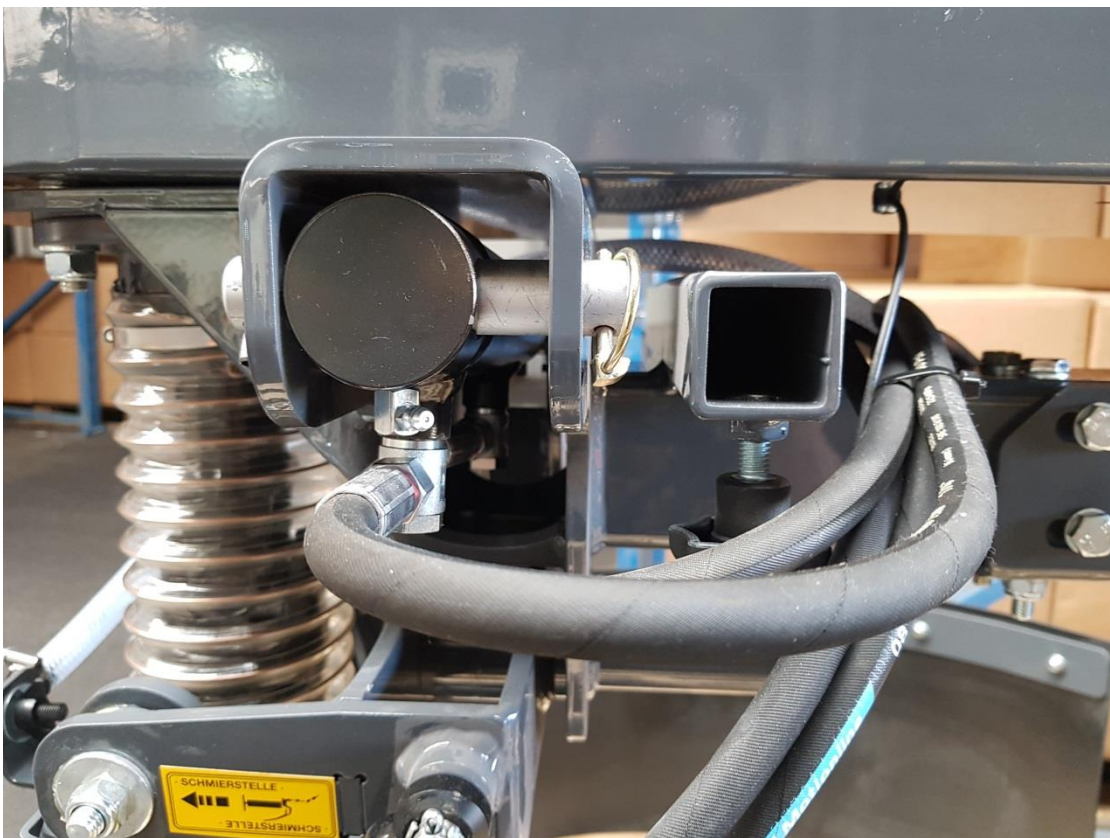
WRM-M 145

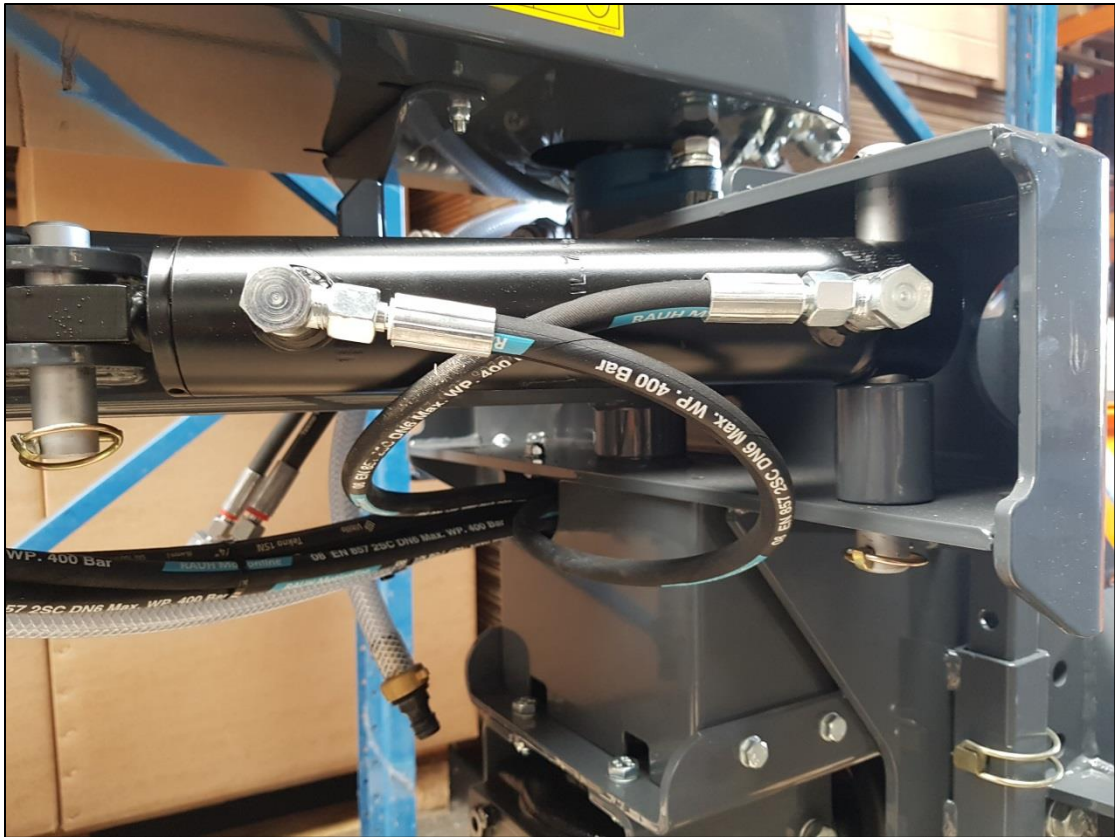
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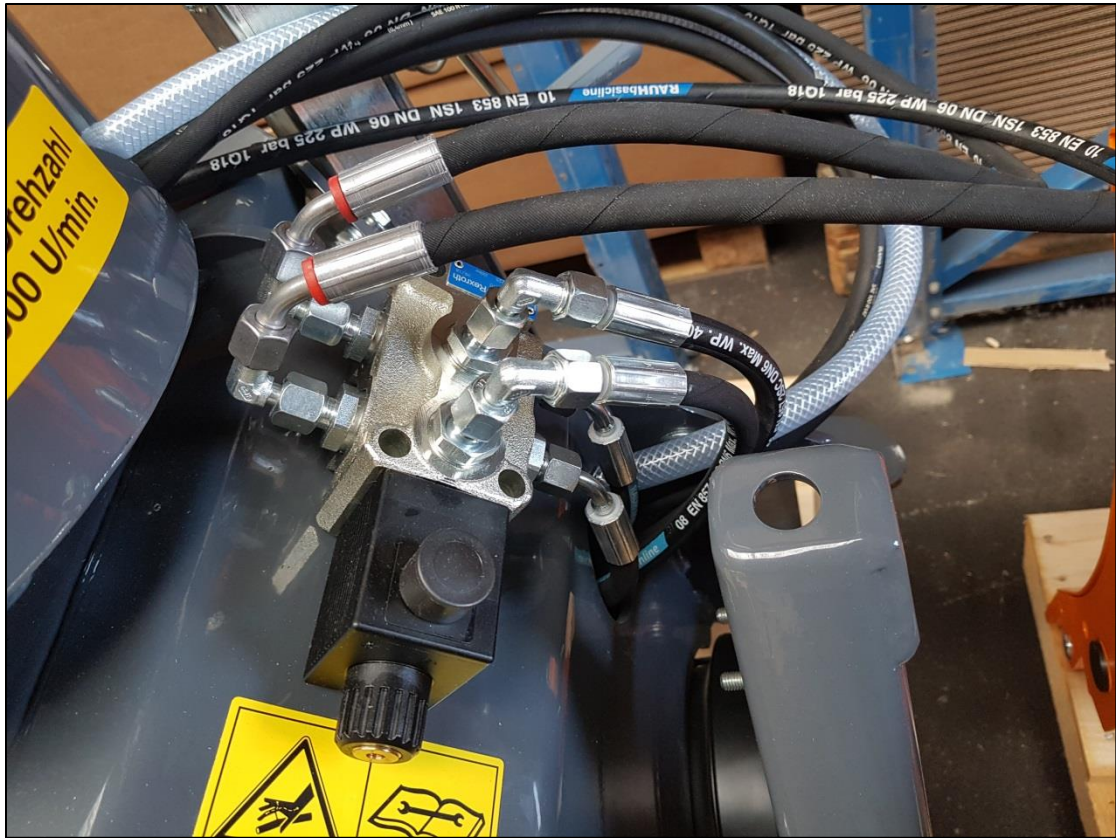
WRM-M 200

Hydraulic kit, assembly	WRM-HYD-002	10.00.000	00 002 425	201809-308_115874.idw
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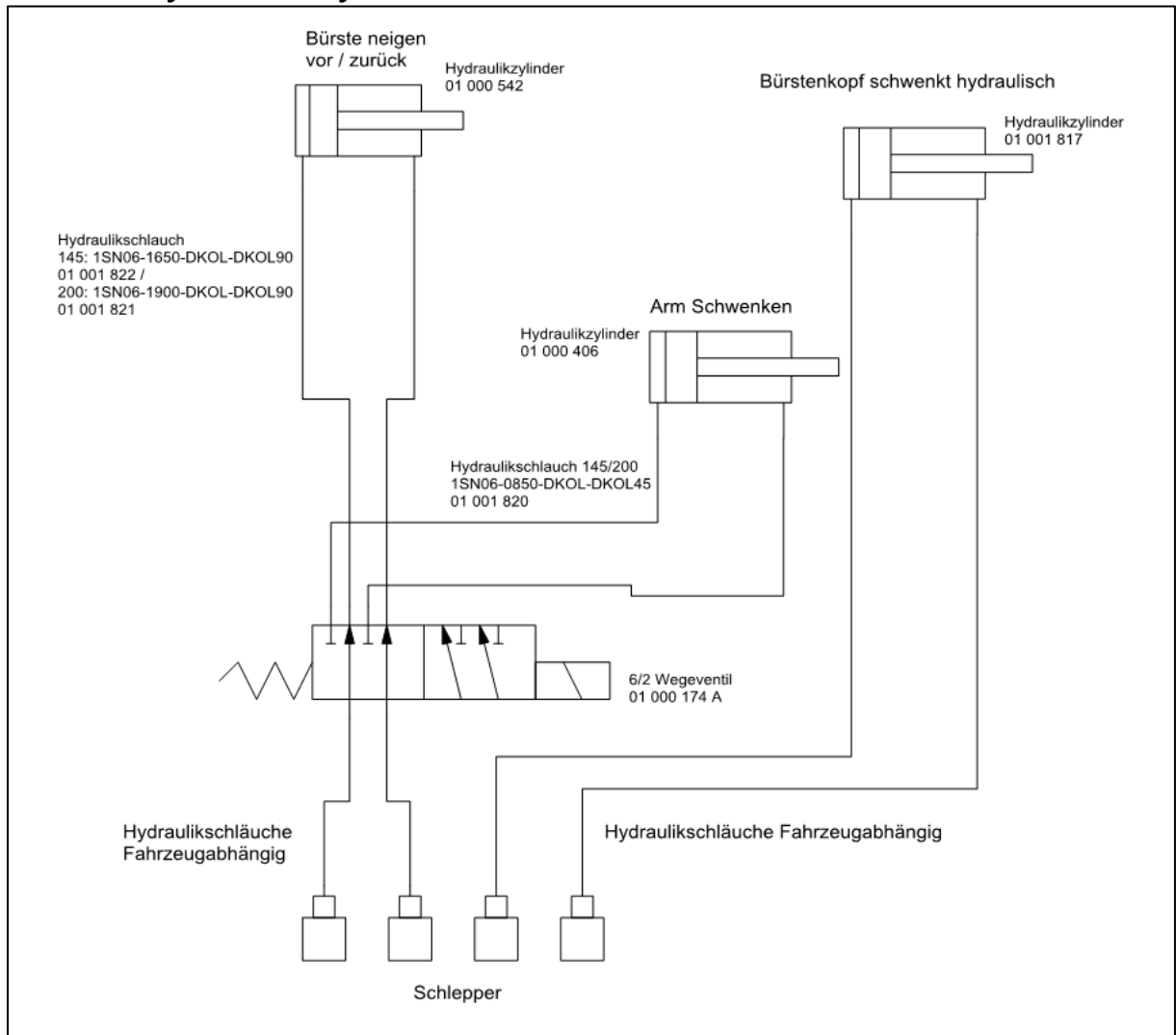
Photos of the hydraulics:







3.2. Variant 2 – tractor has two hydraulic circuits, pivot brush head hydraulically



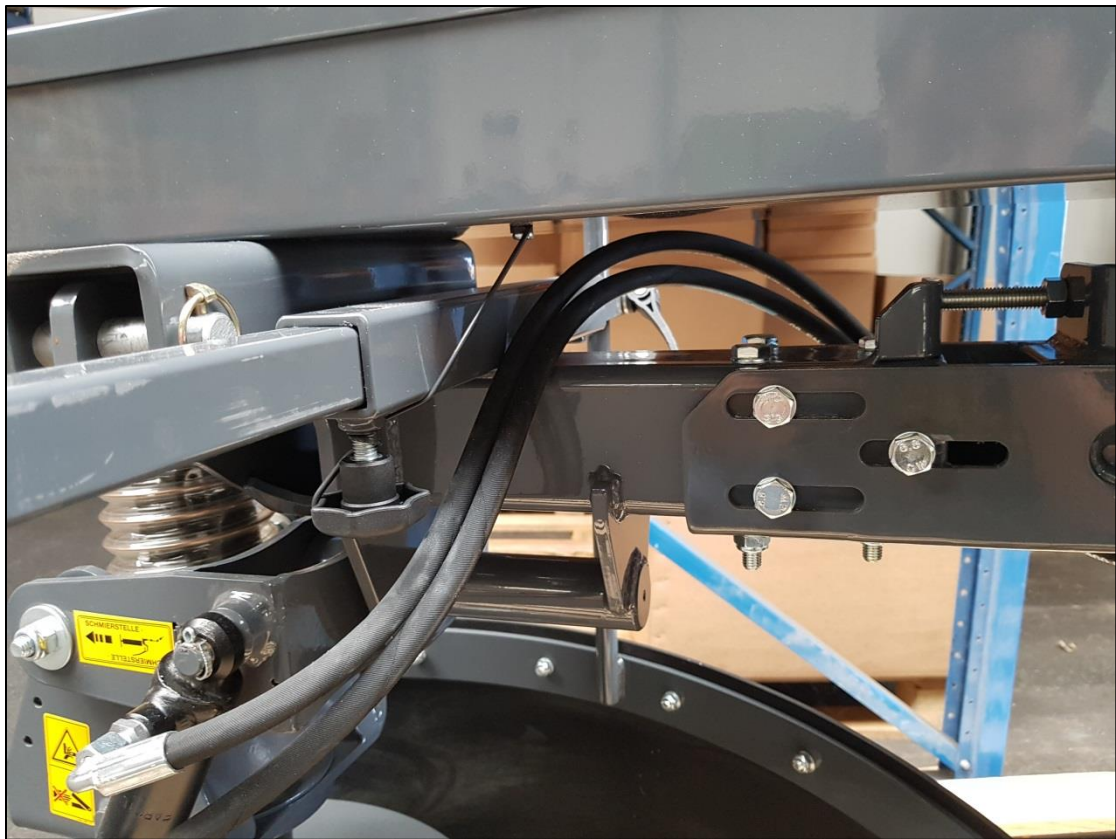
WRM-M 145

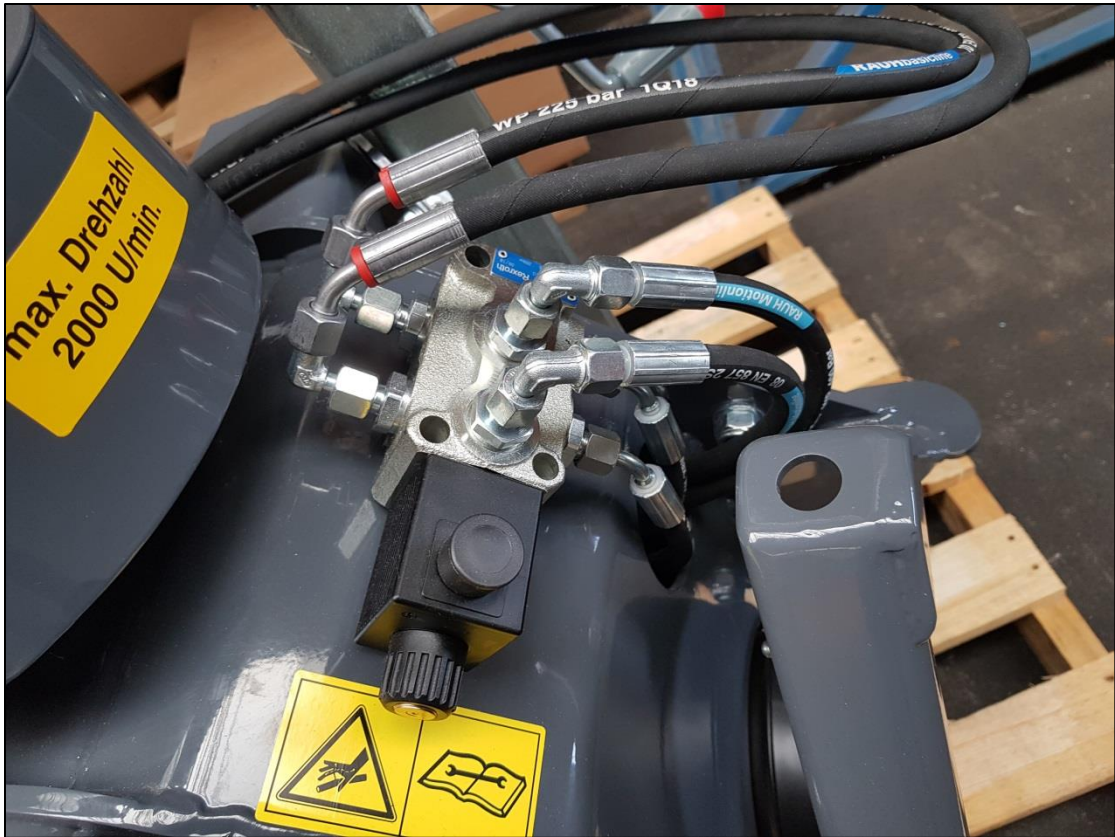
Hydraulic kit, assembly	WRM-HYD-003	10.00.000	00 002 426	201809-309_115873.idw
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WRM-M 200

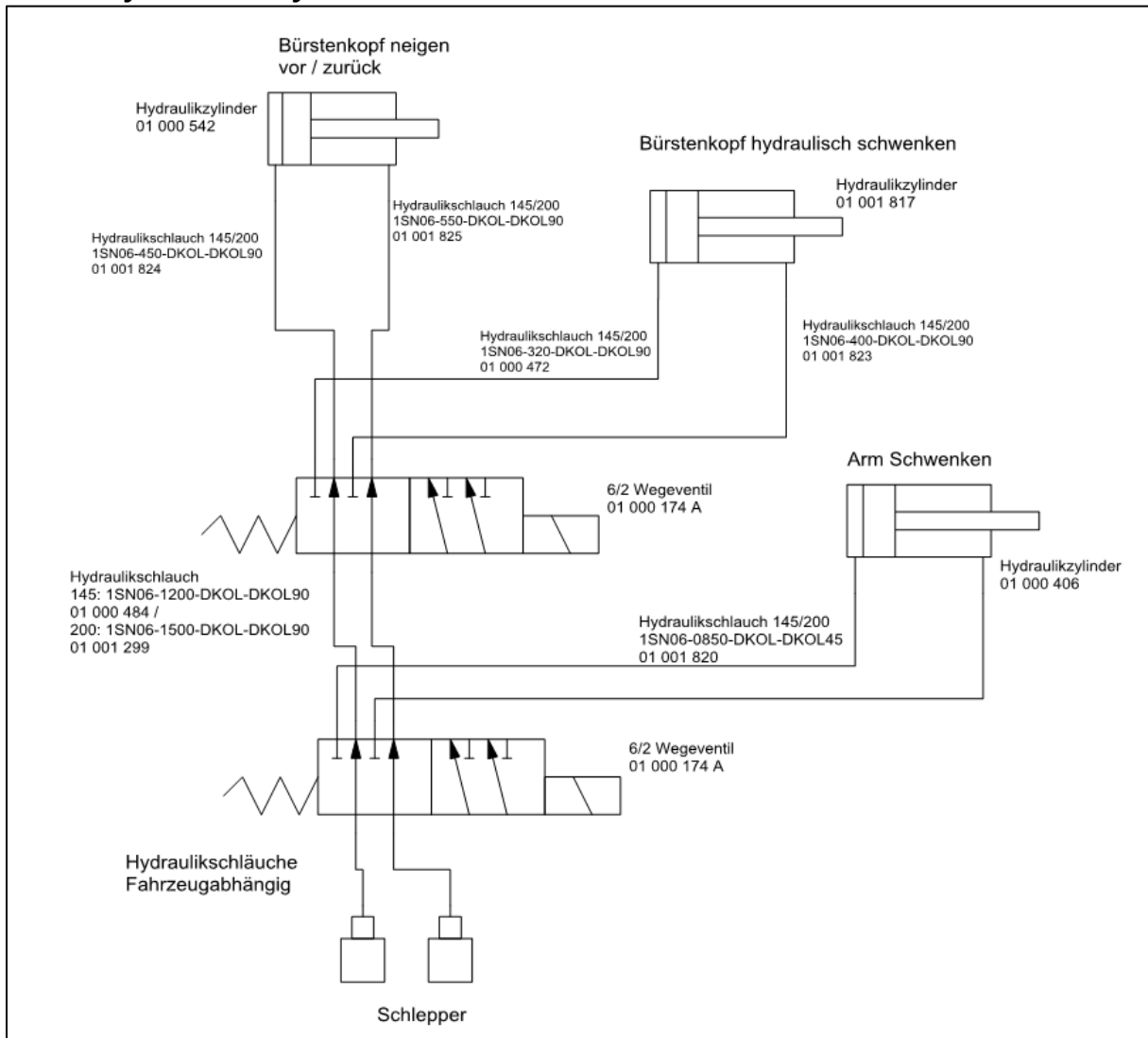
Hydraulic kit, assembly	WRM-HYD-004	10.00.000	00 002 427	201809-310_115872.idw
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Photos of the hydraulics:





3.3. Variant 3 – tractor has 1 hydraulic circuit, pivot brush head hydraulically



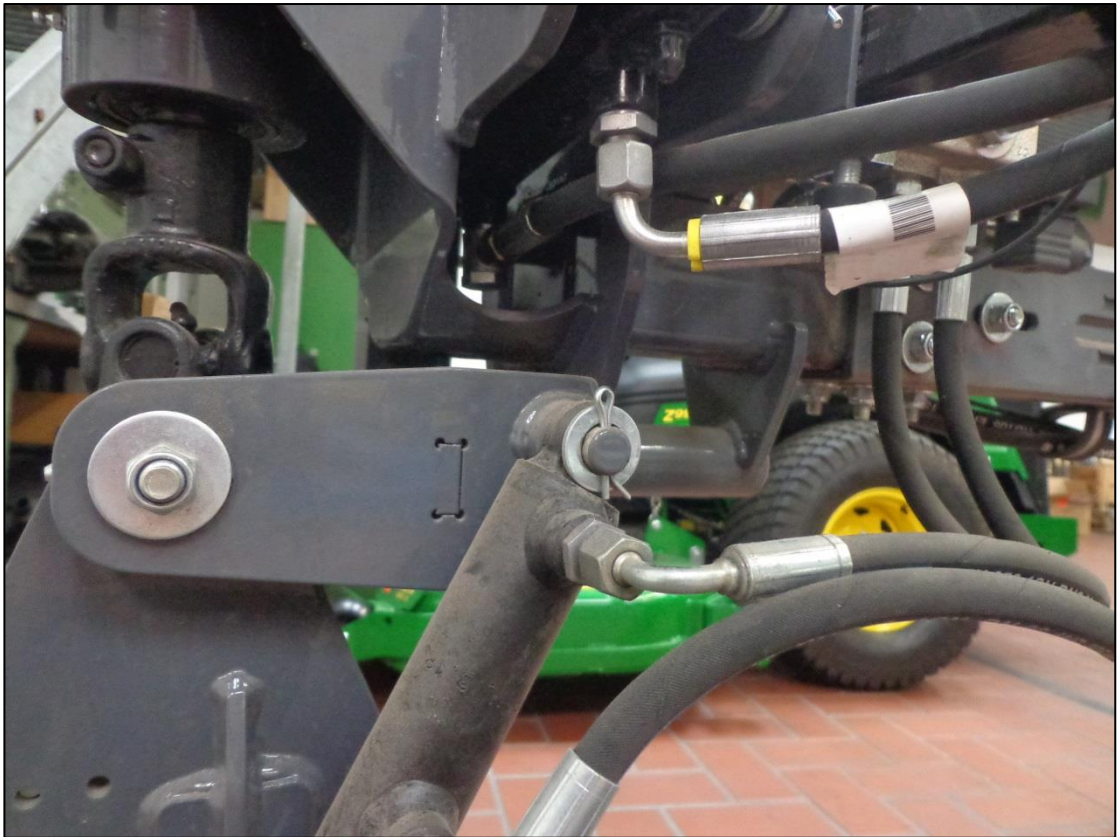
WRM-M 145

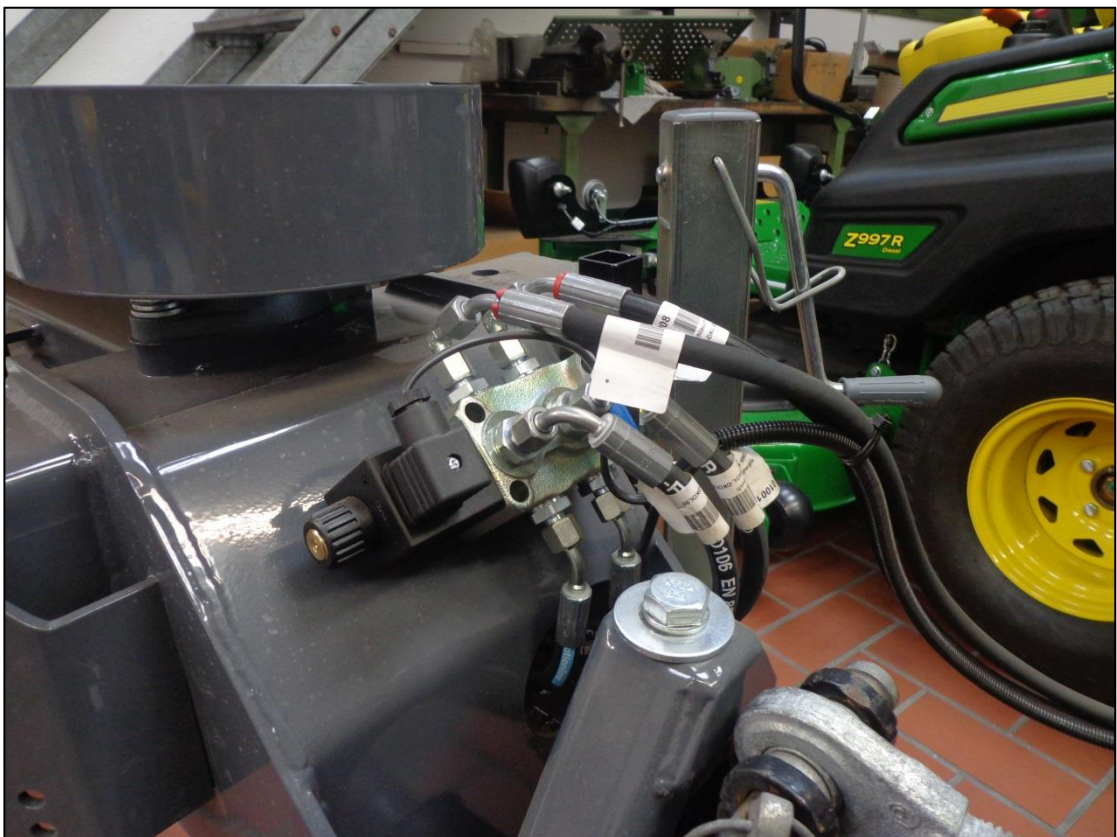
Hydraulic kit, assembly	WRM-HYD-005	10.00.000	?	201809-322_116070.idw
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WRM-M 200

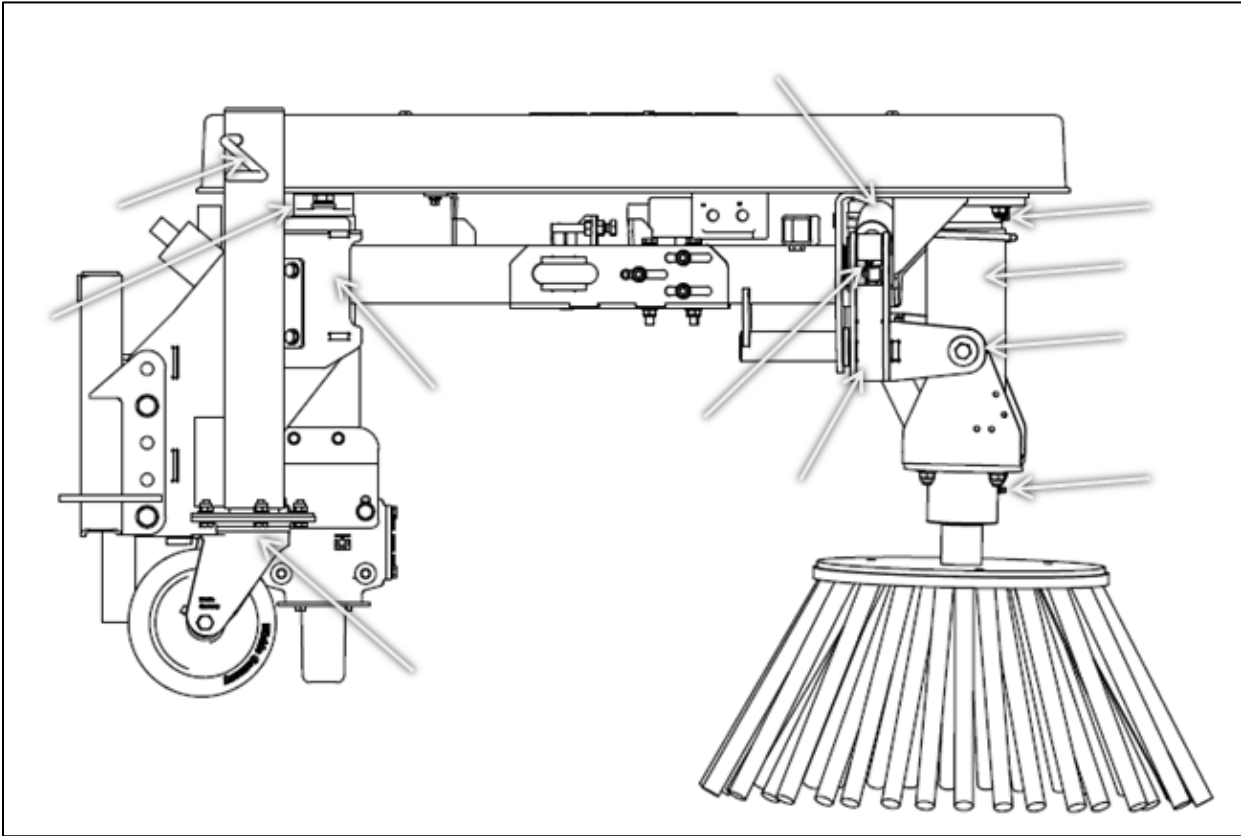
Hydraulic kit, assembly	WRM-HYD-006	10.00.000	?	201809-323_116078.idw
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Photos of the hydraulics:





4. Lubricating schedule



5. Pictogram arrangement

The pictograms must be arranged as shown in the photos. The surfaces must be thoroughly cleaned beforehand, to enable good adhesion.



Use stickers that are appropriate for the drive set. 1000 rpm or 2000 rpm







6. Function check

- Check direction of rotation and rotational speed
- Check the function of the hydraulic cylinders. (Is something interfering, leaks?)
- Check the hydraulics. Is the switching logically correct? Leaks? Function of the electric control system