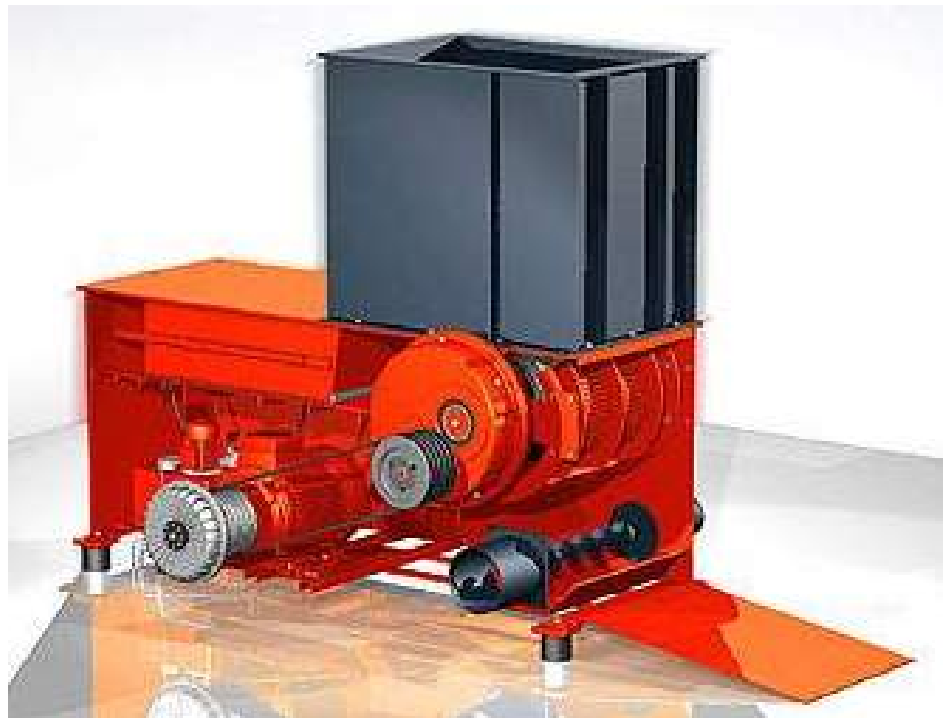


WL / WL-S

OPERATING INSTRUCTIONS



WL 6 S

WEIMA Maschinenbau GmbH
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Standard and special accessories

Scope of delivery:

- complete machine ready for operation
- incl. funnel
- incl. control cabinet with all operating elements such as mains switch, ON/OFF, emergency OFF, etc.
- incl. complete electrical control

Special accessories:

Automatic star-delta starting

Vibration-damping machine feet

Gearmotor with spiral conveyor

Cover with limit switch

Fast-change sieve (only WLK)

Funnel with manual lift (only WLK)

Funnel with electric lift (only WLK)

Special rotors with blades set in the spiral

Second row of blades

Various sieve sizes

Equipment for underground installation consisting of funnel raiser, guard rail, external emergency OFF

adapted to local conditions

WLK model with sound insulation consisting of sound insulated funnel, sound insulated cover and sound insulated front door

TECHNICAL DATA

Machine type:	WL 6S/37 V-Rotor
Machine number:	500-8582
Year of construction:	04.2008
Funnel capacity:	ca. 0,9 cubic metre/h
Operating voltage:	400 V, 3 Ph, 50 Hz
Motor output - main drive:	37 kW 1.500 U/pm
Motor output - hydraulic system:	0,75 kW 1.500 U/pm
Number of tools:	23
Rotor speed:	ca.90
Rotor diameter:	368 mm
V-belt length:	5 x SPB 2320
Hydraulic oil filling:	20 Ltr. / HLP 46
Gearbox filling:	13,1 Ltr. / Shell Tivela S320
Fuid coupling filling:	5,2 Ltr. / OMV ATF A
Current:	85 A
Fuse:	100 A

Feed cross section:

Length:	1.200 mm
Width:	800 mm
Extraction nozzles:	200 mm

Manufacturer's declaration

in the sense of EC Directive 98/37/EC (Machinery Directive), Appendix II B until
28.12.2009 / or

Declaration of Incorporation

in the sense of EC Directive 2006/42/EC (Machinery Directive), Appendix II 1.B as of
29.12.2009

WEIMA Maschinenbau GmbH, Bustadt 6-10, 74360 Ilsfeld, Germany

Machine: **Single-Shaft-Shredder**

Type: **WL6S**

Machine no.: **500-8582**

Year of construction: **04.2008**

We hereby declare that the designated machine corresponds with the following internal market directives – up to the interfaces or as far as is possible from the scope of delivery:

EC – Machinery Directive	98/37/EC	
EC – Low Voltage Directive	2006/95/EC	replaces 73/23/EEC
EC – EMC Directive	2004/108/EC	replaces 89/336/EEC

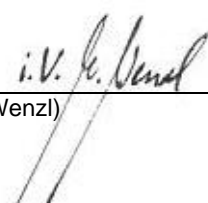
Applied European harmonized standards:

- EN 12100-1	- EN 418	- EN 1088
- EN 12100-2	- EN 626	- EN ISO 3746
- EN 294	- EN 13849-1	- EN ISO 11202
- EN 349	- EN 982	- EN 60204-1

The designated machine is intended for installation in a system/linkage with other machines. Commissioning is not allowed until the compliance of the machine in which this partial machine is to be installed with all provisions of the EC Machinery Directive has been established and an EC Declaration of Conformity is available. The same applies to the assembly with machine components or equipment and to the linkage with other machines.

The commissioning prohibition does not apply to the designated machine on/in safe used machines and systems without CE marking.

29/04/2008


(Matthias Wenzl)

Head of Design Engineering

Dear Customer,

Harmonization of safety standards in Europe has made it necessary for special attention be given to the following instructions - particularly with regard to installation - in order to achieve the CE Conformity standards.

For this reason, we kindly request that you sign the enclosed Delivery Declaration and return it to the manufacturers.

If you have any questions in this request, please do not hesitate to contact us.

Delivery Declaration

The delivered timber waste shredder is in perfect operating condition and contains all protection equipment as required by latest technological standards. The machine is therefore marked with the CE label. The operating instructions also contain the appropriate conformity declaration.

If, without our knowledge, the machine is installed "underground" on site, it is deemed to be installation contrary to the intended purpose. The attached manufacturer's declaration alone, stating that the machine may not be operated without additional measures (see "Special accessories - underground installation" among others), is valid until the machine has been brought into compliance with the safety levels prescribed in the operating instructions.

Normal operation

The shredder type WL has been designed exclusively for shredding wood/timber and similar materials e.g. plastics, cardboard etc.

Normal operation also includes compliance with the operating instructions.

The machine may only be operated, serviced and repaired by trained and authorized persons.

The appropriate accident prevention regulations, as well as general safety regulations, must be observed (see section 11 Safety Instructions as well).

The shredder may only be used with original accessories and original tools.

Any other usage is deemed to be improper operation. The manufacturer accepts no liability for any damage occurring as a result. The operator alone is responsible for risks incurred.

Details of danger prevention

Selected solutions

Danger caused by	Safety measures
Tools - coming loose - - breakage -	Permanently mounted shredding shaft with welded-on tool holders. Knives are screwed on and glued. There is no danger from ejection because of the low rotational speed (approx. 90 rpm)
Hand contact with cutting area	Not possible because of design. Funnel dimensions to EN 294, distance > 850 mm. Residual risk description
Outside the cutting area e.g. also spiral conveyor	From below, prevented by housing in connection with movable, electrically locked protection device Residual risk description.
Feed mechanism	Feed pusher secured by design: Distance from above >850 mm to EN 294, below in closed machine system.
Workpieces	Protection against flying and thrashing workpieces by funnel height 1650 mm above ground, complies with latest technological standards. Underground installation version described in the "Transportation and installation" section of the operating instructions.
Drive	Shredding shaft drive and counter bearing protected against touching by a screw-fitted safety guard. Hydraulic pump drive fully enclosed.

Danger caused by

Safety measures

Noise

The emission levels have been established. They lie within the range of the latest noise reduction technology standards. See "Noise emission" section.

Sawdust

The emission levels have been established. The present applicable limits for sawdust will not be exceeded if operating according to specifications. See details and operating instructions in section "Extractor connection" in this respect.

Electricity

The electrical equipment complies with the requirements of EN 60 204-1. The input terminals which are live after switching off the mains switch, are covered and marked with a lightning bolt.

WLK special accessories - raisable funnel

Touching the shredding shaft with funnel raised

The drive for raising the funnel is activated after a 10 sec. delay by a sealed time relay in order to bridge the shaft run-on time (7 sec.).

Funnel falling unintentionally

The spindle of the gearmotor for lifting the funnel is self-locking and keeps the funnel in each position. A support rod is also supplied and is fastened to the funnel. The operating instructions describe how to use the support rod.

Crushing when moving funnel

Movement of the funnel in either direction is by a control button without lock at a reduced speed of 10 mm/s.

Residual risks

The machine has been constructed according to latest technological standards and recognized safety regulations.

Nevertheless, individual residual risks can occur:

- Contact with cutters starting up by mistake or crushing by the feed pusher whilst working in the funnel
- Contact with cutters from below when the provided lower safety guards have not been put into place correctly
- Falling into open funnel when installed underground
- Injuries from pieces of wood thrashing about or being thrown out
- Contact with live parts with switch cupboard open
- Danger from health-endangering dusts when operating without extractor
- Contact with tools or transport units by the extractor nozzles when removing the extractor connection

Residual risks can be minimized by observing the safety instructions on page 11.

General safety instructions

1. Whenever possible, do not allow workpieces to project above the top of funnel to prevent thrashing. Very long pieces should be cut up beforehand.
2. Never operate the shredder indoors without connected extractor.
3. Never reach into the spiral conveyor or hole sieve area with extraction pipe removed, e.g. to clear blockage. Warning, the blade shaft is directly behind here.
4. Switch off at mains switch when working on the cutting blade cylinder. Securing the mains switch with a padlock is absolutely essential before working in the funnel.
5. For your own safety, wear protective clothing such as safety shoes and gloves and ear protectors when loading particularly unwieldy and large pieces.
6. Do not leave the machine running with the funnel or any safety installations removed.
7. The service life of the hydraulic pipes is limited. They must be inspected at least once a year by a **qualified technician**.

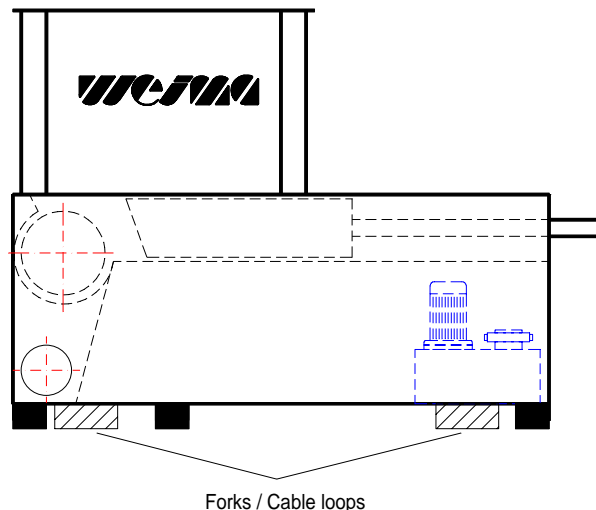
Worn parts, cuts, tears, brittleness or discoloration are an indication of restricted work safety. They should be replaced in this case.

The pipe fittings must also be inspected at regular intervals. Leaks which cannot be stopped by tightening the fastening nuts, deformation and the formation of corrosion are all signs that replacement is necessary.

The hydraulic system should be depressurized before working on it.

Transportation and installation

Unloading the machine should be carried out by forklift truck. The forks can be placed between the feet. Two cable loops should be placed between the feet (see illus.) if unloading by crane.



The location for installing the machine should be chosen - insofar as local conditions allow - so that the unit is not subjected to direct weather influences. If the unit cannot be installed indoors, it should at least be provided with a covering roof.

Attention must be paid that there is sufficient room all round the machine for maintenance work and repairs.

No particular demands are made on the foundations of the site where the machine is to be installed.

As the machine is loaded from above, installation in cellar rooms is advantageous. If it is to be loaded by front loader or forklift truck, attention must be paid that there is sufficient headroom and enough room for the vehicle.

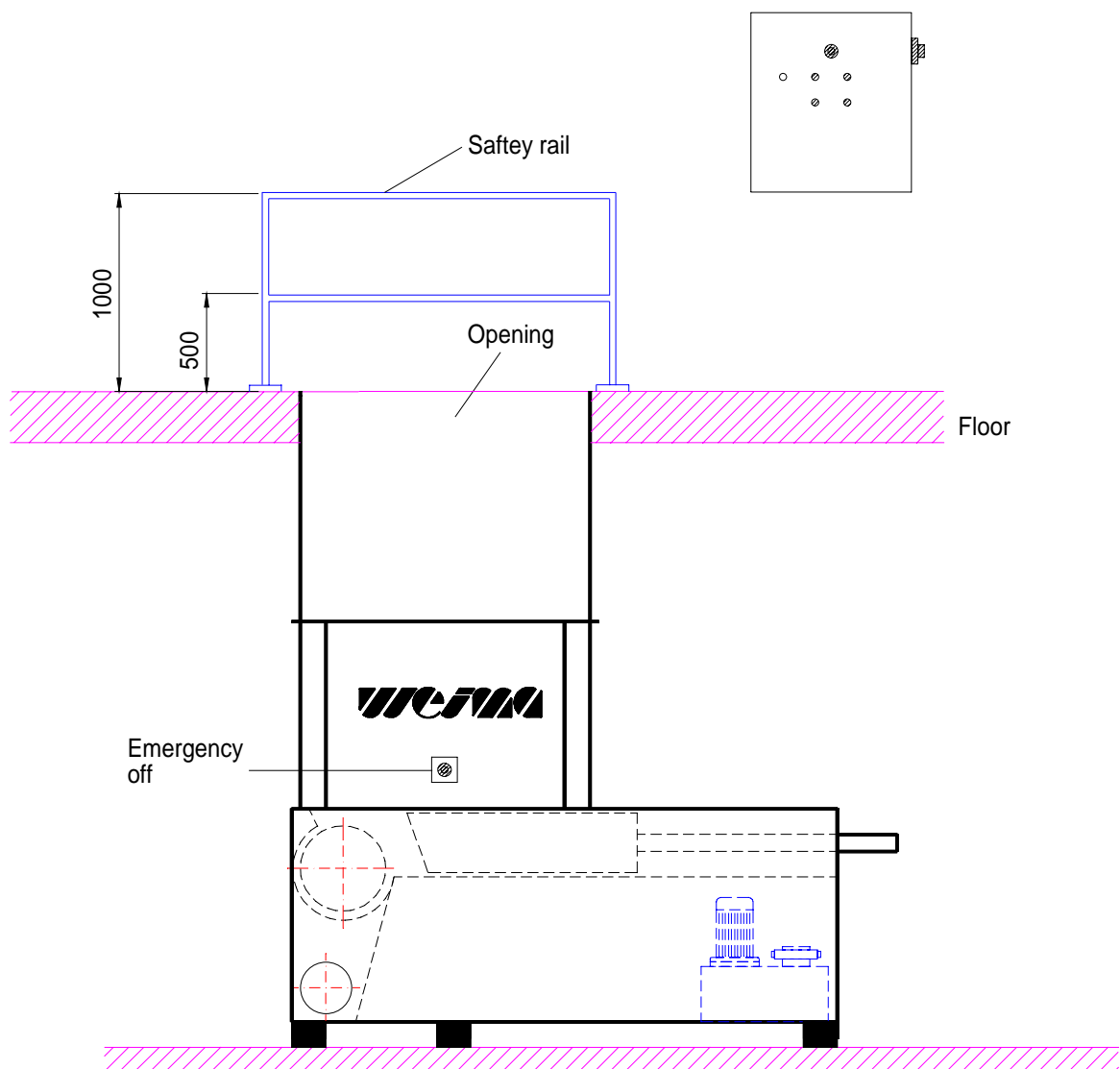
If being installed in a cellar, attention must be paid that all measures have been met to prevent anyone falling into the machine, e.g. by providing safety railings around the funnel opening and, if necessary, a funnel cover with electric closing.

The machine may only be started up when the installation requirements, in particular
correct disposal of chippings
prevention of reaching in or falling in
correct electrical connections,
have been fulfilled completely.

We can supply you with the appropriate technical measures for correct installation.

Special accessories for underground installation

If installing underground, the switchbox is to be installed close to the filling opening with an emergency OFF button on the machine (see special accessories). A safety rail to prevent falling into the funnel is to be installed in the dimensions shown in the diagram. The space between the floor opening and the standard funnel upper edge is to be bridged with a funnel extension made of sheet steel (thickness of sheet steel depends on height of room).



Special accessories - funnel raising unit

The funnel raising mechanism can only be operated if the shredding machine has been switched off and the key switch - funnel lock - is in position 1.

The up/down movement of the funnel is in inching mode so that the funnel up/down motion has to be controlled constantly by an operator.

For safety reasons, we recommend that the **key switch** be removed during normal operation so that only authorized personnel can operate the raising unit.

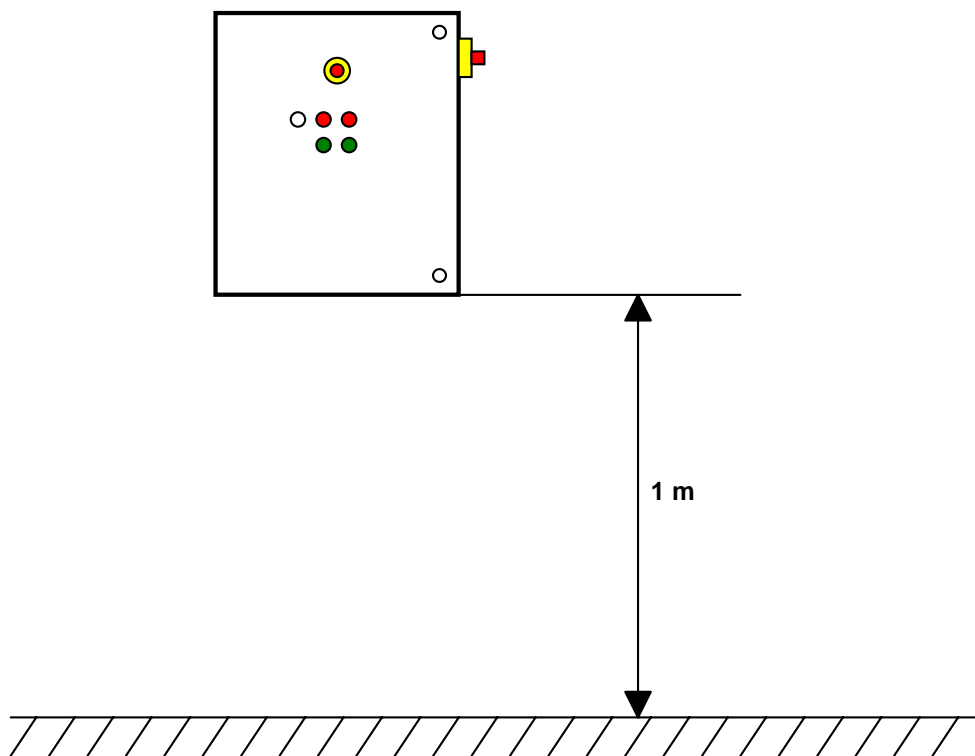
Important!!! Put support in place when the funnel is raised.

Normal operation of the machine is not possible when the funnel is raised.

Electrical connection

Caution: The electrical connection of the machine may only be carried out by a local electrician.

Important: If the switchbox is not attached to the machine, attention must be paid that installation is such that the distance between the switchbox and the machine does not exceed approx. 5 m and that the lower edge of the switchbox is at least 1 m above the floor.
The connecting cables between switchbox and machine are to be protected against damage (cable duct, protective sleeve).



If the switchbox cannot be installed according to these criteria, an additional emergency OFF button must be located on the machine or within reach (see special accessories).

Extractor connection

An extractor system must be connected if the machine is to be operated indoors. If the connection consists of flexible plastic tubes, they must be of a flame retardant design.

If, contrary to normal use, chippings are not be extracted by an extractor, the extractor nozzle must be replaced by a sealing panel. Chippings must be extracted in such a way that access to the sieve chamber is not possible. This operating method is only permitted outside of workshops and must be approved by the manufacturer beforehand. The conformity declaration only covers operation with extractor.

Extractor nozzle interface:

Diameter D =	250 mm	200 mm	160 mm
Volume flow V =	4950 m ³ /h	2300 m ³ /h	2040 m ³ /h
Minimum air flow speed:	v = 28 m/s		
Static vacuum with half-open air inlet flap	V = 28 m/s p _{ST} = 1300 Pa		
This results in a resistance coefficient of	$\zeta = P_{\text{stat}} / P_{\text{dyn}} = 2,8$		

Dust collection

If connected in compliance with interface description, it can be safely assumed that the limiting values for sawdust will not be exceeded (test certificates for dust emission measurements to DIN 33893 part 2 have been obtained) for dust extraction as proposed.

The terminals 1 to 10, bridged at the factory, are to be used for electrical connection with the extraction system by connecting with a floating contact of the extraction control.

The Weima company also offers a floating contactor relay for controlling the startup of auxiliary equipment.

Noise emission

The figures quoted here are emission values and therefore do not necessarily represent workplace values. As there is no correlation between emission values and workplace values, these cannot be used reliably to establish whether any further measures are necessary. Factors which could influence workplace values include duration of exposure, characteristics of the workshop, other noise sources, the number of machines and other neighbouring influences. Reliable workplace values, therefore, can vary from country to country. This information, however, should enable the operator to be able to make a better estimate of dangers and risks.

Measurements to EN 31 202 with CENTL 142 supplement in connection with ISO 7960 for workplace-related emission value $L_{pA} = 83$ dB work noise.

The measurement uncertainty constant K is 4 dB (A).

The sound power level measured to EN 23746 with CEN-TC 142 supplement is $L_{WA} = 100$ dB work noise.

The measurement uncertainty constant K is 4 dB (A).

The following supplements from CEN-TC 142 were taken into account in order to obtain an accuracy class of better than 3 dB:

- The ambient correction factors K_{2A} and K_{3A} are μ 4 dB
- The difference between background noise level and noise sound pressure level at every measuring point is \cdot 6 dB
- K_{3A} is calculated according to appendix A, prEN 31204
- A parallelepipedal enveloping surface with 9 measuring points at distances of 1.0 m from the reference surface is used.

Machine-related settings:

Half funnel filling with timber scraps of various dimensions.

Microphone position for workplace-related emission measurement:

Height 1.5 m at 0.5 m distance to funnel edge, centred on output side.

Starting up the machine

The machine can be started up upon completion of electrical installation of the control cabinet in accordance with the enclosed circuit diagram.

Run the machine briefly whilst empty in order to check the rotational direction of the main motor.

If the rotational direction of an E-motor does not coincide with the prescribed rotational direction, have it corrected by an electrician. Wrong rotational direction of the hydraulic unit motor can lead to damage to the hydraulic pump. With correct rotational direction for E-motors, run the machine empty for about 3-5 minutes to check the function of the hydraulic pusher.

The hydraulic pusher is controlled by a pressure switch at the front and rear end positions. Changeover should take place at 80 - 100 bar can be controlled using the manometer (pos. 28) on the hydraulic unit. the level of the changeover pressure can be set of the adjustment scale of the pressure switch (pos. 35). Turning the scale clockwise increases the changeover pressure; turning the scale anti-clockwise lowers the pressure. **(Please consult manufacturers before adjusting!)** If the changeover pressure is set too high, the pusher drives to the end position without switching over to the other direction, which would lead to the hydraulic oil warming up. The pressure switch is set at works when machine is tested so that usually no adjustment work is necessary on the hydraulic system. The machine can be operated with material once the above points have been carried out.

It should also be noted that adjustment at the control cabinet is necessary according to the type of material being worked. The rotary knob of the current relay U 2 (pos. 79) for load-dependent feed should be set somewhat lower if the rotor is reversing too often. If the set value is too low, the pusher will come to a halt in its current position. If this happens, set the current relay a little higher again.

Warning:

Make sure that the manometer stopcock is closed when operating the machine.

Functional description of mechanical section

After the machine has been switched on, a hydraulically controlled feed unit pushes the quantity of wood onto the slow-running profiled rotor. The infeed is controlled according to load.

The material can be placed unsorted in the hopper mounted on top of the machine. Attention must be paid that this material does not contain **any other metal parts** apart from staples and nails. The guarantee does not cover any damage to the machine as a result of metal parts being fed into the machine. The material in the hopper is shredded by the rotating knives on the profiled rotor. This shredding process is repeated as often as required until the diameter of the sieve behind the rotor has been reached.

The shredder can also be switched off with material still in the hopper.

Functional description - Control

The machine is fitted with an automatic shutdown, i.e. when set to automatic, the machine switches off after a period which has been preset in the time relay (d10 or K10T). If the control cabinet is a PLC or a LOGO included the machine will switch off automatically when the hopper is empty (switching off by load).

The pusher plate on the floor feeds the shredding unit (rotor) with as much material as this is able to process. Upon reaching 70-90 % of rated current, the pushing movement of the pusher plate is switched off and automatically switched on again when the power consumption has fallen by 20 % in comparison with rated current. If the high current is applied for longer than 0.7 - 1.5 secs., the main drive motor switches off and runs back after about 3 secs. standstill time. The pusher plate also runs back whilst the rotor runs back. The drive motor then stops for another 3 secs. before starting again.

Duration of pauses and return as well as the current settings can be adjusted. **Any alterations, however, should only be carried out after consulting the manufacturer.**

Maintenance / repair

The following maintenance should be performed on the Weima Grinder:

- After having run the machine for 50 hours all screws and belts should be tested for tightness.

The following maintenance should be performed routinely:

- The rotor bearing should be lubricated with bearing grease approximately every 50 operating hours.
- The screws on the machine frame and the drive unit should be retightened after approximately 100 - 150 operating hours.
- Every 250 - 300 operating hours, the space below the machine should be cleared of any residual wood pieces which have made their way through the pusher. Chippings and sawdust should be cleared by suction and not blowing.
- Every 500 operating hours the welding bead between rotorend and machine frame should be controlled and if necessary renewed.
- Every 1000 hours of operation the following should be performed
 1. Check all mechanical connections, especially:
 2. Gear box housing
 3. whether the screen is still tightly fastened
 4. check and tighten belts, pulley
 5. cables to prevent any damage of insulation
 6. check emergency switch.
- Every 2000 hours of operation or after 2 years, the oil in the gearbox should be changed.

Any maintenance work must be carried out by qualified technicians, otherwise please contact the service division of Weima Maschinenbau GmbH, tel. (0)7062/9570-0.

Tool changing

Changing or turning knives

1. Switch off machine and secure against being switched on again.
2. Although it is possible to reach the cutting shaft by climbing into the funnel with funnel widths of >800 mm, we recommend carrying out change of blades by removing the electrically locked side flap and the sieve. The shaft can be rotated manually by turning the motor v-belt pulley.
3. Clean the hexagon head socket of the knife screw.
4. Undo the knife screw using a high quality Allen key (10 mm). As the screws are secured with Loctite 222, they should be loosened with a jolt or, if necessary, by knocking the Allen key lightly with a hammer.
5. After having removed the knife screws and the reversible jaw plates, clean the knife seat so that the knife will rest flush on the knife support without fail. The reversible jaw plates can be turned round four times with hollow knives 40x40. After this, they should be replaced with original spare parts form Weima.
6. When fastening the reversible jaw plates, secure fastening screws with Loctite 222 and tighten to a torque of 125 Nm.
7. With "raisable funnel" special accessory, changing cutting blades can be carried out with the funnel raised (see also section 8/1).

Changing or turning counter blades

1. Switch off machine and secure against being switched on again.
2. Clean the hexagon head socket of the counter blade screw.
3. In this case we also recommend tapping the screw head several times with a hammer to loosen the screw before trying to undo it.
4. After having removed the counter blade, clean the knife seat so that the knife will rest flush on the support surface without fail.
5. When fastening the counter blades, secure the counter blade screws with Loctite 222 and tighten to a torque of 170 Nm.

IMPORTANT: Fastening screws must be secured with LOCTITE 222 after all work on the tools

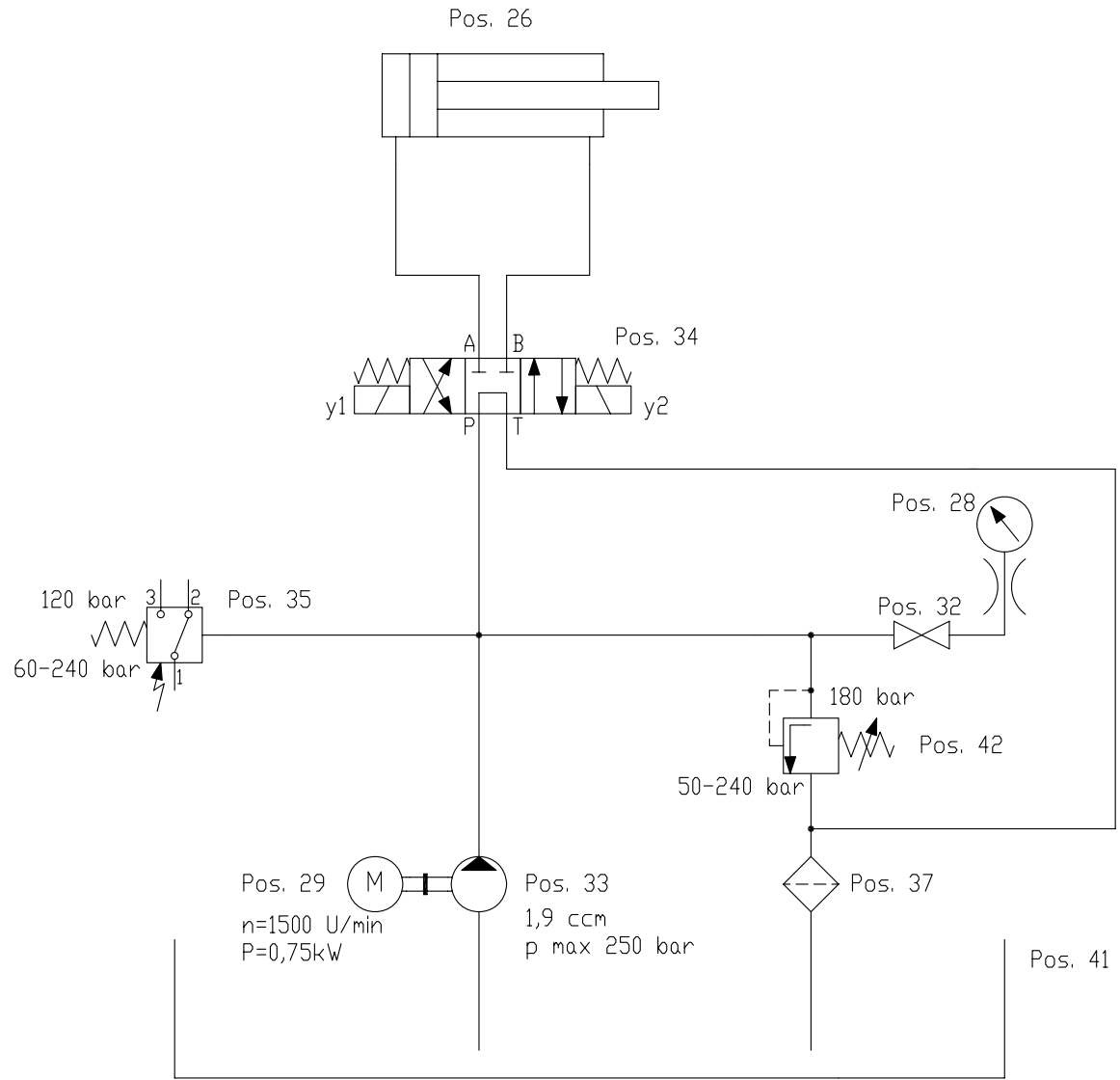
Withdrawal from service / Disposal

If withdrawing the machine from service for disposal, please ensure that this is done according to local regulations. This applies in particular to used oil and electric components.

Hydraulic liquid recommendation

Designation to DIN 51 502	HLP 32	HLP 46	HLP 68
Ambient temperature:	-7 to +70°C	±0 to +80°C	+5 to +90°C
Supply co.	Name of the oil	Name of the oil	Name of the oil
ARAL	Aral Vitam GF 32 Aral Vitam HF 32	Aral Vitam GF 46 Aral Vitam HF 46	Aral Vitam GF 68
BP	BP Energol HLP-D 32 BP Energol HLP 32 BP Energol SHF 32	BP Energol HLP-D 46 BP Energol HLP 46 BP Energol SHF 46	BP Energol HLP-D 68 BP Energol HLP 68
ELF	Elfolna 32 Hydrelf 32	Elfolna 46 Hydrelf 46	Elfolna 68 Hydrelf 68
ESSO	Nuto H 32 HLPD-Oel 32	Nuto H 46 HLPD-Oel 46	Nuto H 68
FINA	Fina Hydran 32	Fina Hydran 46	Fina Hydran 68
FUCHS	Renolin MR 10 Renolin B 10	Renolin MR 15 Renolin B 15	Renolin MR 20
MOBIL	Mobil DTE 24 Mobil DTE 17 Drucköl HLP 32 - C Hydrauliköl HLPD 32	Mobil DTE 25 Drucköl HLP 46-C Hydrauliköl HLPD 46	Mobil DTE 27 Drucköl HLP 68-C Hydrauliköl HLPD 68
TEXACO	Rando Oil HD A - 32 Rando Oil HD AZ - 32 Alcor Oil DD 32	Rando Oil HD B - 46 Alcor Oil DD 46	Rando Oil HD C - 68 Rando Oil HD CZ - 68 Alcor Oil DD 68

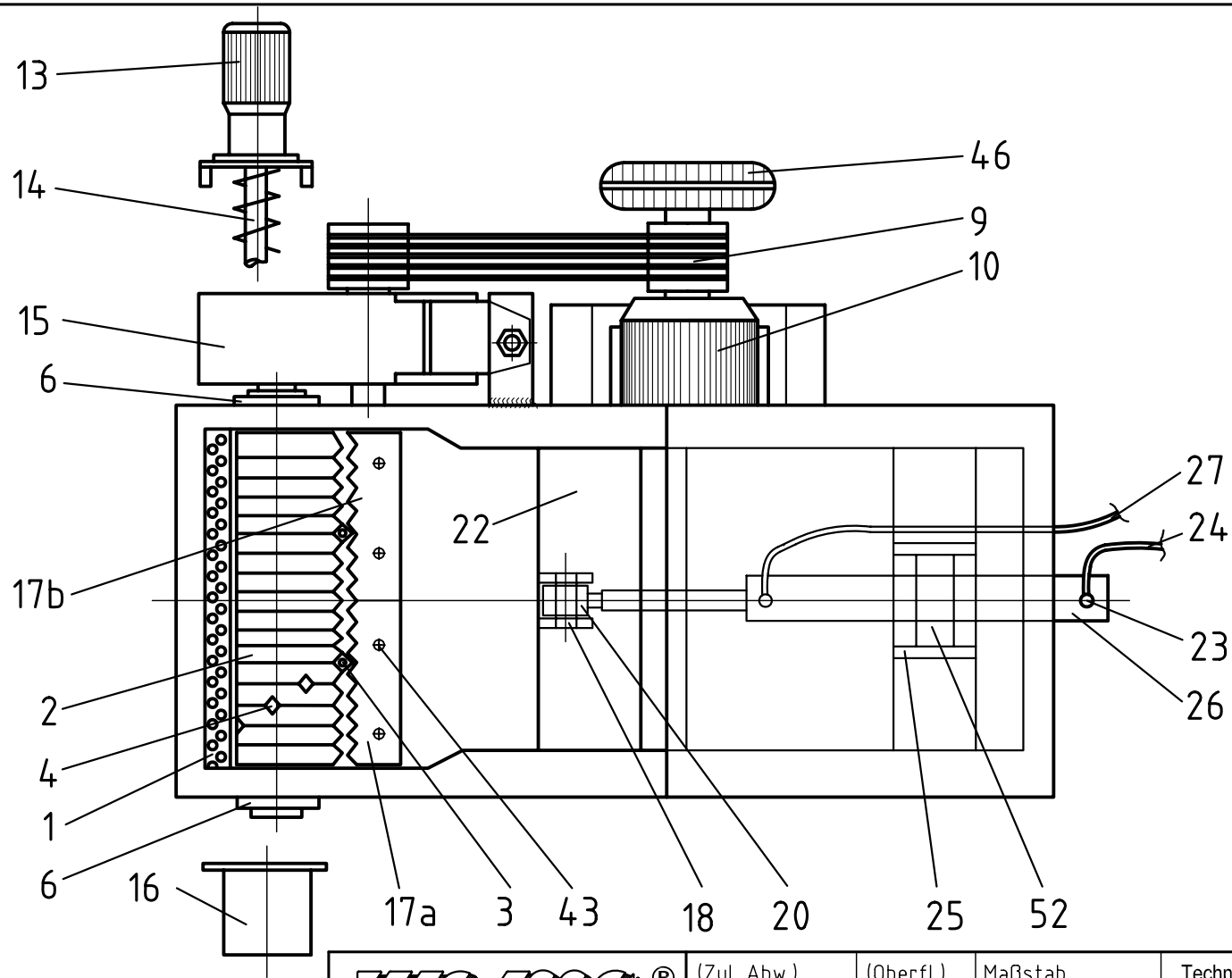
These oils can be used without hesitation for 2,000 operating hours, after which time oil must be changed. When topping up hydraulic oil, attention must be paid that the same type of oil is used. If oil of the same type is not available, or the type of oil already in use is unknown, the oil in the tank and in the complete hydraulic system must be removed completely and the complete system flushed carefully. The system may only be filled with new oil after this has been done. Only in this way is it possible to prevent any gumming of the valves.




WEIMA Spare parts list WL 6 S

37kW 400V 50Hz V - Rotor

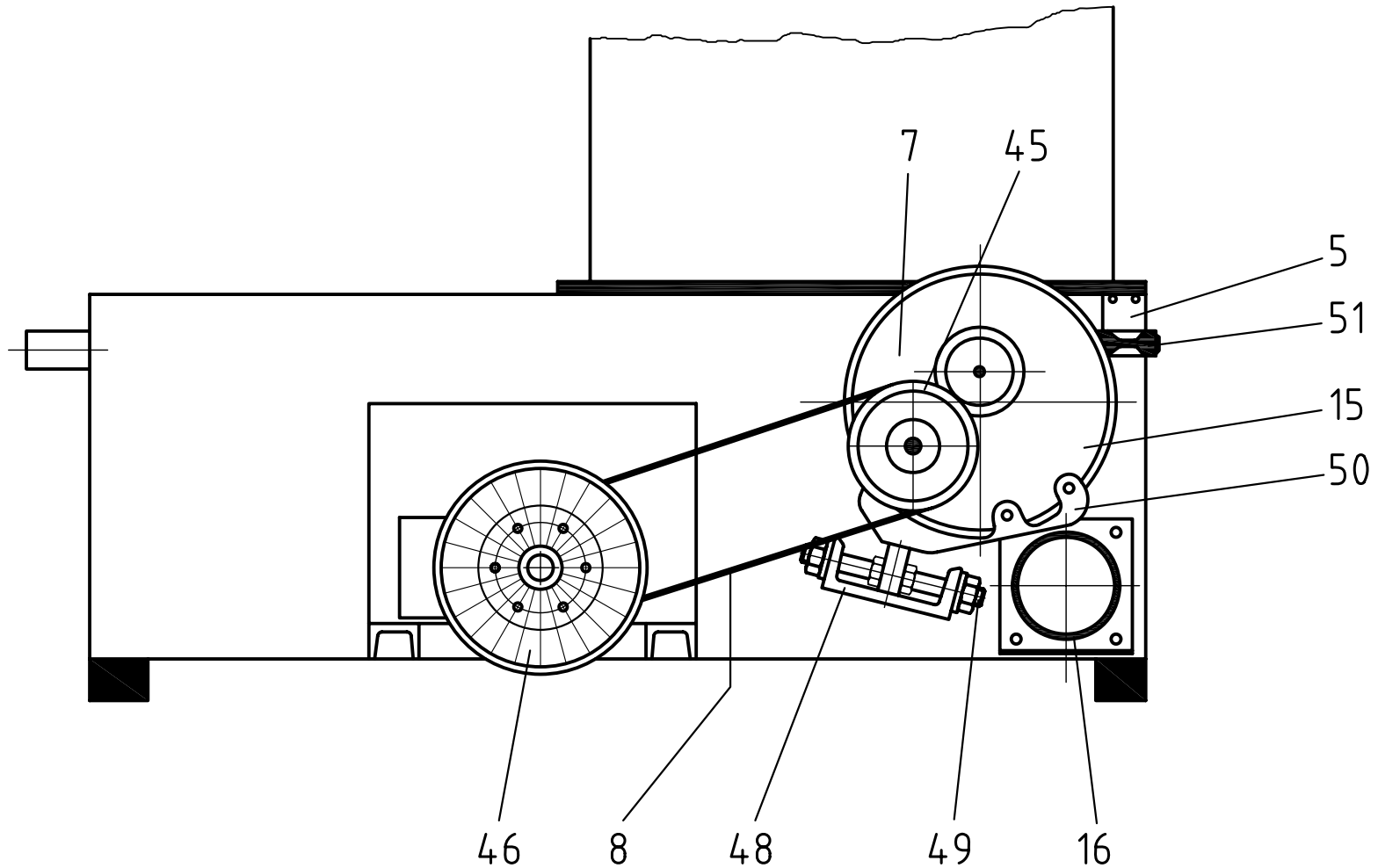
Pos.	Parts	pcs.	Articel no.
1	screen WL 6S	1	009005000046
2	rotor WL 6 SV	1	010005000013
3	knife bold M12 x 45	23	012001000001
4a	concave knife 40x40	23	009001000004
4b	broaching knife	4	009001000030
5	bearing flange 6S	2	009003000053
6	flange-mounted bearing RCJ 100	2	009010000004
7	pulley SPB250 (gearbox)	1	009009000034
8	v - belt SPB 2320	5	009009000046
9	pulley SPB224 (motor)	1	009009000032
10	electric motor 37 kW B3	1	011001000015
13a	gearmotor for discharge worm 60 rpm (optional)	1	011002000006
13b	gearmotor for discharge worm 120 rpm (optional)	1	011002000007
14	discharge worm 900 mm (optional)	1	010003000003
15	gearbox TA80/100D	1	010004000007
16	exhaust connection piece 200 mm	1	009003000052
17a	counter knife WL 6SV left	1	009002000372
17b	counter knife WL 6SV right	1	009002000375
18	fixing bolt for hydraulic cylinder	1	009003000049
19	vertical ram guides for the large ram	2	009003000019
20	joint bearing for hydraulic cylinder WL	1	009003000044
21	ram guides for WL 6S	1	009003000011
22	ram plate	1	010001000006
23	fitting hydraulic cylinder	2	008003000007
24	hydraulic hose 850 mm	1	008003000039
25	cylinder suspension	2	009003000022
26	WL cylinder 800 mm	1	008005000020
27	hydraulic hose 850 mm	1	008003000039
28	gauge	1	008003000012
29	electric motor 0,75 kW B5	1	011001000001



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		Kommission:			
2002	Datum	Name		WL / WLK	
Bearb.	17.04.	Kis Kollar			
Gepr.					
Norm					
		Revision 1		EZ-4-02-019	
Zust.	Änderung	Datum	Name		
EDV: EZ-4-02-019R1				Ersatz für: EZ-4-02-19 vom 24.01.96 / Merkle	
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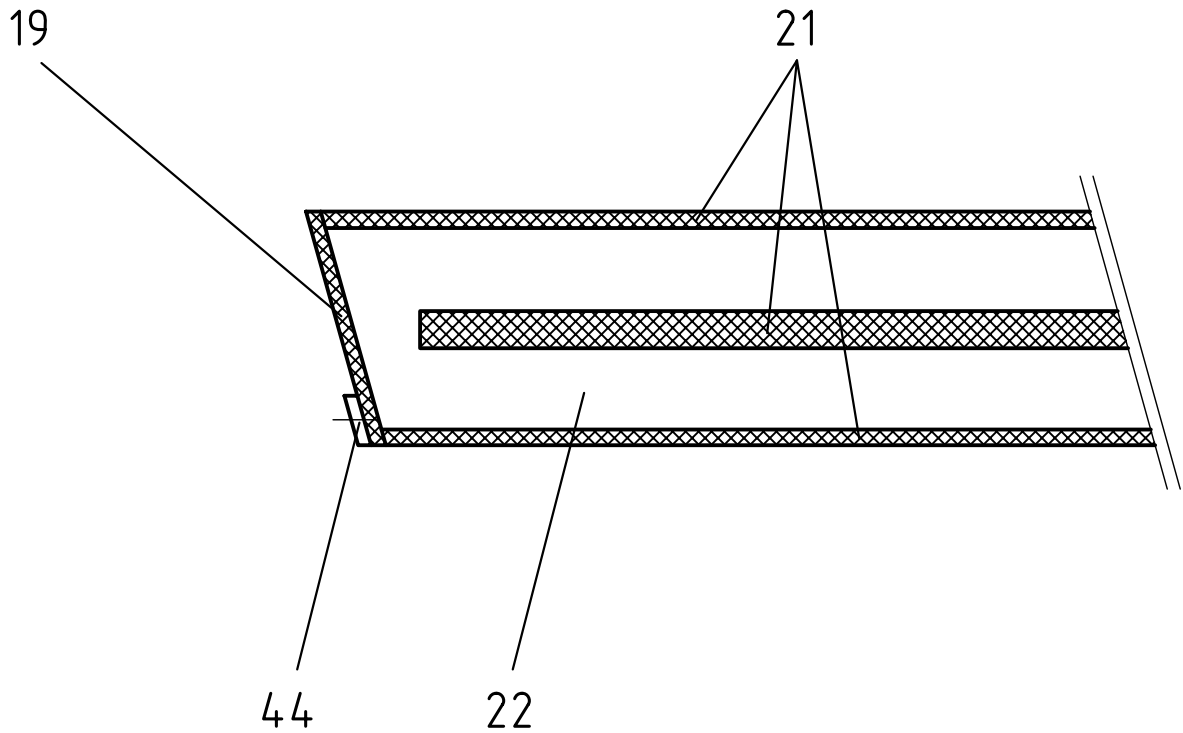


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Fax: 9570-90

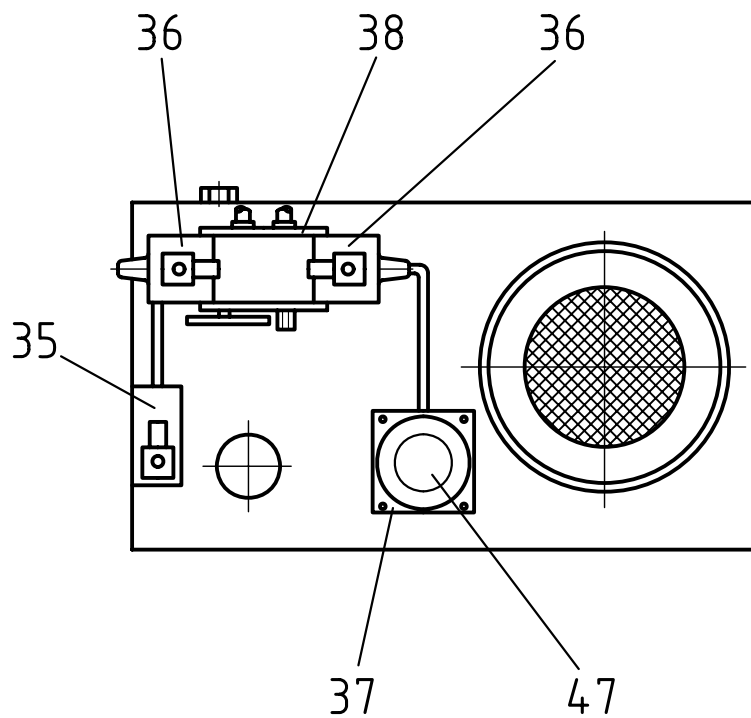
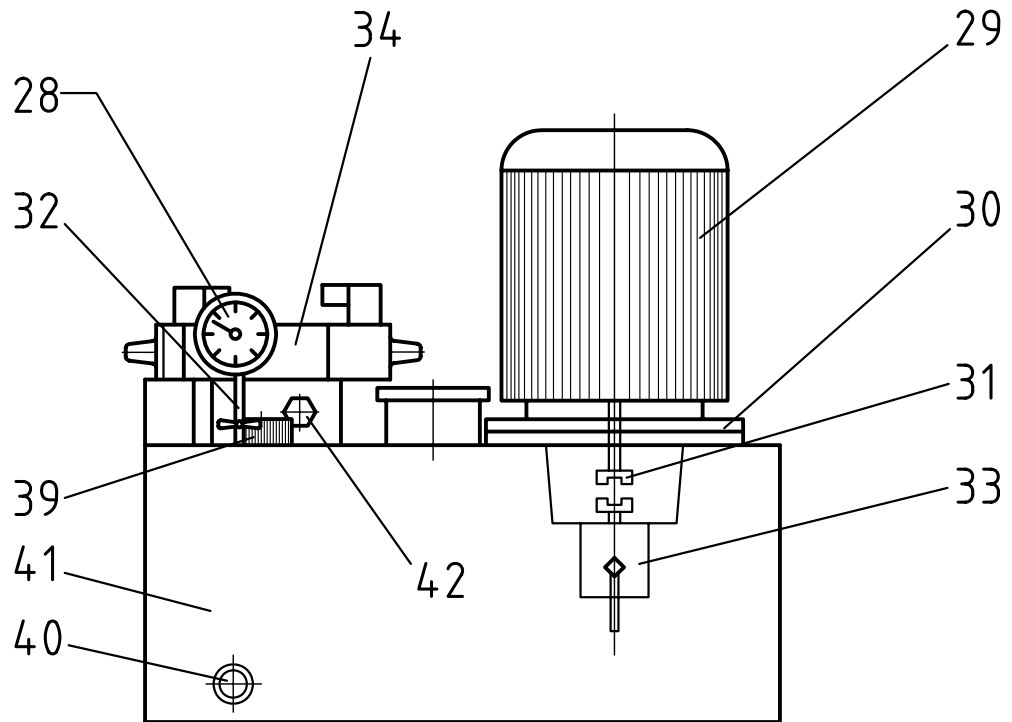
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(Zul. Abw.)	(Oberfl.)	Maßstab	Techn. Änderungen jederzeit vorbehalten!	
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Bearb.	07.01.	Merkle / BAD		
Gepr.				
Norm				
Revision 0		EZ-4-02-018		Blatt
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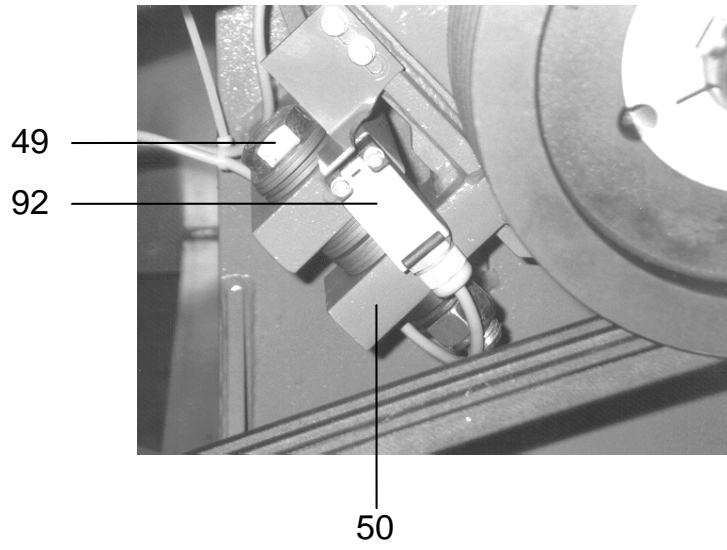
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				Kommission:			
2000	Datum	Name		Schieber WL			
Bearb.	07.01.	Merkle / BAD					
Gepr.							
Norm							
Revision 0				EZ-4-02-014			Blatt
							Bl.
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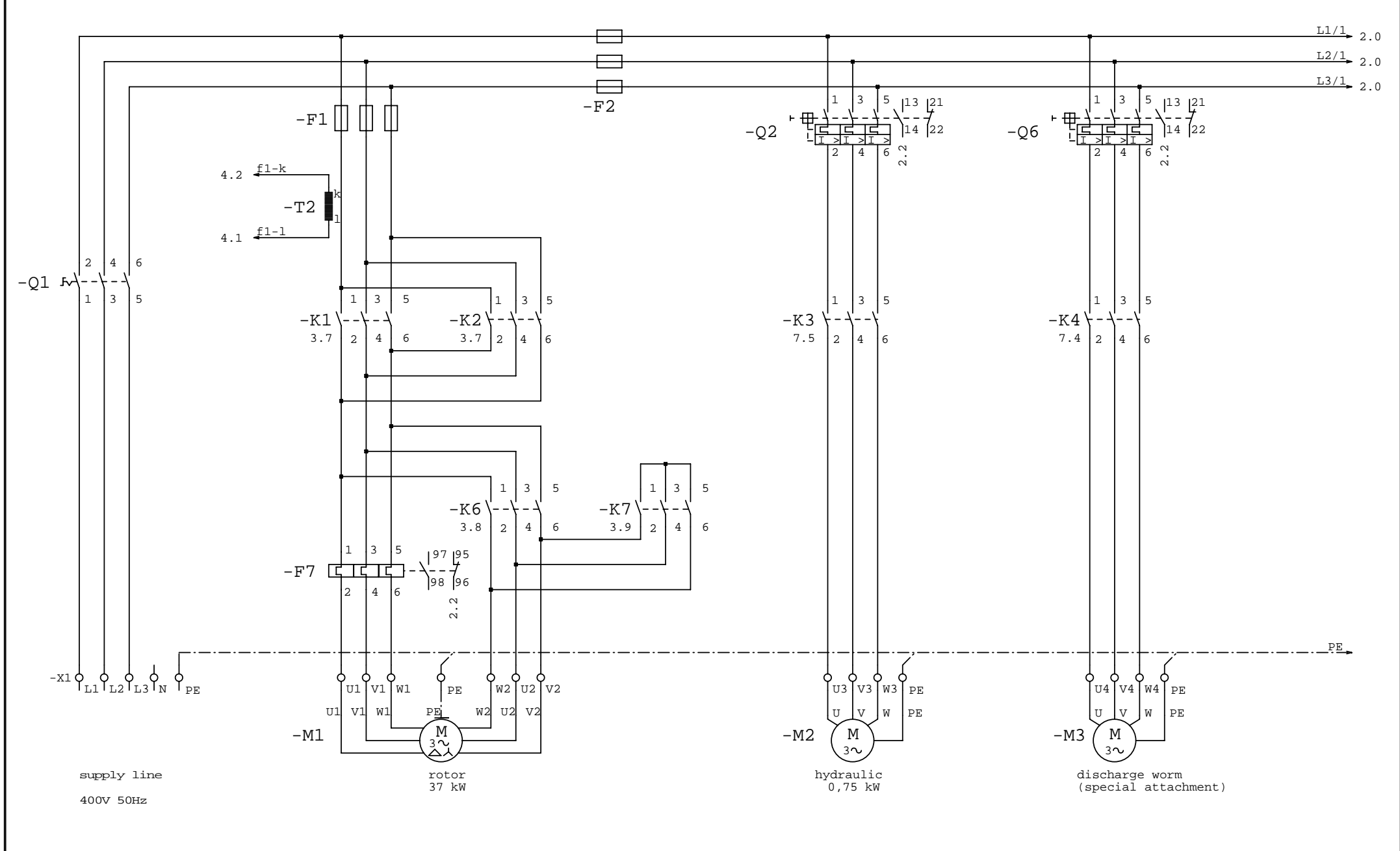


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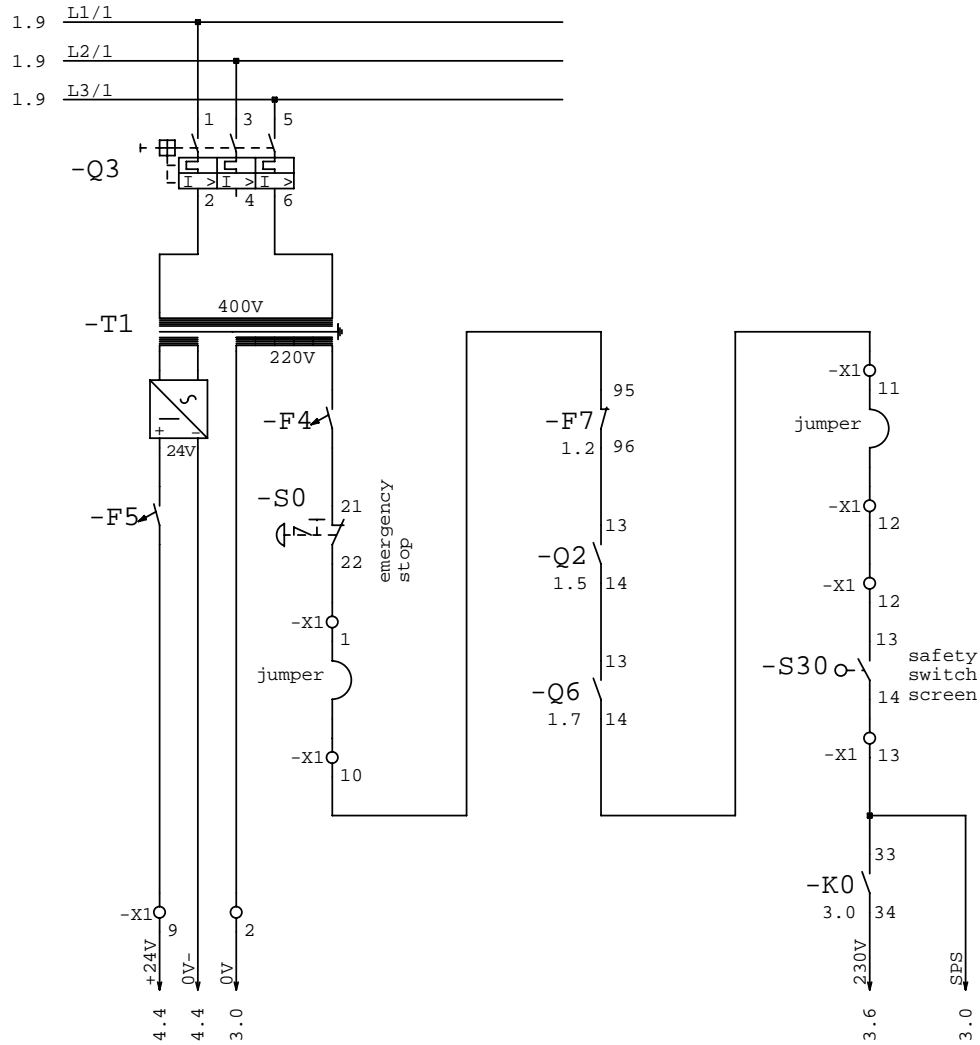
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Gepr.							
Norm							
Revision 0				<h2>EZ-4-02-013</h2>		Blatt	
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state	change	date	name	norm		origin	replace	exchange		Blatt 1 von 7 sh.
								WEIMA Maschinenbau GmbH		
								WL mit SPS-Steuerung		
								ES-4-02-778 Rev.0		

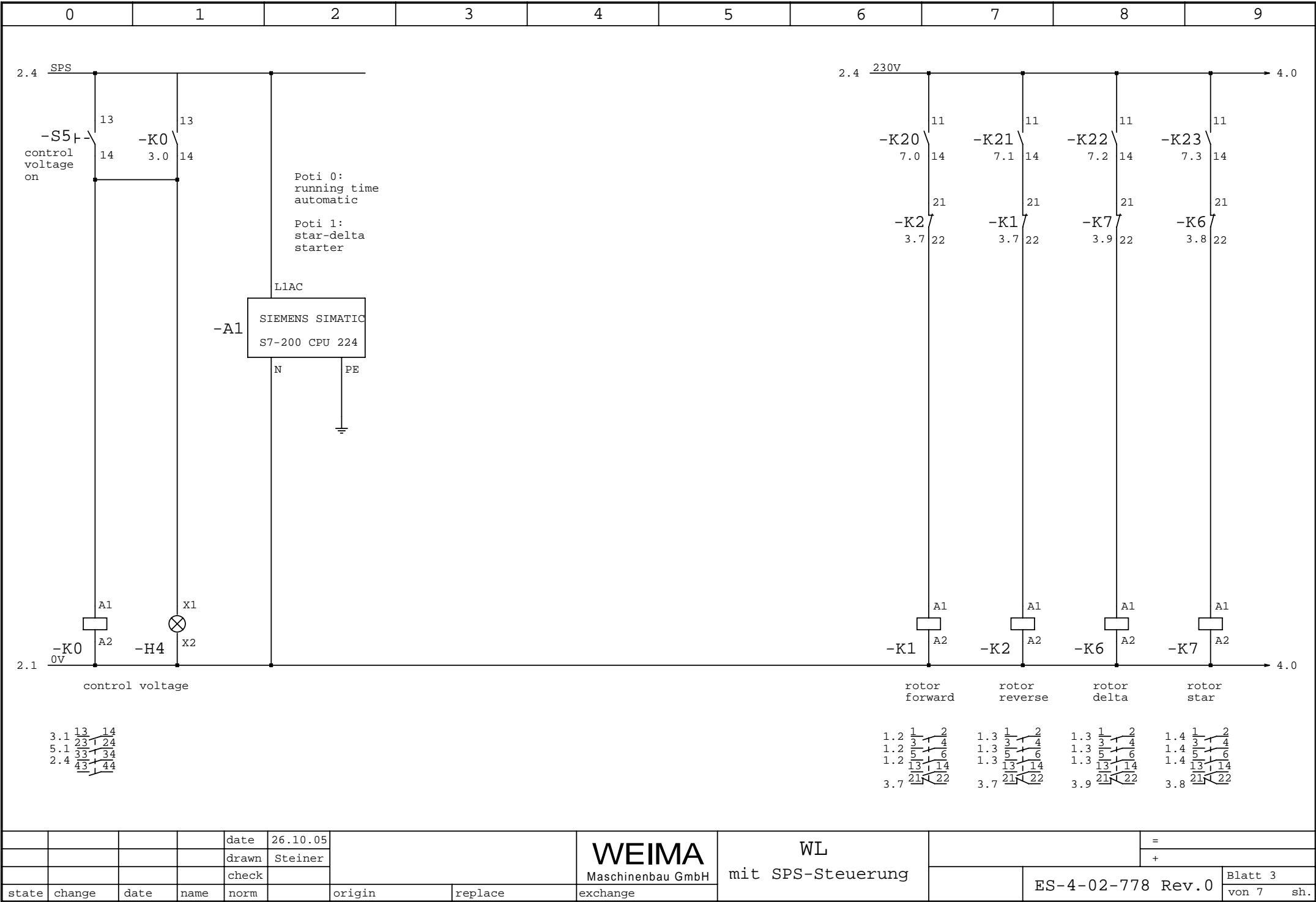


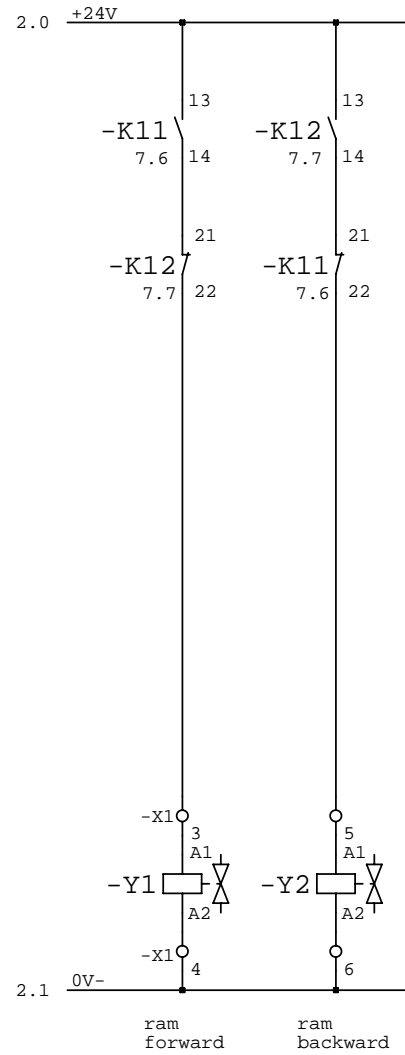
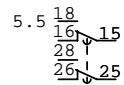
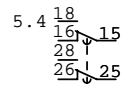
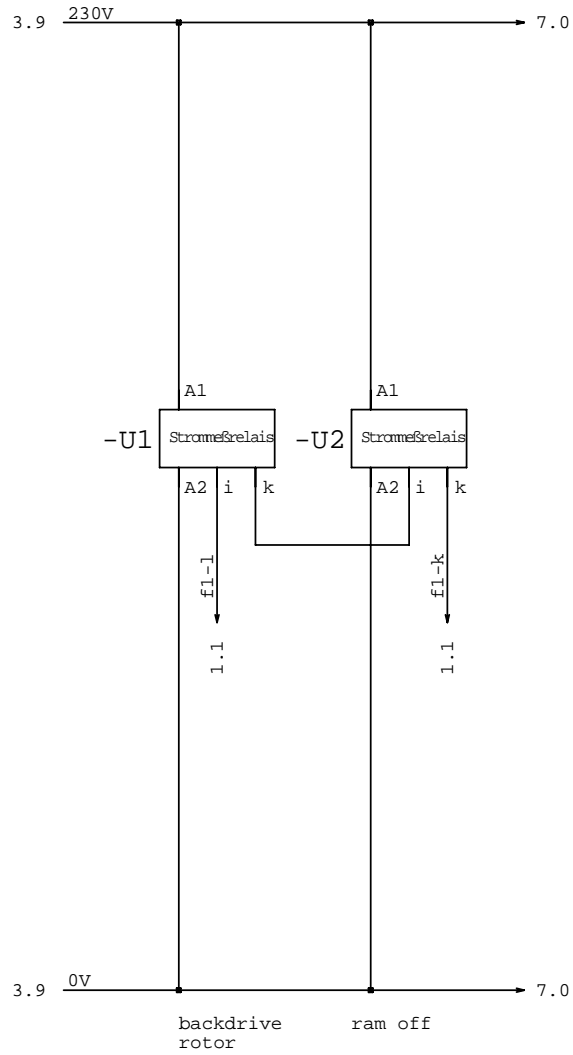
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WEIMA
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WL
mit SPS-Steuerung

ES-4-02-778 Rev.0

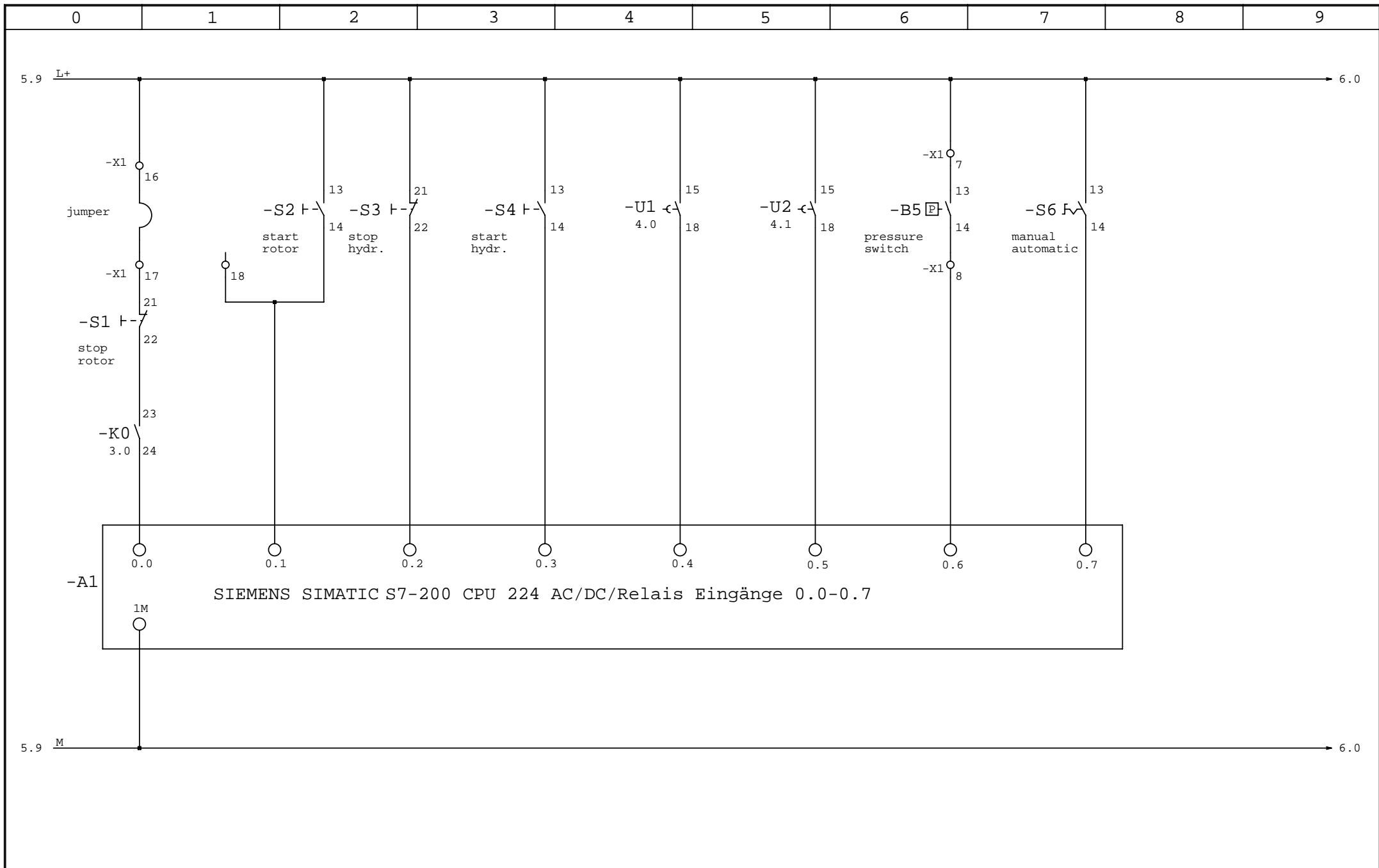




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WEIMA
Maschinenbau GmbH

WL
mit SPS-Steuerung



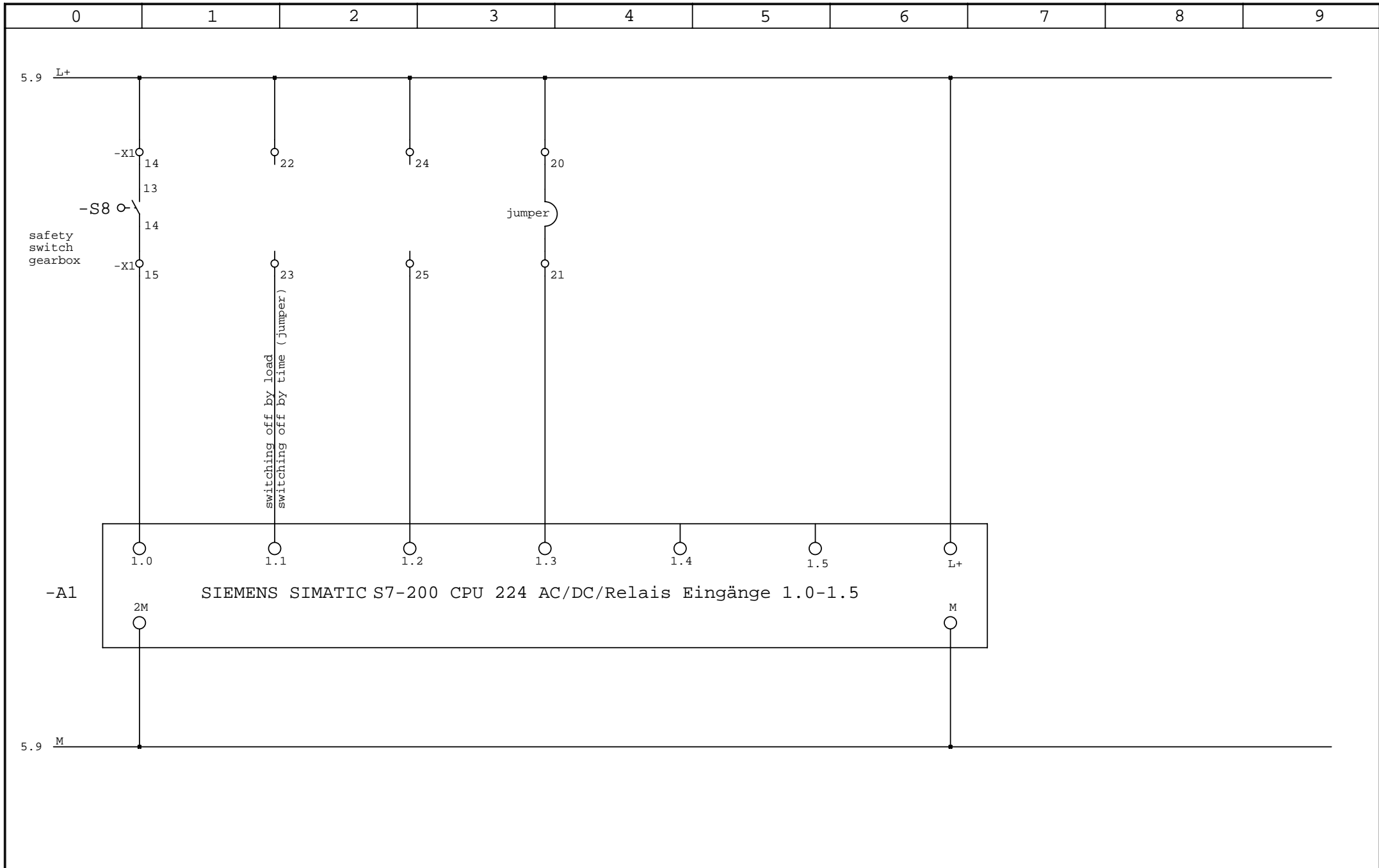
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													von 7
													sh.
												ES-4-02-778 Rev.0	

WEIMA
Maschinenbau GmbH

WL
mit SPS-Steuerung

ES-4-02-778 Rev.0

Blatt 5
von 7 sh.



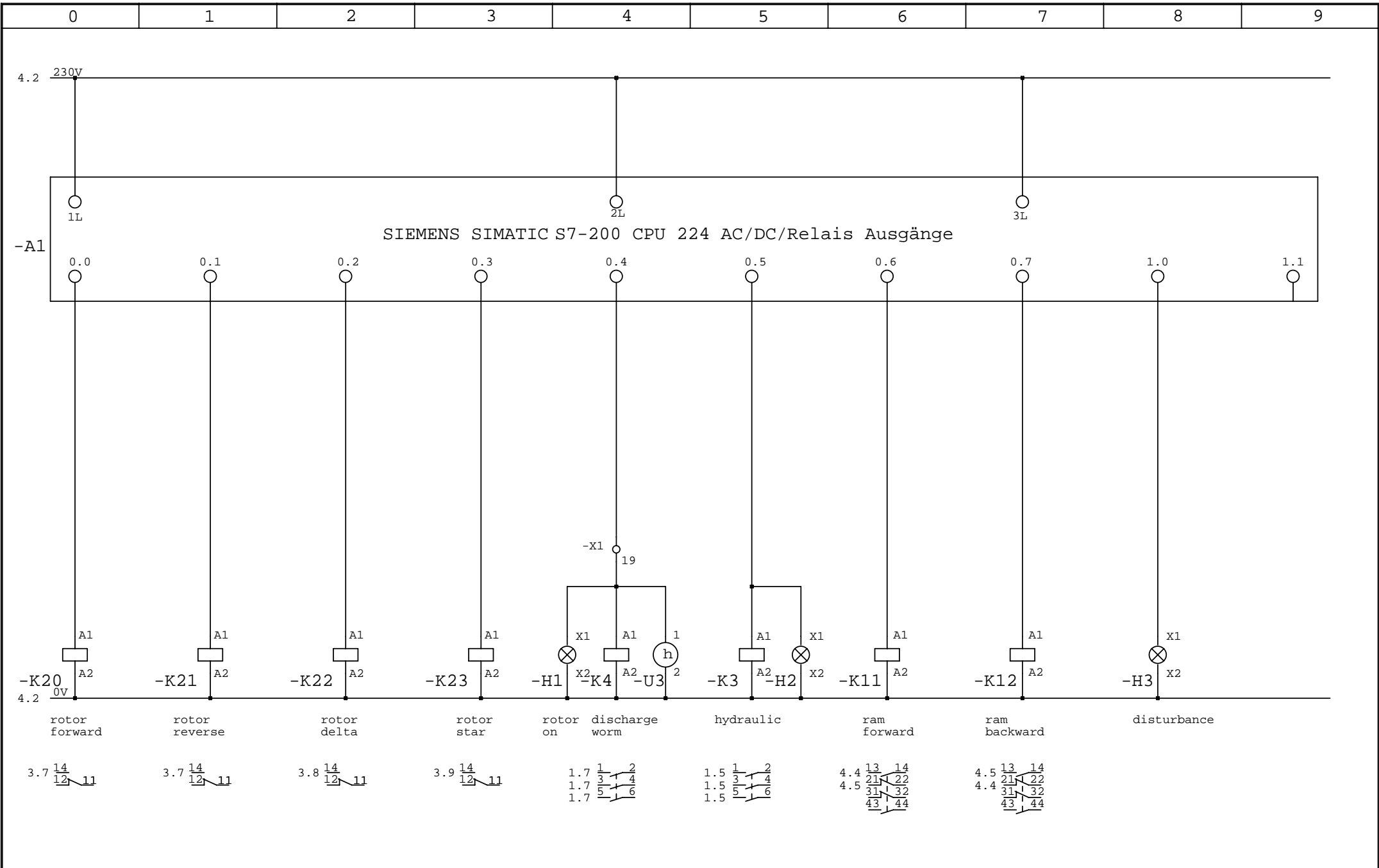
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mit SPS-Steuerung

ES-4-02-778 Rev.0

Blatt 6
von 7 sh.



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Maschinenbau GmbH

WL
mit SPS-Steuerung

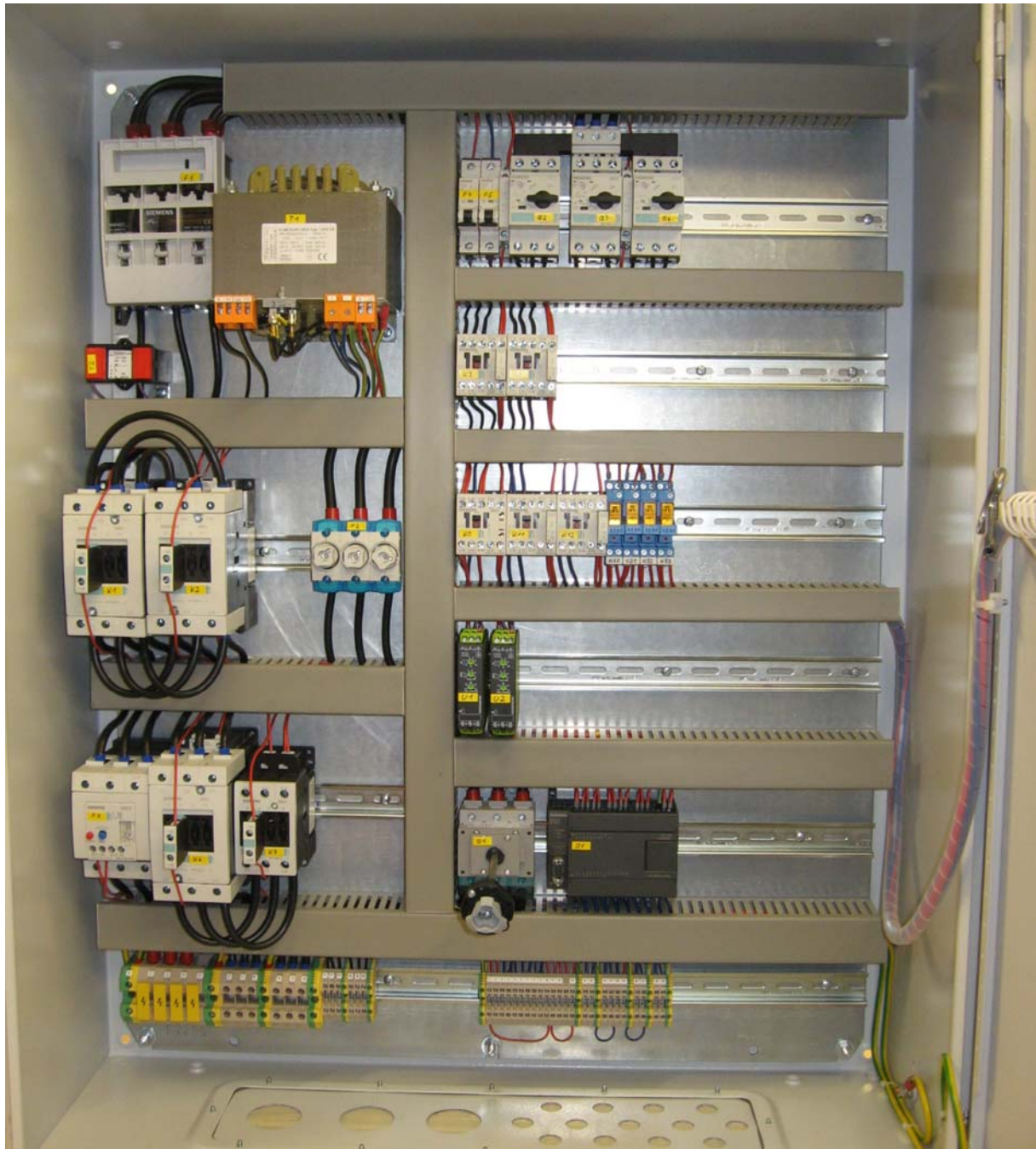
ES-4-02-778 Rev.0

Blatt 7
von 7 sh.

terminal plan -X1										page 1						
cable name external										mark external name	terminal number	jumper	mark internal name	connection	page 1	
supply line											L1			-Q1	1	1.0
rotor cable 1											L2			-Q1	3	1.0
rotor cable 2											L3			-Q1	5	1.0
hydraulic											N					1.1
discharge worm (special attachment)											PE					1.1
ram forward											U1			-F7	2	1.2
ran backward											V1			-F7	4	1.2
pressure switch											W1			-F7	6	1.2
safety switch screen											PE					1.3
safety switch gearbox											W2			-K6	2	1.3
jumper											U2			-K6	4	1.3
											V2			-K6	6	1.3
											U3			-K3	2	1.5
											V3			-K3	4	1.6
											W3			-K3	6	1.6
											PE					1.6
											U4			-K4	2	1.7
											V4			-K4	4	1.8
											W4			-K4	6	1.8
											PE					1.8
											1			-S0	22	2.1
											2			-T1	0V	2.1
											3			-K12	22	4.4
											4			-T1	-	4.4
											5			-K11	22	4.5
											6					4.5
											7			-U2	15	5.6
											8			-A1	0.6	5.6
											9			-F5	E2	2.0
											10			-F7	95	2.1
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											13			-K0	33	2.4
											14			-A1	L+	6.1
											15			-A1	1.0	6.1
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											17			-S1	21	5.1
											18			-A1	0.1	5.1
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											22					6.2
											23			-A1	1.1	6.2
											24					6.3
											25			-A1	1.2	6.3

partslist for ES-4-02-778 Rev.0 WL 37 kW 400V 50Hz

	name	part	item	item-number
F1	rotor	1	fuse	3NP4070-0CH01
Q2	hydraulic	1	motor protective switch	3RV1021-1DA10 / 3RV1901-1A
Q3	trafo 400V	1	motor protective switch	3RV1421-1GA10
F4	trafo 24V	1	fuse	5SY6104-7
F5	trafo 230V	1	fuse	5SY6106-7
Q6	discharge worm	1	motor protective switch	3RV1021-1CA10 / 3RV1901-1A
F7	rotor	1	motor protective switch	3RU1146-4HB0
K0	control voltage on	1	control contactor	3RH1140-1AP00
K1	rotor forwards	1	contactor	3RT1046-1AL20 / 3RH1921-1CA01
K2	rotor revers	1	contactor	3RT1046-1AL20 / 3RH1921-1CA01
K3	hydraulic	1	contactor	3RT1016-1AP01
K4	discharge worm	1	contactor	3RT1016-1AP01
K6	delta rotor	1	contactor	3RT1044-1AL20 / 3RH1921-1CA01
K7	star rotor	1	contactor	3RT1036-1AL20 / 3RH1921-1CA01
K11	ram forward	1	control contactor	3RH1122-1AP00
K12	ram backward	1	control contactor	3RH1122-1AP00
K20	rotor forwards	1	control contactor	40.31.8.230.2000
K21	rotor revers	1	control contactor	40.31.8.230.2000
K22	delta rotor	1	control contactor	40.31.8.230.2000
K23	star rotor	1	control contactor	40.31.8.230.2000
Q1	main-switch	1	switch	3LD2814-0TK53
S0	emergency stop	1	switch	3SB3203-1HA20
S1	stop rotor	1	switch	3SB3203-0AA21
S2/H1	start-up rotor	1	switch	3SB3214-0AA61
S3	stop hydraulic	1	switch	3SB3203-0AA21
S4/H2	start-up hydraulic	1	switch	3SB3214-0AA61
S5/H4	control voltage on	1	switch	3SB3253-0AA41
S6	manual/auto	1	switch	3SB3202-2KA11
H3	disturbance	1	transformator	3SB3212-6AA20
T1	transformer control cabinet	1	current transformer	1000VA
T2	current rotor	1	current transformer	IBA 100/5
U1	bachdrive rotor	1	current relay	G2IO5A20-W1+TR2 230V
U2	infeed off	1	current relay	G2IO5A20-W1+TR2 230V
U3		1	operatinh hour meter	BZ48KE
A1		1	SIMATIC S7-200	6ES7214-1BD23-0XB0



Operating elements on the WL control box

Manual / Auto



If the Manual/Auto switch is set to MANUAL, the shredding machine has to be started manually. Switching off is also manual. If the selector switch is set to AUTO, the shredding machine also has to be started manually but switching off, however, is automatic. The running time can be adjusted on the PLC-control Poti 0.

Rotor ON



The shredding machine can be started using the Rotor ON illuminated pushbutton. The hydraulic system is switched on automatically when the Rotor ON button is pressed.

Rotor OFF



The shredding machine can be switched off using the Rotor OFF button.

Hydraulic ON



The hydraulic motor for the ram can be switched on using the Hydraulic ON button.

Hydraulic OFF

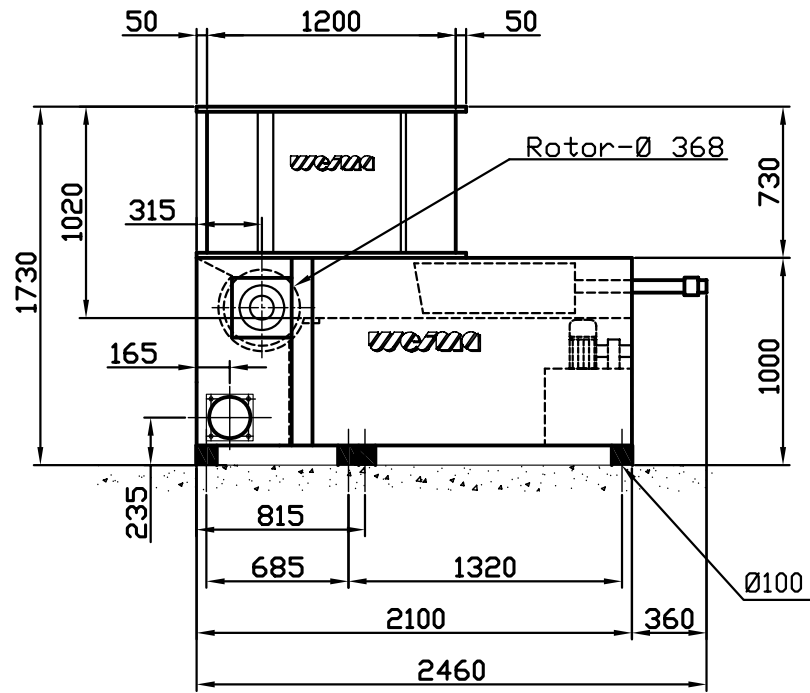


The hydraulic motor for the ram can be switched off using the Hydraulic OFF button.

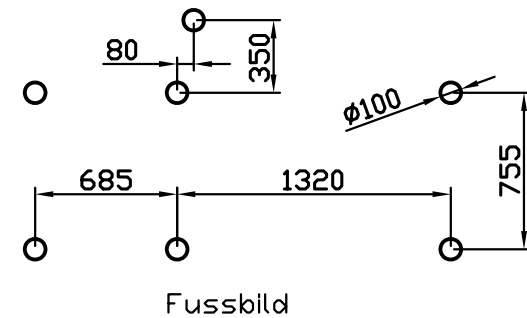
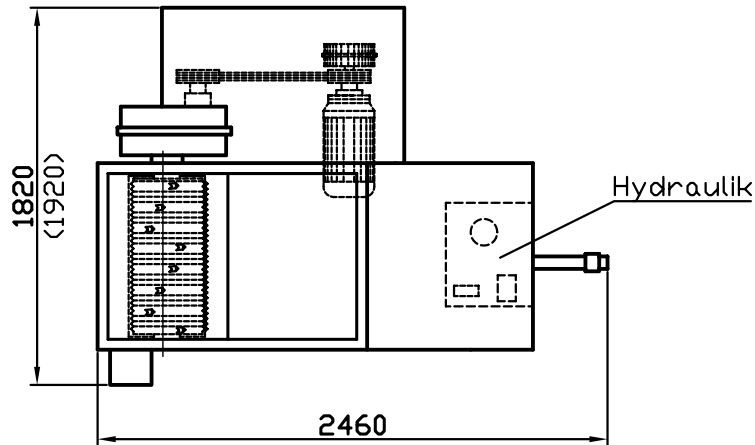
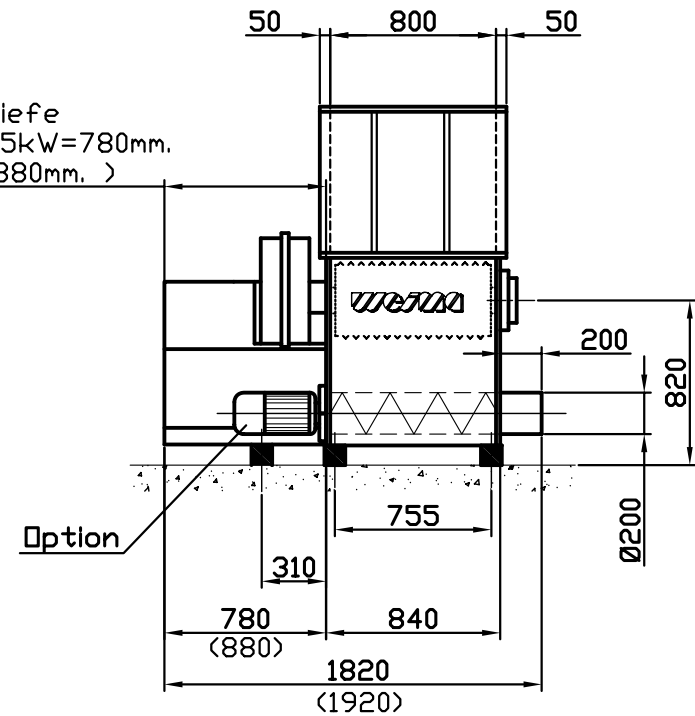
Fault




The Fault control lamp indicates a malfunction in the drive. Either the transmission limit switch or the reversing switch has been triggered. In either case, check whether there are any foreign bodies in the machine.



Schutztiefe
bis einschl. 45kW=780mm.
(55kW=880mm.)



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		C A D		Kommission: standard		
2007	Datum	Name		WL 6 S		
Bearb.	22.03.	Tonanek				
Gepr.						
Norm						
Revision 4		AP-3-02-1372			Blatt 1	
1	Fussbild	28.06.06	Tonan.	1 BL.		
Zust.	Änderung	Datum	Name	EDV: AP-3-02-1372R4	Ersatz für:	Ersatz durch: