User’s manual

BERINGER
Pendulum Reducer
Type: BP-SK x4

T

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1. Description of Reducer

1.1 Intended use

The mobile compactor compacts waste (e.g. paper, solid waste, industrial waste, cartons etc.). Never fill in sand, construction waste, stones, glass, hot ash, inflammables, acid or base containing materials as well as heavy metal parts (e.g. hollow sections, beams) or wooden beams.

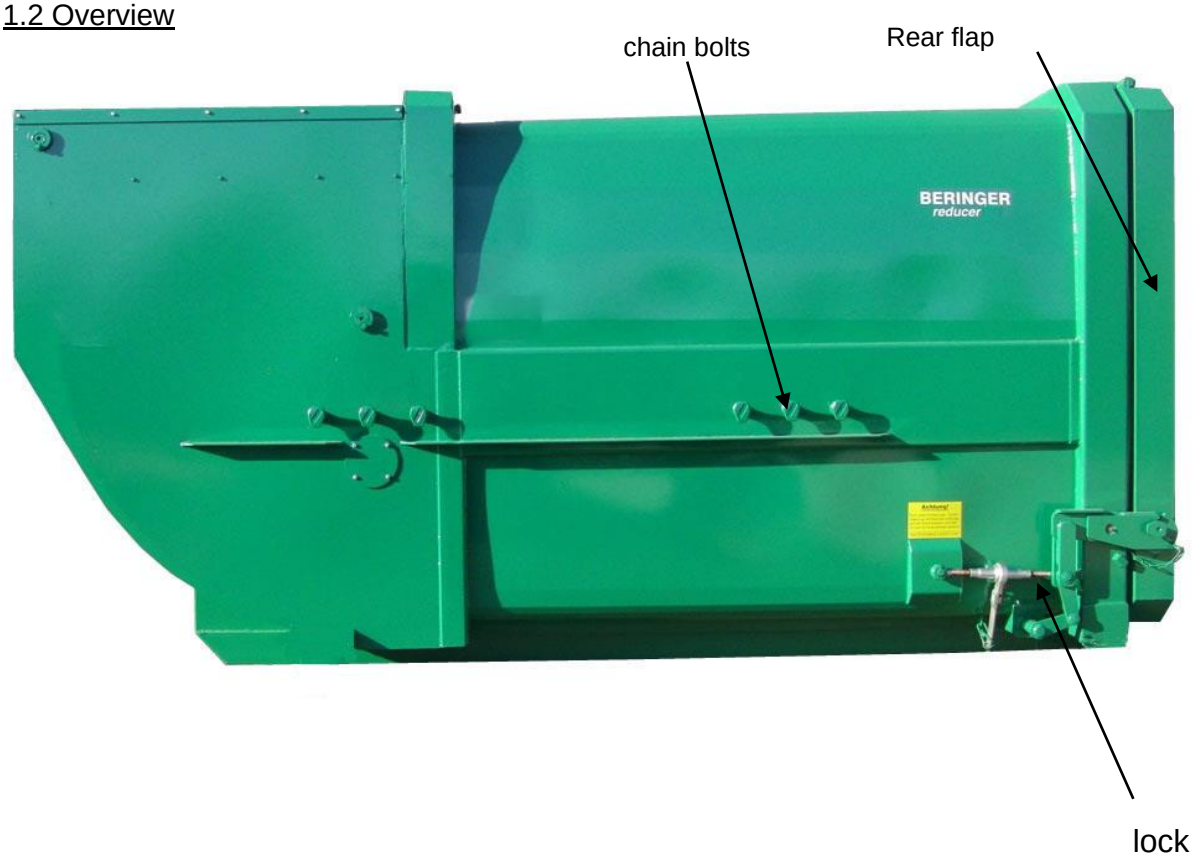
Intended use implies:,

- Obeying to all safety instructions on the reducer and the control panels
- Obeying to periodical maintenance instructions
- It is forbidden to do any constructional changes on the reducer

Please keep the user's manual with the machine.

We give you the advice to use only original spare parts.
Please mention the reducer's type, model year and manufacturing number when you order spare parts.

1.2 Overview



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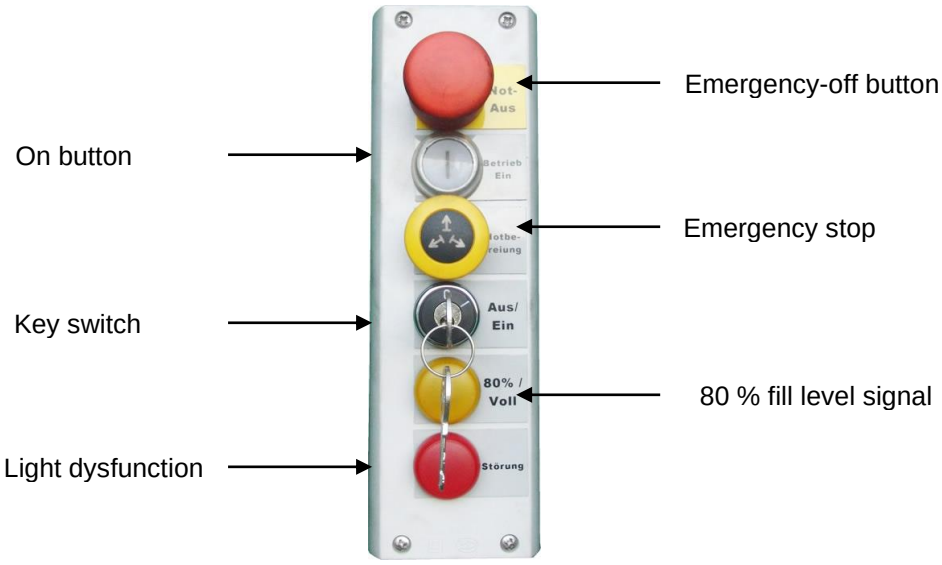

Main switch

socket

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Emergency off	Emergency off push-button, by pressing the button the ram plate stops in its current position. Resetting operation is only possible by unlocking.
On	ON push-button starts the reducing process (keep button pressed for 3-5 sec.).
Emergency stop	Emergency stop push-button, by pressing this button, the ram plate stops in its current position and persons can be rescued.
Key switch	Key switch; security against unauthorized use.
80% fill level signal	if light glows compactor is filled 80 %.
Light dysfunction	motor-circuit switch F1 releases – reducer shuts down automatically
Main switch	power supply ON / OFF
Socket	to connect power supply cable with a CEE-plug

1.3 Description of functions

The mobile compactor can be picked up with all chain-loader systems according to DIN 30721.

The mobile compactor can be filled with material uninterrupted, because the waste falls in front of the piston during back stroke.

Cleaning of the piston is not necessary, stuck material is stripping with each compaction cycle because of the striking-off edge between header and body.

The lock of the liquid proof door ensures that no liquids can leak from the compactor.

The control panel is equipped with a main switch, key switch, socket, emergency stop button, On button, emergency off button and 80 % fill level signal.

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2. Safety instructions

Important instructions concerning technical safety and security are highlighted.

BE AWARE refers to work procedures which have to be followed in order to avoid dangers for persons.

ATTENTION refers to work procedures in order to avoid damages of the machine.

1. Please read the user's manual carefully before initial operation. Make sure you also read the additional instructions for options of your reducer. The user's manual has to be carried along with the reducer.

2. If the mobile reducer is located in public places (e.g. markets, schools, etc.) and is unsupervised, additional safety measures respecting to individual case have to be made.

3. Only authorized persons are allowed to operate, maintain or repair the reducer.

4. Only employ well trained staff to operate the reducer and define clear competences for operation, service and maintenance.

5. Allow the person in charge to defeat safety instructions of third persons.

6. Only train your staff on the reducer with experienced persons and under permanent surveillance.

7. Periodically check if your staff obeys to the safety instructions.

8. Wear safety garment while working at or on the reducer.

    1) Avoid wearing rings, watches, ties, scarves, open jackets or loose fitting cloths. Those items carry the risk to get stuck in the reducer.
    2) For some works safety shoes, helmets, work gloves are compulsory.
    3) Depending on the compacted material, the staff might need special safety equipment (e.g. ear plugs, safety glasses).

9. Don't use fire or candles in the surrounding of the reducer. Make yourself familiar with the location of extinguishers and inform yourself about local institutions of fire protection.

    - In case of fire in the switch box or burning oil please use a fire distinguisher (CO_2 distinguisher).

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10. For ergonomic reasons the employment of platforms can be reasonable. For platforms and their accesses, the minimum carrying capacity has to be at least 3000 N/m². The surface has to be levelled and free of rough spots. At a height of more than 1 meter, a safety rail has to be adjusted. A platform can only be used at the front side of the compactor.

11. If the mobile reducer is located at a ramp or in an underfloor bunker, safety rails have to be adjusted. Ensure free access to the emergency stop switch (eventually use a remote control).

12. The mobile compactor has to be secured against autonomous roll away

13. To ensure before initial operation:
    1) Before initial operation, the reducer has to be inspected by the operator. Don't operate the reducer before having made a proper inspection. Please especially check the labelling.
    2) Please pay attention to all labels with danger and safety instructions.
    3) Fix all loose parts on the machine.
    4) All lids and cover panels have to be closed before initial operation and after maintenance works.
    5) The lock of the cleanout door has to be locked.
    6) Make sure that nobody is working in or on the compactor.
    7) During operation nobody is allowed to be in the sphere of the hydraulic jack / piston. Danger of squeezing by pivoting cylinder!
    Attention: Doors / Flaps have to be closed.

14. For special employment the reducer has to be equipped with specific safety devices. In this case only operate the reducer if those are assembled.

15. It is not allowed to fill the mobile compactor with materials which could be expelled during compaction cycle (e.g. splintering wooden parts, hard plastics). In case it can't be avoided that parts are splintering parts expel during compaction cycle, additional safety equipment is necessary (e.g. lid or operation with remote control).

16. To ensure for checking, maintenance and repair works (instruction page 11)
    - Maintenance and repair works should only be conducted by experts.
    - Please proceed during maintenance and repair works as described in the following:
        1. Switch off motor
        2. Switch off main switch. The key at the key switch must be taken off in 0 position. Plug off power cable. Main switch has to be locked with a padlock against switch on.
        3. The system sections and pressure pipes of the hydraulic have to be at zero pressure before repair works.
        4. Make sure that all fixtures and protective shields against vibrations, abrasion and heat accumulation are installed according to instructions.

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5. The electric installation has to be inspected by an electrician. All damages like loose connections or wore down cables should immediately be repaired by an expert.
6. Check in periodical intervals all pipes, hydraulic hoses and hydraulic connections for leaks and damages.
7. Hydraulic oil has to be changed in cooled down condition.
8. Never jump off the compactor. Use intended footstep, ladder or base to climb down.
9. Check all safety devices for functioning before finishing maintenance and repair works.

BE AWARE Leaking oil can lead to fire. Wear safety gloves while searching for leaks. The hydraulic oil is hot when the reducer is close to operating temperature. Avoid skin contact to hot oil or oil bearing parts.

17. Never operate a damaged compactor. Repair all damages immediately.

18. Cleaning the reducer:
    1) Be aware while using wear parts and additives. Don't use inflammable liquids.
    2) All openings where no water should impinge during cleaning have to be closed, glued or removed.

19. Transport of the reducer:
    1) For transport of the mobile reducer, vehicles according to DIN 30720 (chain-loader-truck) are appropriate.
    2) The position adaptor has to be in visual range or speaking contact to the driver.
    3) The reducer always has to be picked up in the manner that the shifting of weight doesn't endanger stability. Avoid steel-to-steel contact.
    4) The driver is in charge of proper load safety during transport.

20. Don't do any modifications on the reducer without permission of the supplier. This also means installation of safety devices and –valves as well as welding on bearing components.

21. For safety reasons necessary functional sequences can't be changed. Therefore it is not allowed to remove or invalidate safety devices

22. For all flexible supply cables a heavy rubber hose pipe (H 07 RN-F according to VDE 0100) has to be used.

23. Never open the door if the reducer is partly filled. The door is under pre-stressing and opens abruptly. Eventually the door can't be closed again before emptying.

24. Long and bulky goods have to be inserted completely into the feed opening.

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ATTENTION Never grasp or step into the feed opening during operation!

MORTAL DANGER ! ! !

25. Keep all stickers which indicate danger in good condition
26. Generally it is advisable to use only original spare parts of the manufacturer.
27. Obey to accident prevention regulations and environmental protection laws.

3. Set up and operation

3.1 Instructions for set up

BE AWARE Please read the following safety instructions and the ones in chapter 1 before set up and obey to those!

The bearing capacity of the ground at reducer's location has to be at least 17.00 N/m².

At reducer's location has to be enough space for transport with a chain-loader-truck.

If the compactor is filled from a ramp or a platform, the height of the feed opening has to be at least 1 meter above the ramp.

The ground has to be solid and levelled to avoid bracing of the reducer.

Provide enough light at reducer's location.

The location must be protected against unauthorized access.

The electricity at location has to be protected with a fault current circuit breaker (F1 switch), sensitive trigger of max. 30 mA and fuse min. 16 A delay.

The supply cable has to have a cross section of min. 4 x 2,5 mm² copper, 400 V and 50 Hz and equipped with a CEE socket 16 A delay. For a connection with 16 A delay the supply cable has to have a cross section of min. 4 x 4 mm² copper.

Operating voltage: 400 V 50 Hz, network configuration: TN – C – S, CEE socket 16 A (32 A) Fuse protection with 3 pole automatic circuit breaker 3 x 16 A. Characteristic C/D connected upstream with fault-current circuit switch max. 0,03 A release current.

For flexible supply cables a heavy rubber hose pipe HO/RN-F according to VDE 0100 has to be used.

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3.2 Initial Operation

The mobile compactor has been tested before delivery and is ready for operation after proper installation. Before initial operation the following safety instructions have to be followed.

BE AWARE 	The operating staff has to be trained on handling and safety instructions of the mobile reducer. The compacting unit has to be closed. The cleanout door has to be closed and locked. No person is supposed to be in the filling device. The maintenance door at the power unit box has to be closed during operation. Check supply voltage and machine voltage (see type label)

How to start the compactor

1) CEE-plug has to be connected to the coupling mouth at the operating table.
2) Unlock (by pulling) emergency OFF button.
3) Key switch has to be in position “I”
4) Press ON push-button for at least 3-5 sec. The mobile reducer accomplishes about 3 pressing cycles and switches off automatically when the ram plate is in the retraced position.

ATTENTION: During pressing cycles, the operating staff has to stay at the control panel; to be able
to stop the reducer in case of emergency. The staff can only leave the control panel, if the key at the key switch was taken off in 0 positions.

4. Operation

4.1 Filling and start of compacting cycle

Put main switch in ON position
Pull emergency off button
Put key switch in „I“ position
Check emergency stop and emergency off button as described in chapter 3
Fill the mobile compactor
Push ON button for at least 3 – 5 sec. The mobile compactor accomplishes 3 compacting cycles automatically and switches off at top edge of feed hopper.

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ATTENTION

The operating staff hast o be at the control panel during compacting cycle in order to be able to stop the operation in case of emergency. Staff can only leave the control panel if the key at the key switch was taken off in 0 position.

4.2 Emptying

The mobile compactor can be transported and tipped with a chain loader truck.
The mobile compactor is lifted at the chain bolts. Before the mobile compactor can be lifted it has to be ensured that the chain bolts are in good condition. (watch out for wearing down).

Don't open the door at compactor's location, if the mobile compactor is partly filled. In this case the door is under pressure and opens abruptly. Eventually the door can't be closed without emptying.

ATTENTION
Lock door with ratchet and close spring stick after each emptying

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5. Maintenance and cleaning

Generally we advise you to conclude a service contract with the manufacturer. Please ask for a quotation concerning the service contract.

The maintenance contract includes the following yearly benefits:

- Visual inspection of external damages, door latches, notches
- Check of the control panels, plugs, feed pipes (change hydraulic pipes the latest after 6 years)
- Check of tube and hose pipes
- Check of the cylinder and the hydraulic system
- Assessment and adjustment of the pressure
- Assessment of hydraulic gate and motor-circuit switch
- Assessment of the control box for condensation water
- Assessment of slide blocks and press ram
- Oil change/ filter change
- Lubricating and oiling

ATTENTION **Obey to the following safety instructions during maintenance work (including the safety) Instructions in chapter 2)**

1. Switch off main switch and detach key (key has to be kept by service staff)
2. Press all emergency OFF buttons
3. Don’t remove or invalidate safety devices
4. Calibrations of hydraulic panel are not to change (sealed). Only use original spare parts of the manufacturer for the hydraulic system.

5.1 Periodical Maintenance

Check and correct the oil level

It is necessary to check the hydraulic oil level in periodic intervals, especially after leakage or maintenance work. After finishing repair work on the hydraulic jacks the reducer has to be operated unfilled for about 15 minutes in order to aerate the cylinders. Afterwards the power unit has to be shut down for 6 hours to degas the oil.

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At the reducer´s front side (direction of heading; left) the oil level indicator and the drain cock are situated. With the ram plate fully extended (piston rod of the cylinder fully extended), the oil level should be higher than 10 mm above the minimum check mark.

The reducer switches off automatically if the oil level is too low, due to an installed oil deficiency switch.

If hydraulic oil has to be refilled, the ram plate has to be extended fully to be positioned safely on the drawer. Afterwards the power unit cover can be opened (remove 11pcs screws M8x20). The power unit cover can be removed if required (the security chain´s snap hook is to be hung out and the cover is to be pulled off the hinge side wards).

Unscrew the oil-filler neck (black synthetics, with covers) so hydraulic oil can be filled in with a cranked hopper.

Oil change

After each 3000 operating hours it is necessary to conduct a hydraulic oil change, the return filter has to be changed.

An appropriate tank has to be put beneath the drain cock and its cap has to be removed.

The reducer´s plant room contains a tube equipped with a cap nut R ½", that is used to drain the oil at the drain cock, afterwards the drain cock is to be opened with a jaw wrench SW 12.

After finishing the maintenance work at the power unit the cap´s deal ring is to be positioned with a little grease in the slot. Afterwards the cap can be assembled in reverse order. To avoid a turning of the clamp bolt inside the tank the cap should be lifted a little bit.

Weekly

Check all parts of the hydraulic system for leaks

1. Clean return flow filter: open covering of power unit; loosen fixture screws of return flow filter.
2. Check oil indicator; refill hydraulic oil if necessary.

Check all electric pipes for damages.

BE AWARE

Maintenance work at the power unit can only be conducted, if the power unit is cool and at zero pressure.

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Quarterly

- Check hydraulic system for impermeability and oil level; lubricate ram plate guiding with multi-purpose grease
- Lubricate lubrication nipples of rollers, hydraulic jack and door hinges with multi-purpose grease

Yearly

Change hydraulic oil (HLP 32)

5.2 Electric system

Before opening the control box, detach system from electricity!

It is necessary to open the control box in case the red light “fault” glows. In this case the motor circuit switch “F1” actuates (usually if motor is overloaded).

In the plant room, the control panel is situated next to the hydraulic power unit. By a left quarter turn of the locking mechanism the clear cover can be removed.

After cooling down the system, the motor circuit switch “F1” has to be unlocked at the blue button in order to make the reducer ready for operation.

If the reducer doesn’t start, although feed cable works faultlessly and all emergency OFF push-buttons are unlocked, the “F2” fuse of the controller loop might be defect. In order to check this, the fuse cartridge situated at the transformer setting has to be opened and the glass tube fuse is to be changed.

Watch out for the rubber seal, while closing the clear cover.

In order to close the power unit cover it is advisable to screw-on the 4 bolts at the chamfer, to assure a better grasp on the upper side.

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6. Appendix

6.1 Technical Data

System		Chain-loader truck
Type		BP-SK
Actuating power	kw	5,5
Fuse protection	A	16 A Characteristic C or D*
Hopper height	mm	1500
Upper feed opening	mm	1400 x 1380 mm
Ram capacity / stroke	cbm	1,25
Plunger stroke	mm ca.	1130
Cycle time	sec.	33
Hydraulic oil	Ltr.	35
Power supply	V / Hz	400 / 50
Tare weight	kg	3150 kg (8 cbm) 3400 kg (10 cbm) 3650 kg (12 cbm)
Max. payload	kg	10.000 kg

* The internal protection of mobile compactor is 0,4 A control circuit characteristic T. The fuse protection of main circuit has to be supplied at place of installation as described in chapter 3.1. Current consumption of motor is 17,7 A.

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6.2 Lubrication plan

Lubrication Spot	Wear part	Quantity	Interval
Power unit	Hydraulic oil: - DEA HLP 32	Approx. 35 ltr.	3000 operating hours.
Cylindrical pivot bearing	Multi-purpose grease	Press 4 – 5 times	As required
Cylinder eyes	Multi-purpose grease	Press 2 – 3 times	As required
Door hinges	Multi-purpose grease	Press 2 – 3 times	As required
Terminal closure	Multi-purpose grease		As required
Ratch lock	Multi-purpose grease	Press 2 – 3 times	As required
rollers	Multi-purpose grease		As required
Attachement Pendulum	Multi-purpose graese	Press 4 – 5 times	3000 operating hours

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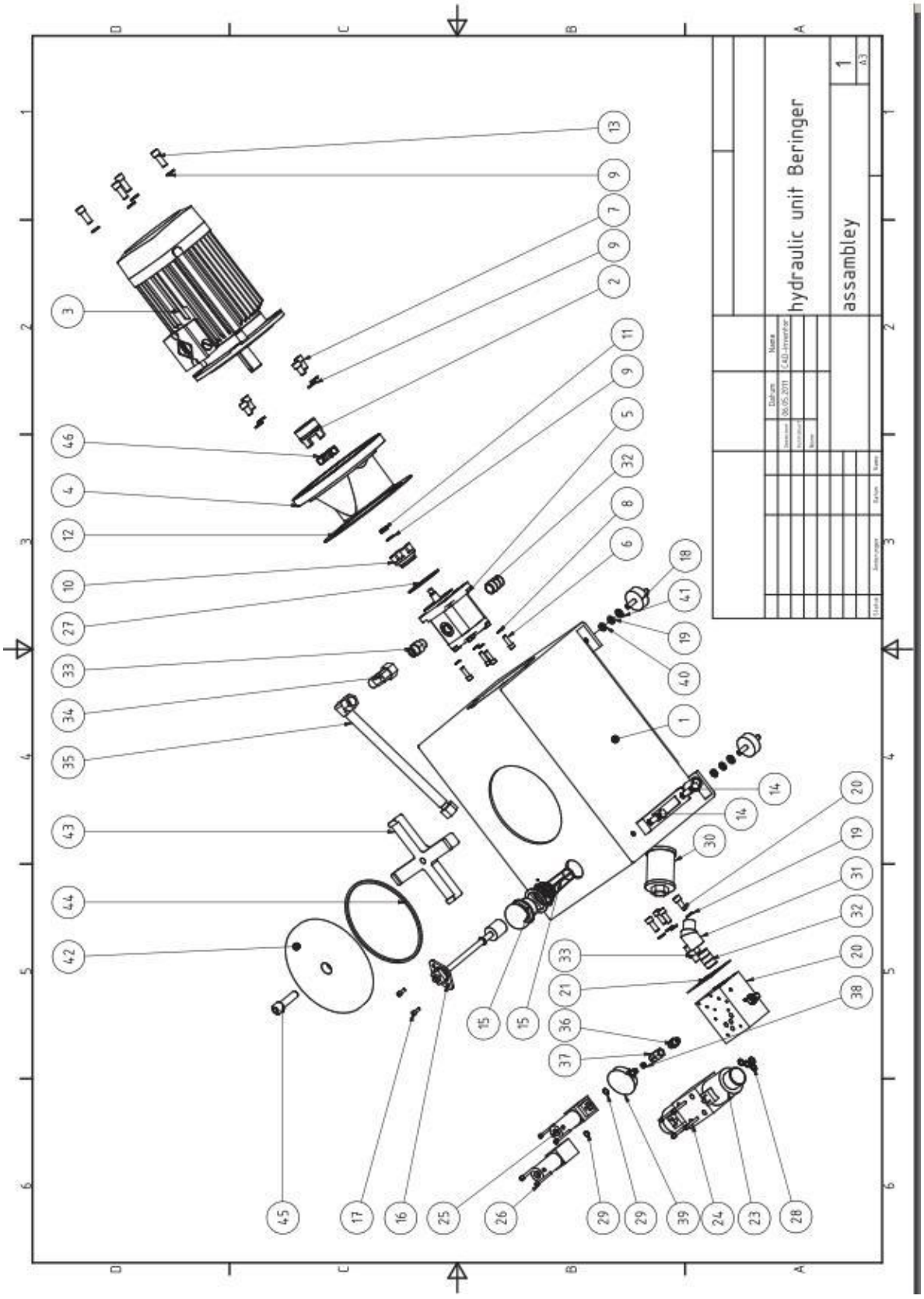
6.3 **Power Unit and Parts List**



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Parts List Power Unit

Pos.	Pieces	Article	Artikel (german)	Order Number
1	1	oil tank	Öltank	EPHY01
2	1	coupling (motor hub)	Kupplung (Motornabe)	
3	1	motor	Elektromotor	EPHY11
4	1	pump flange	Pumpenträger	EPHY09
5	1	gear pump	Zahnradpumpe	EPHY08
6	4	Imbus M8 x 25	Innensechskantschraube M8 x 25	
7	4	Imbus M12 x 20	Innensechskantschraube M12 x 20	
8	4	Snap ring DIN 128 – A8	Federring DIN 128 – A8	
9	9	Snap ring DIN 128 – A 12	Federring DIN 128 – A12	
10	1	Coupling (pump hub)	Kupplung (Pumpennabe)	
11	1	Nut with metric thread M12 x 1,25	Mutter M12 x 1,25 (metr. Feingewinde)	
12	1	Seal for pump flange	Korkdichtung / Pumpenträger	EPHY12
13	4	Imbus M12 x 30	Innensechskantschraube	
14	1	Oil level indicator	Ölstandsanzeige	EPHY02
15	1	Breather filter	Belüftungsfilter	EPHY03
16	1	Oil deficiency switch	Niveauschalter	EPHY04
17	2	Imbus M6 x 16	Innensechskantschraube	
18	4	Rubber buffer	Gummipuffer	EP146
19	8	Snap ring A 10	Federring A 10	
20	1	Control block without valves	Steuerblock (ohne Ventile)	EPHY14
21	1	Seal valve block	Dichtung Ventilblock	EPHY21
22	4	Imbus M10 x 25	Innensechskantschraube M10 x 25	
23	1	Directional valve	Wegeventil	EPHY18
24	4	Imbus M10 x 40	Innensechskantschraube M10 x 40	
25	2	Pressure switch	Druckschalter	EPHY17
26	4	Imbus M5 x 60	Innensechskantschraube M5x60	
27	1	O-Ring ø 80	O-Ring ø 80	EPHY20
28	4	O-Ring ø 12	O-Ring ø 12	
29	2	O-Ring ø 10	O – Ring ø 10	
30	1	filter	filter	EPHY06
31	1	45° angle	45° Winkel	
32	2	Double nipple	Doppelnippel	
33	2	Straight connection screwed ½“	Gerade Verschraubung ½“	
34	1	Angle (adjustable)	Einstellbarer Winkel	
35	1	Hose pipe	Schlauchleitung	EPHY13
36	1	Straight connection screwed ½“	Gerade Verschraubung ½“	
37	1	Manometer	Manometer Verschraubung	
38	1	seal	Dichtung	
39	1	Manometer	Manometer	EPHY19
40	4	Hex nut with metric thread M 10	Sechskantmutter M 10	
41	4	Washer A 10,5	Scheibe A 10,5	
42	1	cleaning tap	Reinigungsdeckel	EPHY05
43	1	Retaining ring	Befestigungkreuz für Reinigungsdeckel	
44	1	O-Ring ø 213	O-Ring ø 213	
45	1	Imbus M16	Innensechskantschraube M16	
46	1	Gear rim	Zahnkranz	

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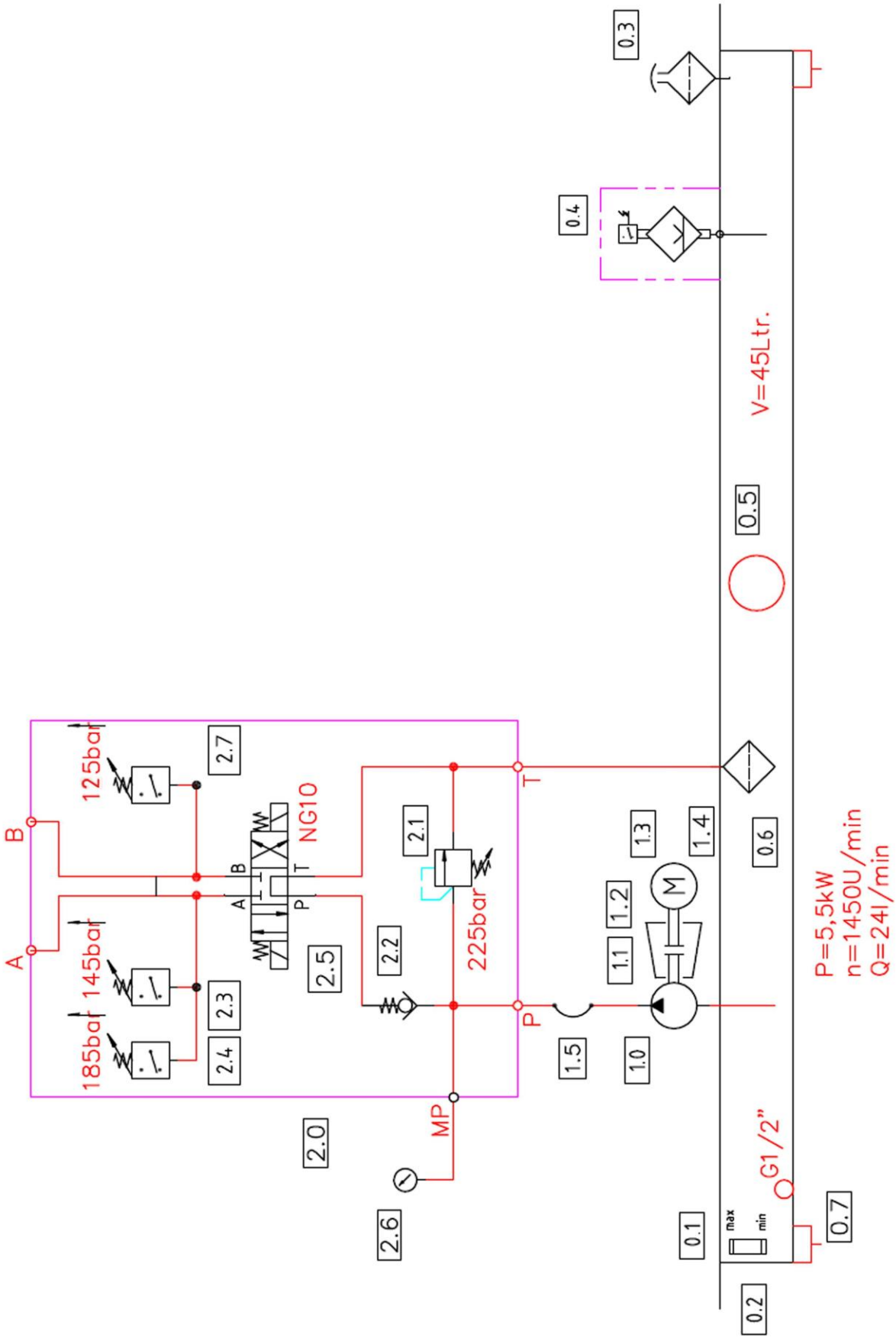
6.3 Hydraulic plan with parts list



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Pos.	Article	Artikel	Pieces	Order Number
0.1	Special oil tank 45 ltrs.	Öltank	1	EPHY01
0.2	Oil level indicator	Ölstandsanzeige	1	EPHY02
0.3	Breather filter /filling filter	Einfüll- und Belüftungsfilter	1	EPHY03
0.4	Level switch	Niveauschalter	1	EPHY04
0.5	Cleaning tap	Reinigungsdeckel	1	EPHY05
0.6	filter	Filter	1	EPHY06
0.7	Silencer 50/20	Silentblock 50/20	4	EP87
1.0	Gear pump	Pumpe f. Hydraulik	1	EPHY08
1.1	Pump flange (oil-proof)	Pumpenträger	1	EPHY09
1.2	Coupling (steel) with gear rim	Kupplung Stahl mit Zahnkranz	1	EPHY10
1.3	E-motor 5,5 kW	Elektromotor	1	EPHY11
1.4	Cork seal (black)	Korkdichtung	1	EPHY12
1.5	Hose pipe	Schauchleitung	1	EPHY13
2.0	Control valve block without valve	Steuerblock ohne Ventile	1	EPHY14
2.1	Pressure control valve for control block	Druckbegrenzungsventil f. Steuerblock	1	EPHY15
2.2	Blow-off valve	Rückschlagventil	1	EPHY16
2.3	Pressure switch 145 bar	Druckschalter 145 bar (80%-Vollmeld.)	1	EPHY17-145
2.4	Pressure switch 185 bar	Druckschalter 185 bar	1	EPHY17-185
2.5	Directional valve NG10	Wegeventil	1	EPHY18
2.6	Manometer 0-250 bar	Manometer	1	EPHY19
2.7	Pressure switch 125 bar	Druckschalter 125 bar (Umschaltung)	1	EPHY17-125

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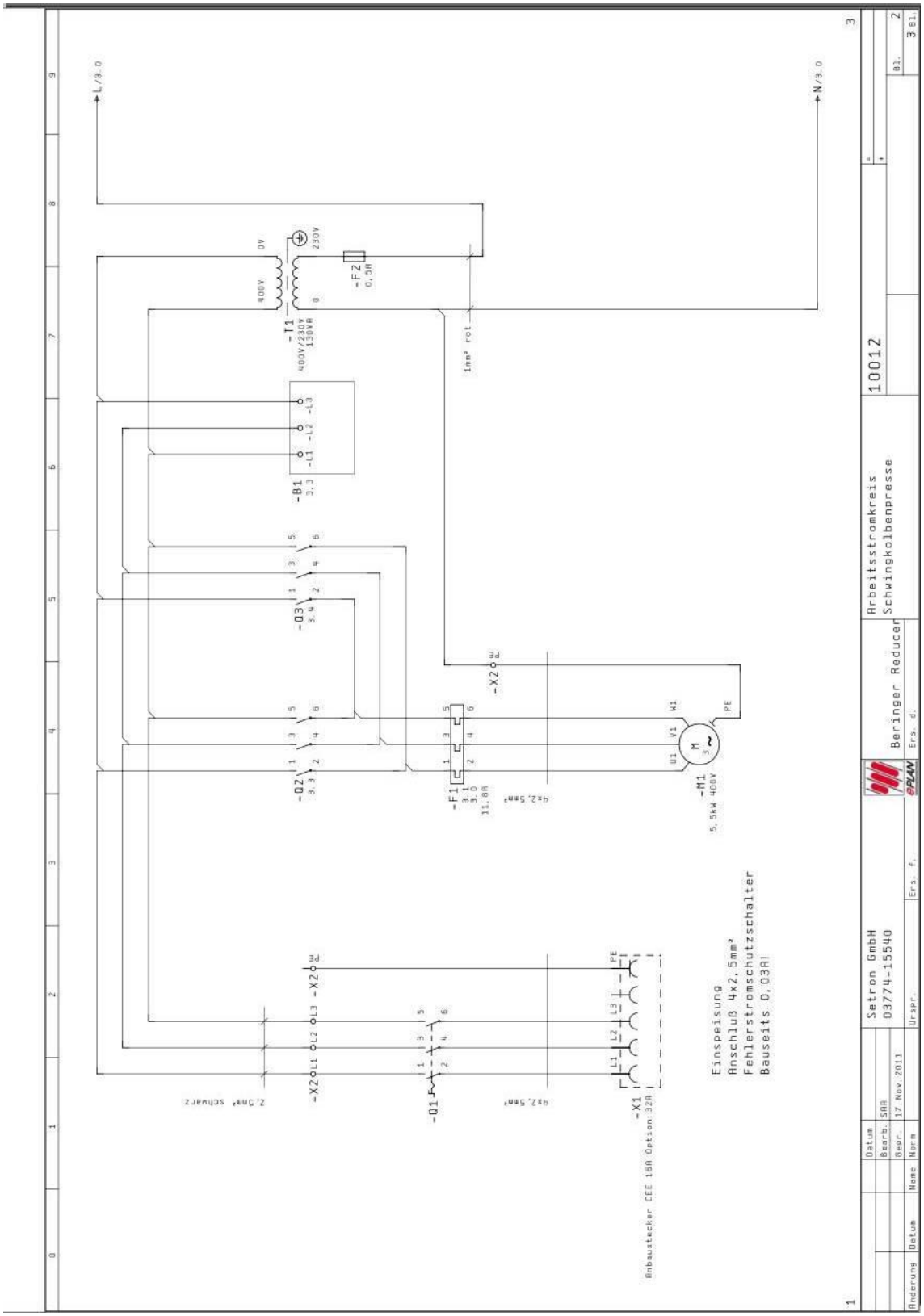
6.4 Electronic Plan



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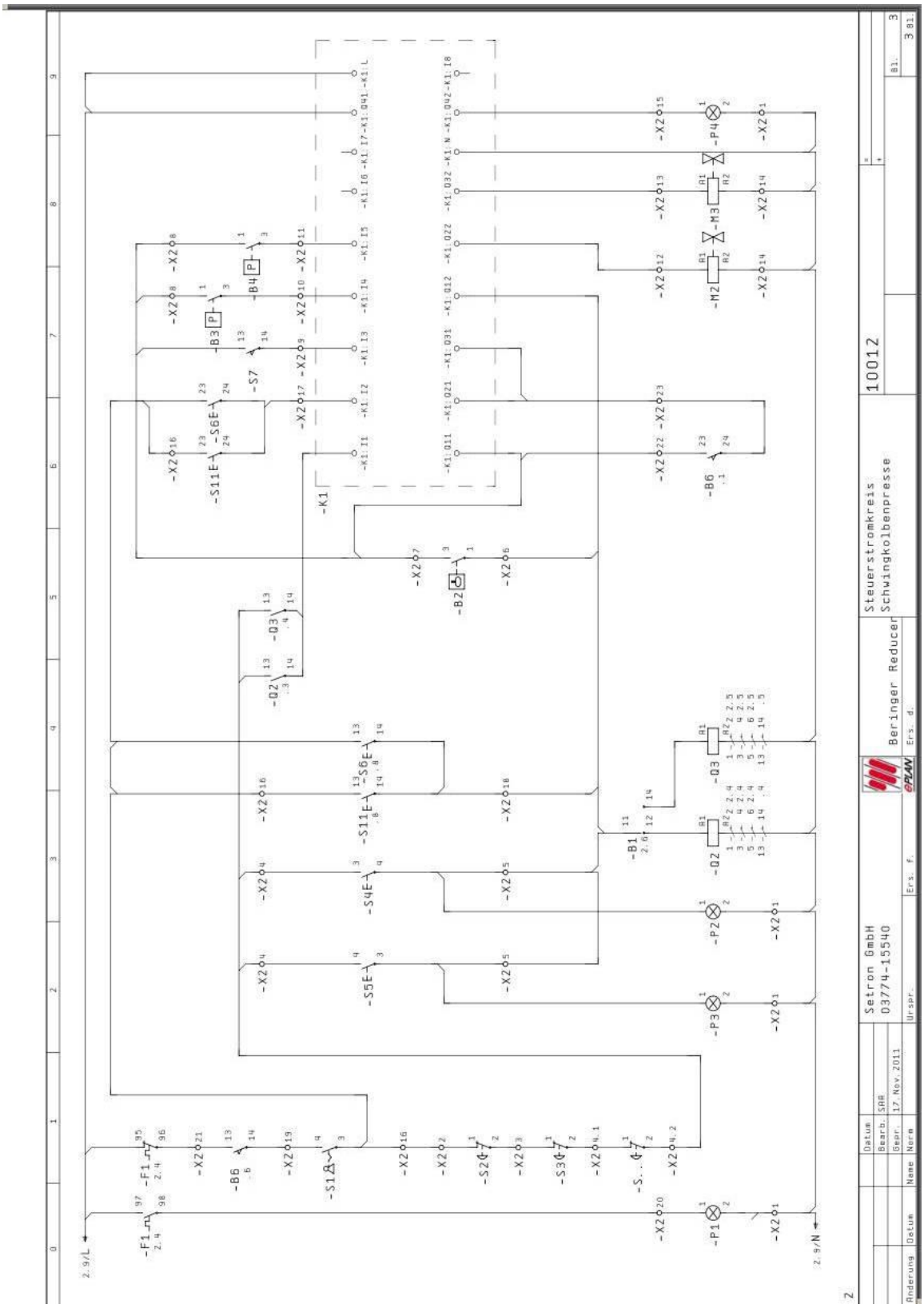

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6.4.1 Parts List Electronic Plan

Descr.	Descr. (old)	Article
S1	S1	Key switch
S2	S2	Emergency OFF control panel (6 parts)
S3	S3	Emergency OFF control panel (3 parts)
S4	S4	Operation ON control panel (3 parts)
S5	S5	Operation ON control panel (6 parts)
S6	S6	Emergency stop control panel (6 parts)
S11		Emergency stop control panel (3 parts)
S...		Emergency OFF other options
S9		Key switch option remote control
S10		Emergency stop option with remote control
S..		Emergency stop other options
Q1	Q1	Main switch
Q2	K1	Contactor rotating field (right)
Q3	K2	Contactor rotating field (left)
F1	F1	Motor circuit switch
F2	F2	Control fuse T0,4A
T1	F1	Control transformer 400V/230V
M1	M1	Motor hydraulic pump
M2	Y1	Magnet valve compactor forwards
M3	Y2	Magnet valve compactor backward
K1	A1	Logic tool
P1	H1	Disturbance control panel (6 parts)
P2	H2	Operation ON control panel (3 parts)
P3	H3	Operation ON control panel (6 parts)
P4	H4	80% fill level signal control panel (6 parts)
P5		Disturbance option remote control
P6		80% fill level signal option remote control
X1		Plug CEE16A or Option CEE32A
X2	X1	Terminal strip
X3		Socket 24 pol.
B1	Sd1	Phase sequence relay
B2	Sd1	Oil deficiency switch
B3	Sd2	Pressure sensor 180bar
B4	Sd3	Pressure sensor 140bar
B5	E1	Position switch compactor backside
B6	E2	Position switch maintenance doors

Attention!
Obey to local instructions for electrical operating conditions.
Please keep in mind before initial operation!!!

- Switch motor circuit switch to nominal current.
- Watch out for rotary field (right)
- Changes of control panel lead to loss of guarantee and warranty.

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Damage report

Dear Sir or Madam,

This is a damage report for mobile compactors. Please fill the form and send it back as soon as possible by e-mail or fax!
Without filling this form, our service staff won't process your request.
The below mentioned prices are only valid if the damage is not covered by guarantee or warranty conditions.
Please note:

- Don't open power unit, header or control panel, this voids all warranty claims.
- Don't remove any parts of the compactor without written instruction by the supplier, this also voids all warranty claims.

Damage report for mobile compactors

Date:_____ Time:_____

Customer:_____ Phone.:_____

Address:_____

Compactor's location:_____

Contact person:_____ Phone.:_____

Compactor can be inspected_____ o'clock till_____ o'clock

Manu. No..._____ Type:_____ Model year:_____

Check the following points carefully and tack if you checked:

[ ] Read user's manual carefully

[ ] check if power supply is functioning properly.(16 Amp.; 3 phase connection)

[ ] check if power supply cable is not broken or damaged

[ ] check if house main switch box is in ON position

[ ] oil level has been checked and oil level is between min. and max.

[ ] check if main switch is in ON position

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[ ] check if emergency OFF button is in ON position

[ ] check if key switch is in ON position

[ ] check if compactor is not completely full

[ ] check if compactor is situated on solid and levelled ground

[ ] in case compactor is operated with a mobile bin lifter, check if mobile bin lifter is connected to
power supply

If you checked all points and you didn't solve the problem, please describe the damage:

Damage description:_____

_____

_____

_____

_____

Supposed reason for damage:_____

_____

_____

with this signature you declare that you checked the above mentioned points and you agree with our service conditions. (see www.beringer-behaelter.com/downloads)

Service order placed: _____

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6.7 User's manual Control Panel

User's manual control panel Beringer reducer

Table of contents

ATTENTION !!
Any changes of the control panel lead to loss of guarantee and warranty!

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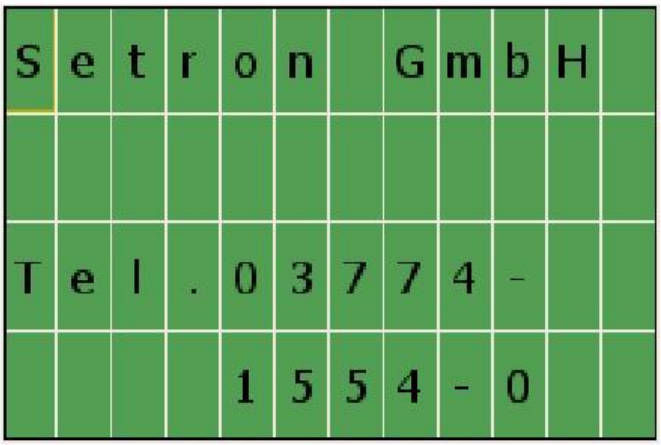
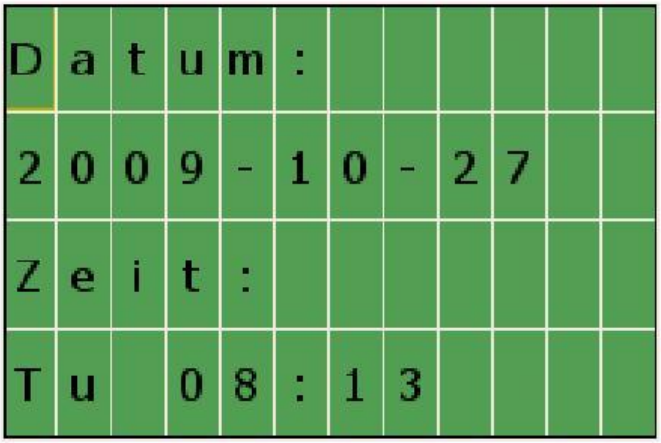
1. Parameterization Siemens Logo Module

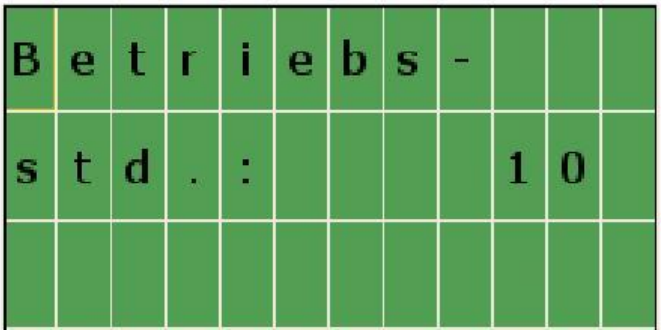
1.1 Select parameter menu

Switch on the reducer at the main control switch. In the display of the logic module you will see the following screen:



Press the arrow key “down”.





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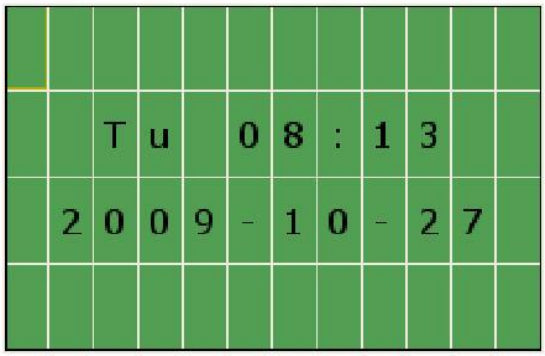
Afterwards the following screen appears in the display:



Press „ESC“

You are now in the menu of logic tool with the following screen:

Select „ParamSetzen“

To confirm select „OK“

Any time you want to go one step backward, press „ESC“.

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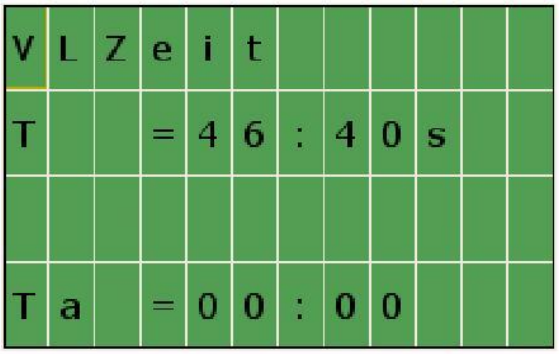
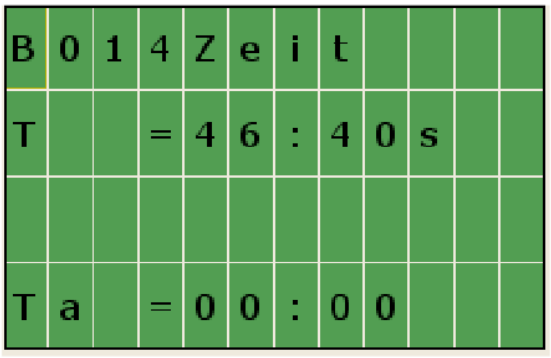
1.2 Adjust lead time

Proceed as described in 1.1 and press the arrow key “down” until the following screen appears:



Press „OK“ to adjust the lead time. Afterwards a curser flashes to change the numbers. Change with the arrow keys only the parameter “T”. Verify your selection with “OK”. To cancel press “ESC”.

With older program versions the lead time can be adjusted as described above but in the following screen:



For the exact lead time of your reducer please contact BERINGER Middle East FZC. Please find out the manufacturing number of your reducer before calling BERINGER Middle East FZC.

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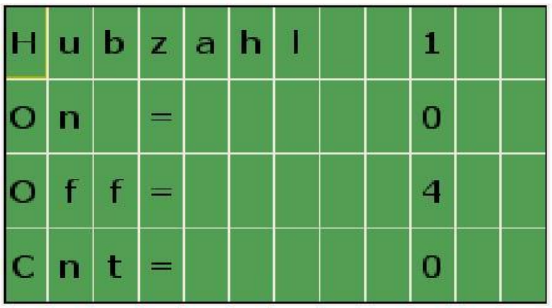
1.3 Adjust stroke rate

Proceed as described in 1.1 and press the arrow key “down” until the following screen appears:



Press „OK“ to change the stroke rate. Afterwards a curser flashes to change the numbers. Change with the arrow keys only the parameter “OFF”. Verify your selection “OK”. To cancel press “ESC”.

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2.0 Parameterization Setron Logo Module
2.1 Select parameter menu

Switch on the compactor at the main control switch. In the display of the logic module you get the following screen:

Press „OK“.

You are now in the menu of the logo module with the following indication:

Press the arrow key up or down until „Parameter“ flashes. Verify your selection with “OK”.

Any time you want to go one step back press “ESC”.

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2.2 Adjust lead time

Proceed as described in 2.1 and press the arrow key “down” until the following screen appears:

Press the arrow keys up or down until the curser flashes at „T 4“. Press “OK” to adjust lead time.

You get the following screen:

A curser flashes to change the parameter. Select with the arrow key the parameter “I 1”. Change with the arrow keys the parameter “I1”. Press “OK” to verify your selection. To cancel press “ESC”.

For the exact lead time of your reducer please contact BERINGER Middle East FZC. Please find out the manufacturing number of your reducer before calling BERINGER Middle East FZC.
Change of lead time leads to loss of guarantee and warranty!

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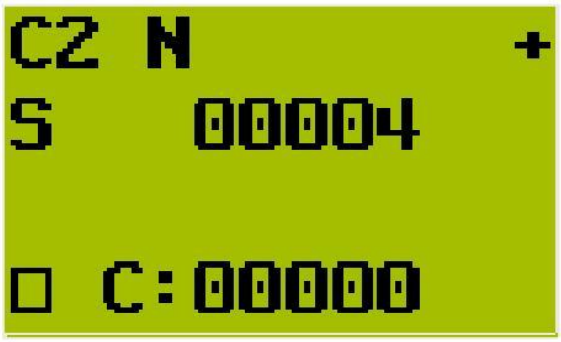
2.3 Adjust stroke rate

Proceed as described in 2.1 and press the arrow key bottom down until the following screen appears:

Press the arrow keys up or down until the curser flashes at „C 2“. Press “OK” to adjust the stroke rate.

You get the following screen:



A curser flashes to change the parameter. Select with the arrow keys the parameter “S” and press “OK”. Change with the arrow keys the parameter “S” and verify your selection with “OK”. To cancel the procedure press “ESC”.

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3.0 Diagnostic fault-finding and elimination

Diagnostic fault-finding	Elimination
Hydraulic pump runs; ram plate is in the end position and doesn't move into reducing unit.	Check the pressure switch 180 bar (B3). Plug off B3 or clamp the cable off the switch box. Check position switch B5 for functioning.
Motor hums – doesn't rotate, fuse actuates	Check the feed cable for disturbances and check function of hydraulic gates Q1, Q2 and the phase sequence relay B1.
By customers RCD actuates	Check the feed cable and the cables in the header for damages and check the position switch, pressure switch and activation of the electromagnetic valve for conductor connection.
Hydraulic motor rotates; ram plate doesn't move	Check the phase sequence relay and the agitator direction (M2 / M3) for mode of operation.
Reducer is switched on; compacting process doesn't start; emergency deliverance works in watch dog switch	Check the dynamic stop.
Reducer is switched on; compacting process doesn't start; emergency deliverance doesn't work.	Check the key switch, the control fuse of the transformer or the logo module.
Reducer is only switched on with pressed contactor; ram plates moves	Check outlet 1 logo module (clamp off all cables and check the outlet for run). Furthermore check the lack of oil switch (B2) or the oil level of the hydraulic power unit.

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4.0 General information and service notes

4.1 Change control fuses

If a control fuse is broken, it is impossible to start the reducer. Furthermore, the emergency deliverance is not working.
In order to change the fuses, the power unit lid has to be opened. The control fuses are located in the switch box at the transformer T1.

Please only use fuses with the following technical data:

For 230V:	0,4 A delay; size 32x6mm
For 24V:	0,5 A delay, size 32x6mm

4.2 Electricity supply

Operating voltage 3x400V, network configuration: TN – C – S – network
CEE socket 16A (32A), protection with 3-pole circuit breaker.
3x16A (32A) delay C/D over connected upstream CFGI with 0,03A Trip current.
Please check connecting cables, sockets and couplings before connecting. The sockets or couplings have to be put into the fixing device until the lids are locked.

Loose plug connections or short interruptions in power supply lead to damages in the control system, increased wear or shortened life span of the reducer.

4.3 Guarantee and warranty

Subject to our general terms and conditions

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EC – Declaration of Conformity

to confirm that the machine complies with EC directive 2006/42/EC on machinery (Annex II A)

The manufacturer: BERINGER GmbH
Silberhofstrasse 12 + 14
86704 Tagmersheim

Declares, that the machine described below:

Type: _____

Manufacturing No. _____

Model Year : _____

is complying with all essential requirements of the machinery directive 2006/42/EC

and the following directives of harmonized standards:

DIN EN 60204, DIN EN 60439, DIN VDE 0113-1, DIN VDE 0660-500

and the following european, national and technical directives:

EC machinery directive 2006/42/EC, EC low-voltage directive 2006/95/EC

Reference: www.newapproach.org

Manufactured in
86704 Tagmersheim

Date _____ Signature Manufacturer: _____

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