User's manual

BERINGER
mobile compactor
Type BP x4-MB / x4 ergo-MB

Type: _____

Manufacturing No.: _____

Model Year: _____

BERINGER Middle East FZC Fujairah Free Zone Phase III Fujairah, U. A. E
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1. Safety instructions

Important instructions concerning technical safety and security are highlighted with the following sign

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 qualified or trained staff and define clear competences for operation, service and repair works.
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 and 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 you about local institutions of fire protection.
10. For ergonomic reasons the employment of platforms can be reasonable. For platforms and their accesses, the minimum carrying capacity has to be 3000 N/m³. The surface has to be levelled and free of rough spots. At a height of more than 1 meter, a safety rail as 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 the free access to the emergency stop switch (eventually use a remote control).
12. The reducer has to be checked periodically – at least once a year – for workers' safety.

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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 interlock at 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 / heading tool. 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 and all maintenance doors are closed.

15. Inspection, maintenance and repair works (instruction p. 11)
    1) For maintenance and repair works please proceed as described in the following:
        (1) Switch off motor.
        (2) Switch off main switch.
        (3) The key at the key switch has to be taken off in 0-position.
        (4) Plug off power cable.
        (5) Main switch has to be locked with a padlock against switch on.

    2) The system sections and pressure pipes of the hydraulic have to be at zero pressure before repair works.
    3) Make sure that all fixtures and protective shields against vibrations, abrasion and heat accumulation are installed according to instructions.
    4) 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.
    5) Check in periodical intervals all cables, hydraulic hoses and hydraulic connections for leaks and damages.
    6) Hydraulic oil has to be changed in cooled down condition.
    7) Never jump off the compactor. Use intended footstep, ladder or base to climb down.

Attention: 	Leaking oil can lead to fire. Wear work 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.

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

17. 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.

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18. Transport of the reducer:
    1) For transport of the mobile reducer, vehicles according to DIN 30723 (chain-loader-truck) are appropriate. Make sure to comply with all regulations for load safety.
    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) Use ramps or ladder while working overheads.

19. 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.

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

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

22. 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.

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

BE AWARE: Never grasp or step into the feed opening during operation!

MORTAL DANGER ! ! !

24. Labels on the reducer which indicate dangers

At the maintenance door of compacting unit

at the ratchet lock

25. Generally it is advisable to use only original spare parts of the manufacturer.

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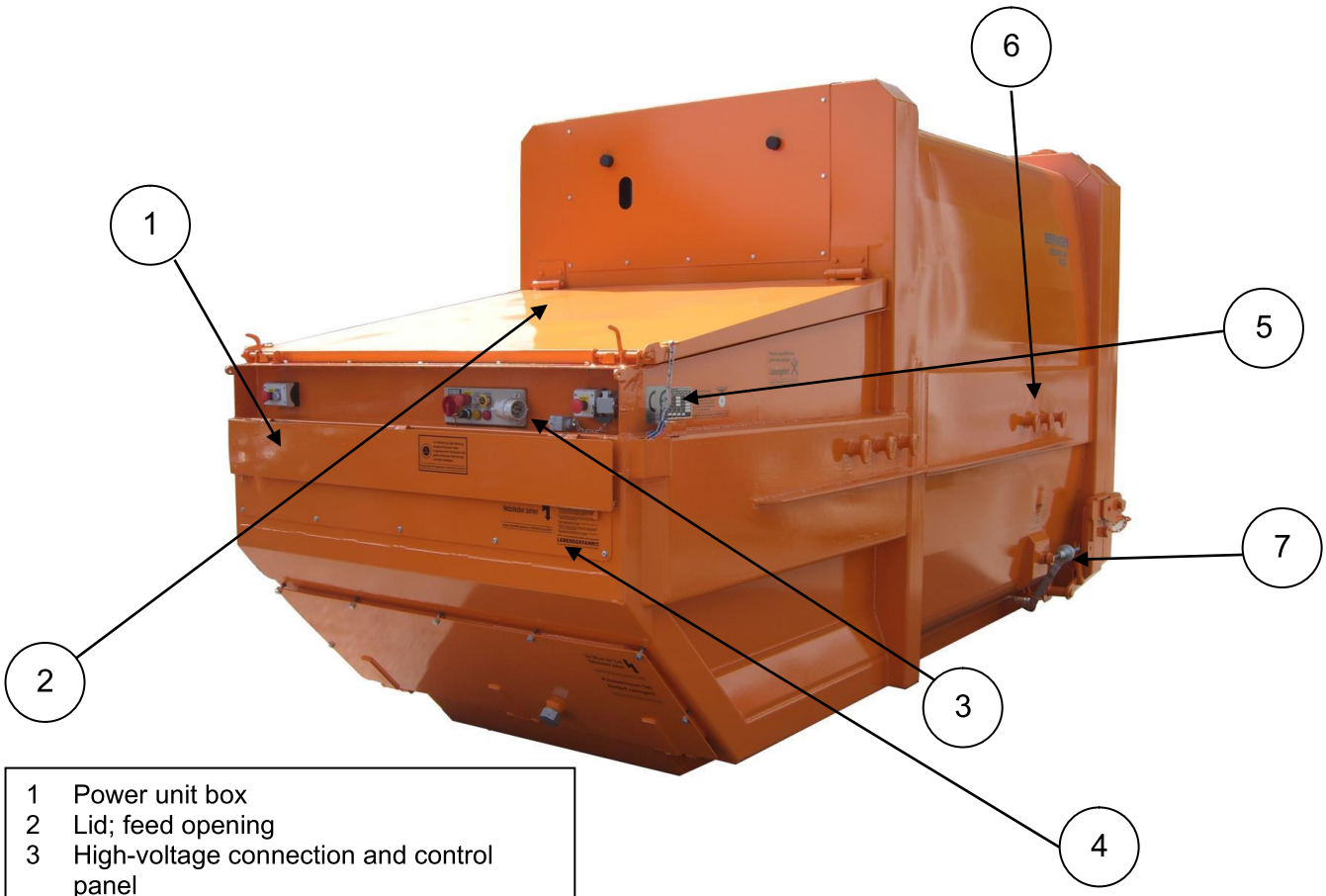
2. DESCRIPTION

2.1 Intended use

The mobile reducer can be picked up with all change systems according to DIN 30723 (chain loader trucks). The mobile reducer compacts consumer waste and commercial waste (e.g. paper, residual waste, cartons). 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. The reducer is not appropriate for operation in explosive areas (e. g. chemical factories).

2.2 Description of main parts



1	Power unit box
2	Lid; feed opening
3	High-voltage connection and control panel
4	Brief instruction
5	Type label
6	Chain bolts
7	Interlock of cleanout door

2.3 Additional options

- Lid for feed opening connected front sides or divided long sides
- Lid for feed opening divided long sides with aluminium crossbar or safety net
- Lid for feed opening divided long sides with control panel on lid
- BERINGER bin lifter; mobile or adjusted
- Mobile reducer; wet waste variation
- Container fill level warning

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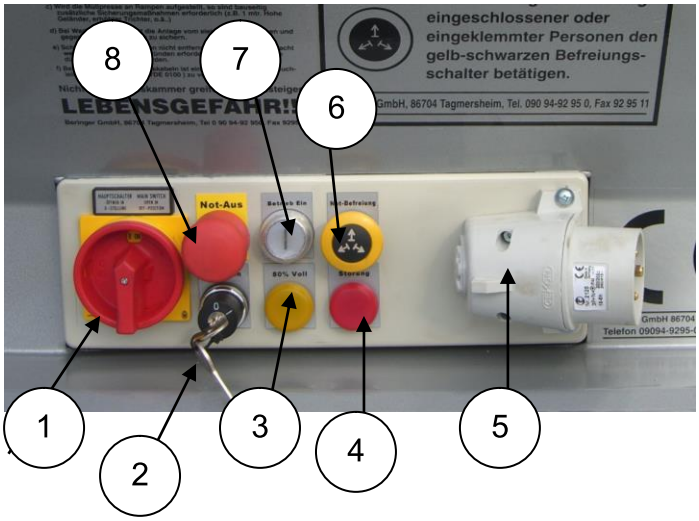
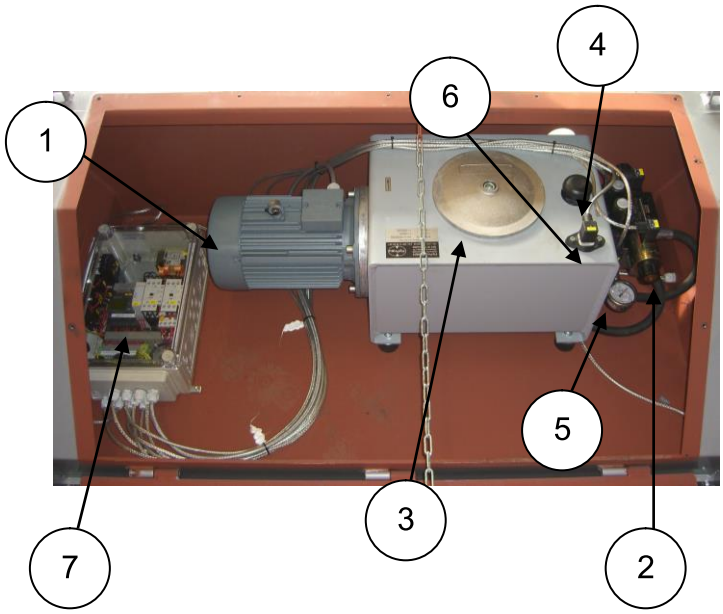
2.4 Control panels

1. Main switch; power supply ON / OFF.
2. Key switch; security against unauthorized use.
3. Light: 80 % fill level warning; if light flahes, compactor is filled 80 %.
4. Light dysfunction; motor-circuit switch F1 releases – reducer shuts down automatically.
5. Socket: to connect power supply cable with a CEE-plug.
6. Emergency stop push-button, by pressing this button, the ram plate stops in its current position and persons can be rescued.
7. ON button, ON push-button starts the reducing process (keep button pressed for 3-5 sec.). With the integrated time-lag relay the reducer accomplishes about three pressing cycles automatically. The ON-button flashes during operation.
8. Emergency off push-button, by pressing the button the ram plate stops in its current position. Resetting operation is only possible by unlocking the emergency stop push-button. By pressing ON, the ram plate moves back to the retraced position.



2.5 Power unit

1 Motor with hydraulic pump
2 4/3 directional valve
3 Oil tank
4 Filling and breather filter
5 Manometer
6 Oil deficiency switch
7 Control box



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2.6 Header

Before the mobile reducer can be picked up with a chain-loader-truck, it has to be ensured that the hook is in good condition (check for wearing down).

In the header, the ram plate is located, which is run by two hydraulic jacks. Those are installed underneath the power unit box.

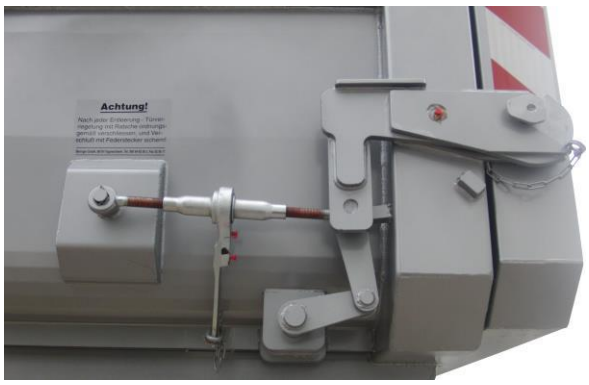
2.7 Additional limit switch at maintenance door

The maintenance door of the header is equipped with an additional limit switch. If the maintenance door is open during the pressing cycle, the limit switch, switches off the reducer.

BE AWARE!

Pull plug before opening the door and secure against engaging.

2.8 Interlock at cleanout door



Attention!

Close door interlock with ratchet and secure with spring connector after each emptying.

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2.9 Tipping device

BE AWARE! Ensure that the cleanout door is closed and locked, before starting the pressing cycle.

3 SET UP AND OPERATION

3.1 Set up

BE AWARE!

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

1. The bearing capacity of the ground at reducer's location has to be at least 17.00 N/m³.
2. The reducer is not appropriate for operation in explosive areas. (e.g. chemical plants).
3. At reducer's location has to be enough space for transport with a chain-loader-truck.
4. If the compactor is filled from a ramp or a platform, the height of the feed opening has to be at least 1,10 meters above the ramp.
5. The ground has to be solid and levelled to avoid bracing of the reducer.
6. Provide enough light at reducer's location.
7. The location should be protected against unauthorized access.
8. The electricity supply at location has to be protected with a fault current circuit breaker (F1 switch), sensitive trigger of max. 30 mA and fuse protection min. 16 A delay. The feed cable has to have a lateral cut of min. 4 x 2,5 mm² copper, 400 V 50 Hz, electricity network: TN – C – S, CEE plug, 16 A , fuse protection with 3-pole breaker performance 3 x 16 A, characteristic C/D connected upstream with a fault current circuit switch with max. 0,03 A release current.
9. For flexible supply cables a heavy rubber hose pipe HO/RN-F 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 allowed to be in the filling device.

The maintenance door at the power unit box has to be closed during operation.

Adjust motor-circuit switch to nominal current and watch out for the rotary field (right).

1) CEE-plug has to be connected to the coupling mouth at the control panel.
2) Switch on main switch.
3) Unlock (by pulling) emergency OFF button.
4) Key switch has to be in position “I”
5) 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 position.

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3.3 Diagnostic fault-finding

Disturbance	Reason	Solution
Machine is not functioning	Power supply	Check power supply network, switch on main switch; unlock all emergency OFF buttons; close maintenance door of compacting unit; check motor circuit switch F1 of supply cable; check cable for leaks.
Motor runs; ram plate doesn't move	Insufficient hydraulic oil, oil deficiency switch switches off the reducer automatically, motor only runs if ON button is pushed	Check hydraulic oil indicator; refill hydraulic oil if necessary
	Control valve failure	Call service staff
	Hydraulic hoses and/or hydraulic system leaky	Recover impermeability; call service staff if necessary
Ram plate twists during operation	Loose ram plate guiding	Call service staff
Drawer leaves guiding		Call service staff

ATTENTION!

If disturbances occur which can't be repaired by the operating staff, please call the manufacturer's service staff.

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4. MAINTENANCE AND CLEANING

Generally we advise you to conclude a service contract with the manufacturer. Periodical inspections by an expert ensure safety and a long life-time cycle of the compactor.

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 panel, plugs, feed cables
- Check of tube and hose cables, fittings
- 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 1**

1. Switch off main switch, secure it against switch on with a padlock, detach key and power cable (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.

4.1 Periodical Maintenance

Check and correct the oil level

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

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.

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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 – but at least once a year - it is necessary to conduct a change of hydraulic oil and to change the return filter.

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

In the reducer´s power unit box a tube is situated, equipped with a cap nut R ½", that is used to drain the oil. Open the drain cock 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, take out return flow filter for cleaning.
2. Check oil indicator; refill hydraulic oil if necessary.

Check all electric cables for damages.

ATTENTION 	Maintenance work at the power unit can only be conducted, if the power unit is cool.

Quarterly

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

Yearly

- Change hydraulic oil (HLP 32).

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4.2 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 failure of motor power supply or motor is overloaded).

In the power unit box, the control box 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” unlocks automatically and the reducer is ready for operation. Before operation it is necessary to check motor’s power cable.

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 screws at the chamfer, to assure a better grasp on the upper side.

5. *APPENDIX*

5.1 Technical Data

System		Chain-loader-truck	
Type	reducer	x 4- MB	x 4-ergo - MB
Actuating power	KW	5,5	5,5
Fuse protection	A	16 A delay*	16 A delay*
Length compactor part	mm	1450	1450
Hopper height	mm	1680	1310
Upper feed opening	mm	1200 x 1500	1200 x 1500
Lower feed opening	mm	800 x 1500	800 x 1500
Ram capacity / stroke	cbm	1,25	1,25
Plunger stroke	mm	1130	1130
Retraction depth	mm	280	280
Compaction force (at 225 bar)	kN	330	330
Cycle time	sec.	33	33
Hydraulic oil	Ltr.	35	35
Power supply	V	400 V / 50 Hz	400 V / 50 Hz
Empty weight	kg	3000 (10 cbm)	3000 (10 cbm)
Max. total weight	kg	10.000	10.000

* The fuse protection of the mobile compactor is control circuit 0,4 A delay. The fuse protection of the power circuit, as described in chapter 3.1 has to be provided by the customer. Charging rate of motor is 11,7 A.

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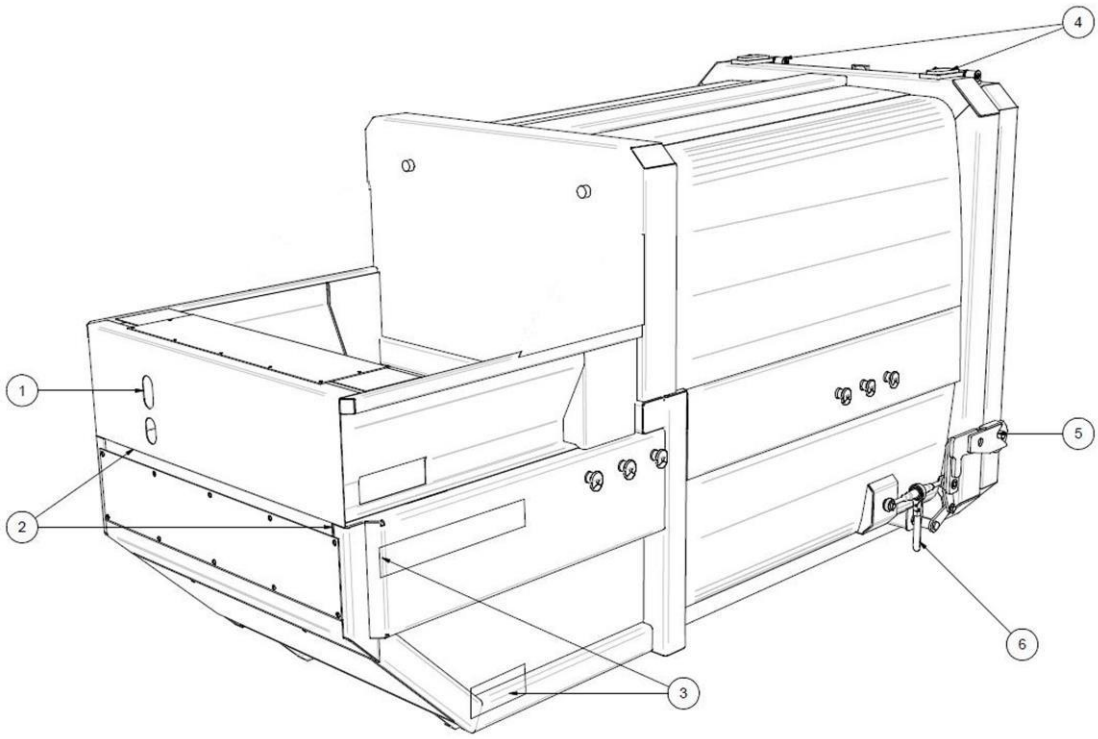
5.2 Lubrication plan



Lubrication spot	Wear part	Quantity	interval
1 Power unit	Hydraulic oil - DEA HLP 32 Or: biol. absorbable - DEA Econa 46 / Fuchs Plantohyd	approx. 35 liters	each 3000 operating hours
2 Cylindrical pivot bearing	Multi-purpose grease	Press 4 – 5 times	
3 PE-slide stone	Multi-purpose grease	Tiny little bit	As required
4 door hinges	Multi-purpose grease	Press 2 – 3 times	As required
5 Locking lever	Multi-purpose grease		As required
6 Ratchet lock	Multi-purpose grease	Press 2 – 3 times	As required

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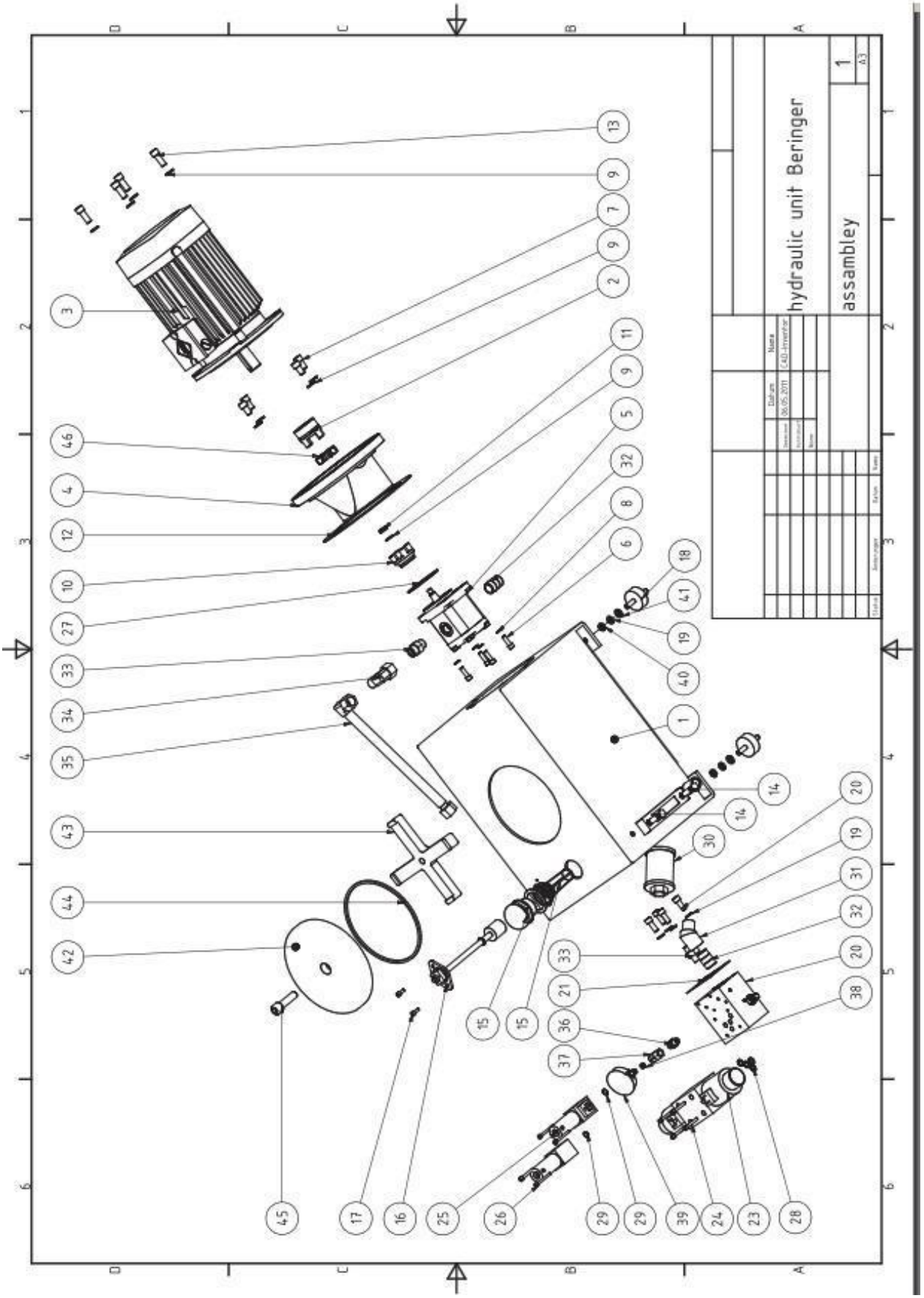
5.3 Hydraulic Plan



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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 50/40 (for x4)	Silent block x4 50/40 (M10-gewinde beids.)	EP87-1
18	4	Rubber buffer 50/20 (for x4-ergo)	Silent block x4-ergo 50/2ß	EP 87
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 185 bar	Druckschalter 185 bar	EPHY17
	2	Pressure switch 145 bar	Druckschalter 145 bar	EPHY17-145
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	Sechskant mutter M10	
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 x	Innensechskantschraube M16	
46	1	Gear rim	Zahnkranz	

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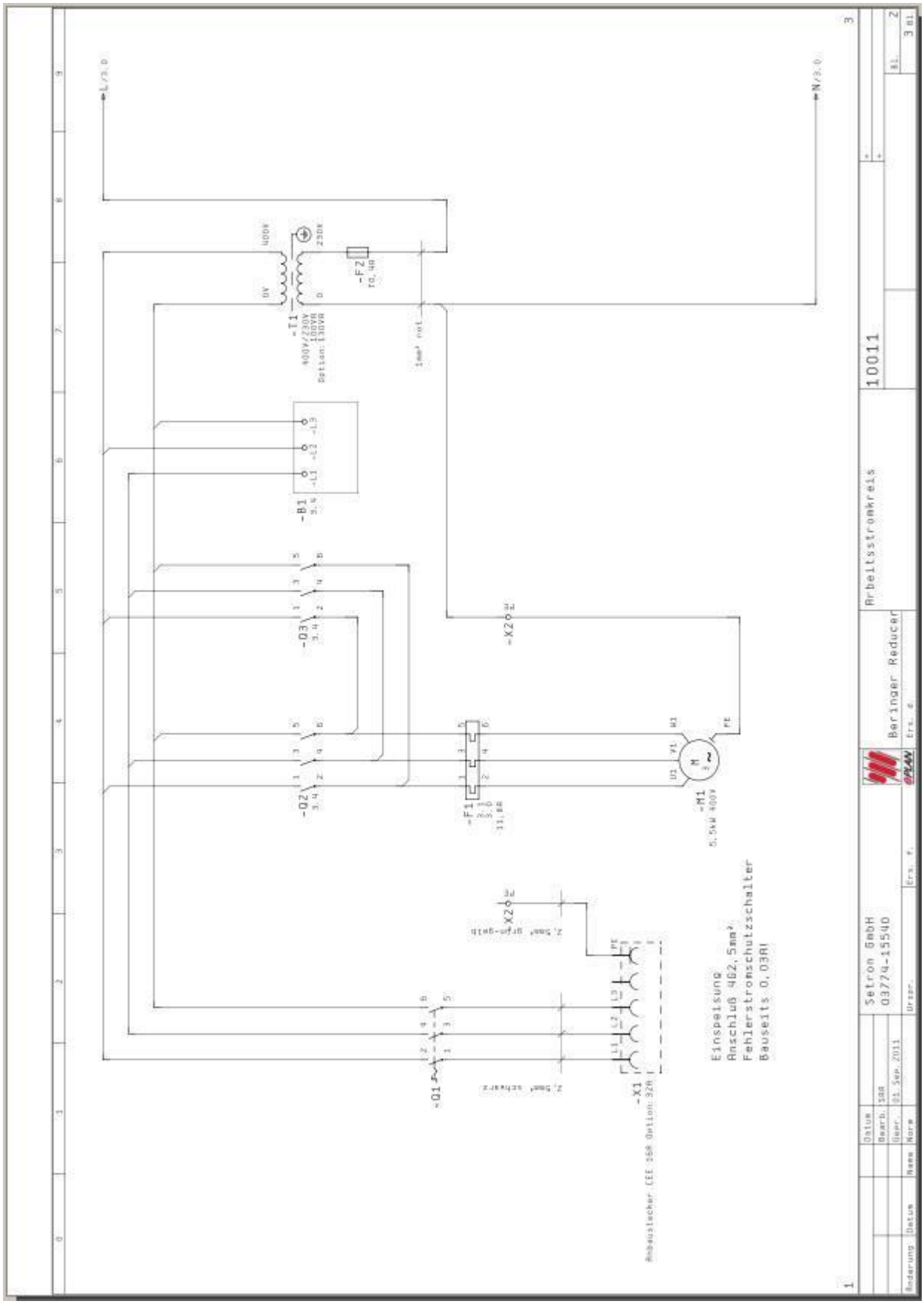
5.4 Electronic Plan



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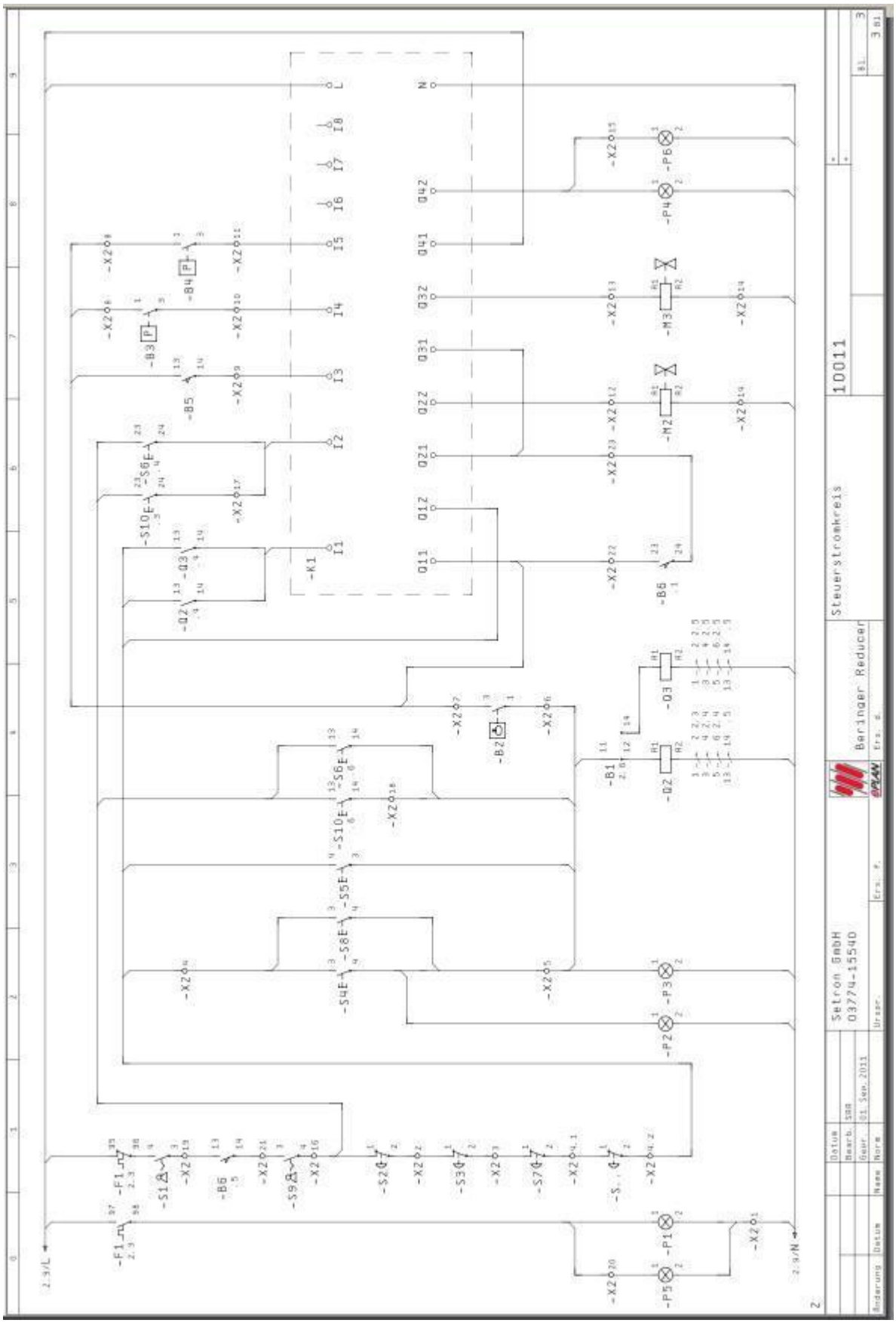

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Parts List Electric Plan

Descr.	Descr. (old)	Article
S1	S1	Key switch
S2	S2	Emergency OFF
S3	S3	Emergency OFF control panel (2 parts)
S4	S4	Operation ON control panel (2 parts)
S5	S5	Operation ON
S6	S6	Emergency stop
S7		Emergency OFF option with remote control
S8		Operation ON option with remote control
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	T1	Control transformer 400V/230V
M1	M1	Motor hydraulic pump
M2	Y1	Magnet valve compactor forwards
M3	Y2	Magnet valve compactor backwards
K1	A1	Logic tool
P1	H1	Disturbance
P2	H2	Operation ON control panel (2 parts)
P3	H3	Operation ON
P4	H4	80% fill level signal
P5		Disturbance option remote control
P6		80% full option remote control
X1		Plug CEE16A or Option CEE32A
X2	X1	Terminal strip
X3		Socket 24 pol.
B1	d1	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 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.(32 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.

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[ ] check if main switch is in ON position

[ ] 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 header is clean

[ ] 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:_____

_____

_____

_____

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Supposed reason for damage:_____

_____

with this signature you declare that you checked the above mentioned points and you agree with our service conditions. (see attachment)

Service order placed: _____

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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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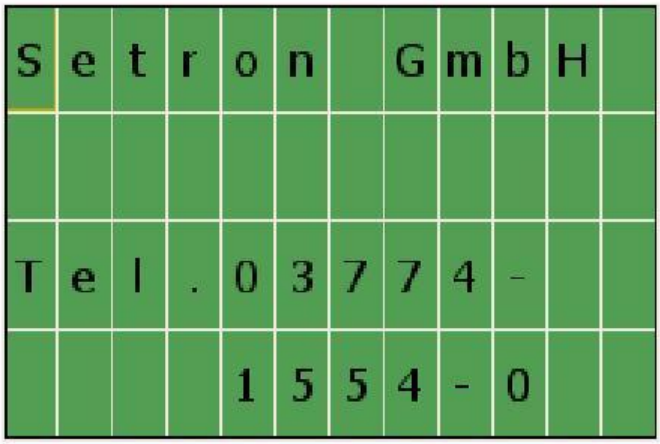
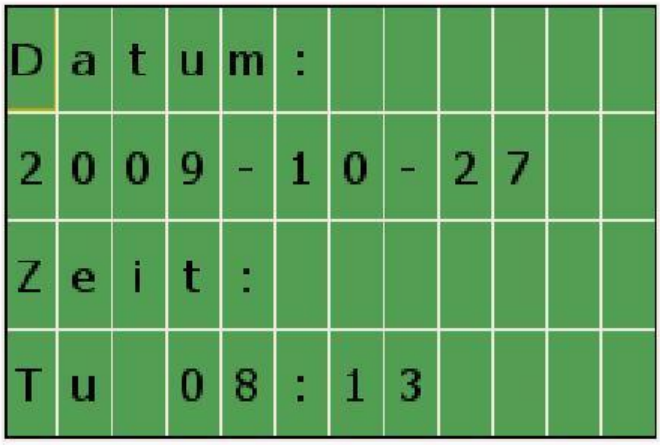
1. Parameterization Siemens Logo Module

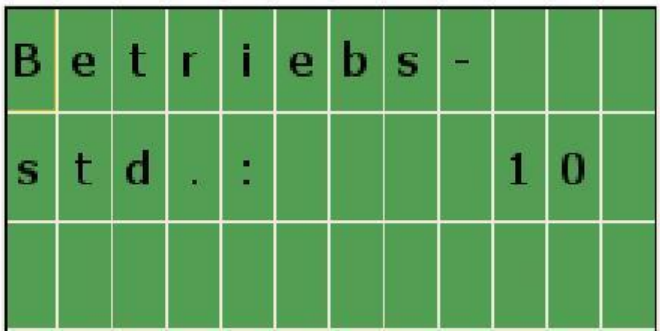
1.1 Select parameter menu

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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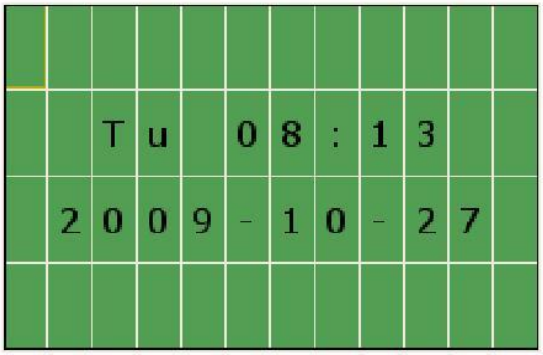
Afterwards the following screen appears in the display:



Press „ESC“ .

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

Select „ParamSetzen“

To confirm selection press: „OK“

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

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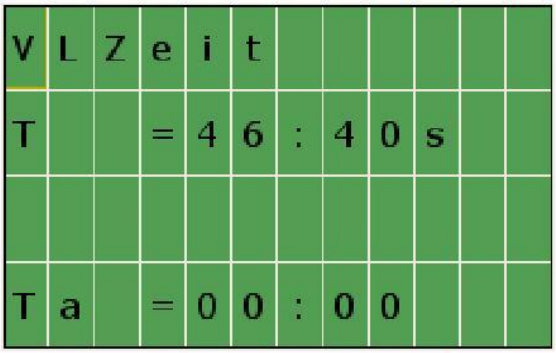
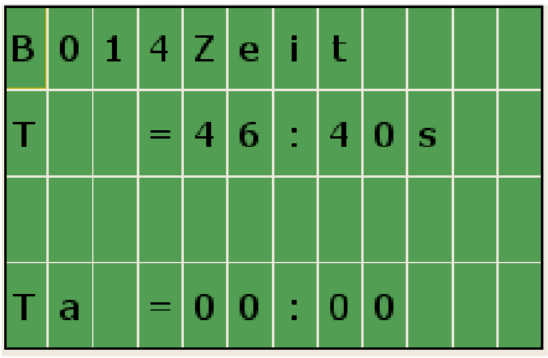
1.2 Adjust lead time

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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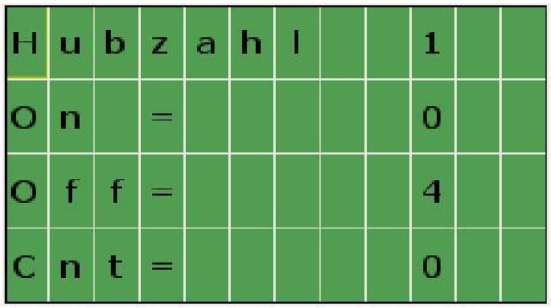
1.3 Adjust stroke rate

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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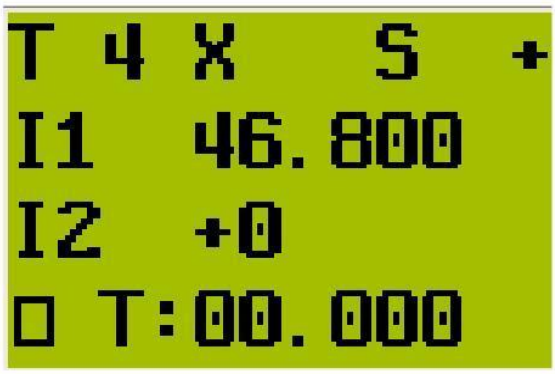
2.2 Adjust lead time

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 “I1”. 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 your manufacturing number before calling.

The change of lead time leads to loss of guarantee and warranty for the reducer.

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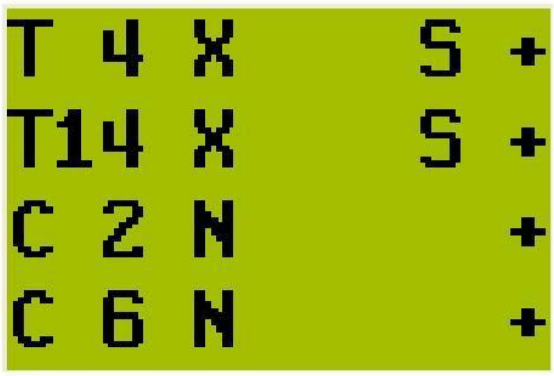
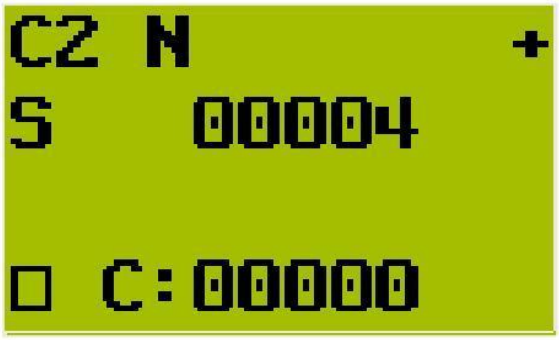
2.3 Adjust stroke rate

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 the parameter “S” with the arrow keys. Confirm 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 compacting unit.	Check the pressure switch 180 bar (B3). Plug off B3 or clamp the cable off the control box.
Motor hums – doesn't rotate, fuse actuates	Check the feed pipe for disturbances and check function of hydraulic gates Q2, Q3 and the phase sequence relay B1.
By customers RCD actuates	Check the feed cable and the pipes in the compacting unit 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 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 oil deficiency 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 control 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-time cycle of the reducer.

4.3 Guarantee and warranty

Subject to our general terms and conditions.

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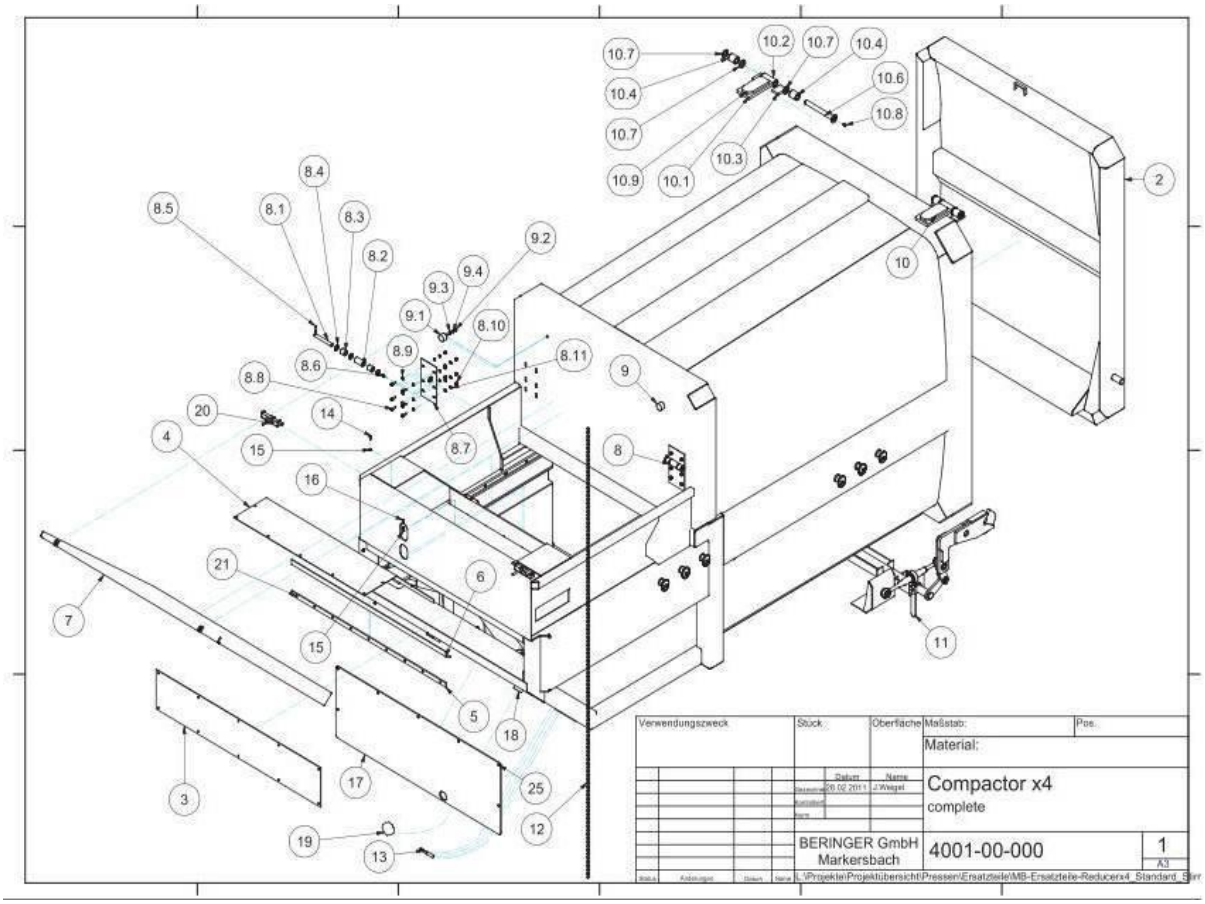
5.7 Spare Parts Lists



Spare parts list for compactor x4 complete variation according to drawing number 4001-00-000

POS	Pcs.	Article	Artikel	Order Number
1		header, complete	Presskasten, komplett	-
2	1	door, complete	Tür, kompl.	EP198
3	1	maintenance sheet 1600 x 320 mm	Wartungsblech 1600 x 320 mm	EP81
4	1	aggregate lid	Aggregatdeckel	EPD045
5	1	flat bar	Flacheisen	EP150
6	1	wiper (rubber) 100x7x320 mm	Absteifer (Gummi) 100x7x1500	EP48
7	1	lid, complete	Deckel, kompl.	EP207-K
8	2	hinge, complete	Scharnier, komplett	EP76-K
8.1	2	bolt, complete	Bolzen, kompl.	ABC02B
8.2	2	socket D38x70	Buchse D38x70	EPD008
8.3	4	socket D38x35	Buchse D38x35	EPD046
8.4	6	washer DIN 125-A23	Scheibe DIN 125-A23	EPD011
8.5	2	splint 5 x 40	Splint 5 x 40	EPD068
8.6	2	grease nipple M10x1	Schmiernippel M10x1	ABC57
8.7	2	hinge sheet	Scharnierblech	EPD062
8.8	12	hex screw DIN 933, M10x30	Sechskantschraube DIN 933, M10x30	EPD009
8.9	12	snap ring DIN 127-A10	Federring DIN 127-A10	EPD010
8.10	12	hex screw DIN 934 M10	Sechskantmutter DIN 934 M10	EPD013
8.11	24	washer DIN 125 - A 10,5	Scheibe DIN 125 - A 10,5	EPD012
9	2	ingate rubber, complete	Anschlaggummi, kompl.	-
9.1	2	ingate rubber	Anschlaggummi	EP116
9.2	1	hex screw DIN 934 M10	Sechskantmutter DIN 934 M10	EPD013
9.3	1	washer DIN 125 - A 10,5	Scheibe DIN 125 - A 10,5	EPD012
9.4	1	snap ring DIN 127-A10	Federring DIN 127-A10	EPD010
10	2	hinge (rotary lock)	Scharnier Pendelklappe, kompl.	-
10.1	2	flat bar	Flacheisen	as set EP145-X4
10.2	2	socket D51x120	Buchse D51x120	
10.3	4	flat bar 70x60x15	Flacheisen 70x60x15	as set EP145-K
10.4	4	socket D51x60	Buchse D51x60	
10.5	4	washer DIN 125-A31	Scheibe DIN 125-A31	EPD021
10.6	2	bolt	Bolzen	EP145
10.7	2	washer DIN 125-A31	Scheibe DIN 125-A31	EPD021
10.8	2	grease nipple, M10x1	Schmiernippel, M10x1	ABC57
10.9	2	reinforcement	Verstärkung	incl. Pos. 10.1
11		interlock complete (see spare parts list interlock)	Verriegelung, kompl. (Siehe Erstatzteilliste Verriegelung)	-
12	1	chain	Kette (bei Bestellung Länge der Kette angeben)	EP36-1
13	6	hinge maintenance door/ aggregate lid	Scharnier Wartungstüren/Aggregatdeckel	EP110-1
14	9	hex screw M8x25	Sechskantschraube M8x25	EPD048
15	34	washer DIN 125 - A 8.4	Scheibe DIN 125 - A 8.4	EPD001
16	18	safety screw M8x20	Sicherungsschraube M8x20	EPD049
17	1	maintenance door 1600 x 580 mm	Wartungstür 1600 x 580 mm	EP161
18	1	pipe 2"	Anschweißstutzen 2"	ABC43GS
19	1	BS 3692 - M52 x 125 cover	BS 3692 - M52 x 125 2" Abdeckkappe	ABC66
20	2	sliding bock	Schiebebock	ABM19S
21	7	hex screw M8x30	Sechskantschraube M8x30	EPD050
22	1	rubber flap (front sides), 4,5 m	Gummi Klappe vorn, 4,5 m (bei Bestellung Menge angeben)	ABC24R
23	1	rubber for rear flap (backsides), 8 m	Gummi für Heckklappe, 8 m (bei Bestellung Menge angeben)	ABC24P
24	1	rubber for lid, 5 m	Gummi für Deckel, 5 m (bei Bestellung Menge angeben)	ABC24R
25	24	hex screw M8x25	Sechskantschraube M8x25	EPD048

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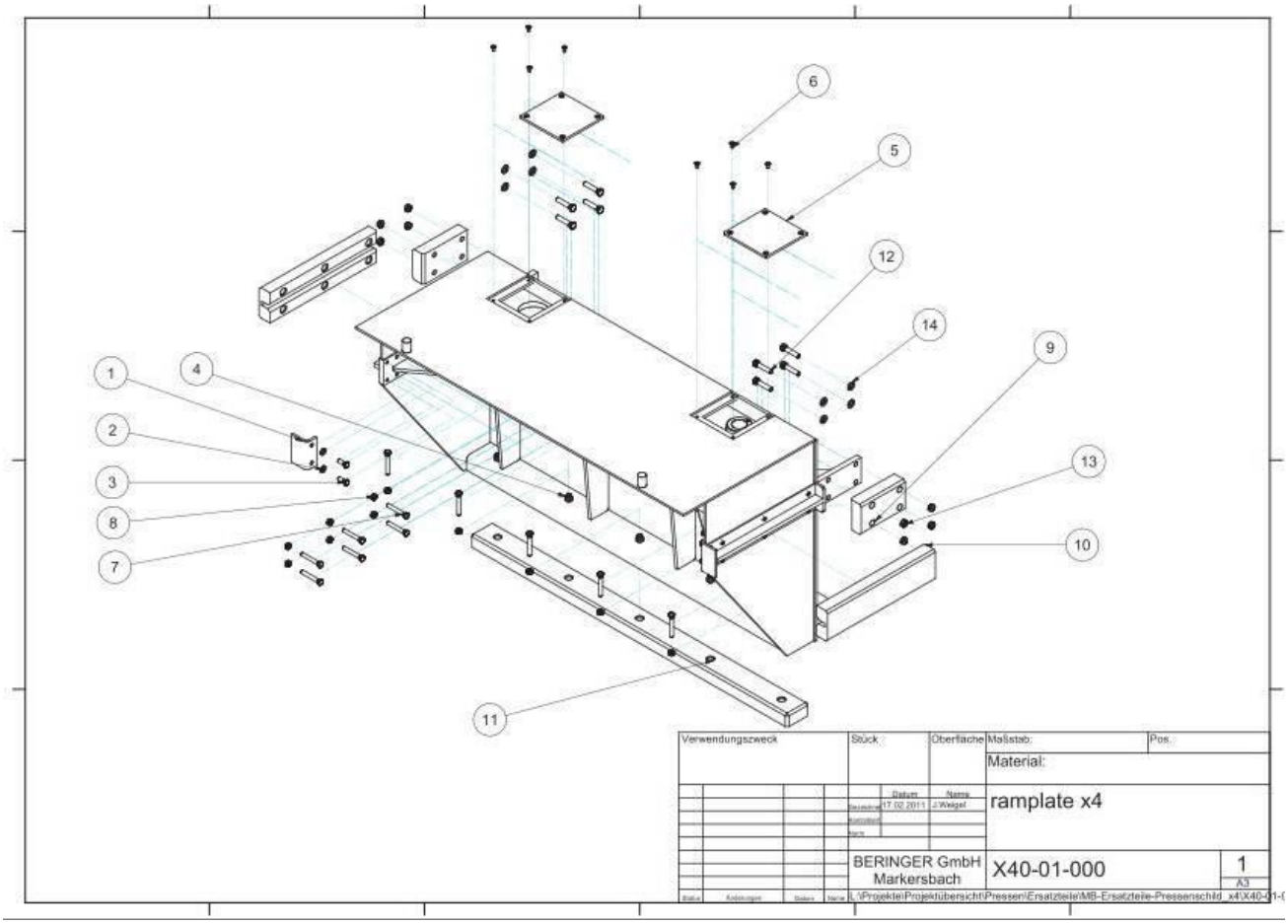

Spare parts list for ram plate x4 according to drawing number X40-01-000				
POS	Pcs.	Article	Artikel	Order Number
1	2	bent profile	Kantprofil	EP41
2	4	washer DIN 125-A 13	Scheibe DIN 125-A 13	EPD031
3	4	screws M12 x 30	Schraube M12 x 30	EPD020
4	5	thread nipple M12 V2A	Gewindenippel M12 V2A	EPD035
5	2	cover sheet 189 x 193 mm	Abdeckblech 189 x 193 mm	EPD069
6	8	counter sunk screw imbus M8 x 16 VZ 912	Senkkopfschrauben Innensechskant M8 x 16 VZ 912	EPD037
7	17	screws M12 x 70 mm V2A 933	Schrauben M12x70 mm V2A 933	EPD051
8	17	nuts M12 galv. 934-8	Muttern M12 verz. 934-8	EPD019
9	2	guide rail sideways (120 x 50 x 200)	Gleitschienen seitlich (120 x 50 x 200)	EP43
10	2	guide rail sideways (120 x 50 x 490)	Gleitschienen seitlich (120 x 50 x 490)	EP44
11	1	guide rail bottom (120 x 50 x 1440)	Gleitschiene Boden (120 x 50 x 1440)	EP45
12	8	screws M14 x 65 three quarter spindle	Schrauben M14 x 65 (Dreiviertelschaft)	EPD052
13	8	nuts M14	Muttern M14	EPD053

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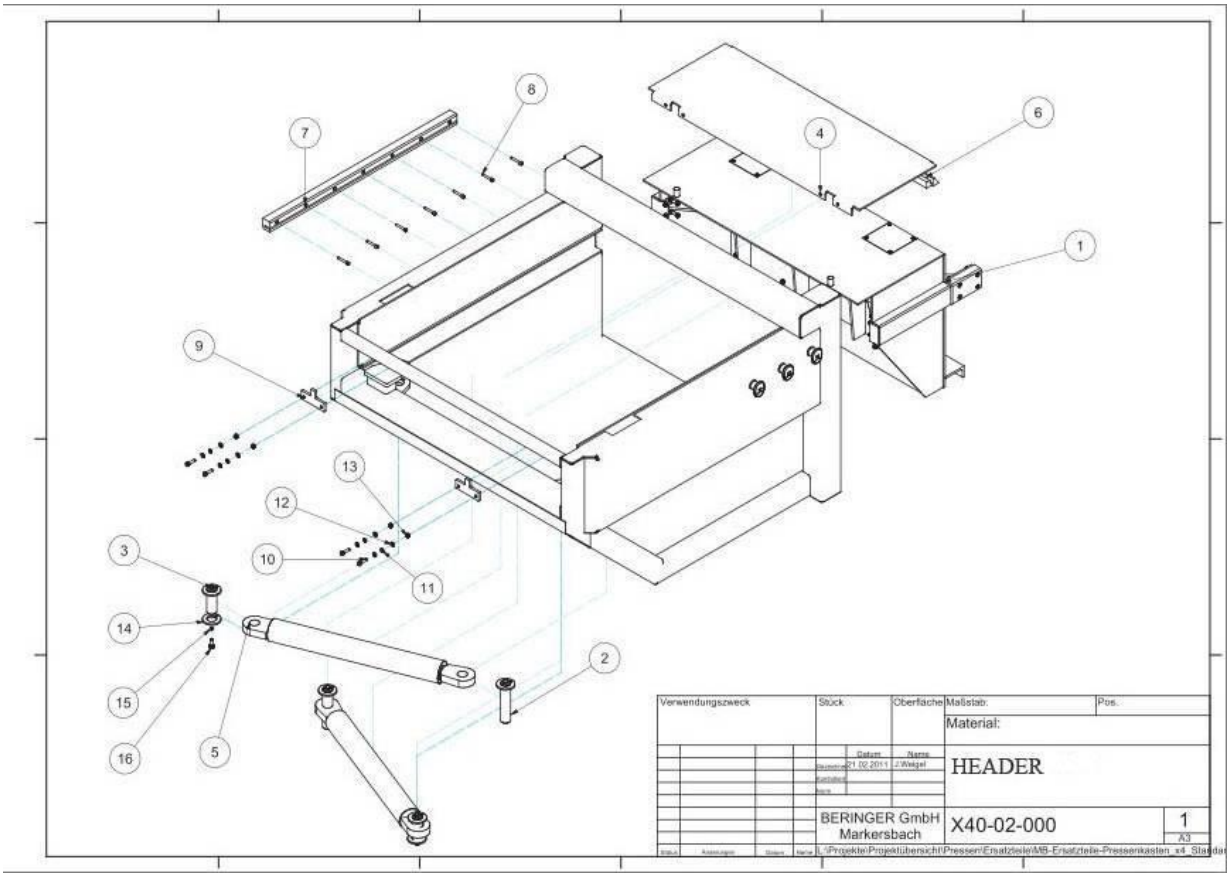

Spare parts list for header according to drawing number X40-02-000

POS	Pcs.	Article	Artikel	Order Number
1	1	ram plate, x4	Pressenschild lose X4	EP165
2	2	bold big, complete	Bolzen groß, kompl.	EP65L
3	2	bolt small, complete	Bolzen klein, kompl.	EP65K
4	1	drawer	Schleppblech	EP55
5	2	jack, complete	Zylinder, komplett	EP28
6	1	wiper 70x45x1385 EPS	Abstreifer 70x45x1385 EPS	EP47
7	2	guide rails 60x50x1300 EP4	Führungsschienen 60x50x1300 EP4	EP46
8	14	imbus M10x60 DIN 312	Innensechskantschraube M10x60 DIN 912	EP153-K
9	2	actuator sheet 12 mm	Mitnehmer Blech 12 mm	EP37
10	4	hex screw M12x45 DIN 933 VZ	Sechskantschraube M12x45 Din 933 VZ	EPD029
11	4	snap ring DIN 128 - A12	Federring DIN 128 - A12	EPD030
12	8	washer DIN 125 - A13	Scheibe DIN 125 - A13	EPD031
13	4	nut M12 galv. 934-8	Mutter M12 verz. 934-8	EPD019
14	2	washer sheet 8 mm	Scheibe, Blech 8 mm	EPD028
15	2	snap ring DIN 128 - A16	Federring DIN 128 - A16	EPD054
16	2	screw M16x35 DIN 933	Schraube M16x35 DIN 933	EPD055

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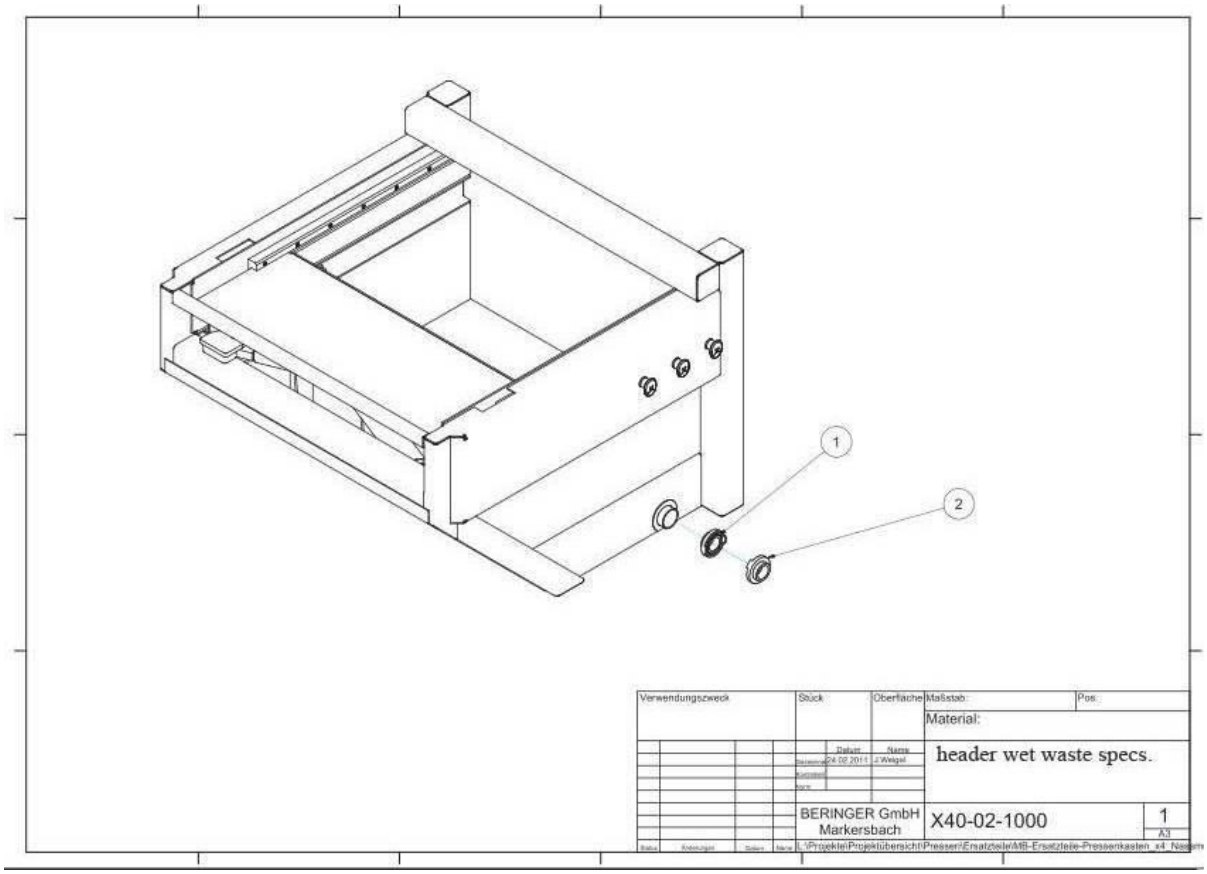

Spare parts list for header wet waste according to drawing number X40-02-1000				
POS	Pcs.	Article	Artikel	Order Number
1	2	aluminum fix coupling 3" AG KA 89 75 D	Alu-Festkupplung 3" AG KA 89 75 B	as set EP213
2	2	blind coupling	Blindkupplung 75B Alu	
		all other spare parts see header x4 standard	alle anderen Ersatzteile wie Pressenkasten x4 Standard	

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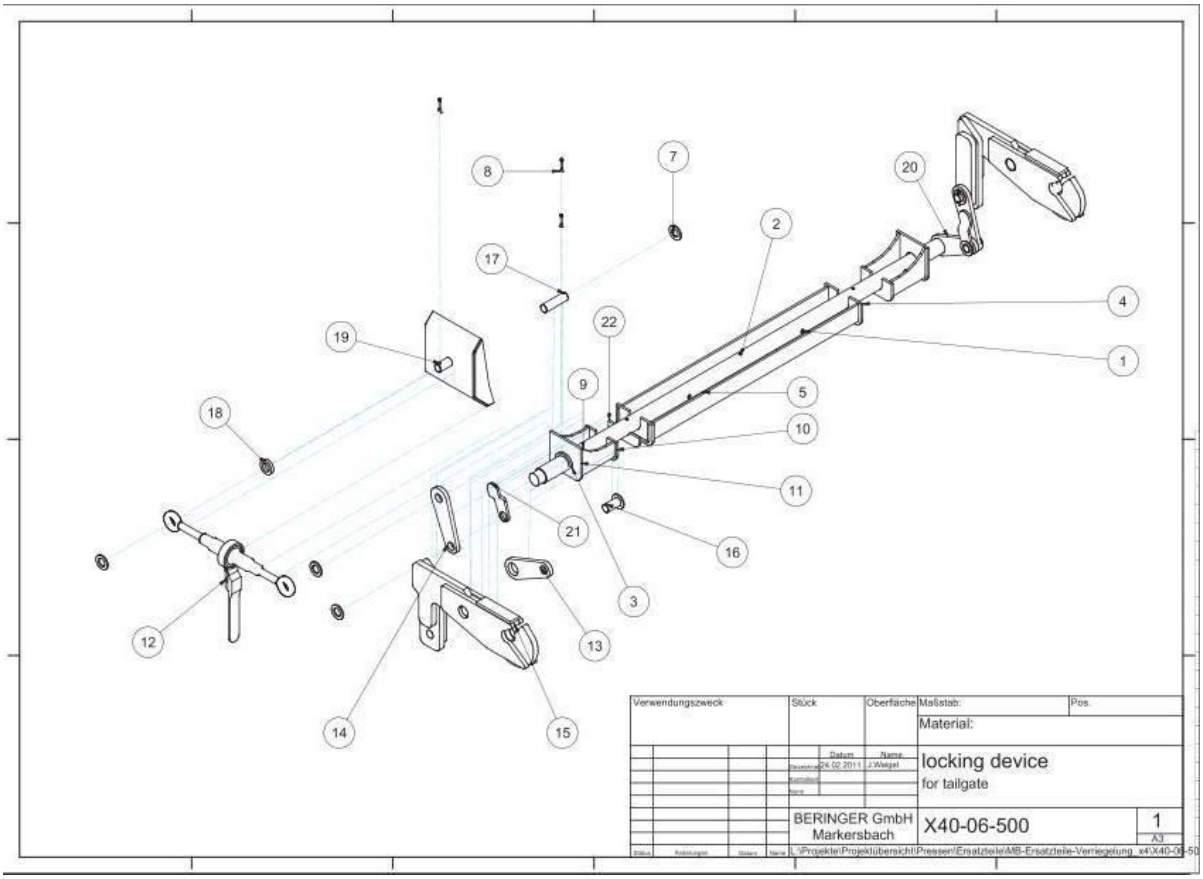

Spare parts list for locking device for tailgate (rotary lock) according to drawing number X40-06-500

POS	Pcs.	Article	Artikel	Order Number
1	1	pipe D51	Rohr D51	as set EPD063
2	1	flap tube cam lobe	Klappenrohr Welle	
3	2	hald washer (fixation)	halbe Scheibe (Fixierung)	
5	1	cover: pipe (bottom)	Abdeckung Rohr unten	
6	2	strap	Lasche	
7	9	washer DIN 125 - A 29	Scheibe DIN 125 - A 29	EPD056
8	4	splint DIN 34 - 5 x 36	Splint DIN 94 - 5 x 36	EPD057
9	2	u section cover pipe outsides	U-Profil Abdeckung Rohr aussen	included in the set EPD056
10	2	cover insides	Abdeckung innen	
11	2	cover outsides	Abdeckung aussen	
12	1	ratch	(Ratsche)	EP14
13	1	deflection strap for torsional wave	Umlenklasche für Torsionswelle	EPD070
14	2	deflection strap for hook	Umlenklasche für Verriegelungshaken	EPD071
15	2	lock hook	Verriegelungshäken	EP155
16	2	round bar D28, 58 mm long	Rundstahl D28, 58 mm lang	EPD058
17	2	round bar D28, 95 mm long	Rundstahl D28, 95 mm lang	EPD059
18	1	ring 10 mm, ø outside 50 mm, ø innen 30 mm	Ring 10 mm, ø außen 50 mm, ø innen 30 mm	EPD060
19	1	bolt (fixation ratch) 100 mm long	Bolzen (Ratschenhalter) 100 mm lang	EPD061
20	1	deflection strap for torsional wave	Umlenklasche für Torsionswelle	EPD070
21	2	reinforcement strap	Verstärkungslasche Innenteil	EPD072

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5.5 Declaration of Conformity

EC – Declaration of Conformity

According to 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

Manufactured in
86704 Tagmersheim

Date/Place:_____ Signature_____

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Additional User's manual

BERINGER
Integrated bin lifter

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1. Safety instructions

1.1 Obey to safety instructions as well as service and maintenance guidelines, described in compactor's user's manual.

1.2 The integrated bin lifter should only be operated by trained staff.

1.3 No persons are allowed to be in the operation area of integrated bin lifter.

1.4 The waste bin has to be inserted completely into the lifting arms. Otherwise you risk, that the waste bin falls off during lifting or tipping.

1.5 If you are empting waste bins 660 – 1100 Liters capacity, check before operation if the automatic lock on lifting arms is flexible. Please watch during lifting, if automatic lock is locking.
If you are empting waste bins 120 – 360 Liters capacity, check before operation, if comb bar is fixed.

1.6 Reducer's lid has to be fully open during lifting and tipping.

1.7 Reducer's power unit has to be switched off during closing and opening of lid above feed opening.

1.8 Waste bins have to comply with relevant norms and should not exceed max. payload.

1.9 Furthermore the waste bins should not be damaged when you use them with the integrated bin lifter Especially the comb bar or trunnions have to be in good condition

1.10 Make sure that no human being is in the waste bin before you put it into the integrated bin lifter.

1.11 It is strictly forbidden, that persons are lifted with the integrated bin lifter.

1.12 Staff operating the integrated bin lifter has to wear appropriate safety garment (helmet, gloves, etc.)

1.13 The integrated bin lifter is not appropriate for operation in explosive areas (e. g. chemical plants).

1.14 The lid opener of the integrated bin lifter opens lids of 1,1 cbm waste bins with dome lid.

1.15 The BERINGER integrated bin lifter which is equipped (optional) with a lid opener, only bins (1,1 cbm) according to DIN EN 840-1 and DIN EN 840-3 can be emptied. Bins according to DIN EN 840-2 can be emptied with BERINGER integrated bin lifter, if flat lid is opened before empting.
Waste bins according to DIN EN 840-3 can only be emptied with a lid opener.

1.16 Overlaying material has to be removed before empting.

1.17 Never operate a damaged integrated bin lifter.

1.18 Provide enough light in dark areas.

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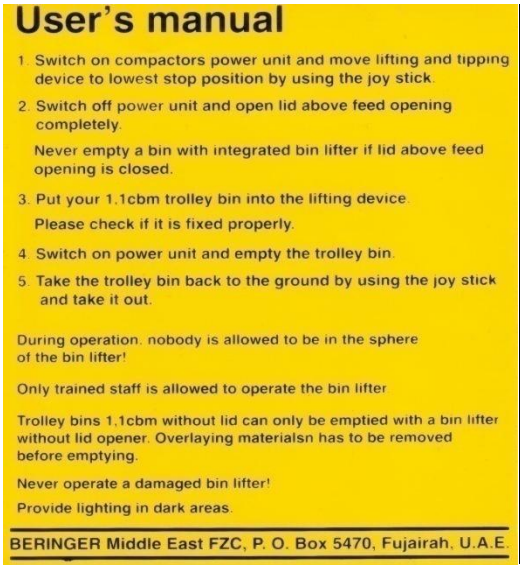
1.19 Never grasp into the tipping device.

Stickers



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2. Description

2.1 Intended use

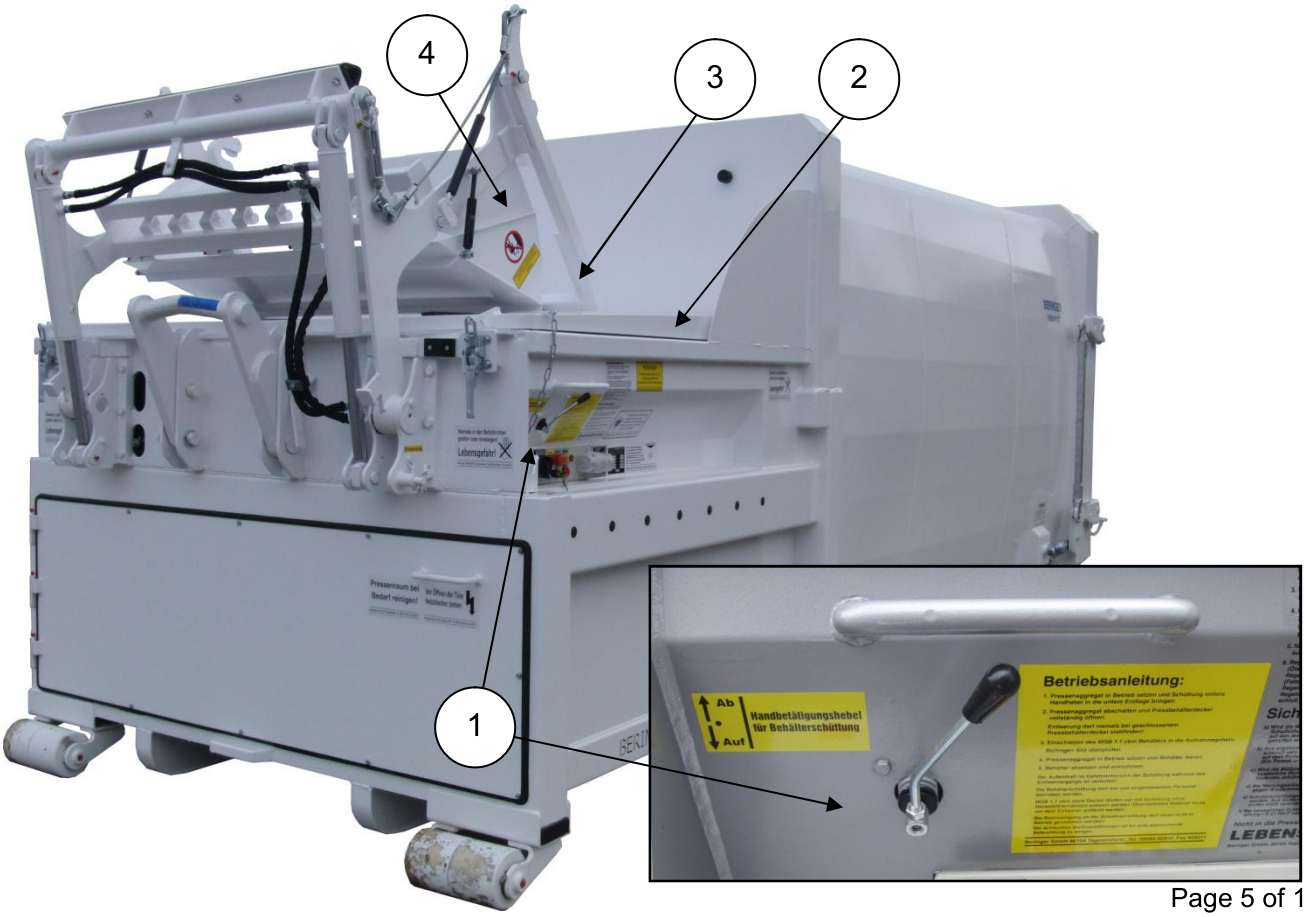
The BERINGER integrated bin lifter is appropriate for filling of BERINGER reducers with waste bins according to EN 840-1, EN 840-2 und EN 840-3; volume from 120 to 1100 Liters.

BE AWARE Obey to safety instruction 1.15

BERINGER integrated bin lifter can empty bins with comb bar as well as bins with trunnions.

2.2 Description of main parts

1 Control valve for integrated bin lifter
2 Lid above feed opening
3 Lid opener (optional)
4 Sheet for integrated bin lifter



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3. Initial operation

Operating staff must be familiar with the user's manual of reducer and integrated bin lifter.
The user of reducer and integrated bin lifter is responsible for safety briefing and training of staff.

If the reducer is filled with an integrated bin lifter and the lid above reducer's feed opening is closed, lid and integrated bin lifter might be damaged.

3.1 Put integrated bin lifter in operation position

Operation of integrated bin lifter can be controlled with a hand level valve, which is installed above control panel.

- Switch on reducer
- Put BERINGER integrated bin lifter in the lower end position, by pushing the hand level valve up.
- Fix rope and spanner nut

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3.2 Emptying of waste bins 660/770/1100 liters

The waste bins according to DIN EN 840-2 and DIN EN 840-3 can be lifted with the arms of integrated bin lifter.

Be Aware obey to safety instruction 1.15

1. Put BERINGER integrated bin lifter in operation position according to 3.1.
2. Open lid above compactor's feed opening, while compactor is switched off. Switch on compactor when lid is open.
3. Put waste bin between the lifting arms. Make sure, that trunnions fit into the automatic lock. (adjust if necessary with hand level valve).
4. Lift waste bin slightly with hand level valve and check if trunnions are locked. The trunnions will be locked until bin is empty and back on ground.
5. By pulling the hand level valve, the waste bin can be emptied again.
6. When waste bin is in the upper end position, the waste falls into the reducer.
7. Push the hand level valve in order to put the waste bin in the lower end position.

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3.3 Emptying of waste bins 120/240/360 liters

Trolley bins according to DIN EN 840-1 can be lifted by comb bar.

Be aware
obey to safety instruction 1.15

1. Put BERINGER integrated bin lifter in operation position according to 3.1
2. Open lid above compactor's feed opening, while compactor is switched off. Switch on compactor when lid is open.
3. Put waste bin into comb bar lock. Make sure, that comb bar fits into the lock.
4. Lift waste bin slightly with hand level valve and check if comb bar is locked. The comb bar will be locked until bin is empty and back on ground.
5. By pulling the hand level valve, the waste bin can be emptied again.
6. When waste bin is in the upper end position, the waste falls into the reducer.
7. Push the hand level valve in order to put the waste bin in the lower end position.

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3.4 Put integrated bin lifter in transport position

Check before transport that no waste bin is in the integrated bin lifter.
Close lid of compactor's feed opening when integrated bin lifter is in the lower end position and compactors is switched off. Switch on compactor and put integrated bin lifter in the upper end position. Fix rope and spanner nut.
Now the compactor with integrated bin lifter is in transport position (see picture) and can be picked up.

Note that compactor and integrated bin lifter can be damaged if it is not in transport position.

Driver is responsible for load safety!

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4. Disturbances

Please read instructions for diagnostic-fault finding on reducer first.

Disturbance	Reason	Solution
BERINGER integrated bin lifter doesn't move any more	Reducer is switched off	Switch on Reducer
	overload	The max. payload of integrated bin lifter has been exceeded; make bin lighter
Lid opener doen't open lid any more	Counter rope and shackle are not fixed properly	Fix counter rope and shackle

In case those instructions don't help to solve the problem, please call BERINGER service staff.

5. Maintenance

Generally we advise you to conclude a service contract with the manufacturer. Periodical inspections by an expert ensure safety and a long life-time cycle of the compactor.

Please ask for a quotation concerning the service contract

Be Aware
Disconnect from power supply during maintenance work.

Maintenance consists of the following works:
- Inspection of locks for waste bins.
- Continuous inspection of hydraulic pipes and connections for leaks.
- Periodical lubrication of swivels and hinges with multi-purpose grease.
- Inspection of hydraulic system
- General checks

5.1 Periodical maintenance

weekly
- Check all hydraulic parts for leaks (especially hydraulic connections)
- Check all hydraulic pipes for damages

quarterly
- Lubricate BERINGER integrated bin lifter according to lubrication plan (see chapter 6.1)

Only use original spare parts in order to guarantee proper functioning.

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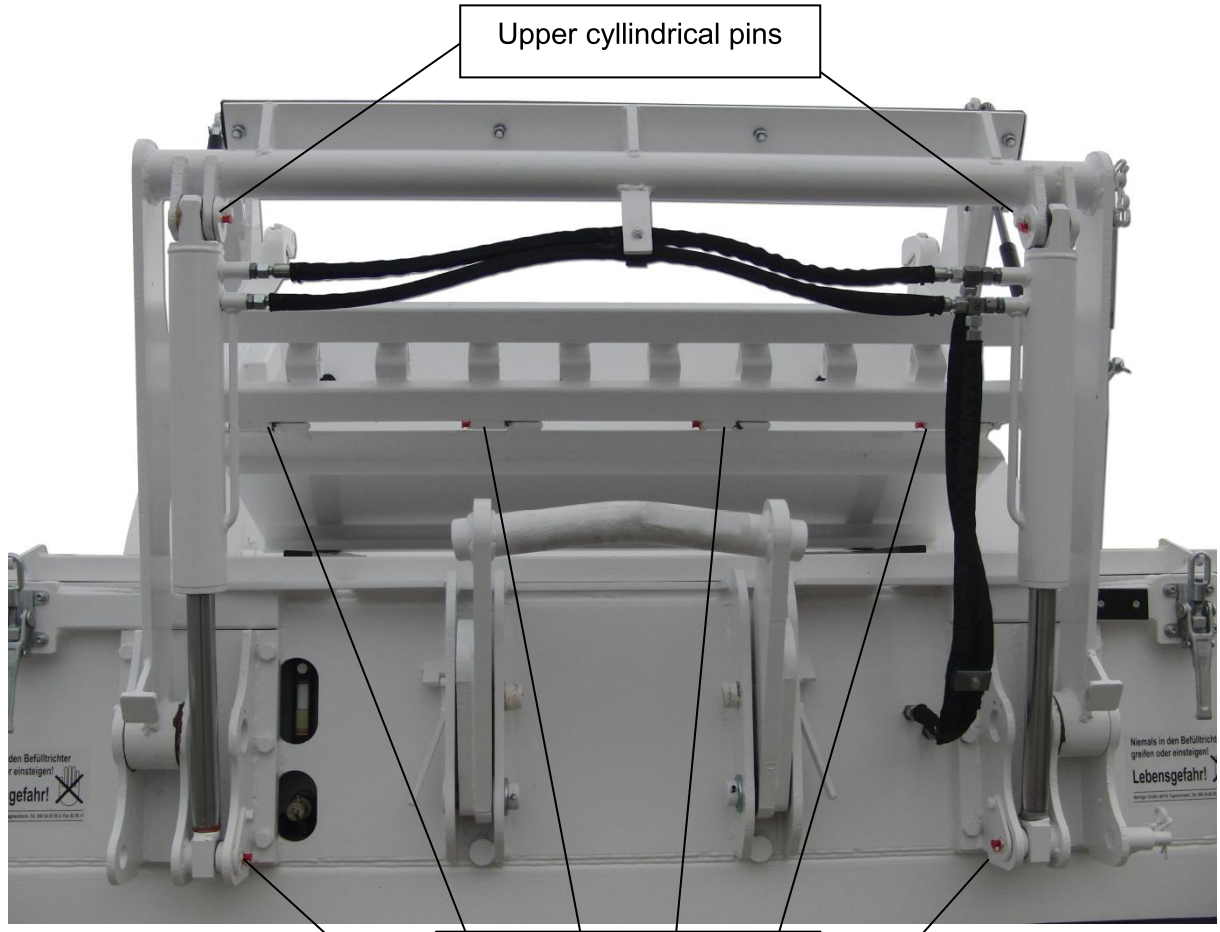
6. Appendix

6.1 Lubrication plan for integrated bin lifter
(completes lubrication plan of)



lubricate	interval
Multi-purpose grease	As required

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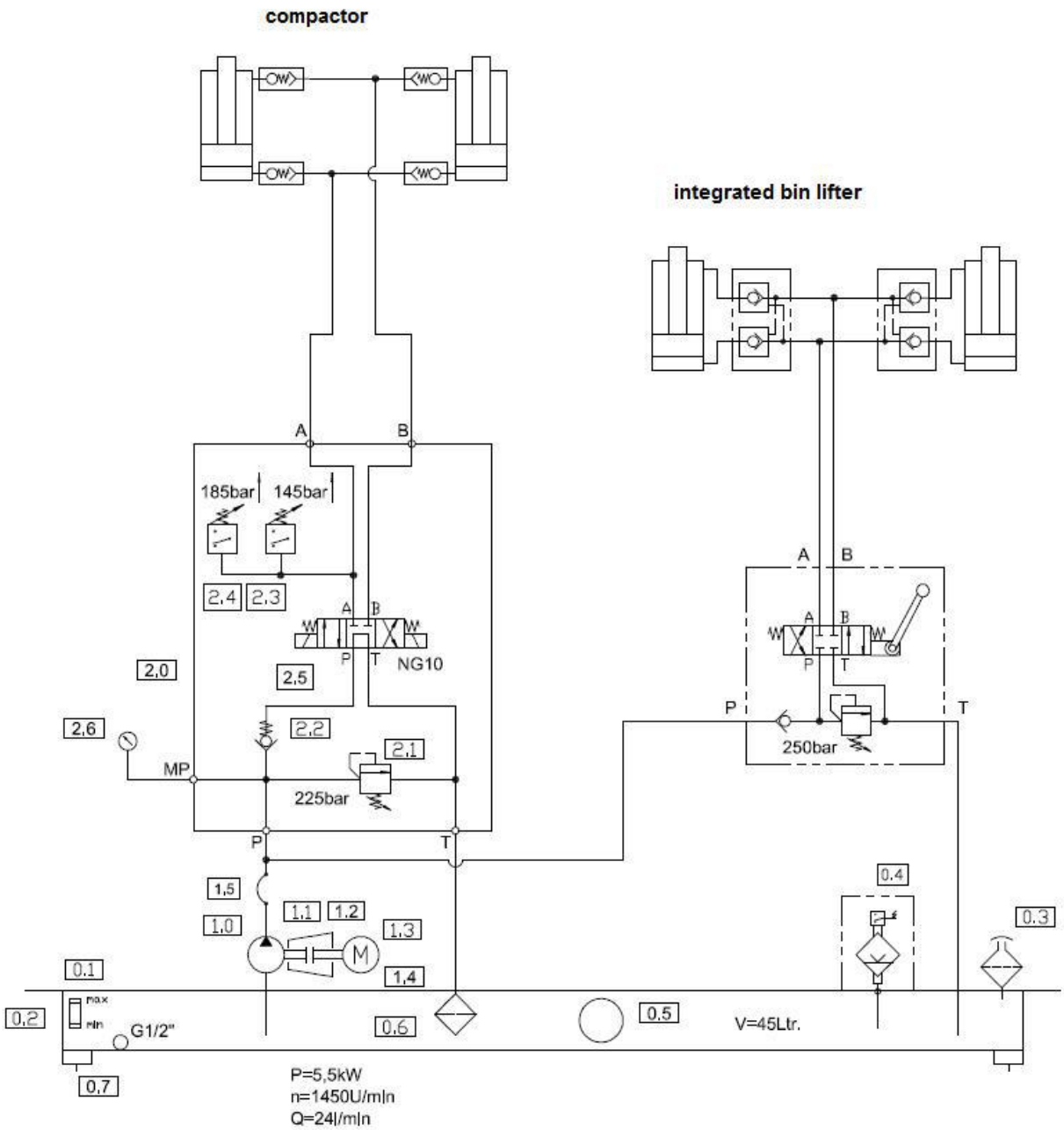
6.2 Hydraulic plan with parts list

(replaces compactor's hydraulic plan)



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6.3 Hydraulic plan with parts list

(replaces compactor's hydraulic plan)

Pos.	Pieces	Article	Artikel	Order Number
0.1	1	Oil tank 500x350x330	Sonderölbehälter 500x350x330	EPHY01
0.2	1	Oil level indicator ÖS 127	Ölstandsanzeige ÖS 127	EPHY02
0.3	1	Breather filter	Einfüll- und Belüftungsfilter	EPHY03
0.4	1	Oil deficiency switch	Niveauschalter (Ölmangelschalter)	EPHY04
0.5	1	Cleaning lid complete	Reinigungsdeckel komplett	EPHY05
0.6	1	Oil filter	Filter (Ölfilter)	EPHY06
0.7	4	Silent block x4ergo/x5/x6 + pend. compactor 50/20 (M10-thread on both sides)	Silentblock x4ergo/x5/x6 + SK-Pressen 50/20 (M10-Gewinde beidseitig)	EP87
oor	4	Silent block x4 50/40 (M10-thread on both sides)	Silentblock x4 50/40 (M10-Gewinde beidseitig)	EP87-1
1.0	1	Hydraulic pump (HyP)	Pumpe f. Hydraulik (HyP)	EPHY08
1.1	1	Pump flange (oil proof)	Pumpenträger, öldicht	EPHY09
1.2	1	Coupling steel complete for pump (motor hub, pump hub, gear rim)	Kupplung Stahl komplett f. Pumpe (Motornabe, Pumpennabe, Zahnkranz)	EPHY10
1.3	1	E-Motor 5,5 KW (400/590 V)	E-Motor 5,5 KW (400/590 V)	EPHY11
1.4	1	Cork seal / pump support	Korkdichtung / Pumpenträger	EPHY12
1.5	1	Hose pipe	Schlauchleitung	EPHY13
2.0	1	Control block without valves	Steuerblock ohne Ventile	EPHY14
2.1	1	Pressure valve for silent block RPCC-FWN (10-315 bar)	Druckbegrenzungsventil f. Steuerblock RPCC-FWN (10-315 bar)	EPHY15
2.2	1	Blow-off valve for silent block CXBG-XCN	Rückschlagventil für Steuerblock CXBG-XCN	EPHY16
2.3	1	Pressure switch for 80% fill level signal (145 bar)	Druckschalter f. 80% Meldung (145 bar)	EPHY17-145
2.4	1	Pressure switch (185 bar)	Druckschalter (185 bar)	EPHY17
2.5	1	Pressure valve NG10	Wegeventil NG10	EPHY18
2.6	1	Manometer 0-250 bar	Manometer 0-250 bar	EPHY19
3.0+3.1	2	Hydraulic jack (x4) DWZ 100/70 x 750 Hub EBL 1110 mm	Hydraulikzylinder (x4) DWZ 100/70 x 750 Hub EBL 1110 mm	EP28
or	2	Hydraulic jack (x5) DWZ 100/70 x 785 Hub EBL 1620 mm	Hydraulikzylinder (x5) DWZ 100/70 x 785 Hub EBL 1620 mm	EP29
or	2	Hydraulic jack (x6) DWZ 100/70 x 1230 Hub EBL 1620 mm	Hydraulikzylinder (x6) DWZ 100/70 x 1230 Hub EBL 1620 mm	EP30
4.0+4.1	2	Hydraulic jack (bin lifter) 63/40-335-EBL-585	Hydraulikzylinder (HKV) 63/40-335-EBL-585	EP98
4.2+.43	2	Burst pipe protection for hydraulic jack	Rohrbruchsicherung für Hydraulikzylinder	EP209
5.0	1	Hand level valve bin lifter HKV (integrated) With hand level	Handhebelventil HKV (fest angebaut) inkl. Handhebel	EP92

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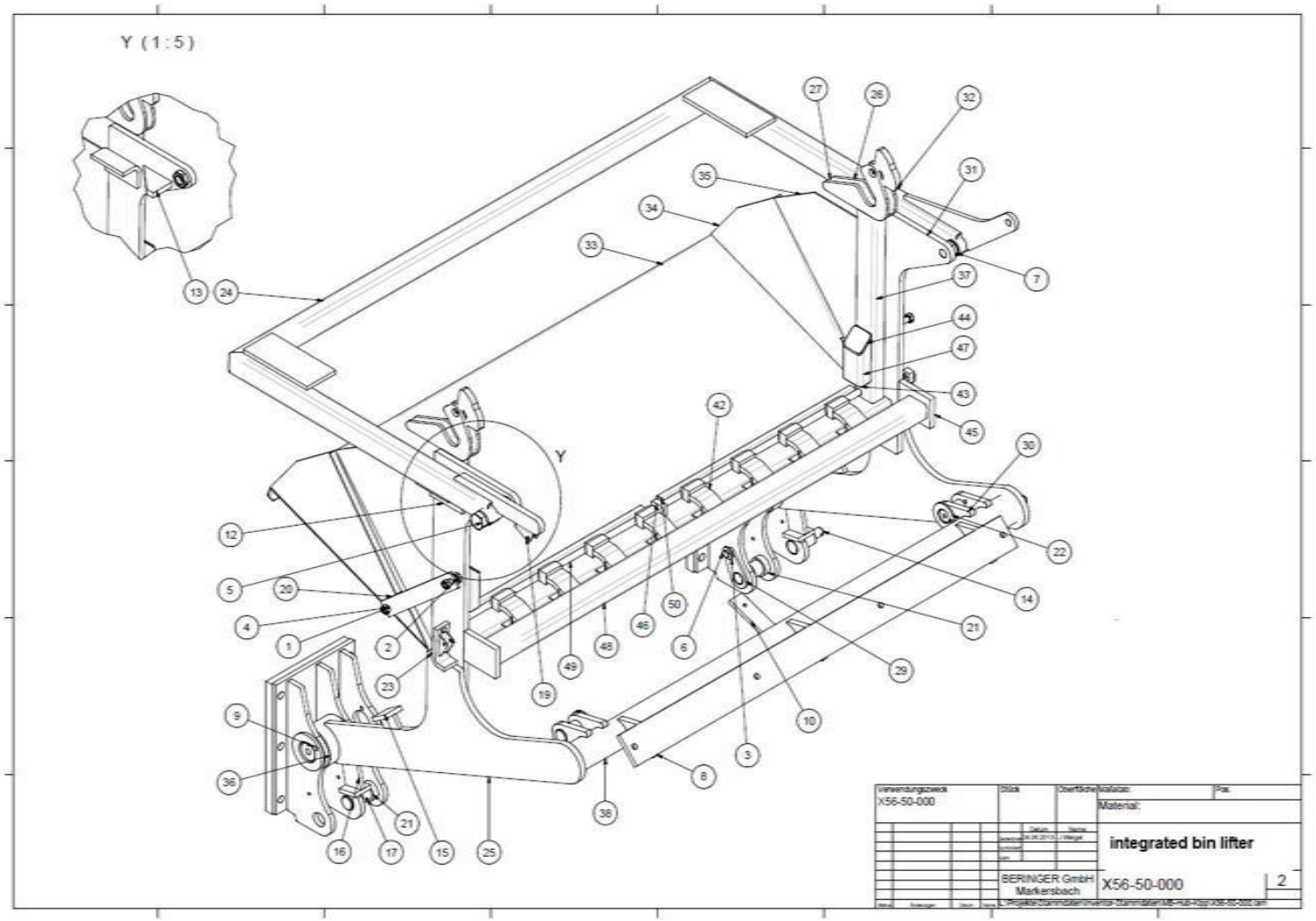
6.3 Partitional drawing and spare parts li



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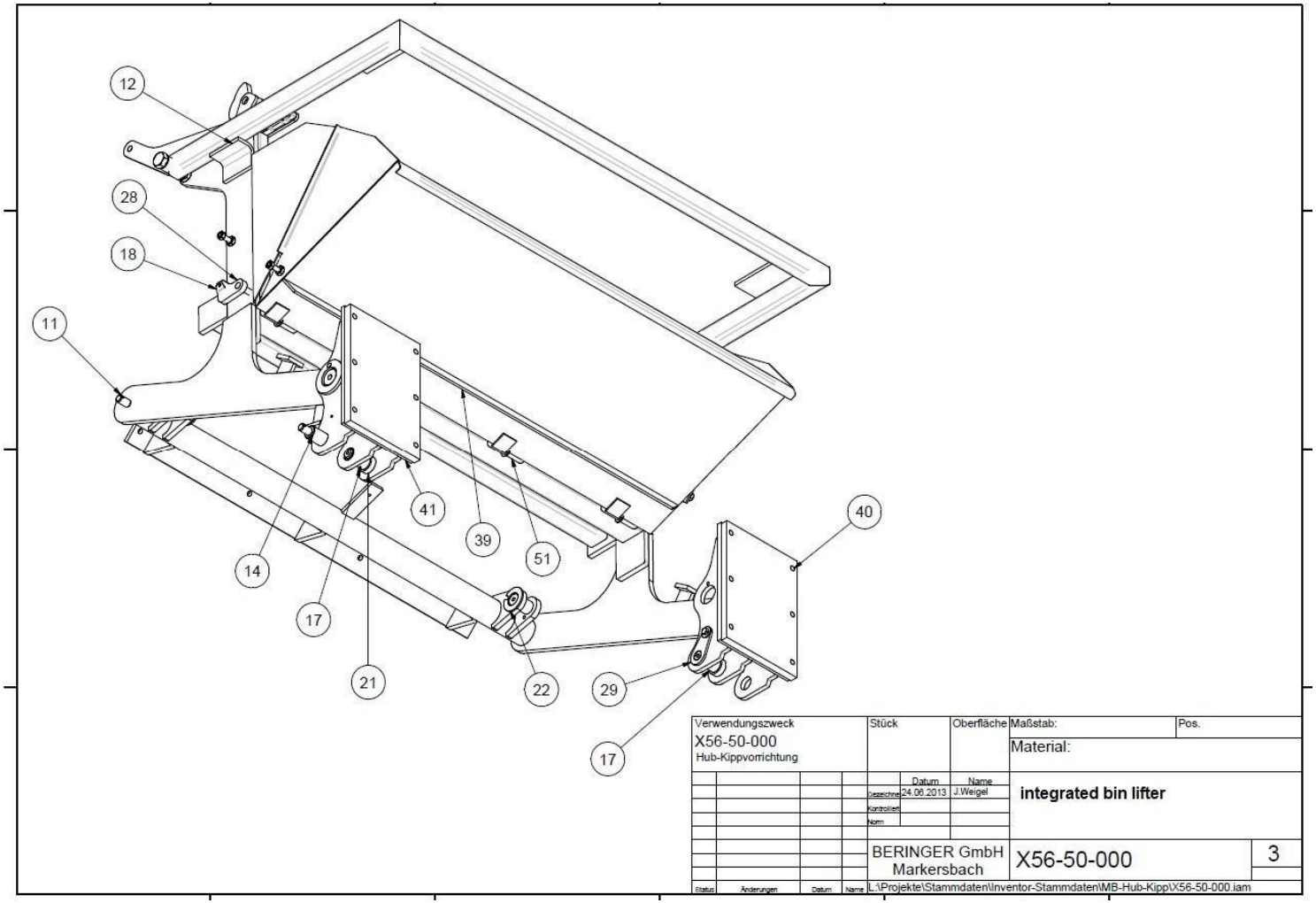

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Spare parts list for compactor with integrated bin lifter

POS	Pcs.	Article	Artikel	Order Number
1	4	Hex nut M 12	Stoppmutter M 12	EPD019
2	4	Hex screw M 12 x 35	Sechskantschraube M 12 x 35	HKVA001
3	2	U-washer ø 10,5 mm	U-Scheibe ø 10,5 mm	EPD012
4	1	U-washer ø 13 mm	U-Scheibe ø 13 mm	EPD031
5	2	hex screw M 24 x 1,5 x 100 half thread	Sechskantschraube M 24 x 1,5 x 100, halbes Gewinde	HKVA002
6	2	hex screw M 10 x 20	Sechskantschraube M 10 x 20	HKVA003
7	2	hex nut M 24 x 1,5 flat	Sechskantmutter M 24 x 1,5 flach	HKVA004
8	1	stop bar 1200 x 80 x 12 mm	Behälteranschlagleiste 1200 x 80 x 12 mm	HKVA005
9	2	bolt for mobile bin lifter approx. 50 mm / 125 mm long	Bolzen f. HKV-Anbau ca. ø 50 mm / 125 mm lg.	EP170
10	1	flat bar / stauff clamp base	Flacheisen/Stauffschellensockel 110 x 40 x 10 mm	HKVA006
11	1	spanner nut bolt ø 20 mm (bin lifter arms)	Spannschloßbolzen ø 20 mm (HKV-Arm)	HKVA007
12	2	bent angle 65 / 55 / 40 L	Kantwinkel 65 / 55 / 40 L	HKVA008
13	1	arrester for lid opener bottom, sheet 14 mm	Deckelöffneranschlag unten, Blech 14 mm	HKVA009
14	1	spanner nut (bracket)	Spannschloßbolzen (Konsole)	HKVA010
15	2	tipping arrester (small)	Kippanschlag komplett (klein)	HKVA011
16	2	tipping arrester (large)	Kippanschlag komplett (groß)	HKVA012
17	2	cylindrical bolt for cylinder bin lifter (top) ø 35 mm approx.. 95 mm long	Zylinderbolzen f. HKV-Zylinder oben ø 35 mm / ca. 95 mm lg.	EP139
18	1	spring saddle	Lagerschuh (Federschuh)	EP125
19	1	spring saddle	Lagerschuh (Federschuh)	EP125
20	1	gas spring 650 N	Gasfeder 650 N	GF9
21	4	socket	Buchse	HKVA013
22	2	cylindrical pin for cylinder bin lifter (top) ø 35 mm / approx. 95 mm long	Zylinderbolzen f. HKV-Zylinder unten ø 35 mm / ca. 70 mm lg.	EP139-U
23	1	spring saddle	Lagerschuh (Federschuh)	EP125
24	1	frame for lid opener	Deckelöffnerrahmen	EP35
25	2	arm for bin lifter (left/right)	Hubkipp-Vorrichtungs-Arm für HKV1 / HKV2 (links o. rechts)	HKV-ET03
26 27	2	fork for bin lifter (trunnions) with fall arrester and bolt	Aufnahmegabel f. HKV (Zapfenaufnahme) mit Fallsicherung und Bolzen	EP165HKV

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28	1	round bar terminal strip 15 mm	Hebel Rundeisen Klemmleiste 15 mm	inkl. Pos. 42 / HKV-ET01
29	2	fixture for cydrical pin	Sicherung für Zylinderbolzen	inkl. Pos. 17 / EP139
30	4	cylinder fixture for bin lifter	Zylinderhalteblech für HKV	EP162HKV
31	2	arm for lid opener, sheet 15 mm	Arm für Deckelöffnerrahmen, Blech 15 mm	HKVA014
32	2	fall arrester for bolts	Fallsicherung mit Bolzen f. HKV 1,1 cbm	EP146HKV
33 34	1	sheet for bin lifter (primed) with hinges	Schüttblech für HKV angebaut (grund.) inkl. Scharniere (lose beigelegt)	EP140HKV
35	2	side plate (fix)	Seitenteil starr	HKVA015
36	2	ball bearing for bin lifter arms	Kugellager f. HKV-Arme (Nadellager m. Innenring)	EP216HKV
37	2	hollow section 60 x 40 x 4	Hohlprofil 60 x 40 x 4, 510 mm lang	HKVA016
38	1	round pipe for bin lifter 1385 mm long	Rundrohr für HKV 1385 lang	EP160HKV
39	1	reinforcement plate 6 mm; width 30 mm, length 1390 mm	Verstärkung-Blech 6 mm, 30 mm breit, 1390 mm lang	HKVA017
40	1	base plate, reducer x5/6, sheet 20 mm with holes	Sockelplatte Reducer x5/6, Blech 20 mm, mit Gewindelöchern	HKVA020
41	1	bracket (screwed) for integrated bin lifter	Konsole (schraubbar) zur Befestigung festangebauten HKV	EP169
42	1	comb bar for bins 120/240/360 complete	Kammaufnahme der HKV f. Behälter 120/240/360 l - komplett	HKV-ET01
43	2	cover (backside) sheet 3 mm	Abdeckung hinten, Blech 3 mm	incl. Pos. 47
44	2	cover (front side), sheet 3 mm	Abdeckung vorne, Blech 3 mm	incl. Pos. 47
45	2	sheet 14 mm	Blech 14 mm	inkl. Pos. 42 / HKV-ET01
46	1	hinge for terminal strip	Klemmleistenscharnier	inkl. Pos. 42 / HKV-ET01
47	2	hollow section 60 x 40 x 4, 125 mm long	Hohlprofil 60 x 40 x 4, 125 mm lang	HKVA018
48	1	hollow section 60 x 40 x 4, 125 mm long	Hohlprofil	inkl. Pos. 42 / HKV-ET01
49	1	round bar	Rundeisen	inkl. Pos. 42 / HKV-ET01
50	2	rectangular pipe	Vierkantrohr	inkl. Pos. 42 / HKV-ET01
51	4	hinge for sheet (bin lifter)	Scharnier für Schüttblech (HKV)	EP76HKV
	1	buffer for arrester	Rammschutzprofil f. Behälteranschlagleiste	HKVA019
	2	gas spring 1750 N	Gasfeder 1750 N	EP71

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