

Serial-number CSL640/641: _____

Serial-number CPD600: _____

The Crypton Test Lane Class 4

Automotive-Lift CSL640/641

Axle play detector CPD600

Operating Instructions and Documentation

TES1518/E

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Foreword

CRYPTON-products are a result of long-standing experience.

The high quality and the superior concept guarantee them reliability, a long lift time and economic business.

To avoid unnecessary damages and dangers to personnel and equipment, read these operating instructions and follow the instructions.

Do not use the product for any other purpose other than described otherwise the guarantee will become invalid.

Crypton Ltd is not liable for damage or injury arising from misuse. The user carries the risk himself.

Notes for the user:

- Observe and comply with all the instructions in the operating manual
- Please follow the inspection and maintenance procedure as well as the prescribed tests
- The instruction for use should be observed by all persons working with the lift.
- The chapter "Safety Regulations" should be especially observed.
- In addition to the safety remarks included in the instructions for use, the local valid regulations and instructions at the location of operation should also be observed.

Obligations of the operator:

The operator is obliged to allow only those persons complying to the following requirements to work with the unit

- Being well acquainted with the basic regulations concerning labour safety, and accident prevention and being trained to operate the unit.
- Having read and understood the chapter concerning safety and warning instructions and confirmed that by their signature.

Dangers when operating with the lift:

The CRYPTON-Lifts are designed and built according to technical standards and the approved regulations for technical security. Yet, danger for body and life of the operator may occur when using the lift carelessly.

The lift must only be operated:

- for its appropriate use
- in an unobjectionable condition concerning technical security.

Organisation requirements

- The instructions for use are constantly to be kept at the place of operation being at hand at any time.
- In addition to the instructions for use, rules pertaining to other regulations i.e. accident prevention and environmental rules are to be observed and directed.
- All personnel should be safety and danger alert by occasionally reading and by observing the instructions for use which should be recorded.
- As far as required and ordered by regulations personal protective equipment and clothes are to be worn.
- All safety- and danger-warnings on or near the lift are to be observed!
- Spare parts must comply with technical requirements laid down by the manufacturer. This is only warranted with original parts.
Consideration should be given to the time intervals or fixed in instructions for periodic tests/inspections.

Maintenance works, remedy of faults and disposal

- Fixed Adjusting-, maintenance- and inspection works and time intervals including Details for exchange of parts/part components as mentioned in the instructions for use are to be adhered to.
This work should only be carried out by trained personal.
- After maintenance and repair works, all screw connections should be checked and tightened where required.

Guarantee and liability

- Our “General conditions of sales and delivery” are valid.
There will be no guarantee or liability for injuries of persons or anything else if these injuries are caused by one or by some of the following reasons.
- Inappropriate use of the lift
- Inappropriate installation, initiation, operation and maintenance of the lift.
- Use of the lift while one or several security devices do not work or do not work correctly or are not installed correctly.
- Not to follow the regulations of the operating instruction concerning transport, storing, installation, initiation, operation and maintenance of the lift.
- Changes to the construction of the lift without written authority from the manufacturer.
- Changes of important adjustments of the lift (e.g. driving elements, power rating, motor speed, etc)
- Wrong or incorrect maintenance.
- Catastrophes, acts of God or external reasons.



Record of Handover

The automotive lift CSL640 /641

with the serial number:..... was installed on:.....

at the firm:..... in:.....

the initial safety check was carried out and the lift was started.

The persons below were introduced after the installation of the automotive lift. The introduction was carried out by either the erector from the lift-manufacturer or from a franchised dealer (competent person).

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

.....
date name signature

Your customer service:.....(stamp)

1. General Information

The document “**Operating Instructions and Documentation**” contains important information about installation, operation and maintenance of the automotive lift.

- Conformation of **installation of the automotive lift** is recorded on the “Record of Installation” form and must be signed and returned to the manufacturer.
- Conformation of first off, regular and out of the ordinary service checks is recorded in the respective check forms. The forms are used to document the checks. They should not be removed from the manual.

All **Changes to the structure** and any change of **location** of the automotive lift must be registered in the “**Master document**” of the lift

1.1 Installation and service checks of the automotive lift

Only specialised staff are allowed to repair and maintain the lift and only these specialised staff are allowed to conduct safety checks on the lift. For the purposes of this document these specialised staff will be called Experts and Competent persons.

Experts are persons (for example self-employed engineers, experts) who have received instructions and have the appropriate experience to check and to test the automotive lifts. They are aware of the work involved and know the accident prevention regulations.

Competent persons are persons who have acquired adequate knowledge and experience with automotive lifts. They have completed the appropriate training provided by the lift-manufacturer (the servicing technicians of the manufacturer or dealer, are regarded as competent)

1.2 Warning Symbols

The three symbols below are used to indicate danger and other important information. Pay attention to areas on and around the lift that are marked with these symbols.



Danger! This sign indicates danger. Ignoring this warning may result in injury or even death.



Caution! This sign cautions against possible damage to the automotive lift or other material objects in the case of improper use .



Attention! This sign indicates an important function or other important information regarding the operation of the lift.

2. Master document of the automotive lift

2.1 Lift–manufacturer **Crypton Ltd.**
Crypton Technology Business Park
Bristol Road Bridgwater, Somerset
England
TA6 4BX

2.2 Application

The automotive lift is a lifting mechanism for lifting motor vehicles with a laden weight of 4000 kg. The automotive lift has an additional function for axial measurement, tyre and brake service. The automotive lift can be installed above or below the floor surface. It is not permitted to install the standard lift in hazardous locations or in wash bays. The lift is not equipped to be installed ramped surfaces or for carrying people. Before operating the lift pay Attention to the detailed operating instructions and maintenance instructions.

The lift is equipped with a play detector which is able to detect play in the axles and on single wheel suspensions. The detection is possible up to a load of 1300 kg per wheel.

2.3 Changes to the Lift Construction

Changes to the construction, expert checking, resumption of work (date, type of change, signature of the expert)

.....

Name, address of the expert

.....
Location, Date	Signature of the expert

2.4 Re positioning of the automotive lift

Re positioning of the automotive lift, expert checking, resumption of work (date, kind of change, signature of the competent)

.....

Name, address of the competent

.....
Location, Date	Signature of the competent person

2.5 Crypton Declaration of conformity



CE Declaration of Conformity

Declaration of Conformity according to Machinery Directive 2006/42/EG
ANNEX II 1A

Hereby we declare that the lift models: CSL670 and CSL 671 fulfil all the relevant provisions of the following Directives:

Machinery Directive: 2006/42/EG
Low Voltage Directive: 2006/95/EG
EMC Directive: 2004/108/EG

And were manufactured in conformity with the following harmonized norms:

Vehicle lifts:	EN 1493:1998
Safety related parts of control systems:	EN 13849-1
Electrical equipment of machines:	EN 60204-1
Electromagnetic compatibility (EMC)	EN 61000-6-2, -6-4

Authorised to complete the Technical file:

Michael Golutzki –
Otto Nussbaum GmbH & Co KG, Korker Str 24, D77694, Kehl, Germany.

Serial Number: _____

30.12.2009



Peter Houlden, Director

Crypton Ltd, Crypton Technology Business Park, Bristol Road, Bridgwater, Somerset. TA6 4BX

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TES1686 Iss. A

3. Technical Information

3.1 Technical ratings

Lifting capacity	4000 kg
Load distribution	max. 2:1 in or against the drive on direction
Lifting time	approx. 27 sec
Lowering time	approx. 32 sec
Lifting capacity play detector	minimum 1300 kg per wheel
Line voltage	400 Volt three phase
Power rating	3.0 kW
Motor speed	2800 rev./min
Pump capacity	2.7 ccm (Marz.)
Hydraulic pressure	approx. 300 bar
Pressure control valve	approx. 320 bar
Hydraulic pressure play detector	approx. 123 bar
Pressure control valveplay detector	approx. 125 bar
Oil tank	per Hydraulic unit approx. 17 Litre
Sound level	≤ 75 dB(A)
Connection by customer	3~/N+PE, 400V, 50 Hz fuse T16A (time-lag fuse) observe your country regulations

3.2 Safety devices

1. Click and pawl arrangement
safety device of the load against unintentional lowering.
2. Pressure relief valve
Pressure relief-safety for the hydraulic system.
3. Roll-off safety on the platforms
Safety device of the lift against vehicle roll.
4. Lockable main switch.
Safety device against unauthorized use.
5. Check valves at the hydraulic cylinders
Safety device against lowering and pipe-breaking.
6. CE-Stop and Danger signal
security equipment against crushing (foot area).The end of the lowering process is accompanied by an acoustic warning signal.



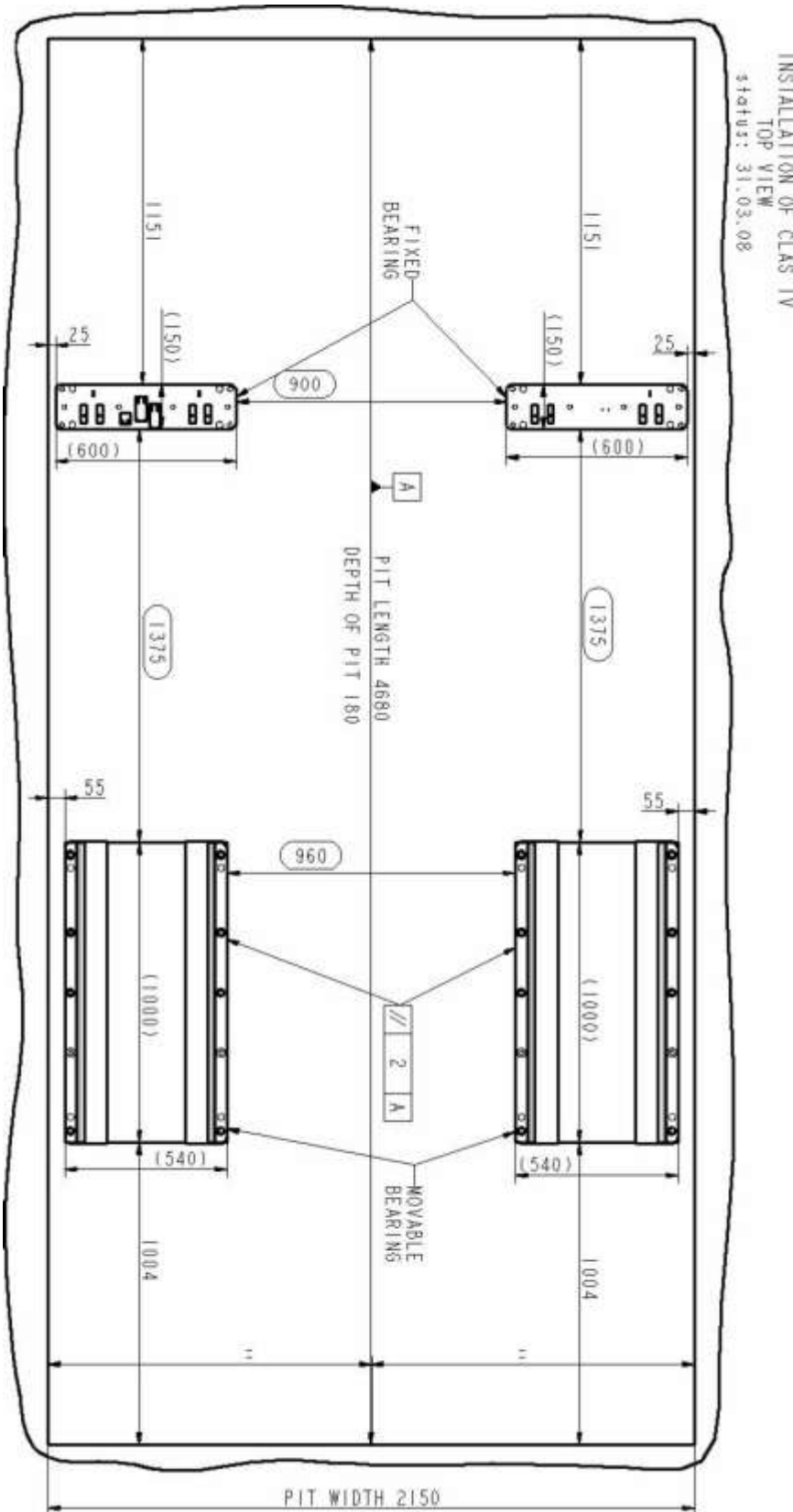
Control of Synchronisation is part of the anti blocking system for lowering onto an obstacle. For electrical diagram of the system please turn to section 3.6.1

If either ramp is offset by more than 14 mm i.e. after an obstruction has halted one side, then the system will actuate and stop the descent of the lift.

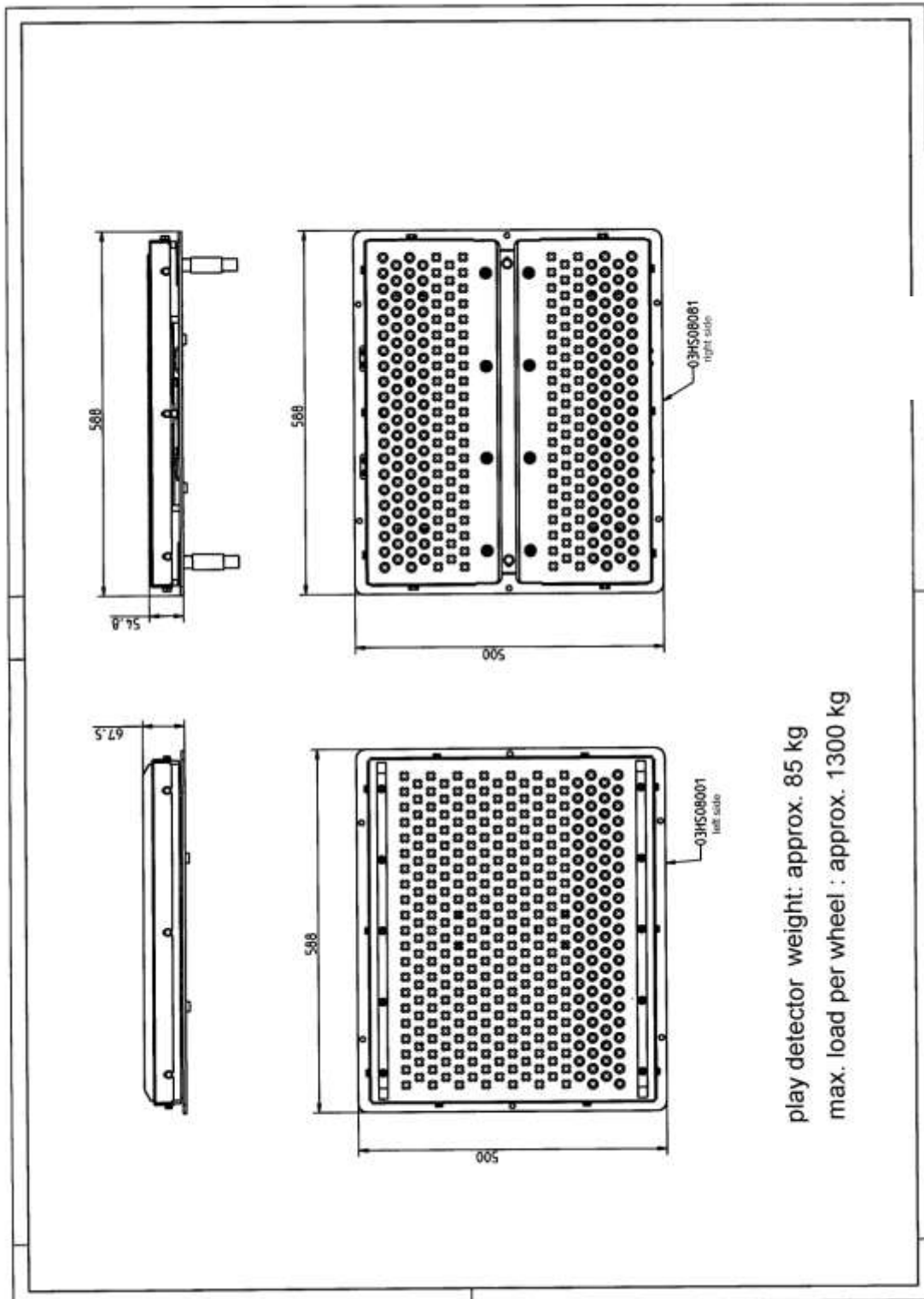
Turn to section 6.1 lowering onto an obstacle for instructions on how to bring the lift back into operation.

3.4 Floor Plan - CSL640/641

Shown for reference only



3.5 Data sheet - Play Detector CPD600



play detector weight: approx. 85 kg
 max. load per wheel : approx. 1300 kg

MOT Play detector

- Piston Rod: \varnothing 25 mm

Piston rod surface: $A = 490,87 \text{ mm}^2$

$F = 6 \text{ KN} \Rightarrow p = 122,2 \text{ bar}$ **CLASS IV**

$F = 8 \text{ KN} \Rightarrow p = 162,9 \text{ bar}$ **CLASS VII**

3.6 Electrical Circuit Diagrams (Connection Diagrams)

The earth connections should comply with local regulations
Make sure that all connections and contacts are secure and in place
Check that all wiring and electrical components are in place before commissioning
Do not allow commissioning at a site not suitable for the equipment.

1. Connection diagrams and electrical components

All diagrams have been drawn by us to the best of our knowledge. We take no responsibility for diagrams other than these to be used with the equipment. This is especially the case of diagrams drawn up by second parties.

2. Checking the diagrams

The diagrams do not always refer to serial components. Some of these components such as switches, thermostats and motors might not be shown. Even with careful testing, we cannot rule out problems occurring with the systems. We cannot take any responsibility for misuse of the guidelines on installation of the equipment. Any request for changes to the diagrams in order to enable the equipment to function better will be at the request of a surplus charge. Improvements by third parties cannot be accepted.

Equipment: CSL 640/641
Diagram No. CSL 640/641

3. Safety checks and means of protection

All connections have been made under the code VDEO 100/0113 and the accident prevention code V8641 for electrical equipment.

The following tests have been completed:

1. Isolation check on the switchboard and control boards according to VDEO/5 73
2. Checking the functions of the applied safety features by indirect touching of components according to the code VDEO100g/7/75 par 22.
3. Functions and component checks according to code VDE560/11 87

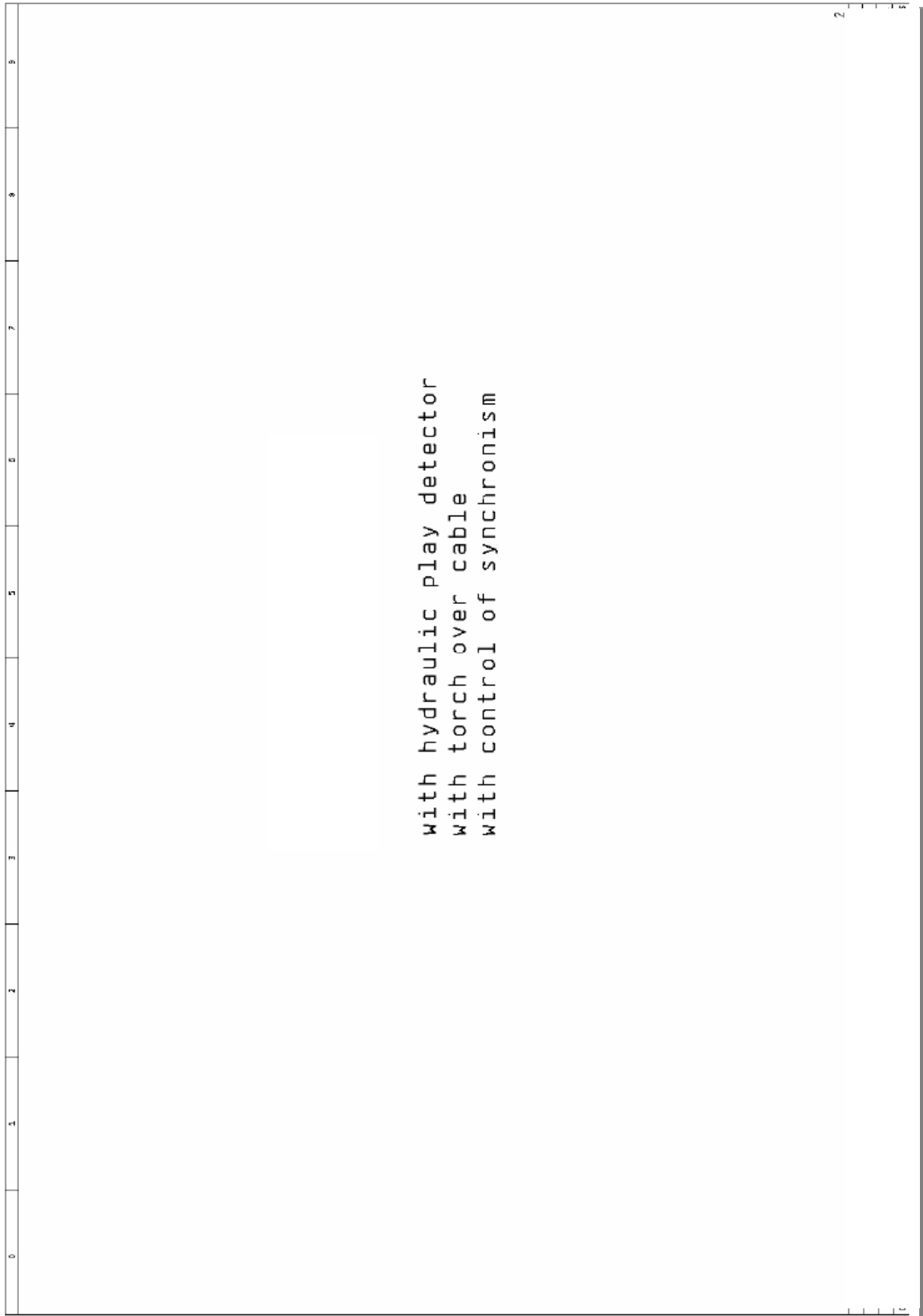
Other safety codes have been adhered to:

1. Protection against direct contact code VDEO100/5. 73. Par 4
2. Protection against indirect contact code VDE=100/5. 73. Par 5

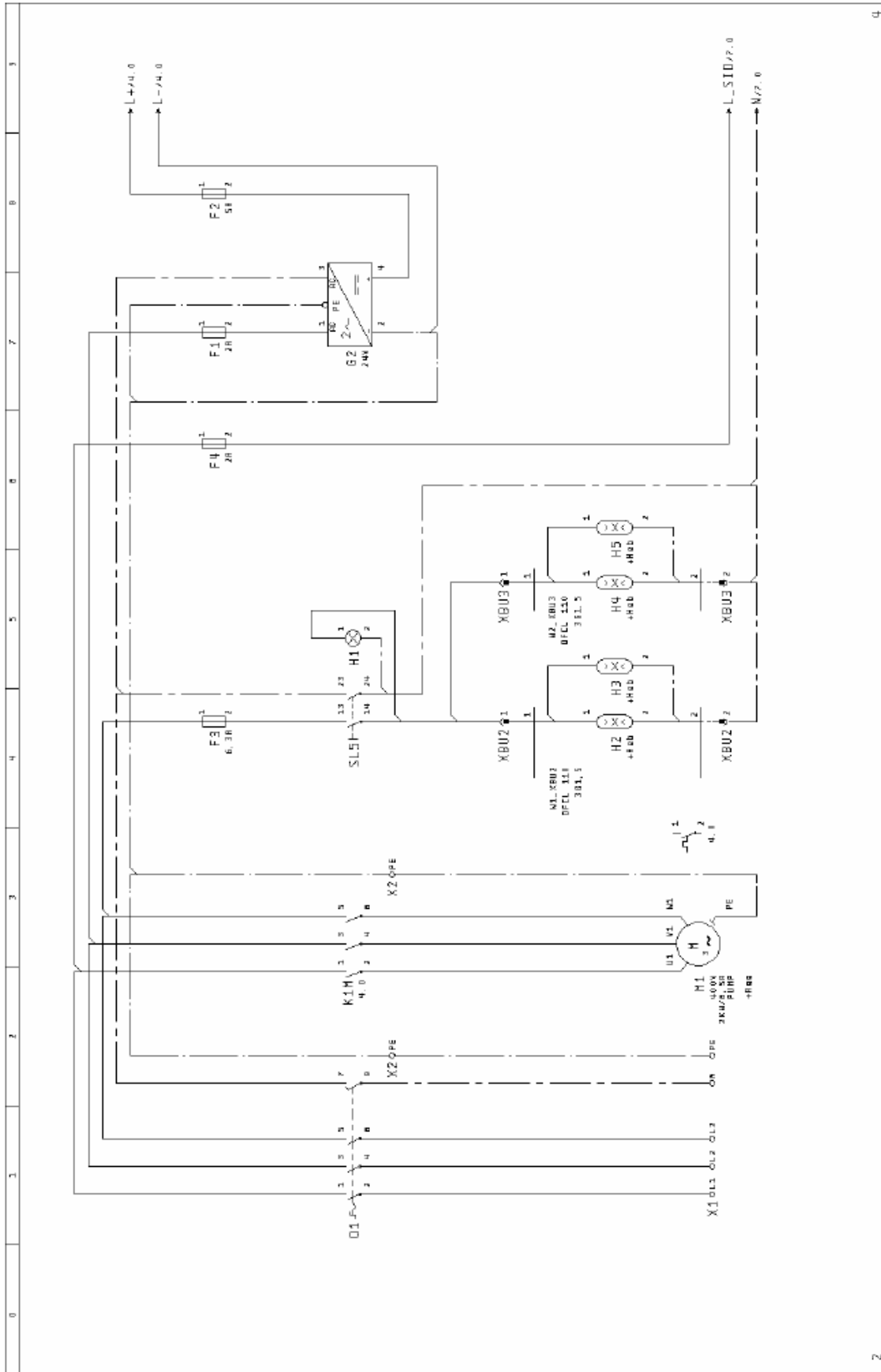
These connection diagrams are the property of the manufacturers. They should not be used for any other purpose or given to a third party without the authority of the manufacturers

Next: Schematic Diagrams for CSL640/CSL641 with hydraulic Axle Play Detector.

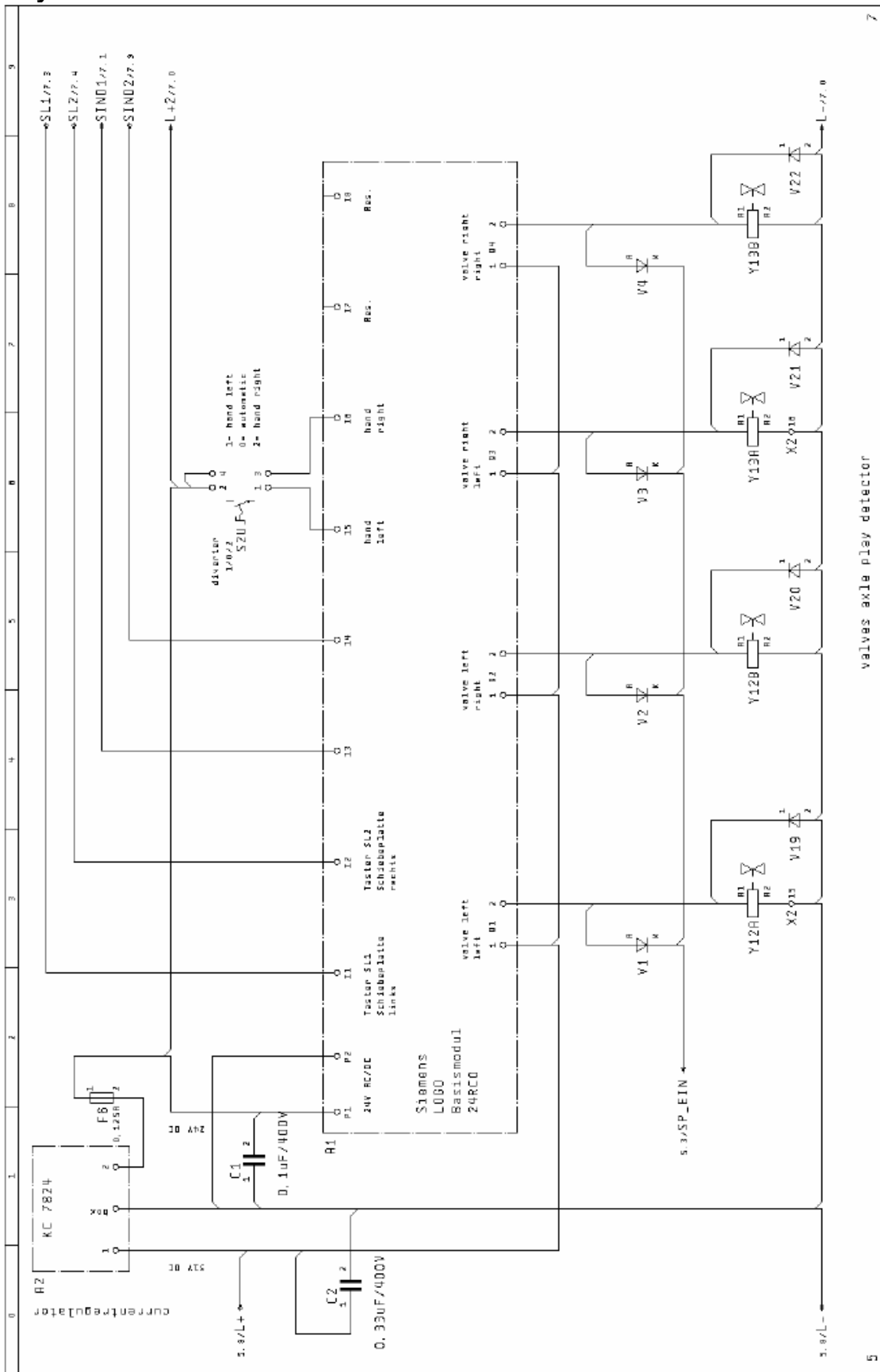
3.6.1 Electrical Circuit Diagrams Standard Version



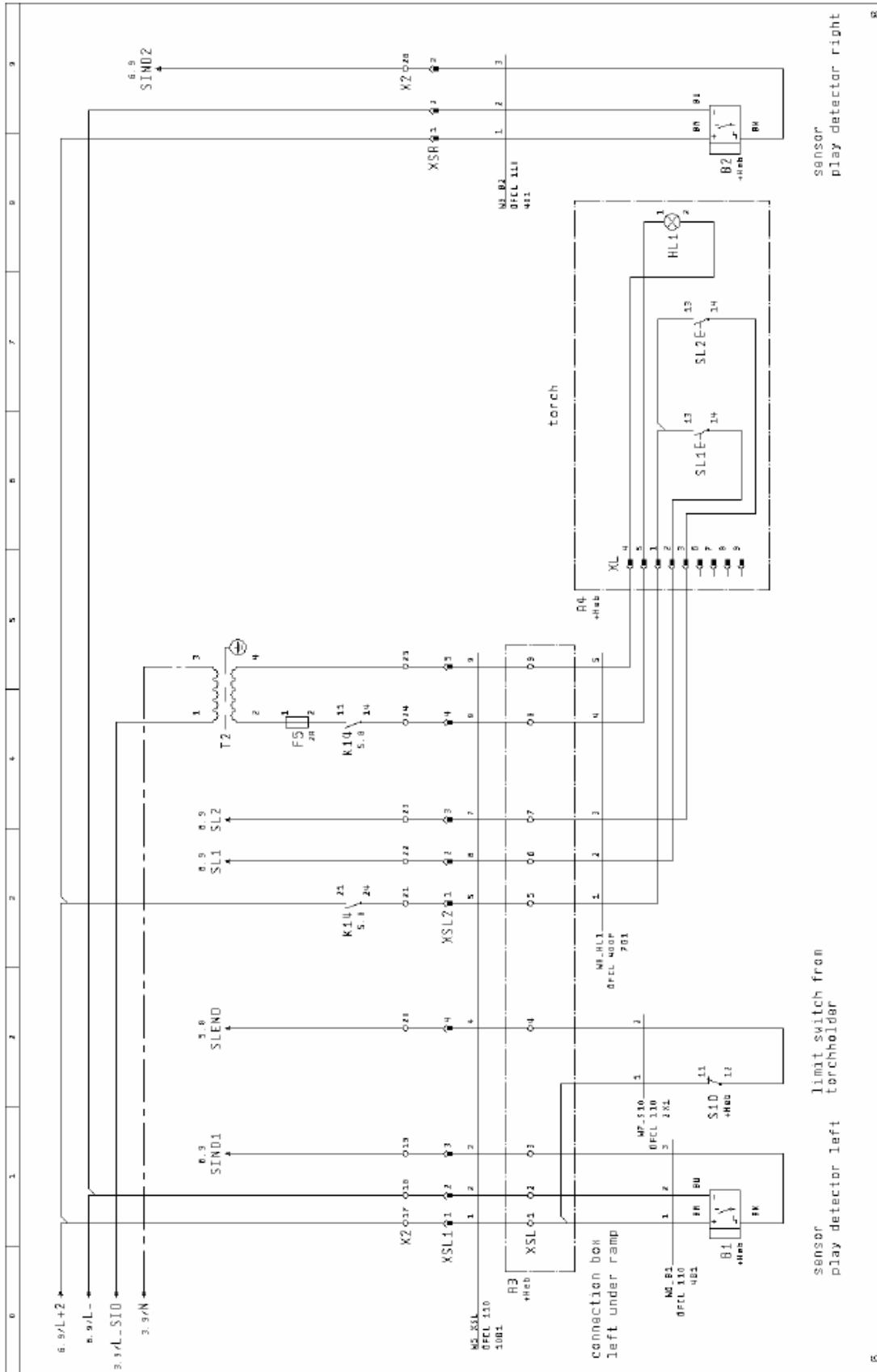
Supply



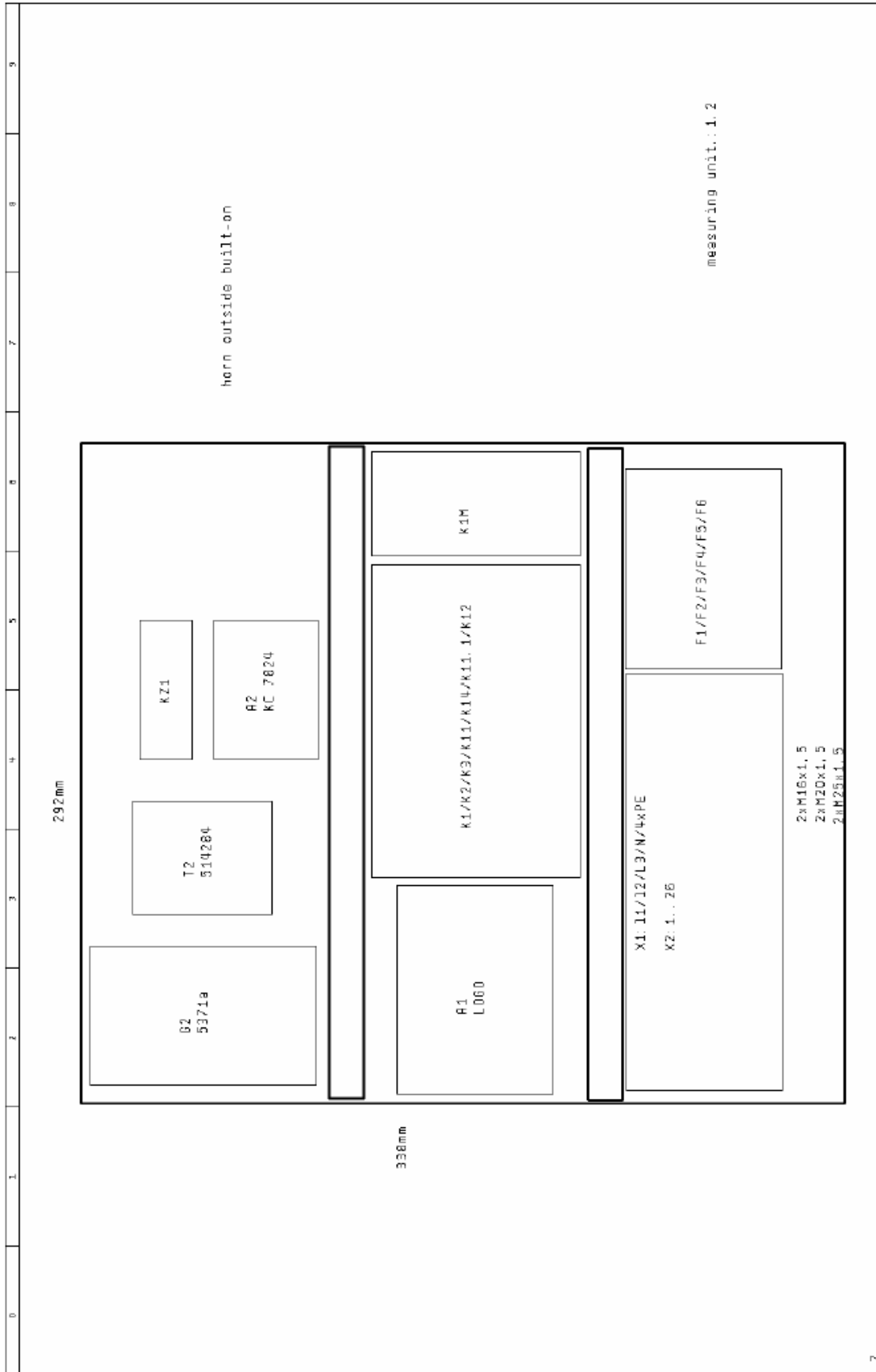
Play Detector Control



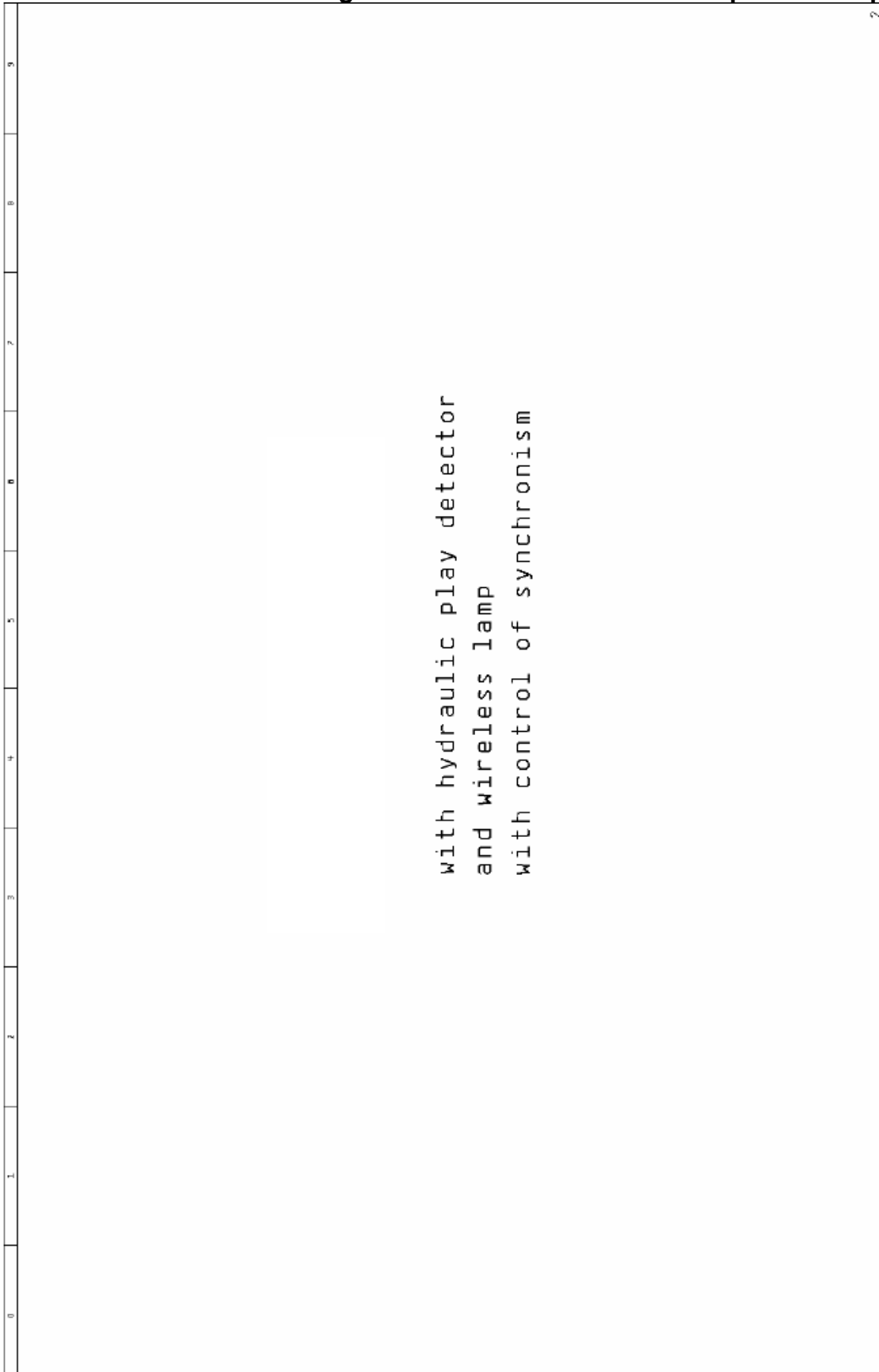
Inspection Torch



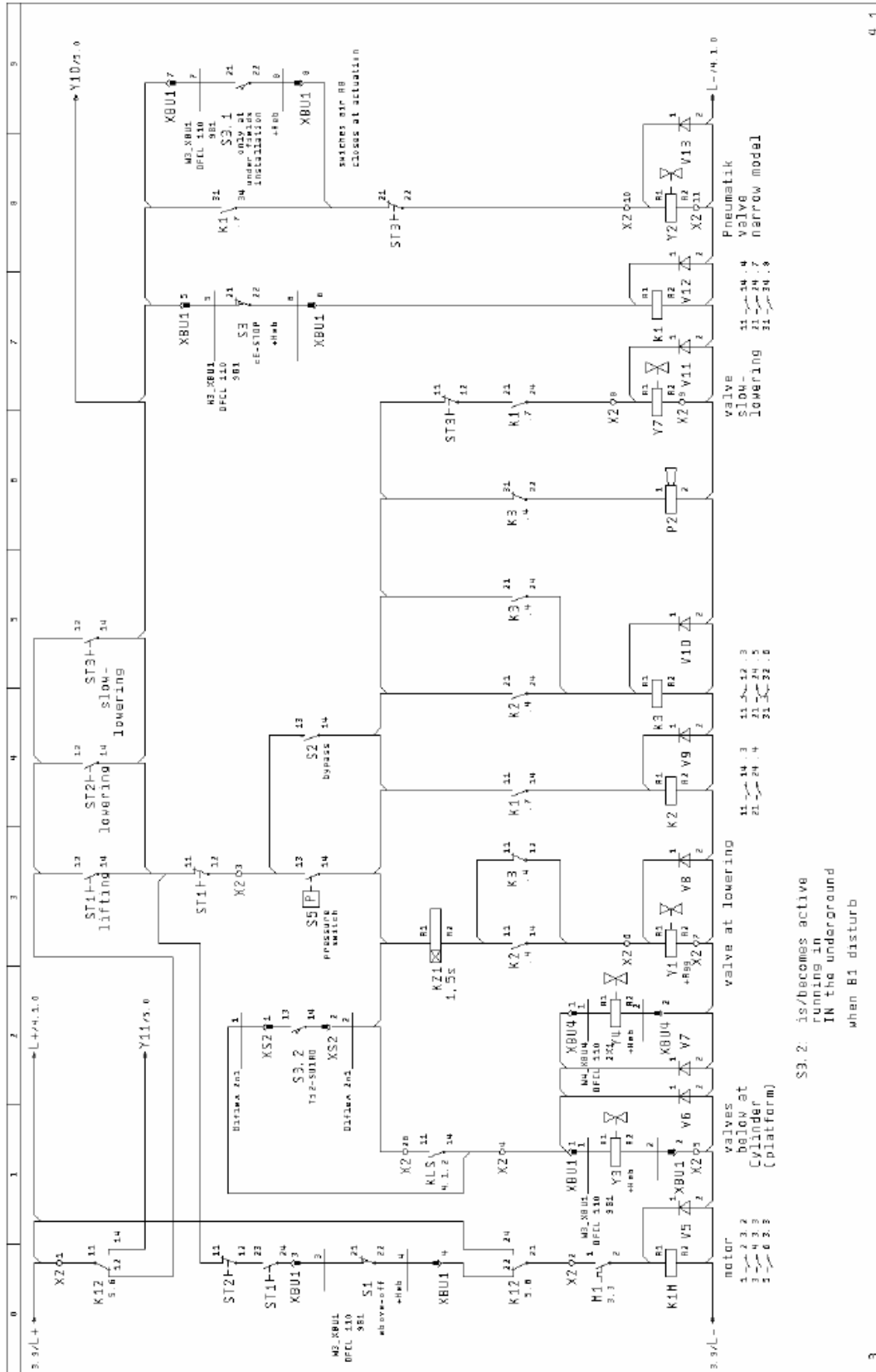
Mounting Panel



3.6.2 Electrical Circuit Diagram – Version with wireless inspection lamp



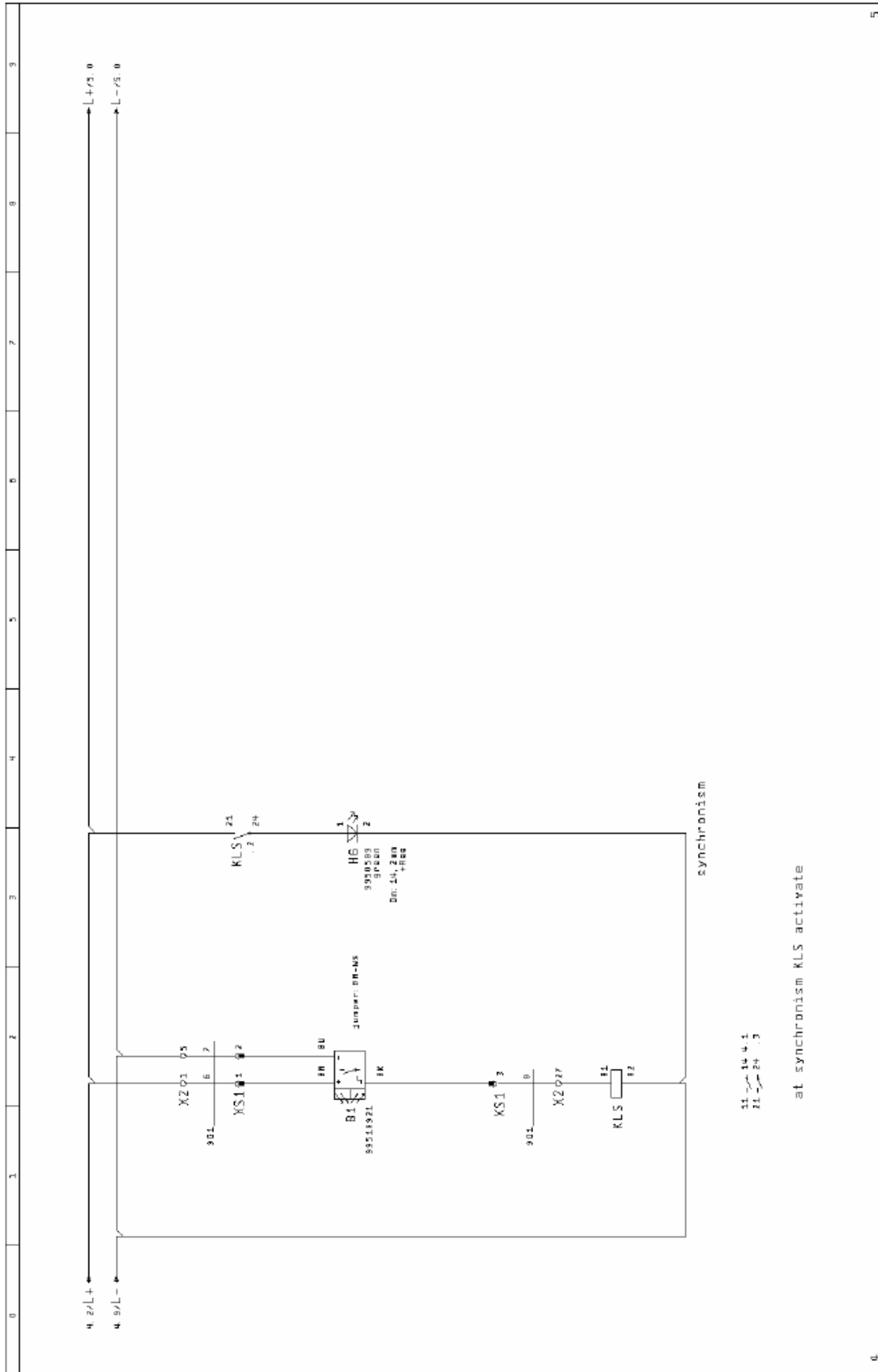
Control Unit ST01



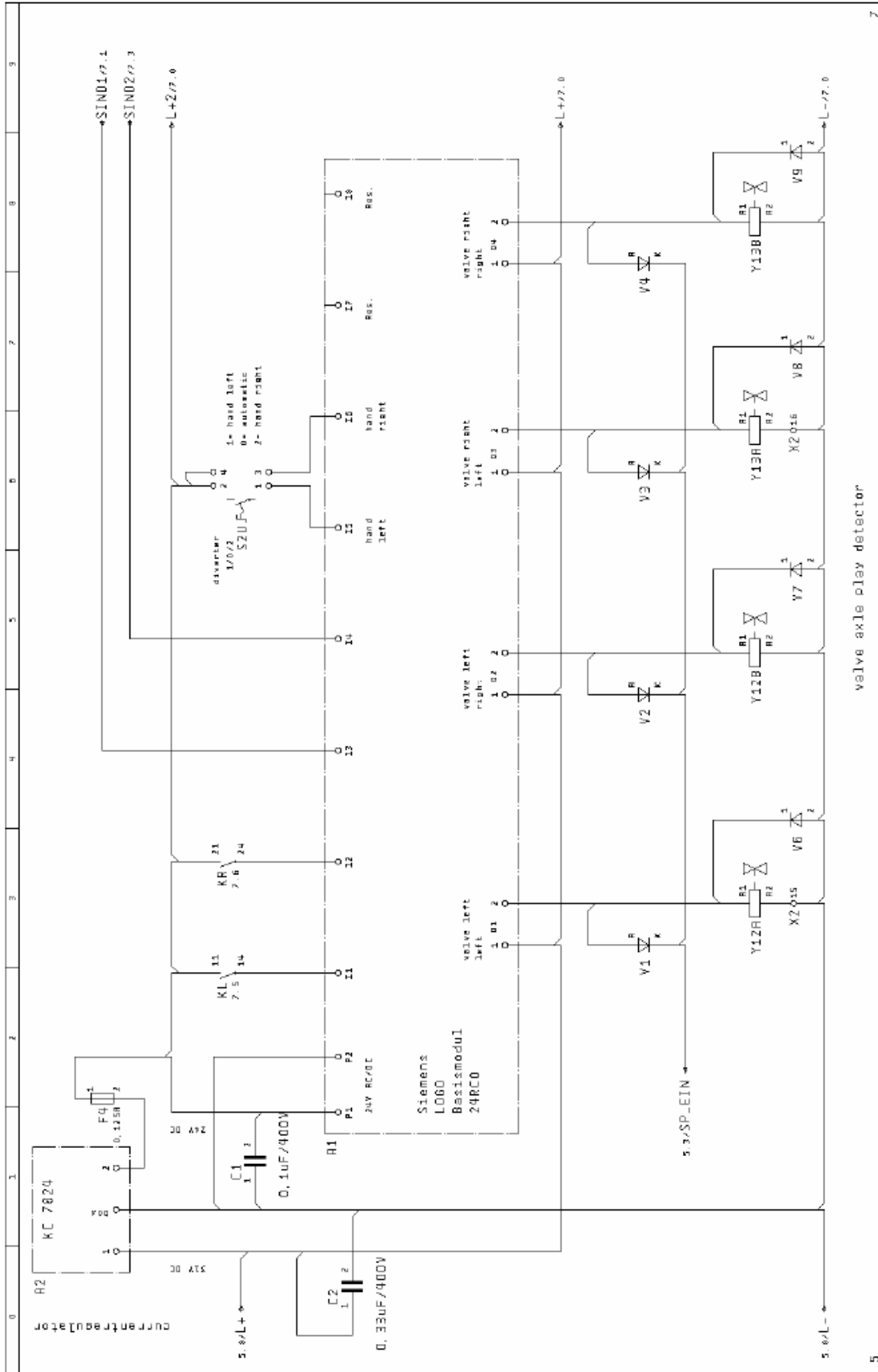
4.1

3

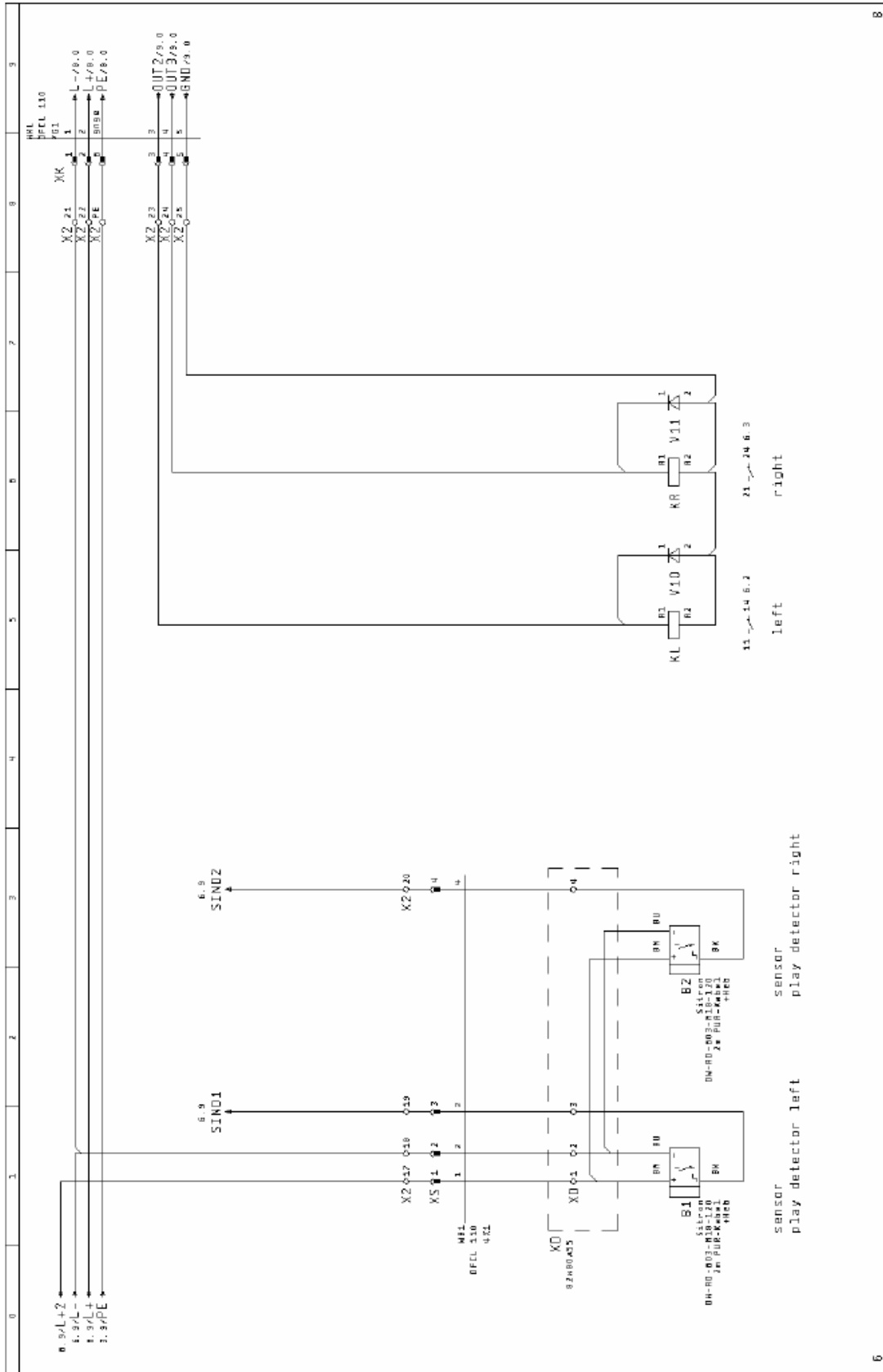
Light Barrier ST01



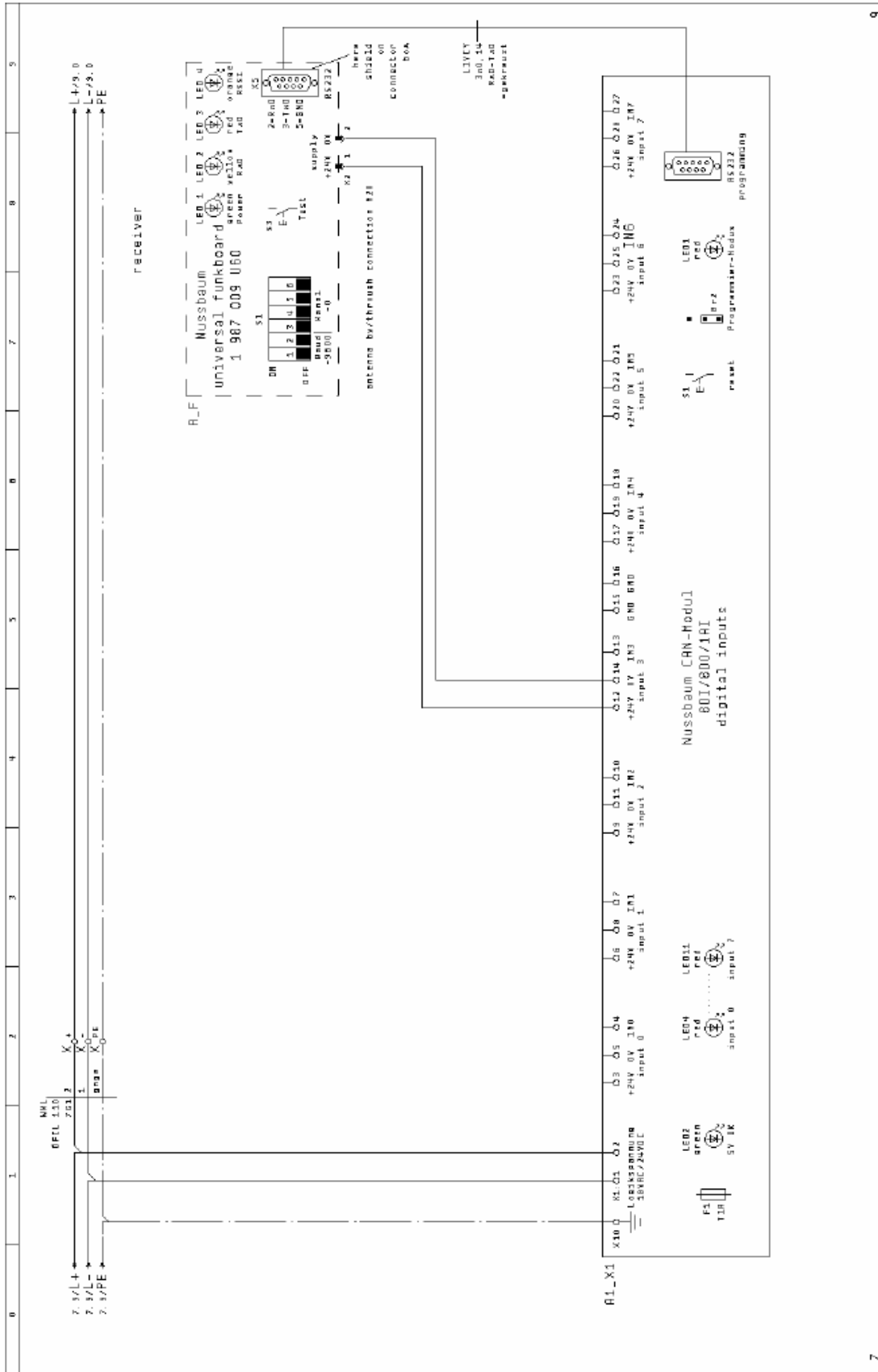
Play Detector Control ST01



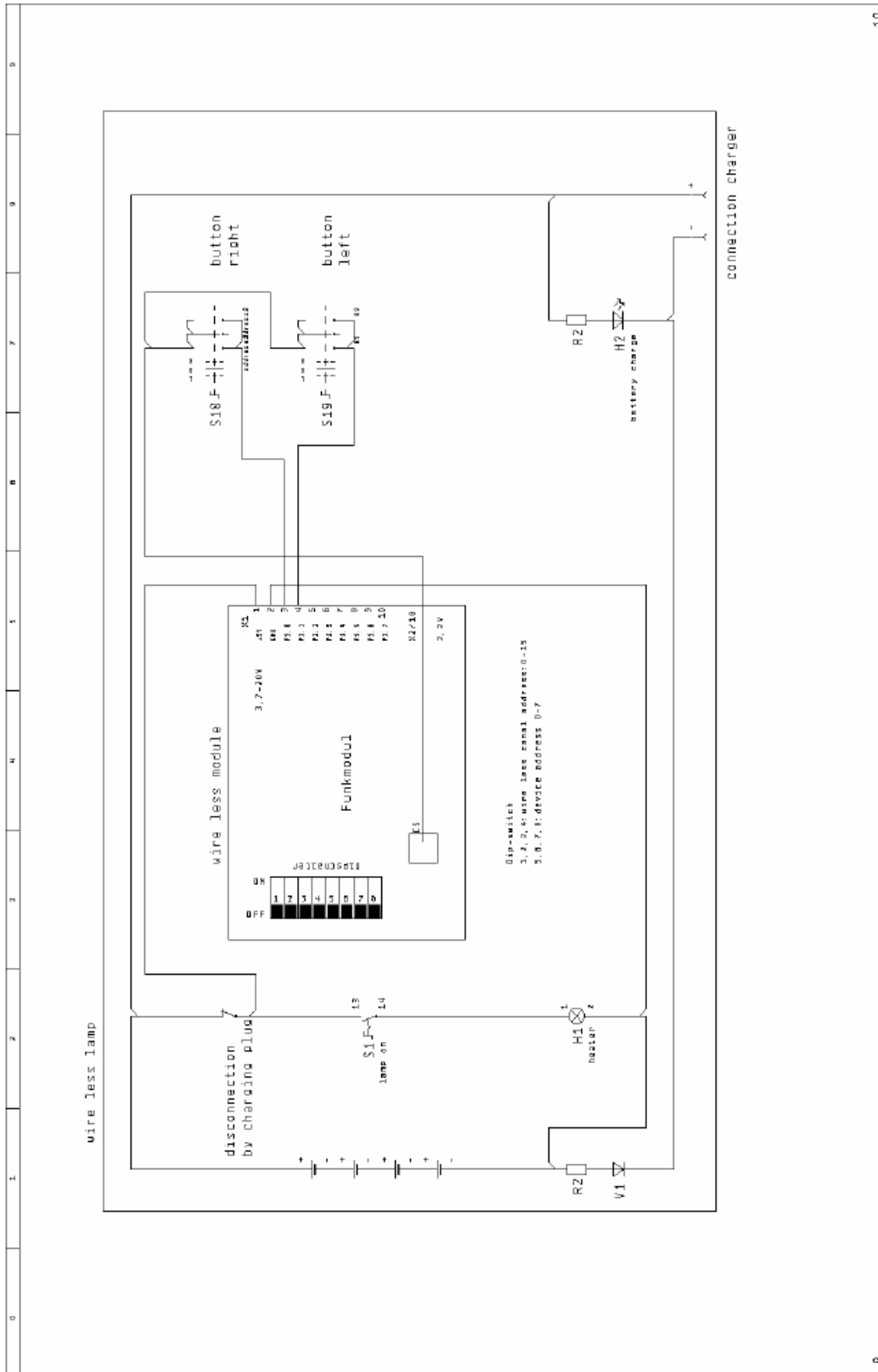
Play Detector Control ST01



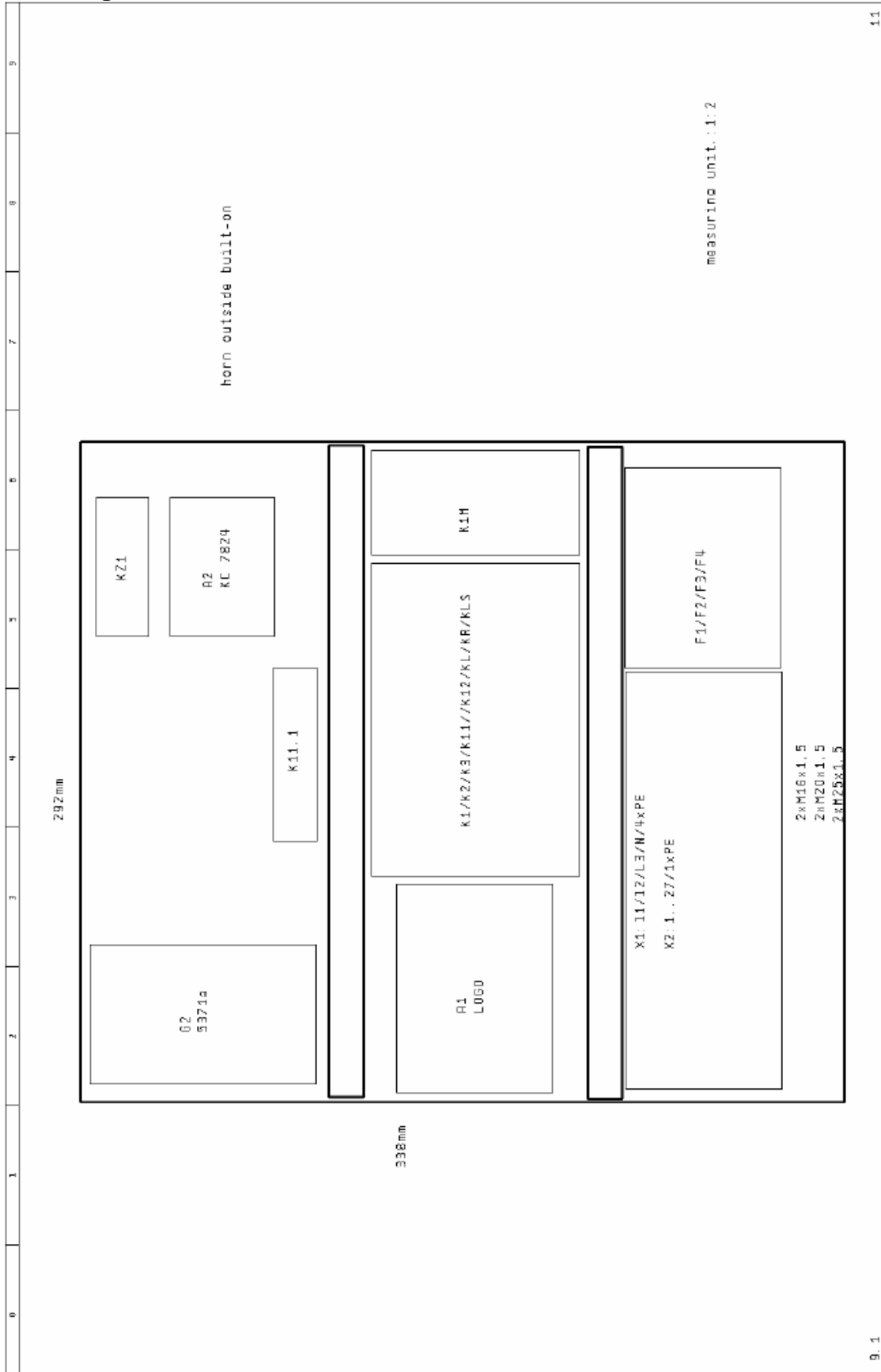
Can Module Inputs ST02



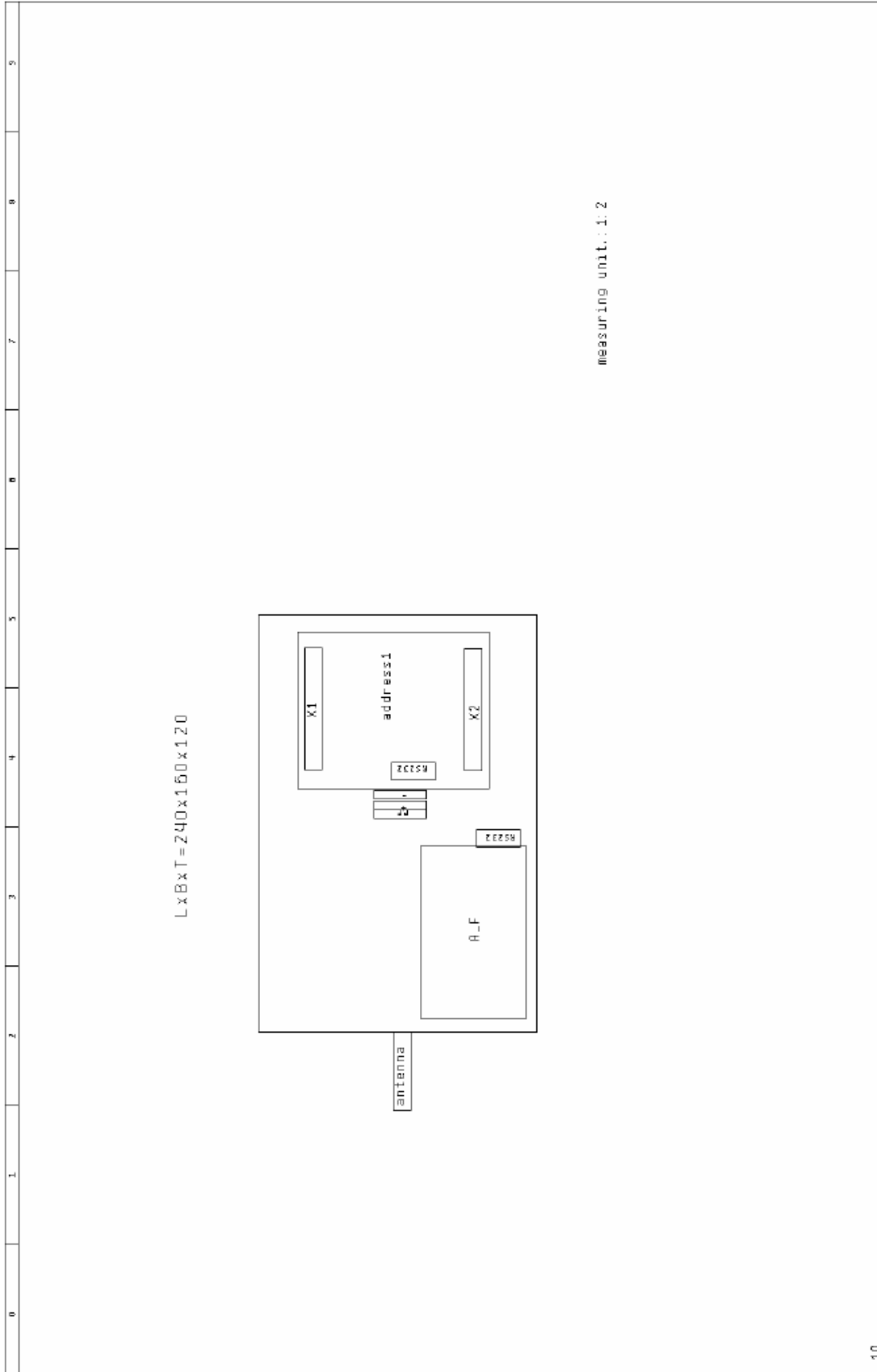
Wireless Torch



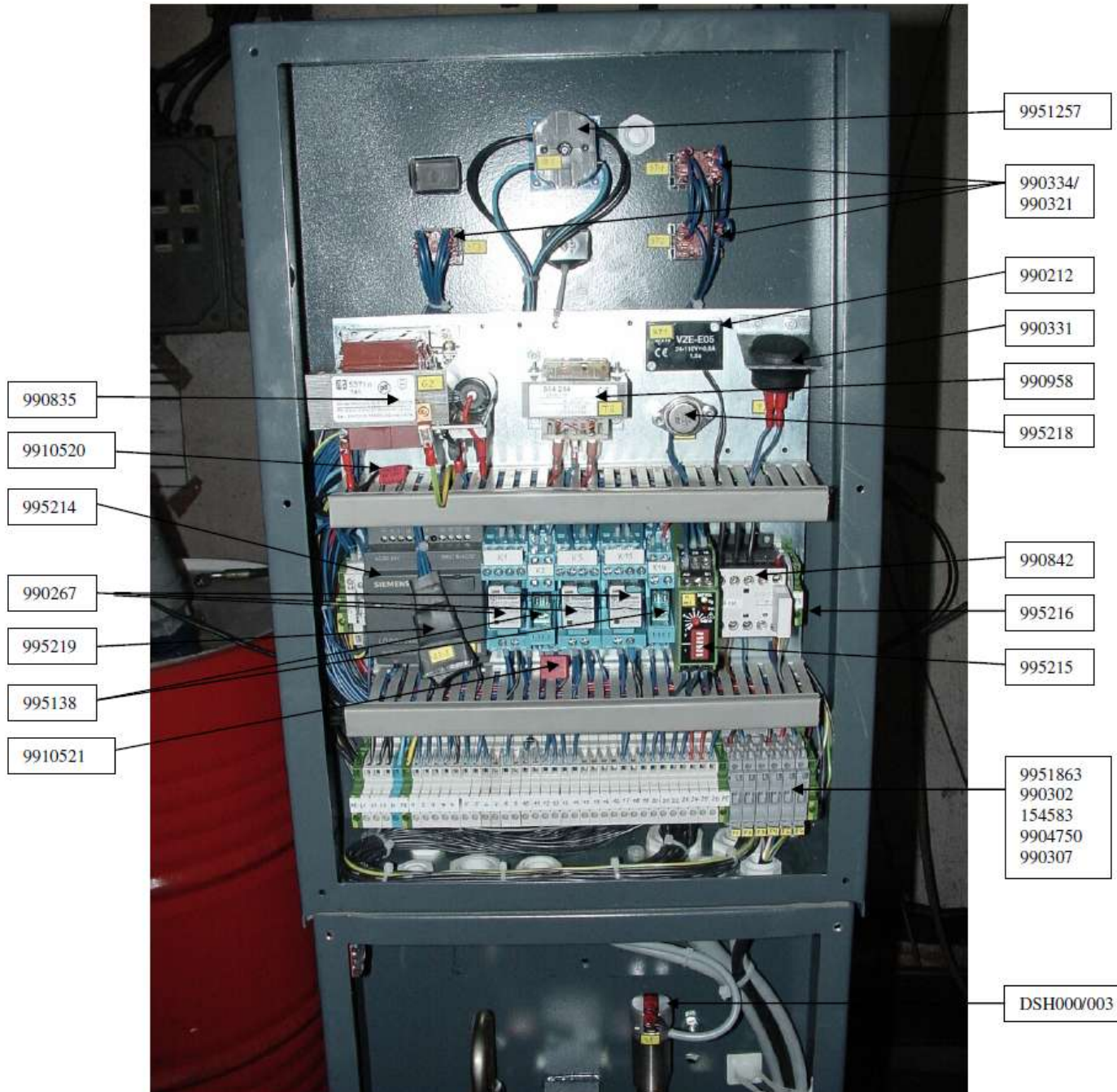
Mounting Panel ST01



Mounting Panel ST02



Electric part diagram



Ersatzteilkit – Elektroteile 035ULN21580

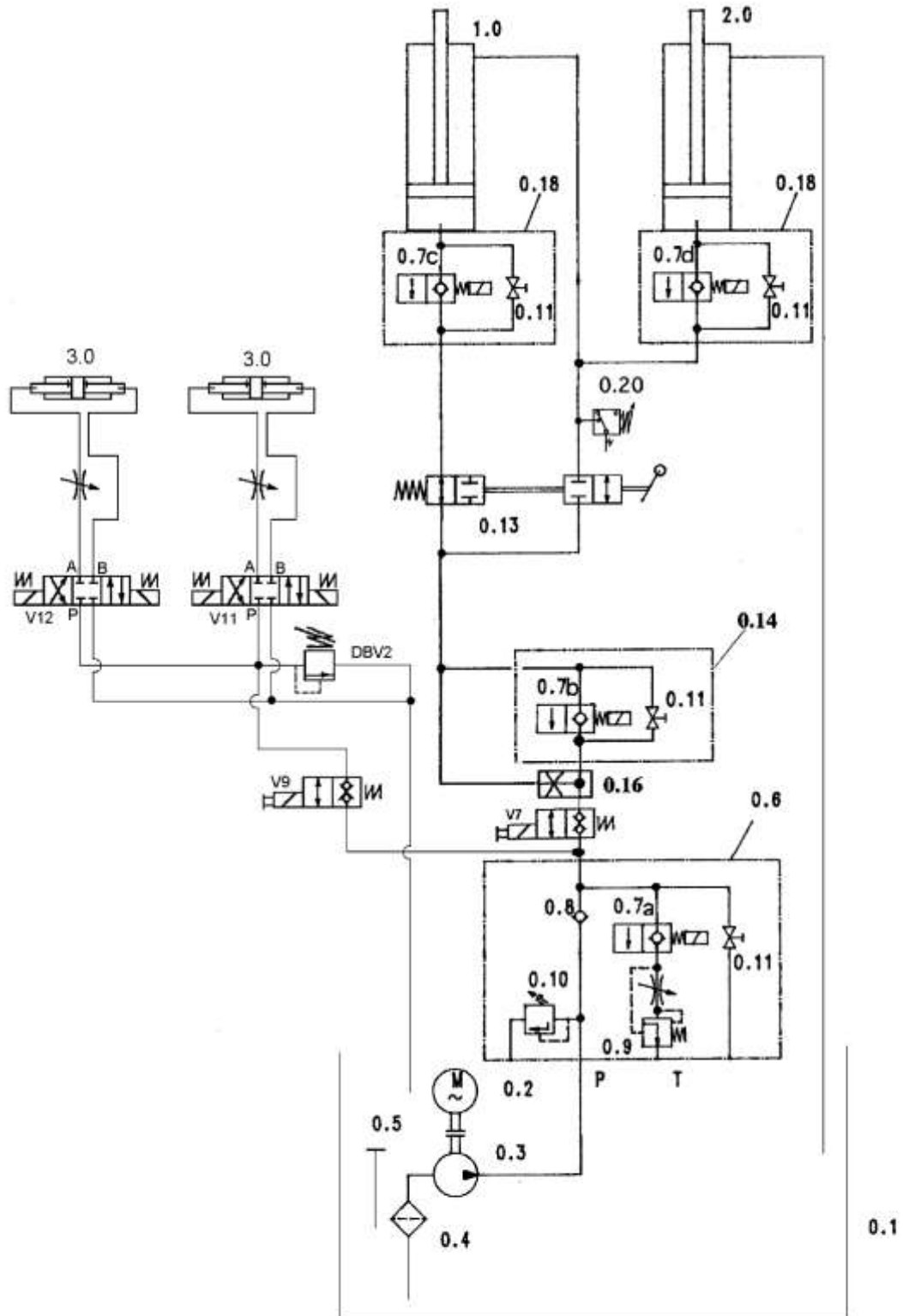
Teile-Liste / Parts list

<u>Artikel-Nummer:</u>	<u>deutsch</u>	<u>english</u>
990842	Schütz DC24V	up contactor DC24V
99083	Transfor	transformer
9951385	Steckrelais (2W)	relais (2W)
995218	Enspannungsregler positiv	fixed voltage regulator positiv
9910521	Kondensator 0,3 μ F/400V	capacitor 0,3 μ F/400V
9910520	Kondensator 0,1 μ F/400V	capacitor 0,1 μ F/400V
995216	Entstörglied für Schütz BG12	suppressor element for contactor BG12
990212	Zeitrelais VZE-E05	time relais VZE-E05
995215	Zeitrelais MFRk-E12	time relais MFRk-E12
995214	Logikmodul	logic module
940042	Diode BYV 28-100	diode BYV 28-100
990958	Transformator 12VB	transformer 12VB
9951866	Entstörmodul/freilaufdiode	suppressor module
990267	Industrierelais	industrial module
9903321	Widerstand 1,5 Kilo Ohm 0,25W	resistor 1,5 Kilo Ohm 0,25W
9951863	Feinsicherung 5x20 mm 1000mA	microfuse 5x20 mm 1000mA
990302	Feinsicherung 5x20 mm 2000mA	microfuse 5x20 mm 2000mA
154583	Feinsicherung 5x20 mm 6300mA	microfuse 5x20 mm 6300mA
990307	Feinsicherung 5x20 mm 5000mA	microfuse 5x20 mm 5000mA
9904750	Feinsicherung 5x20 mm 125mA	microfuse 5x20 mm 125mA
990331	Signalgeber IP 40Impuls-Ton	signal transmitter IP 40impuls-ton
DSH000/003	Drucksensor 5 bar	pressure sensor 5 bar
9951257	Hauptschalter	main switch
990334	Druckschalter	pressure switch

3.7 Overview of the fuses in Crypton lifts

Fuses for CSL 640/641 and CSL 670/671							
FUSE	AMPS	Voltage	DIMENSION	TYPE	Location	Description	Electric plan
F1	T 2 A	250V AC	5x20mm	Slow Blow	Next to connection strip	Primary fuse for G2 power control	Plan no. 3
F2	T 5 A	250V AC	5x20mm	Slow Blow	Next to connection strip	Secondary fuse for G2 power control	Plan no. 3
F3	T 6,3 A	250V AC	5x20mm	Slow Blow	Next to connection strip	Fuse for separate lighting if installed	Plan no. 3
F4	T 2 A	250V AC	5x20mm	Slow Blow	Next to connection strip	Primary fuse for torch	Plan no. 3
F5	T 2 A	250V AC	5x20mm	Slow Blow	Next to connection strip	Secondary fuse for torch	Plan no. 7
F6	M 0,125A	250V AC	5x20mm	Fast acting	Next to connection strip	Safety fuse for Logo module and sensors on play detector	Plan no. 6

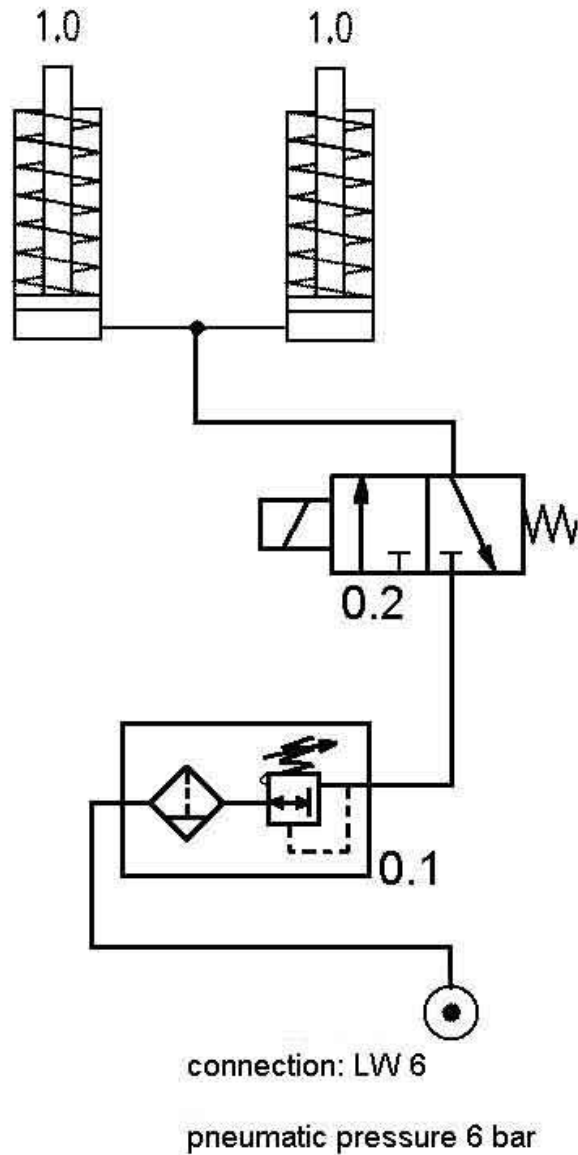
3.8 Hydraulic Diagram



3.8.1 Hydraulic parts list

Pos.	Description	order no.:
0.1	oil tank	
0.2	motor 400 V; 50 Hz	990303
0.3	gear pump 2.7cm ³ /revolution	980282
0.4	oil filter	980201
0.5	oil level gauge	980098
0.6	hydraulic block complete	232POW22037
0.7a	electrical controlled holding valve	980478
0.7b	valve (deposit in the ratchet)	980478
0.7c	safety valve on the lift	980478
0.7d	safety valve on the lift	980478
0.8	holding valve	980480
0.9	2-way-flow- control valve	980481
0.10	pressure relief valve	232NSTL02084
0.11	emergency lowering	030ULN02064
0.13	2/2-way valve double (ball valve) - equalisation of the two rails manually	980513
0.14	bypass valve complete	
0.16	screen (mounted in T-piece)	
0.18	safety hydraulic block complete	030ULN02061
0.20	pressure switch"automotive lift slave side, without pressure"	DSH000/003
1.0	cylinder master side	040ULN22001
2.0	cylinder slave side	040ULN22037
3.0	cylinder play detector	
V7	double seat valve	158641
V9	double seat valve	158641
V11	Way valve	117640
V12	Way valve	117640
DB2	pressure relief valve	155211

3.9 Pneumatic Diagram



Pneumatic parts list

No.	Description	order no.:
0.1	pneumatic unit	960039
0.2	3/2 way valve	960047
1.0	pneumatic cylinder	030ULN10036

4. Safety Regulations

If you use the automotive lift, the European following regulations are to be considered:
BGG945: Examine of automotive-lifts; BGR500 Using automotive-lifts; (VBG14).

4.1 General safety-regulations

When using your garage equipment, basic safety precautions should always be followed, including the following:

Important Safety Instructions

1. Read all instructions
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment with a damaged cord or main switch – until it has been examined and repaired by a qualified serviceman.
4. Always disconnect equipment from electrical outlets when not in use.
5. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
6. Adequate ventilation should be provided when working on operating internal combustion engines.
7. Keep hair, loose clothing, fingers and all parts of the body away from moving parts.
8. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
9. Use only as described in this manual. Use only manufacturer's recommended Crypton replacements.

SAVE THESE INSTRUCTIONS

4.2 Additional safety-regulations

The following regulations are very important:

- The laden weight of the lifted vehicle must not exceed 4000kg.
The maximum load distribution is 2:1 in or against the drive-on direction.
- The automotive lift must be in its lowest position, before the vehicle can be driven onto or off the lift and can only be driven onto or off the lift from the drive on side.
- While working with the lift the operating instructions must be followed.
- Any vehicles with low clearance or vehicles with optional equipment should be pre tested to ensure that they clear the lift ramp to avoid damage.
- Only trained personnel over the age of 18 years old are to operate this lift.
- No one is to stand within the working area (danger area) during lifting and lowering
- No one is to be raised or lowed either directly or in a vehicle by the automotive lift.
- No one is to climb onto the automotive lift or onto an already raised vehicle.
- Position the lifting pads under the vehicle as directed by the vehicle manufacturer.
- Check the centre of gravity of the vehicle if heavy parts (e.g. the engine) are to be removed.
- If heavy parts must be removed (e.g. engine) the centre of gravity will change. Secure the vehicle before removing parts to avoid the possibility of the vehicle becoming insecure.
- The automotive lift must be checked by an expert after changes in construction or after repairing carrying pads.
- The main switch must be switched off and locked before work on the vehicle can commence. This is a safety precaution to ensure that the lift does not move during work.
- The main switch must be switched off and locked before any maintenance or repair work on the automotive lift itself can be carried out.

- During lifting or lowering the operator must observe the vehicle to ensure that the vehicle and the lift are functioning correctly.
- Installation of the standard-mobile column lift in hazardous or dangerous locations such as washing bays is dangerous and is not allowed.
- During lifting or lowering the vehicle it must be observed by the operator.

5. Operating Instructions



The Safety Regulations must be observed and adhered to while working with the automotive lift. Read the safety regulations in chapter 4 carefully before working with the lift!

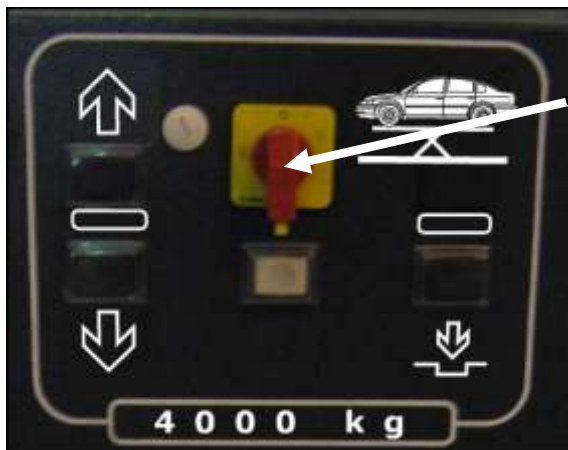
5.1 Lifting the vehicle

- Drive vehicle onto the centre of the lift in the longitudinal and transverse directions.



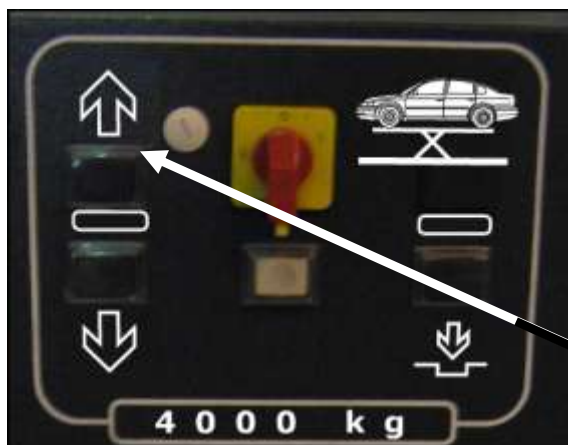
Each wheel must rest completely on its respective platform. Failure to correctly position the vehicle may result in the vehicle falling from the lift.

- Secure the vehicle against rolling away put into gear and apply the handbrake.
- Check the dangerous places around and on the lift and be sure that there are no objects or people in the immediate area surrounding the lift or on the lift.
- Switch on the control system and switch the main switch to position "1" (pic.1)
- Lift the vehicle to the required working height by pushing the 'lift' button (pic.2).



Main Switch

Pic. 1



Pic. 2

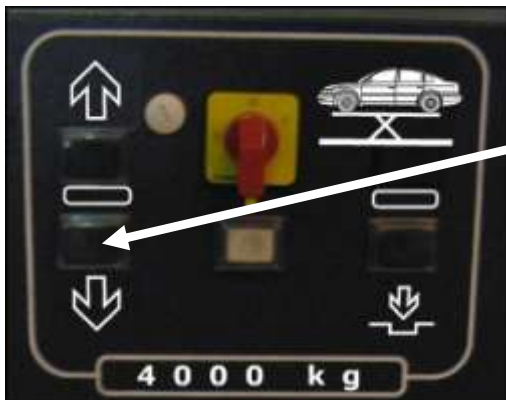
Button "Lifting"

5.2 Lowering the vehicle



Attention! Your lift is equipped with the CE-Stop safety system, during lowering the lift will stop a short distance above the floor.
Check the danger areas around and on the lift and be sure that there are no objects or people in the immediate area around the lift, or on the lift. To complete the lowering process push the 'lower' button (see pic 3) again. An alarm will sound to caution that the lift is completing its lowering function.

- Lower the vehicle to the required working height or until the platforms are in their lowest position.



Button for "Lowering" the lift

Pic. 3

5.3 Lowering onto the safety ratchet (latch)

To perform the play detector, the platforms must be lowered onto the safety ratchets (latches).

- Raise the lift to the working height.
- Push the button shown in pic 4 to lower the lift into safety ratchets. The lift will slowly lower itself to the next ratchet (latch) position.
- Continue to push this button until the hydraulic system is no longer pressurised.



Button for "lowering" to next ratchet Position.

Pic. 4

- The lift must be raised slightly before lowering to free the platforms from the ratchets (latches). Once the platforms are free of the ratchets, the lift can be lowered once again.
- Press the button "Lifting"

5.4 Manual equalisation of the lift platforms

If the lifting platforms are not level allow the hydraulic oil to cool down and check the heights again. If the platforms are still unequal a manual equalisation must be performed.

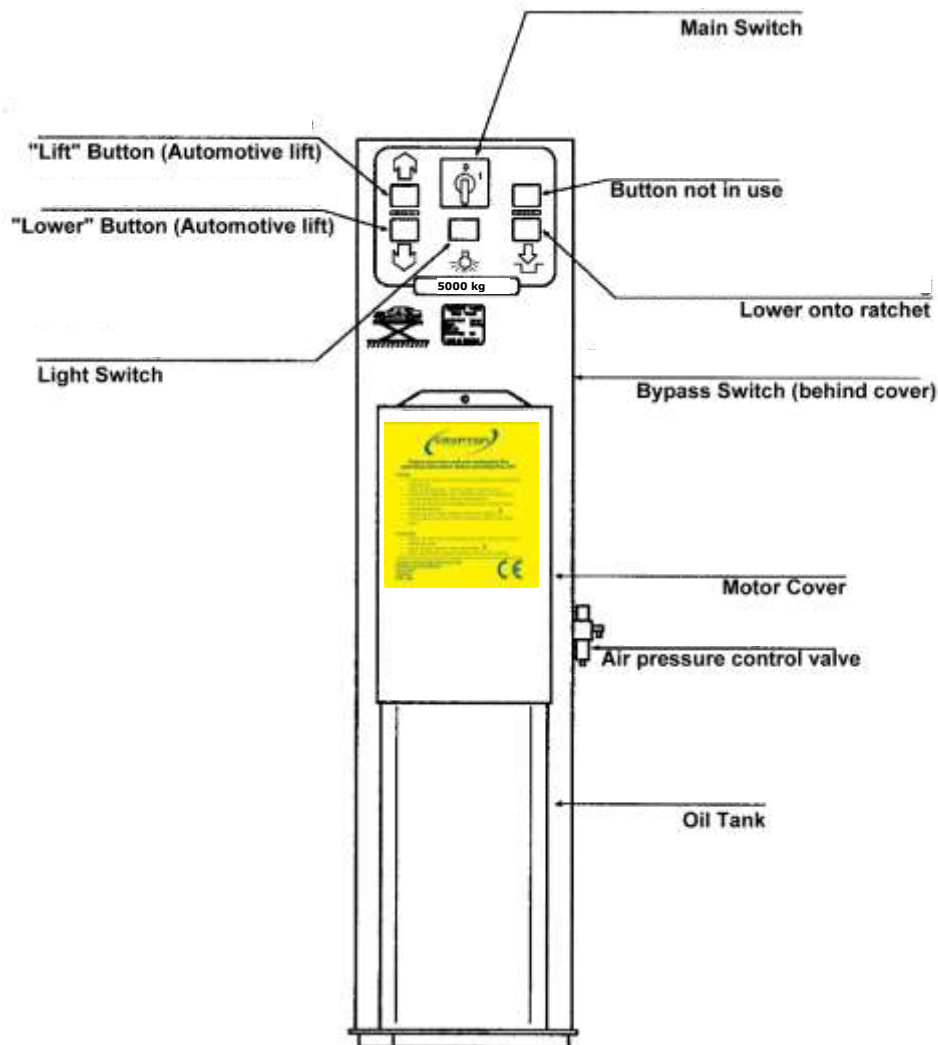


The manual equalisation process must be performed without a vehicle. During the process there is no safety device ensuring that the platforms remain level. If the manual equalisation process is performed with a vehicle present, the danger exists that the lift will become unstable and may result in the vehicle falling from the lift.

- Push the bypass switch located behind the cover on the right side of the command unit (See pic.5 and pic.6)



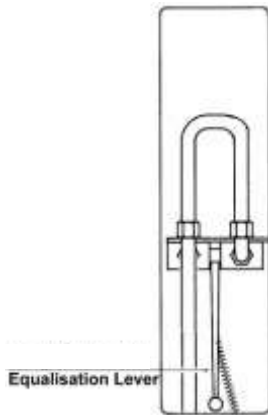
The bypass switch may only be used to restore the normal operating condition of the lift. Using the bypass switch while the lift is loaded with a vehicle may result in the vehicle falling from the lift.



Pic 5: Operating Unit

- Lower the lift to its lowest position, drive the vehicle off the lift
- Raise the lift approximately 500 mm.
- Pull equalisation lever (pic.6) 90° upwards and hold it in position.
The equalisation lever is located in the right side of the command unit (behind covering)
- Simultaneously push the bypass switch, located behind the cover in the right side of the command unit.

- While pulling the equalisation lever and pressing the bypass switch, Press either the "Up" or "Down" buttons to adjust the height until the height of the two platforms are equal.
- Once the platforms are equal in height, release the equalisation lever (It will return automatically) and close the covering.



Pic 6: Equalisation Lever

5.5 Play detector



Warning !

Only operate the Play Detector when the lift has been lowered into its Safety latch position and the cross platform traverse bar is correctly positioned and secured.

Application

The Play detector is a tool for the recognition of slackness in the ball and socket joints of vehicles. The operating unit is equipped with a operating switches and a lamp.



Pic.7
 Press the button to start the cycles with the left play detector.

Cycle: centre => left => right => centre



Pic.8
 Press the button to start the cycles with the left right play detector.

Cycle: centre => left => right => centre

The axle play detector should be operated and used in accordance with the MOT testing procedure which can be found in the relevant up to date testers manual.

- By pressing the top button the cycle of the left plate will activate. After activation release the button and check the ball joints and steering components according to the MOT procedures.
 - By pressing the lower button the cycle of the right plate will activate. After activation release the button and check the ball joints and steering components according to the MOT procedures.
- After checking, put the operating unit into the holding device. The lamp will go off.

5.6 Function test before first use.

- Before working with the play detector, carry out functionality test.
- Behind the operating unit is an additional switch with three positions.
- Remove the rear upper cover of the operating unit.



Test the function of the individual play detector plates.
Pos. "0" - This is the Position for the normal function

Pos. "1" - Plate 1 of the play detector is moveable.
Press the button of the hand lamp. The plate starts the cycle until the button is pressed again.

Pos. "2" - Plate 2 of the play detector is moveable.
Press the button of the hand lamp. The plate starts the cycle until the button is pressed again.

- After testing, set the switch on Position "0".

6. Troubleshooting

If the lift is not working properly, the reason might be quite simple. Please check the lift for the potential reasons mentioned on the following pages. If the cause of trouble cannot be found, please call the technical service department on 0844 665 7610.



Repairs to the lift's safety devices as well as repairs and examinations of the electrical fittings may only be performed by specialists.

Problem: Motor does not start!	
Potential causes: <i>No power supply</i> <i>Main switch is not engaged</i> <i>The main switch is defective</i> <i>Fuse defective</i> <i>The feed line is cut</i> <i>Thermal switch in the motor is active</i> <i>Motor is defective</i>	solution: <i>Check the power supply</i> <i>Check the main switch</i> <i>Check the main switch</i> <i>Check Fuse</i> <i>Check the complete cable</i> <i>Let motor cool down</i> <i>Call technical service</i>

Problem: Motor starts, lift does not lift!	
<p>Potential causes:</p> <p><i>The vehicle is too heavy</i> <i>Level of the oil is too low</i></p> <p><i>The emergency lowering screws are not closed</i></p> <p><i>Cylinder is defective</i> <i>Hydraulic lines are defective</i> <i>Hydraulic valve is defective</i> <i>Gear pump is defective</i></p>	<p>solution:</p> <p><i>unload the vehicle</i> <i>check the oil level, fill with hydraulic oil as required</i> <i>Check the emergency lowering screw</i> <i>Call technical service</i> <i>Check hydraulic lines</i> <i>Call technical service</i> <i>Call technical service</i></p>

Problem: the lift does not lower!	
<p>Potential causes:</p> <p><i>An obstacle is restricting the lift from being lowered</i> <i>Ratchets are engaged</i></p> <p><i>Hydraulic valve is defective</i> <i>Fuse is defective</i></p>	<p>solution:</p> <p><i>(see chapter 6.1)</i> <i>Raise lift slightly before lowering</i> <i>Call technical service</i> <i>Check the fuse</i></p>

6.1 Lowering onto an obstacle

If the lift is lowered onto an obstacle on its slave side during lowering it stops automatically. In this case push bypass switch S2 in command unit and the “lifting” button simultaneously and raise the lift until the obstacle can be removed. Now the lift can function normally again and can be used as described in this manual.

If the lift is lowered onto an obstacle on its master side during lowering it will stop automatically. In this case push button “lifting” and raise the lift until the obstacle can be removed.

6.2 Emergency lowering

In the case of **power failure**, the emergency-lowering can only be done if the automotive-lift is not locked in a safety device. If the lift is locked, the command valve cannot be opened and the security system cannot open. In this case, wait until the power failure is over.

In the case of **defective electromagnetic valves**, the hydraulic valves of the lift will not open. Therefore the lift can not be lowered. In this case there is the possibility to open the hydraulic valves manually and to lower the lift into its lowest position, so that the vehicle can be driven off.



If the vehicle is lifted with an axle-lift (jack) the axle-lift must be lowered first, because the emergency lowering screw of the axle-lift is not accessible once the lift has been completely lowered.



The emergency lowering can only be performed when the ratchets are not engaged (they can be lifted manually).



The emergency lowering must only be performed by persons instructed to use the lift. Please refer to the regulation “Lowering”.



If the hydraulic hoses are damaged replace them and continue on as described in the operating instructions.

6.2.1 Emergency lowering of the automotive lift

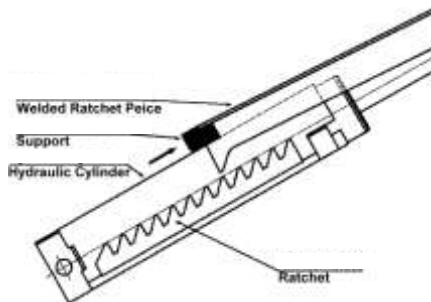
- Loosen the lock nut (marked with red colour) at the valve located at the bottom of each cylinder. This nut secures the set screw. Turn the set screw about one turn clockwise. This has to be done at both cylinders.



Warning !

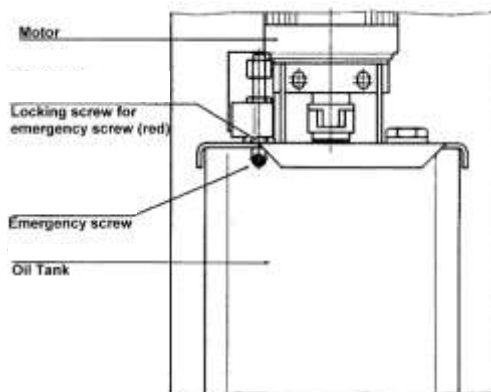
In the case where hydraulic hoses are defective, the lift will lower into the safety ratchets, once the ratchet is engaged the lift can not be lowered any more. The defective hydraulic hoses must be replaced to use the lift again.

- In the case where the hydraulic hoses are not defective, the ratchets can be raised off the hydraulic cylinders manually. This can be done by inserting a wooden wedge between the cylinder and upper part of the ratchet so that the ratchet cannot engage (see pic. 9). This must be performed at both hydraulic cylinders.



Pic 9: supporting ratchet

- Remove motor-covering from command unit (see pic. 5)
- Loosen locking screw of emergency lowering screw at command unit (marked with red colour, see pic. 10)
- Loosen emergency lowering screw (threaded pin) about one turn anti-clockwise to start lowering.



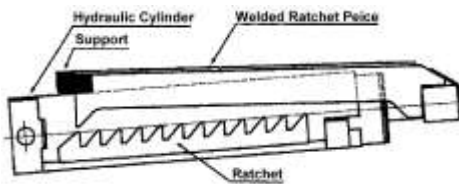
Pic 10: Position of the emergency screw

- Fasten set screw when the upper parts of the ratchets have passed the last ratchet tooth (the ratchets can no longer engage) (see pic. 11)
- Remove supports from ratchets at both cylinders



The supports must be removed before lowering the lift to the ground. Otherwise the lift can be seriously damaged.

- Continue lowering the lift (loosen set screw again) until the lift has reached its lowest position.



Pic 11: Removing support

- Fasten the set screw and secure it by fastening the locking screw.
- Turn out thread pins at both stop valves of the bottom of hydraulic cylinders. Secure them with the red security nuts.



After finishing the emergency lowering, all of the set screws must be adjusted back to their original positions. Otherwise a malfunction may occur.

- Reinstall covering plates of both stop valves in the drive-on areas of the platforms.
- Drive vehicle off the lift
- Shut down the lift until the defective pieces or valves have been replaced

7. Inspection and Maintenance



Before conducting maintenance work, preparations must be made to ensure that during maintenance and repair work there is no risk to the safety of people working on or around the lift and also that there is no risk of damage to equipment being used on or around the lift.

To guarantee the utmost availability and to ensure that the lift remains functional, maintenance work contracts are organised between our clients and their local retailers.

A service must be performed at regular intervals of 12 months through the operator in accordance with following service manual. If the lift is in continuous operation or in a dirty environment, the maintenance rate must be increased.

During daily operation the lift must be closely observed to ensure that it is functioning correctly. In the case of malfunction or leakage the technical service must be informed.

7.1 Maintenance schedule for the lift

- Before beginning any maintenance work isolate the power supply. Secure the main switch (lock it). Secure the danger area around the automotive lift and secure the lift against unintentional lowering.
- Clean the piston-rod using compressed air.
Grease the piston rods with multipurpose oil.
Clean and check the stripper of the guidance-piston.
- Grease the lubricate nipples with a multipurpose lipid. (Example: Auto Top 2000 LTD. Agape)
- Clean and lubricate the moving parts of the lift (hinge bolts, sliding pieces, and sliding surfaces) grease with a multipurpose lipid (example: Auto Top 2000 LTD. Agape).
- Check the hydraulic tubes for leakage.
Life time of the hydraulic hoses.
The use duration of the hose lines should not exceed six years, including a storage time of at the most two years.

Deviating of the use duration, according to available inspection results and empirical values with consideration of the operating conditions, can be specified in individual cases (excerpt from standard: ZH 1/74// DIN 20066).

- Remove all fluids in the canister. After it, seal the cover again.
- Check the oil level. Fill the tank with clean, high quality oil (32 cst) (e.g. HLP 32 LTD. OEST Company)
- The hydraulic oil has to be changed at least once a year. To change the oil, lower the lift into its lowest position. Empty all tanks and refill with clean oil, see chapter 3.1.
Use an ATF-Suffix hydraulic-oil (OEST Company) if the ambient temperature is less than 5 degrees centigrade. After filling, the hydraulic oil must be between the upper and lower markings of the oil level gauge.
Remove the old oil according to the appropriate regulations.
- Check all welded joints for cracks on the automotive-lift.
If any cracks are found on the lift cease use immediately. Switch-off and secure the main switch (lock) and call the service partner.
- Check the condition and the function of the safety ratchet.
- Check all surfaces and repair if necessary.
- Damage to external surfaces, must be immediately repaired.
If these repairs are not made immediately, permanent damage to the powder-coated surface may result.
Repair and clean damaged areas with an abrasive paper (grain 120). After this is complete, use a suitable paint (observe the RAL Number).
- Check the zinc surface and repair it with a suitable tool. Use abrasive paper (grain 280).
White rust can result from moisture lying in certain areas for long periods of time. Poor aerating can also result in rust formation.
Rust may result from mechanical damage, wear, aggressive sediments (de-icing salt, liquids) or insufficient cleaning.
Repair and clean these areas with abrasive paper (grain 280).
After this is complete, use a suitable paint (observe the RAL Number).
- Check all the safety devices of the lift (ratchet, the optional CE-Stop, etc.)
- Check the electric cable and channels for Damage.
- Check all the covers for Damage.
- Check that all screws and bolts are correctly torque (turning moments, see the list)

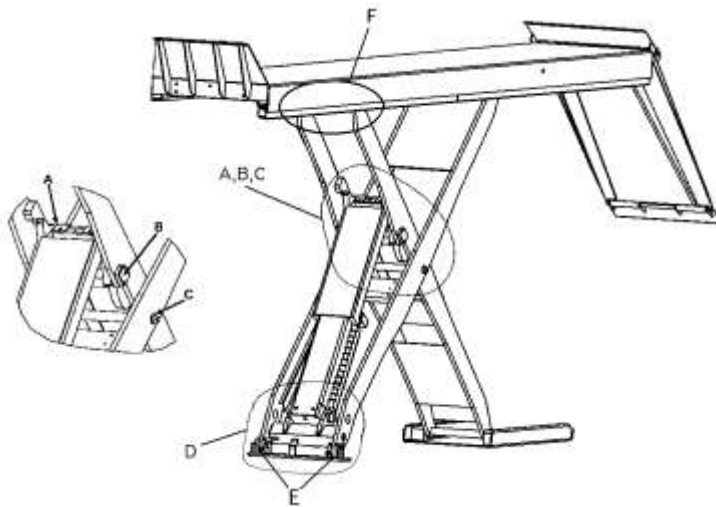
Turning moment for screws

	property class 8.8			property class 10.9		
	0,10*	0,15**	0,20***	0,10*	0,15**	0,20***
M8	20	25	30	30	37	44
M10	40	50	60	59	73	87
M12	69	87	105	100	125	151
M16	170	220	260	250	315	380
M20	340	430	520	490	615	740
M24	590	740	890	840	1050	1250

* sliding friction 0,10 for very good surfaces, lubricated
 ** sliding friction 0,15 for good surfaces, lubricated oder dry
 *** sliding friction 0,20 surface black or phosphated, dry

Pic 12:

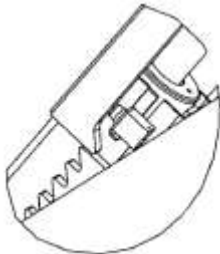
The following bearing points of the LIFT should be examined by a competent person (as described in this manual) who is able to judge the structural integrity of the lift. After examining the lift, the bolts and bearing bushings should be lubricated as described in this manual.



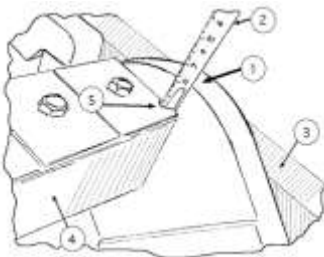
- Pos. A** - Piston-rod head and bearing bushings.
- Pos. B** - Bolt and bearing bushings of cylinder hinge plate.
- Pos. C** - Central bolt and bearing bushings.
- Pos. D** - Lower cylinder bolt and bearing bushings.
- Pos. E** - Lower fixed-bearing bolt and bearing bushings.
- Pos. F** - Upper fixed-bearing bolt and bearing bushings.

Pos. A - Piston-rod head and bearing bushings

Raise the lift slightly over the highest safety ratchet position.
Do NOT lower the lift in to the locked position.



Pic G: Position A (Piston-rod Head)



Pic H: Measuring points

Measuring the dimension between points 1 and 5. (see illustration)

- 1 - Highest measuring point at cylinder hinge plate
- 2 - Measuring tape
- 3 - Inner scissor arm
- 4 - Square piston-rod head
- 5 - lowest measuring point at leaf spring (or square head)

Make sure that leaf springs are properly tightened down. In some lift models the leaf springs are fitted differently from the illustration. In such cases the measurement should be taken from the top surface of the square head.

Check the following dimension:

The original dimension (lift in as new condition) between leaf spring and the highest point of the cylinder hinge plate is:

Model CSL640/CSL641: Original dimension: $7,5 \pm 2\text{mm}$



If the measurement is taken directly from the square head, add 2mm to the measured dimension to obtain the original dimension of the lift in as an new condition.

Pos. B - Bolt and bearing bushings of cylinder hinge plate



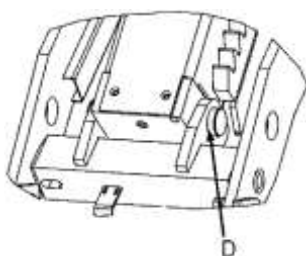
- Remove cover
- Clean area. Visually examine condition of bolt and bushings for wear. Do NOT move or remove bolt.
- Both scissors need to be examined.
- Repair or re-install back to original condition. Grease/oil as described in the lubrication instructions

Pos. C - Central bolt and bearing bushings



- Remove castle-nut and split-pin
- Clean area. Visually examine the condition of bolt and bushings for wear. Do **NOT** move or remove bolt.
- Both scissors need to be examined
- Repair or re-install back to original condition. Grease/oil as described in the lubrication instructions.

Pos. D - Lower cylinder bolt and bearing bushings



- The condition of the bolt and bushings need to be visually examined for wear.

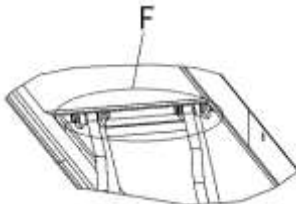
- The platforms of the lift need to be lowered on to an adequate support, so that the cylinder is unloaded. **Be careful not to damage the safety ledge!**
- Remove the split-pin from the bolt.
- Slide the bolt only so far until the bearing surface of the bushing can be examined.
- Both scissors need to be examined.
- Repair or re-install back to original condition. Grease/oil as described in the lubrication instructions.

Pos. E - Lower fixed-bearing bolts and bearing bushings



- The condition of the bolts and bushings need to be visually inspected for wear and abrasion.
- Remove the split-pin from the bolt.
- Slide the bolt only so far until the bearing surface of the bushing can be examined
- Both scissors need to be examined.
- Repair or re-install back to original condition. Grease/oil as described in the lubrication instructions.

Pos. F - Upper fixed-bearing bolts and bearing bushings



- The condition of the bolts and bushings need to be visually inspected for wear and abrasion.
- Remove the split-pin from the bolt.
- Slide the bolt only so far until the bearing surface of the bushing can be examined.
- Both scissors need to be examined.
- Repair or re-install back to original condition. Grease/oil as described in the lubrication instructions.

Lubrication Instructions for bearing points

The bushings used on our lifts are self-lubricating. No maintenance is necessary under normal operating conditions. In extreme cases, for instance in aggressive environments with heavy dust and dirt, paint mist and chemicals there is a risk of corrosion through the penetration of foreign objects at the bearing points. Lubrication can improve the protection of these areas. This practice is recommended as a preventative measure. The lubrication should be carried out as follows:

- With a grease gun, whenever the bearing has a grease nipple.
- For bearings without grease nipples, use a lubricating spray with good viscous properties. Be sure to thoroughly clean all surfaces before applying the grease.

There should be no load on the bearing during the greasing operation. Please observe the safety instructions.

After having lubricated the bearings, the lift should be run up and down a few times, without a load, so that the grease properly spreads in the bearings.
In order to maintain the grease film, the bearings should be lubricated on a regular basis. We recommend this should be done at least once a month or, more often when the lift is being used more intensely.

Recommended lubricants:

Grease: any regular grease

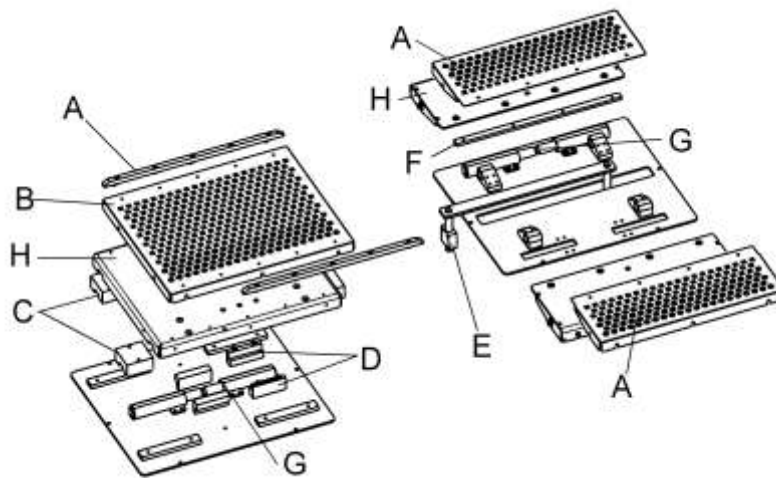
Do not use grease with Graphite or Mos 2 additives.

Spray: any regular lubricating spray

Do not use spray with a Silicon additive.

7.2 Maintenance schedule for the play detector

To be carried out at least once in a period of twelve months.



- Before beginning any maintenance work isolate the power supply. Secure the main switch (lock it). Secure the danger area around the automotive lift and secure the lift against unintentional lowering.
 - A Clean the position assistance and examine it for damages.
 - B Clean the plate with air pressure and examine it for damages. Afterwards lubricate with multipurpose grease.
 - C First remove the plates B, H before cleaning the sliding blocks with air pressure and examine it for damages. After lubricate with multipurpose grease.
 - D Clean the plate with air pressure and examine it for damages. Afterwards lubricate with multipurpose grease.
 - E Check the easy-running of the lifting device.
 - F Clean the plate with air pressure and examine it for damages. Do not lubricate this sliding block, otherwise the dirt remains hanging on it
 - G Clean the piston-rods using compressed air.
- Check the hydraulic tubes for leakage.
Life time of the hydraulic hoses.
The use duration of the hose lines should not exceed six years, including a storage time of at the most two years.
Deviating of the use duration, according to available inspection results and empirical values with consideration of the operating conditions, can be specified in individual cases (except from standard: ZH 1/74// DIN 20066).

- Check the press buttons, lamp, and cable of the hand lamp.
- Check the function of the play detector with the hand lamp.

7.3 How often must the lift be cleaned?

A regular and appropriate maintenance practice will aid the preservation of the lift.

No guarantees can be given when damage (egg rust or fading colour) is the direct result of poor maintenance and cleaning practice.

Regular cleaning of all kinds of dirt is the best protection against wear and the formation of rust and will prolong the life of the lift

- Dirty deposits that can cause rust include:

- de-icing salt
- sand, pebble stone, natural soil
- all types of industrial dust
- water; also in connection with other environmental influences
- all types of aggressive deposits
- constant humidity caused by insufficient ventilation

Obviously this is dependent on the type of work being done with the lift, the degree of cleanliness of the workshop and location of the lift. The degree and amount of dirt is dependent on the season, on the weather conditions and the ventilation of the workshop.

During poor conditions it may be necessary to clean the lift once week, but cleaning once a month will suffice.

Clean the lift and the floor with a non-aggressive and non-abrasive detergent. Use a gentle detergent to clean the parts. Use standard washing-up liquid and lukewarm water.

- Do not use steam jet cleaners.
- Remove all dirt carefully with a sponge or if necessary with a brush.
- Ensure that no washing-up liquid is left on the lift after cleaning.
- Do not use aggressive means for cleaning the workshop floor and the automotive lift.
- A permanent contact with any kind of liquid is not allowed. Do not use high pressure devices for cleaning the lift.

8. Security check

The security check is necessary to guarantee the safety of the lift during use. It has to be performed in the following cases:

1. Before the initial operation, after the first installation.
Use the form "First security check".
2. In regular intervals after the initial operation, at least annually.
Use the form "Regular security check".
3. Every time the construction of that particular lift has been changed.
Use the form "Extraordinary security check".



The first and regular security check must be performed by a competent person. It is also recommended that a service be carried out during these checks.



After the construction of the lift has been changed (for example changing the lifting height or capacity) and after serious maintenance works (welding on load bearing parts) an extraordinary security check must be performed by an expert.

This manual contains a form with a schedule for the security checks. Please use the appropriate form for the particular security check. The forms should remain in this manual after they have been filled out.

9. Installation and Initiation

9.1 Installation of the lift

The standard installation requires the command unit to be installed at the front right side of the lift (refer to data sheet). The command can be installed in other areas if necessary but special hydraulic hoses are needed.

9.2 Regulations for the installation

- The installation of the lift is performed by trained technicians of the manufacturer or its distribution partner. If the operator can provide trained mechanics, he can install the lift himself. The installation has to be done according to this regulation.
- For the installation a concrete floor with a specified thickness (see foundation plan) and a quality of at least C20/25 has to be provided. If these requirements cannot be fulfilled a foundation according to the foundation plan must be made. The area must be completely even. Foundations located outside or in areas that are vulnerable to frost must be made frost proof.
- An electric supply 3~/N + PE, 400 V, 50 Hz has to be provided by the customer. The connection is located in the command unit.
- A compressed air supply with an inside diameter of 6 mm must be provided at the command unit. The pressure must be 6 bar (max. 10 bar).
- All cable ducts have to be equipped with protective coverings to prevent accidental damage.

9.3 Erection and doweling (Masonry bolting) the lift

- Install the lift according to the data sheet and the foundation plan, also see TES1532
- Install command unit at its specified place and connect it with air and power supply.
- Fill the hydraulic oil, approximately 10 litres. A high quality hydraulic oil is recommended, its viscosity should be 32 cst. (HLP 32 OEST Company)
- Connect hydraulic and pneumatic hoses and electrical wires between command unit and lift in accordance with plan:

- Push "up" button until the vent screw at the top of master cylinder is accessible. If the lift does not work activate bypass switch (see pic. 5) in addition with the "up" button until the lift is at the relevant height.
- Open vent screw (cylinder screw with copper ring), located at upper side in guide bush of the master cylinder. Unscrew until oil comes out of the bore-hole for deaerating (Do not unscrew vent screw completely).
- Shut vent screw immediately and fasten it.
- If the ratchets of the lift engage before oil comes out of the vent screw, shut the vent screw and lift the lift with button "up" until the ratchet is no longer engaged.
- Afterwards repeat deaerating as described until oil comes out of the ventilating screw.
- Carry out equalisation of the platforms as described in the „operating instructions“ chapter.
- Raise the lift to a height of 1500 mm.
- Before the lift is doweled to the ground, the quality of the ground must be checked. For an existing concrete floor the dowels have to be chosen according to pic. 16, if the ground is covered with floor tiles, the dowels have to be chosen according to pic. 17.
- CRYPTON demands dowels that are recommended on pages 64 and 65 of this manual.
- Check adjustment of the ground plates again. Drill the holes into the ground through the corresponding holes in the ground plates. Clean the holes and insert dowels.
- Adjust lift according to separate instruction. The manufacturer demands Liebig safety-dowels type B 12 or equal dowels from another manufacturer.
- Adjust the lift by screwing the adjusting screws at the base plate of the sliding end and the fixed pivot end. Adjust one platform until it is level first and then adjust the second platform so that it is even with the first.
- Tighten the dowels (masonry bolts) with a dynamometric key or torque wrench (M = 70 Nm)



Each dowel (masonry bolt) must be tightened to a torque of 70 Nm. Otherwise the normal function of the lift can not be guaranteed.

- Lift and lower the automotive lift repeatedly. Tighten dowels with dynamometric key or torque wrench again (M = 70 Nm) and check hydraulic lines are tightly sealed.

9.4 Initiation



Before the initiation a security check must be performed. Therefore use form: First security check.

If the lift is installed by a competent person, he will perform this security check. If the operator installs the lift by himself, he must instruct a competent person to perform the security check. The competent should confirm the faultless function of the lift in the installation record. The form for the security check should be completed before the lift is allowed to be used.



Please send the filled installation record to the manufacturer after installation.

9.5 Changing of the place of installation

If the place of installation must be changed, the new place has to be prepared according to these regulations. The changing of the location must be performed according to the following schedule:

- Loosen dowels.
- Lift the lift without any load to a height of 500 mm.
- Put a wooden bar with a sufficient length (longer than platform's width) under the central axes of the each of the scissors.
- Lower the lift until the central axes rests on the wooden bar and the ground plates begin to lift of the ground.

Secure the lift against swinging and overturning by appropriate means in order to eliminate the danger of accident.

- Tie the ground plates to the platforms.
- Disconnect electrical wires, hydraulic hoses and air hoses.
- Transport the lift to its new location.
- Install the lift according to these regulations.



Use new dowels. Used dowels have been mechanically stressed and MUST not be used.



A security check must be performed by a competent person before reinitiating. Use form "Regular security check".

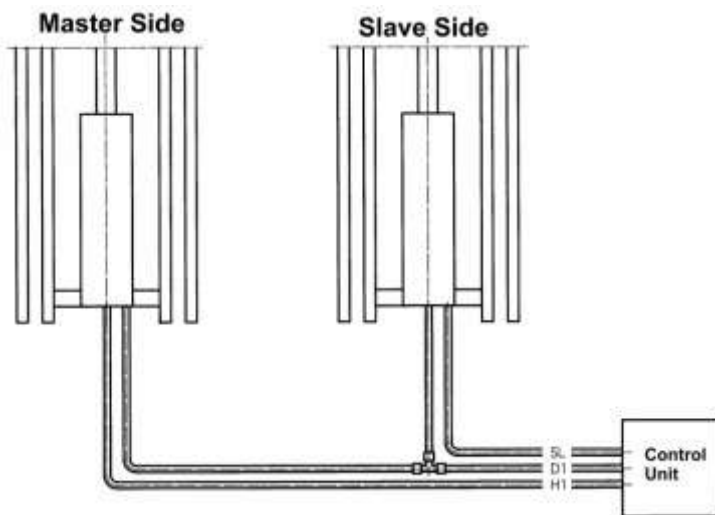
- If necessary, carry out a reset before the first operation. (see chapter 6.3)
- Raise the lift to a height of about 800 mm.
- Mount the lifting arms.
- Raise and lower the lift several times without a load (vehicle) to the upper and lower limits.
- Check that the safety devices are functioning correctly.
- Raise and lower the lift several times with a vehicle to the upper and lower limits. (see chapter 5.2)
- Check the hydraulic system for leakages.
- Check that the masonry-bolts are correctly torqued again.



In the case of any faults, call Customer Service immediately!



Pic 13:
Connection of hydraulic hoses in command unit

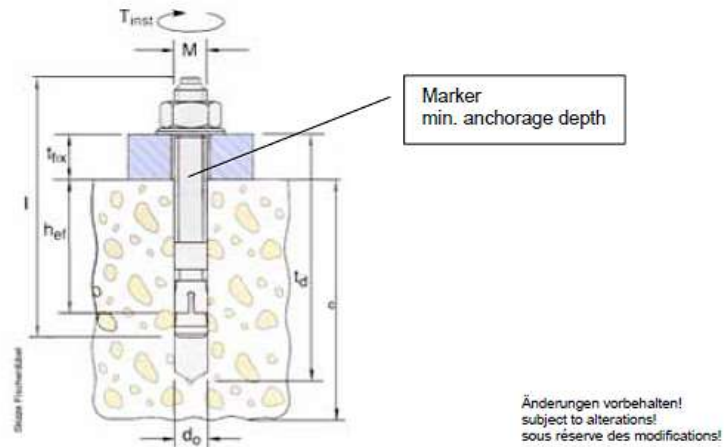


Pic 14:
Hydraulic hoses paths
from command unit to the lift



Pic.15 Electrical parts in command unit

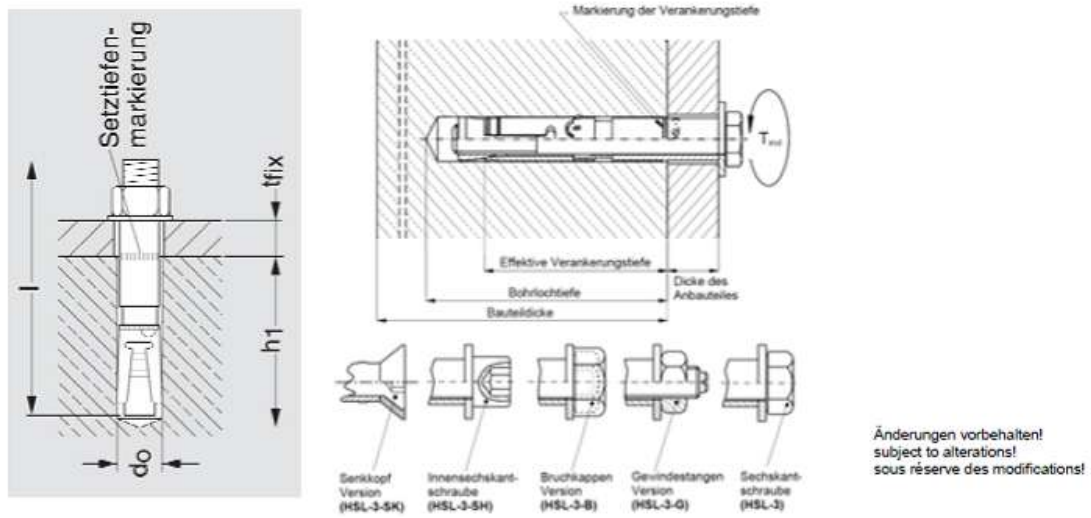
Pic.16 Choice of the dowels

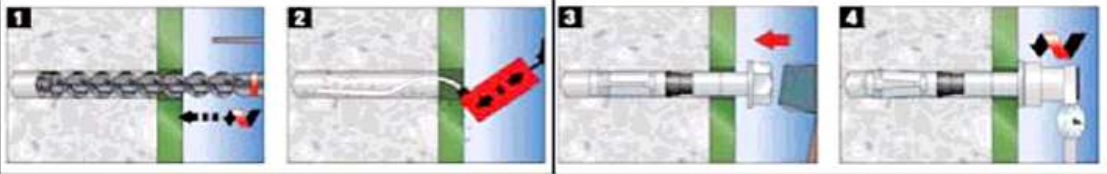


fischer-Dübel		CSL 640/641		
		FH 15/50 B BestellNr. 970265	FH 18 x 100/100 B BestellNr. 972230	FH 24/100 B BestellNr. 970267
Dübel typ of dowel type de cheville				
Bohrtiefe drilling depth Profondeur de l'alsage	td	145	230	255
Mindestverankerungstiefe min.anchorage depth Profondeur minimale d'ancrage	hef	70	100	125
Betonstärke thickness of concrete Epaisseur du béton	c	siehe den aktuellen Fundamentplan see current foundation-diagram drawing vois le plan de fondation actuel		
Bohrerdurchmesser diameter of bore Diamètre de l'alsage	do	15	18	24
Bauteildicke thickness of the lift-piece Epaisseur de la pièce	tfix	0-50	0-100	0-100
Anzugsdrehmoment Nm turning moment moment d'une force	MD	40	80	120
Gesamtlänge Total length Longueur totale	l	155	230	272
Gewinde Thread fil	M	M10	M12	M16
Stückzahl piece number nombre des pièces	a	4		
	b	8		
	c	10		
	d	12		
	e	16		
	f	20		
	g	14		
<p>Montage</p>				
<p>Es können auch gleichwertige Sicherheitsdübel anderer Hersteller (mit Zulassung) unter Beachtung deren Bestimmungen verwendet werden. It is possible to use equivalent safety-dowels (with license) of other manufacturer but observe their regulations. Des chevilles des autres marques (autorisées) peuvent aussi être choisies en respectant les directives du fabricant.</p>				

You can use equivalent dowels from another dowel manufacturer (with license) but observe their regulation.

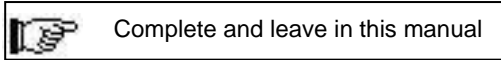
Pic 17: Choice of the dowel length with floor pavement or tile surface



Hilti-anchor		CSL 640/641				
Bodenbelag (Estrich, Fliesen)		ohne Bodenbelag	With tiles		ohne Bodenbelag	mit Bodenbelag
			Without tiles	With tiles		
Dübel typ of dowel type de cheville		HSL-3-G M10/40 Art.Nr.371797	HSL-3-G M12/50 Art.Nr.371800	HSL-3-G M12/100 Art.Nr.371831	HSL-3-G M18/50 Art.Nr.371803	HSL-3-G M18/100 Art.Nr.371832
Bohrtiefe drilling depth Profondeur de l'alésage	h1	90	105	105	125	125
Mindestverankerungstiefe min.anchorage depth Profondeur minimale d'ancrage	hef	70	80	80	100	100
Betonstärke thickness of concrete Epaisseur du béton	c	siehe den aktuellen Fundamentplan see current foundation-diagram drawing vois le plan de fondation actuel				
Bohrerdurchmesser diameter of bore Diamètre de l'alésage	do	15	18	18	24	24
Bauteildicke thickness of the lift-piece Epaisseur de la pièce	tfix	0-40	0-50	0-100	0-50	0-100
Anzugsdrehmoment Nm turning moment moment d'une force	Tinst	35	60	60	80	80
Gesamtlänge Total length Longueur totale	l	135	164	214	188	238
Gewinde Thread fil	M	10	12	12	16	16
Stückzahl piece number nombre des pièces	a	4				
	b	8				
	c	10				
	d	12				
	e	14				
	f	16				
	g	28				
						
<p>Es können auch gleichwertige Sicherheitsdübel anderer Hersteller (mit Zulassung) unter Beachtung deren Bestimmungen verwendet werden. It is possible to use equivalent safety-dowels (with license) of other manufacturer but observe their regulations. Des chevilles des autres marques (autorisées) peuvent aussi être choisies en respectant les directives du fabricant.</p>						

You can use equivalent dowels from another dowel manufacturer (with license) but observe their regulation.

First security check before installation



Serial-number: _____

Check:	all right	defect missing	verification	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moments of screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of surface of piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of electrical wires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible

.....
Signature of the expert


.....
Signature of the operator

If failures must be repaired:

Failures repaired at: Signature of the operator

(Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible

.....
Signature of the expert

.....
Signature of the operator


If failures must be repaired:

Failures repaired at : Signature of the operator



(Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible

.....
Signature of the expert


.....
Signature of the operator

If failures must be repaired:

Failures repaired at:Signature of the operator

(Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible

.....
Signature of the expert


.....
Signature of the operator

If failures must be repaired:

Failures repaired at:Signature of the operator

(Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible


.....
 Signature of the expert

.....
 Signature of the operator

If failures must be repaired:

Failures repaired at:Signature of the operator
 (Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible


.....
 Signature of the expert

.....
 Signature of the operator

If failures must be repaired:

Failures repaired at:Signature of the operator
 (Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	verification	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible


.....
Signature of the expert

.....
Signature of the operator

If failures must be repaired:

Failures repaired at: Signature of the operator
(Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	verification	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible

.....
Signature of the expert


.....
Signature of the operator

If failures must be repaired:

Failures repaired at: Signature of the operator

(Use another form for verification!)

Regular security check and Maintenance

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name :.....Date :.....

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible


.....
 Signature of the expert

.....
 Signature of the operator

If failures must be repaired:

Failures repaired at: Signature of the operator
 (Use another form for verification!)

Extraordinary security check

 Complete and leave in this manual

Serial-number: _____

Check:	all right	defect missing	veri- fication	Remarks
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sticker "max. capacity".....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button lifting/lowering/equalization.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of concrete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of Safety bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function play detector / lamp / press button.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of automotive lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of paint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels (bolts).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
torque moments of the screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition surface piston rod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of hydraulic oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closeness of the hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function safety devices.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of welding.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function/condition of ratchet.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever condition (connected to top of cyl) ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting lever press plate condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function acoustic warning signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(mark here applicable, in case of verification mark in addition to the first mark!)

Security check carried out. Name : Date :

Carried out by (Company):.....

Signed by (Competent person):.....

Result of the Check:

- Initiation not permitted, verification necessary
- Initiation possible, repair failures until.....
- No failings, Initiation possible

.....
 Signature of the expert

.....
 Signature of the operator

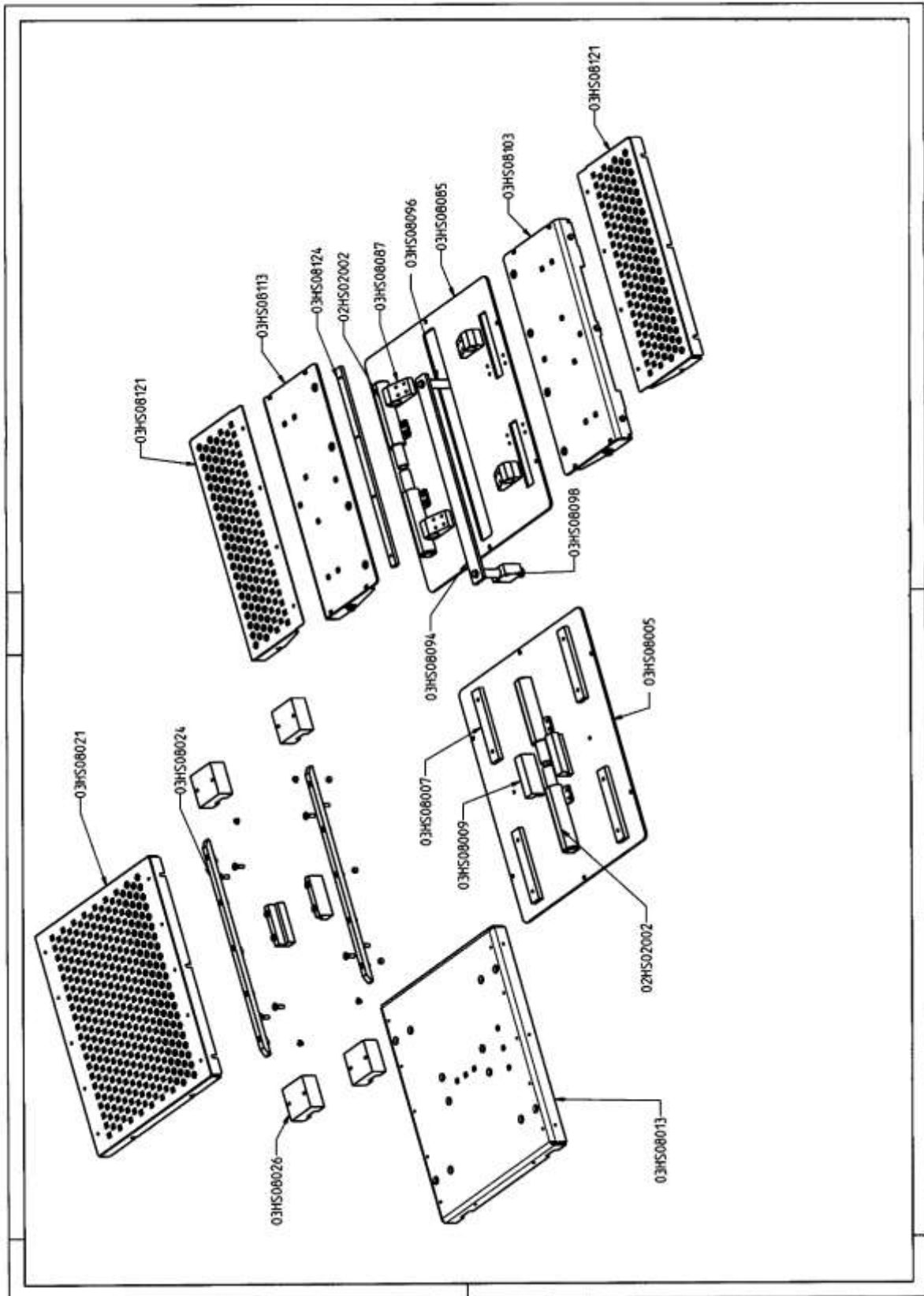
If failures must be repaired:

Failures repaired at:

..... Signature of the operator

(Use another form for verification!)

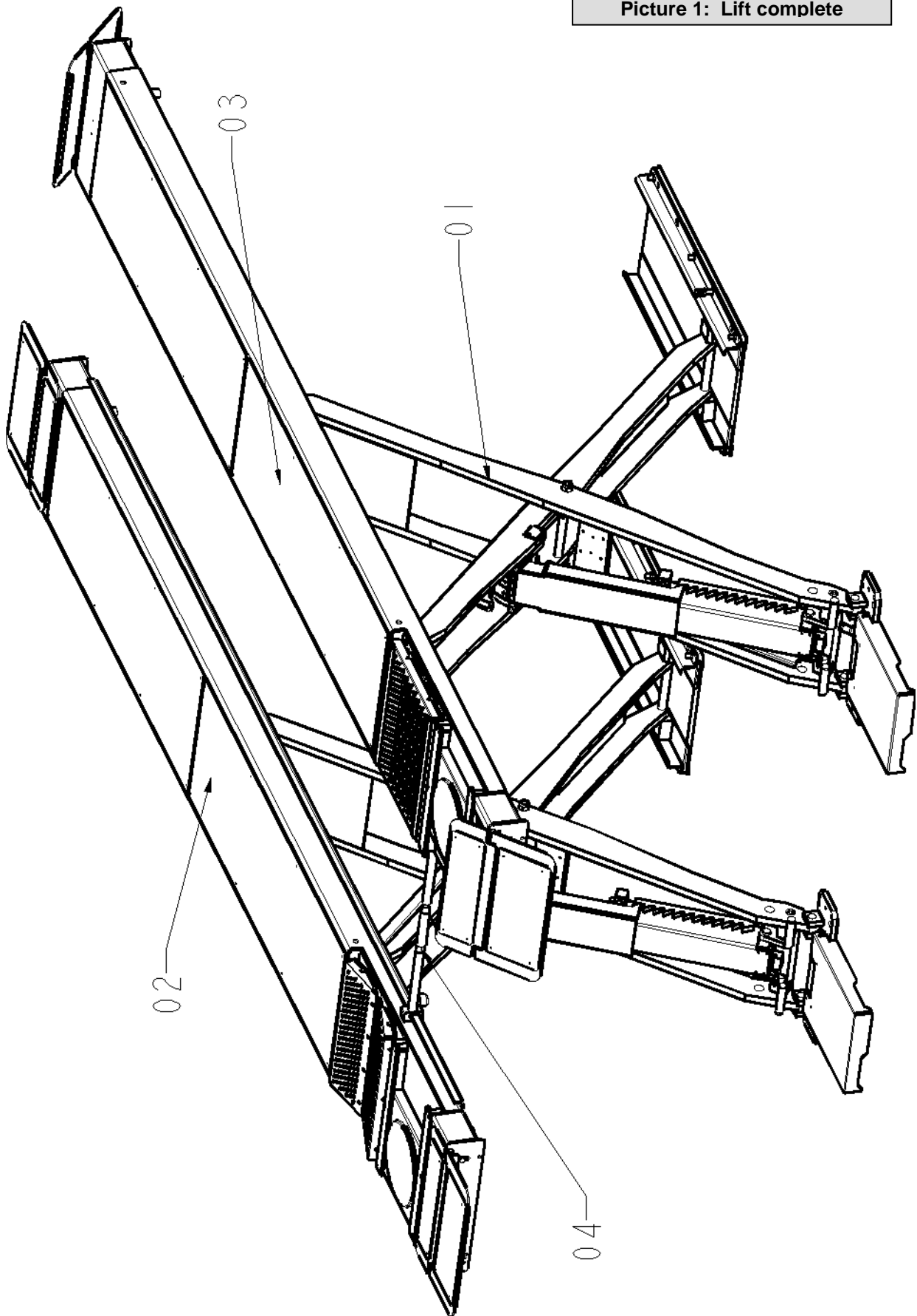
CPD600 Assembly Details



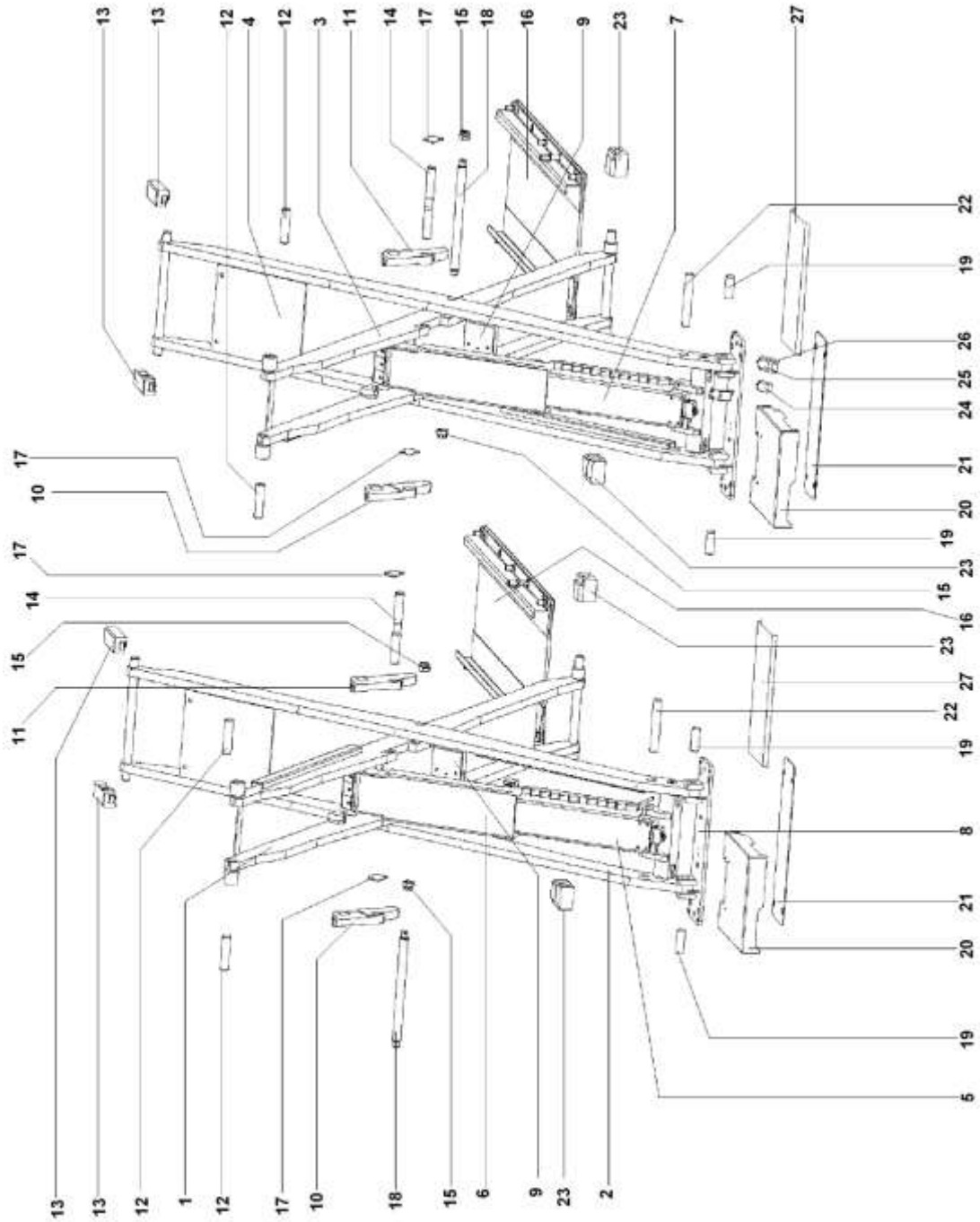
Spare parts list

Pages: 76 to 99

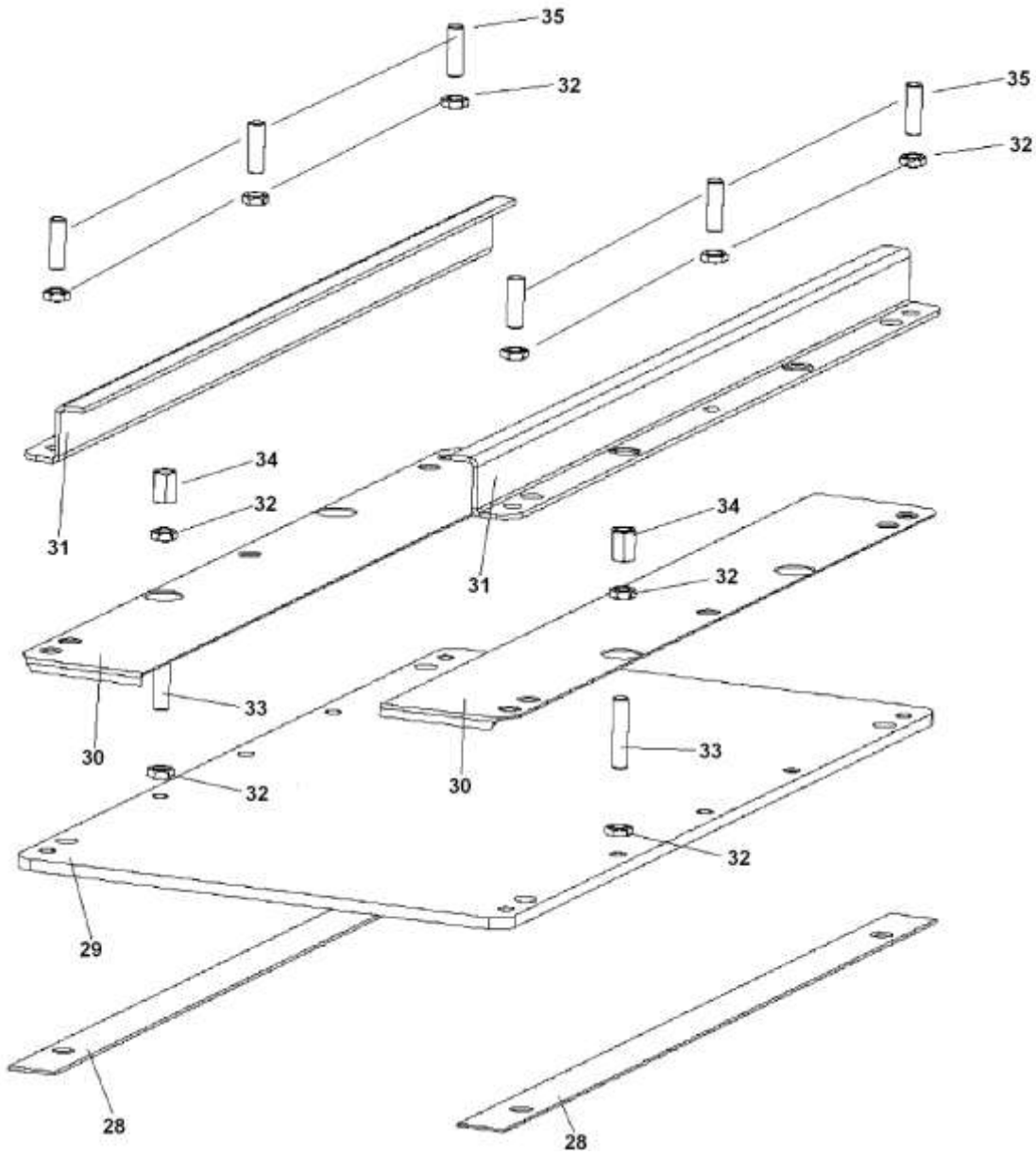
Picture 1: Lift complete



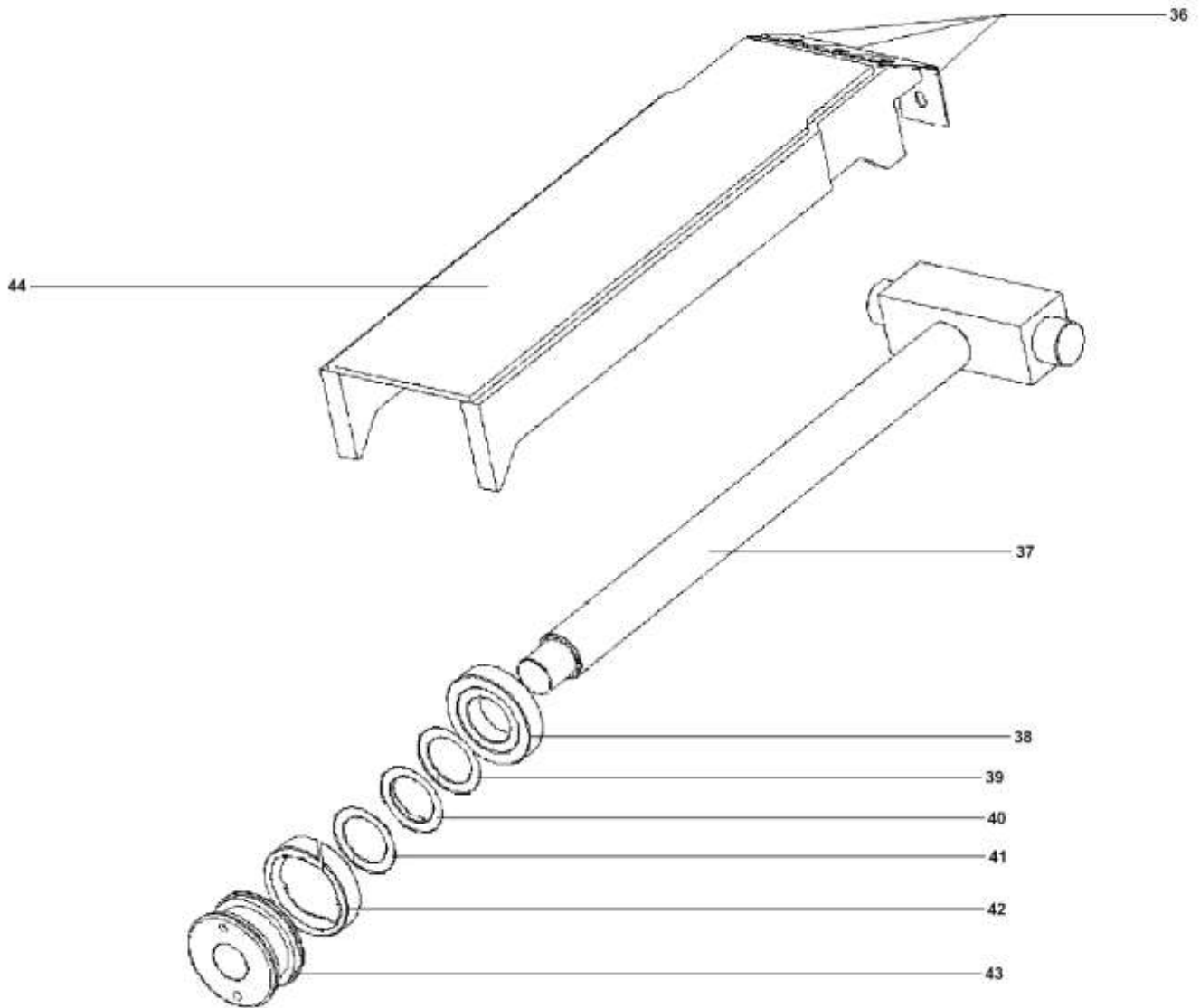
Picture 2: Scissors



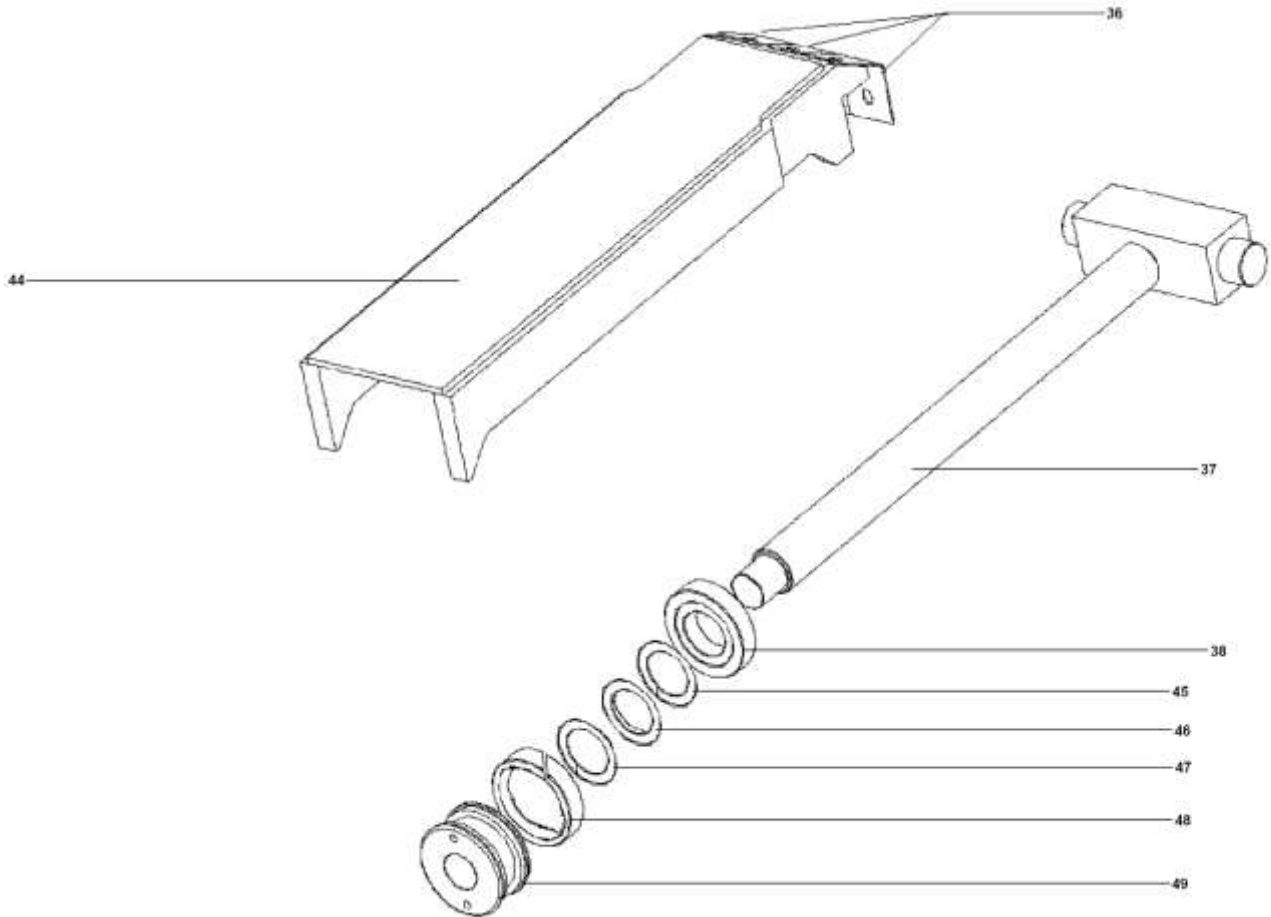
Picture 3: Base plate



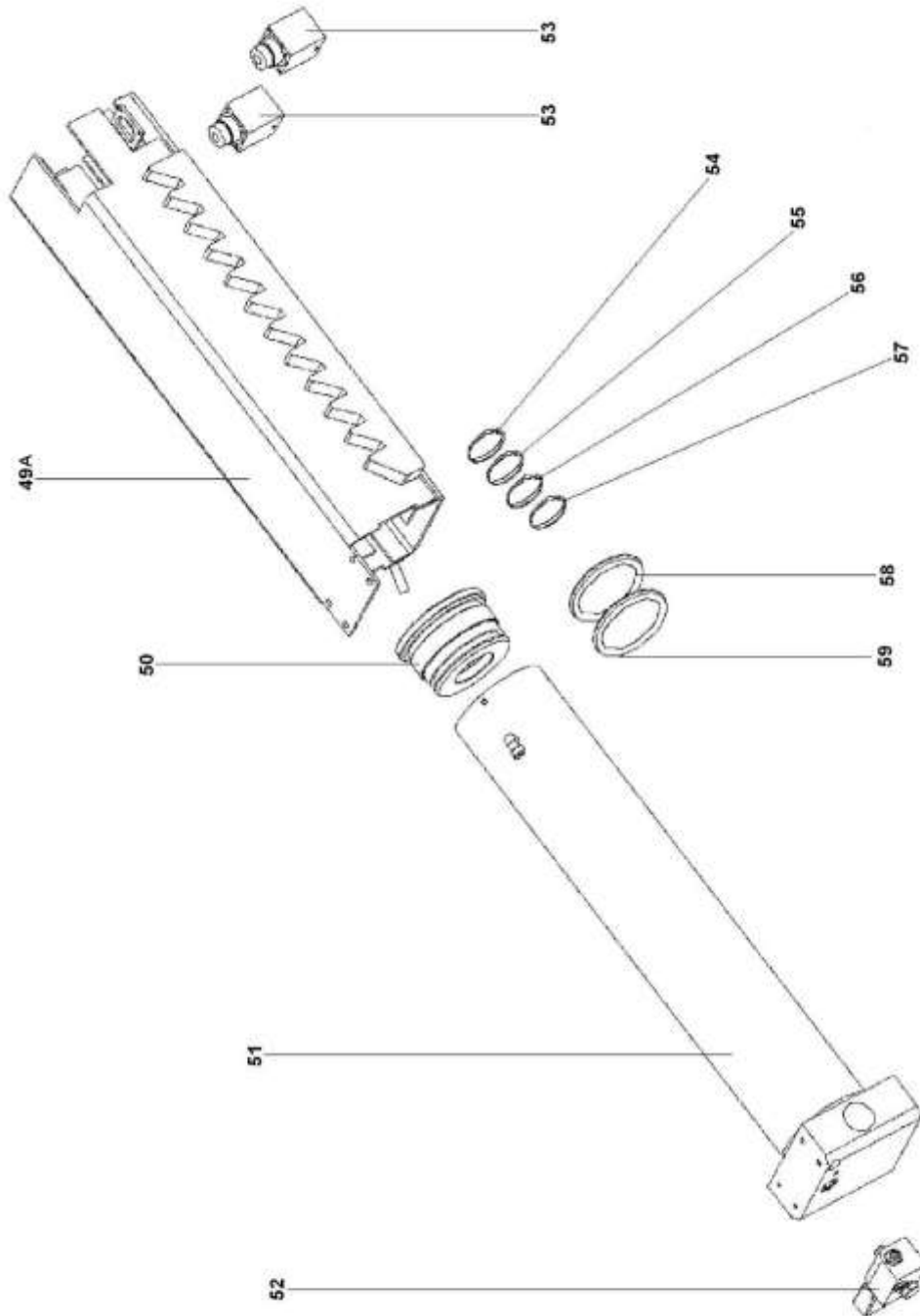
Picture 4: Ratchet slave side



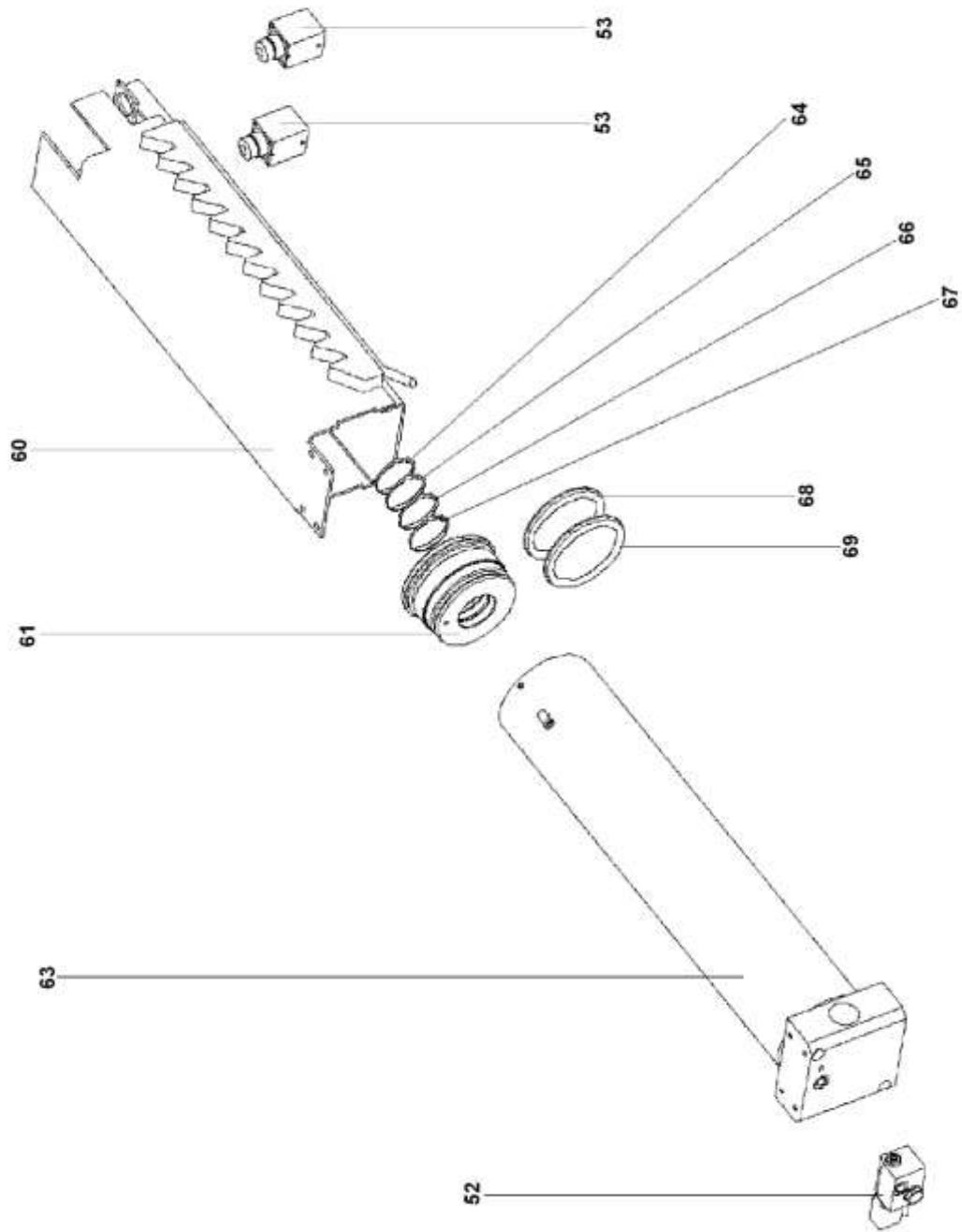
Picture 5: Ratchet master side



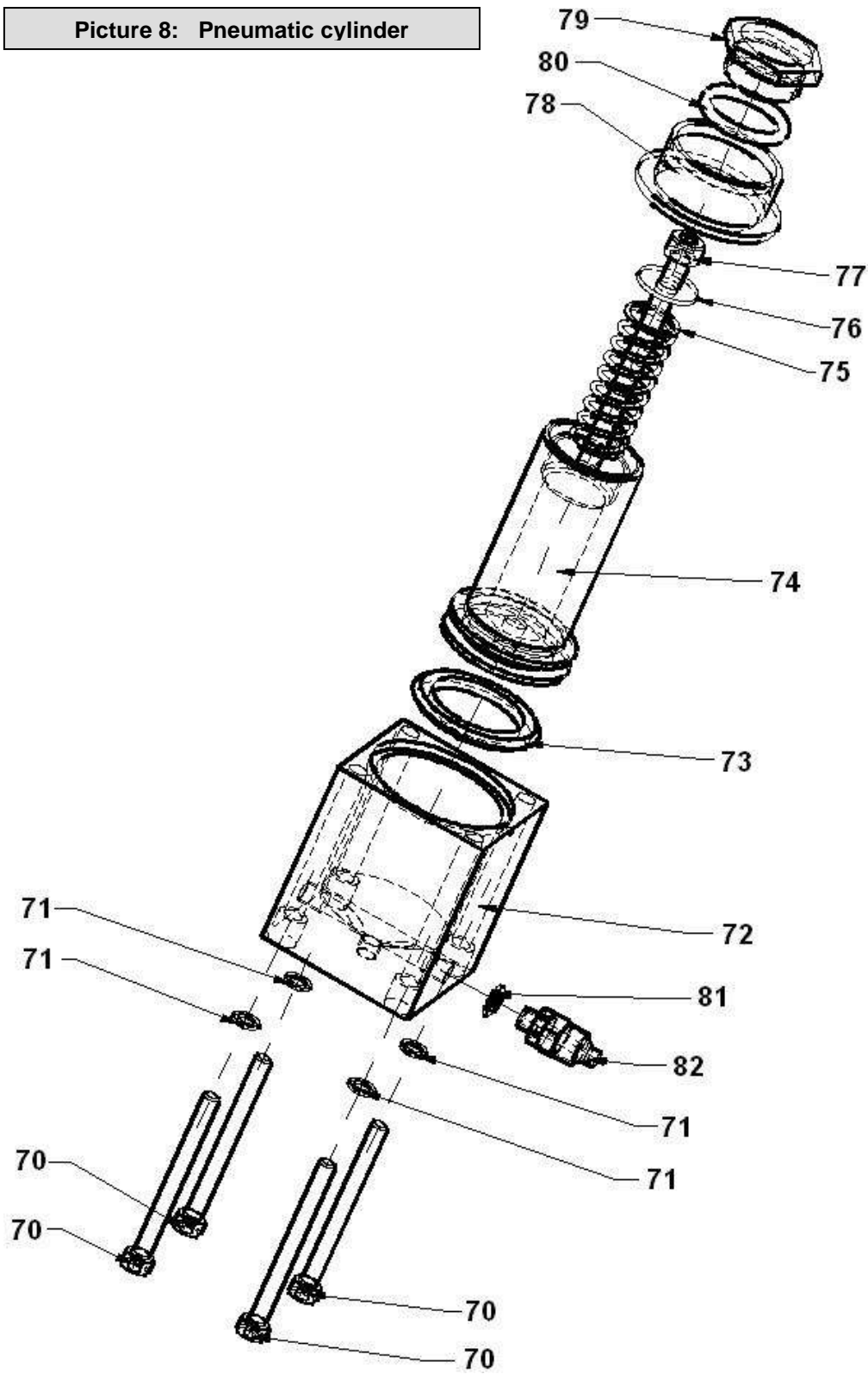
Picture 6: Cylinder slave side



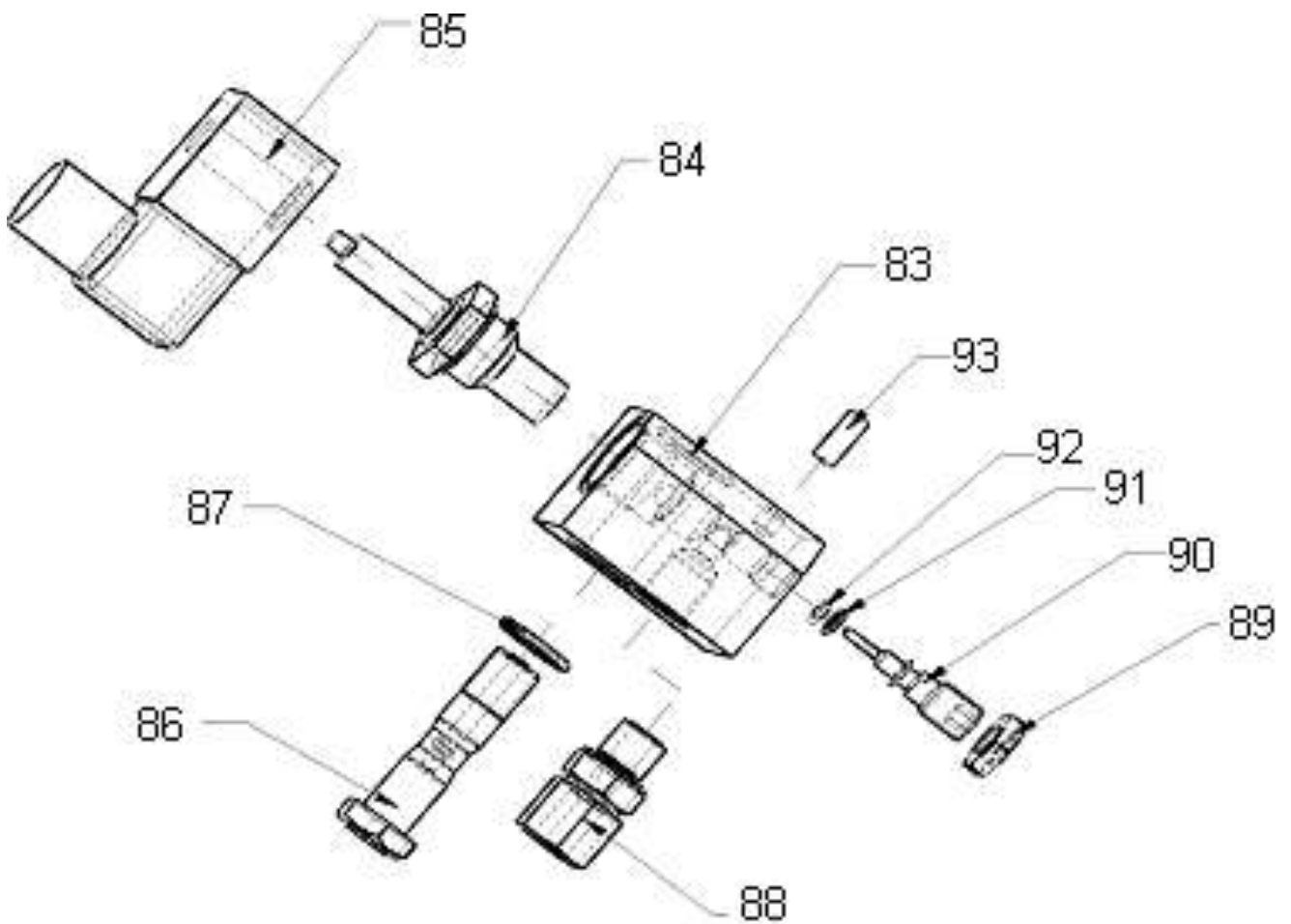
Picture 7: Cylinder master side



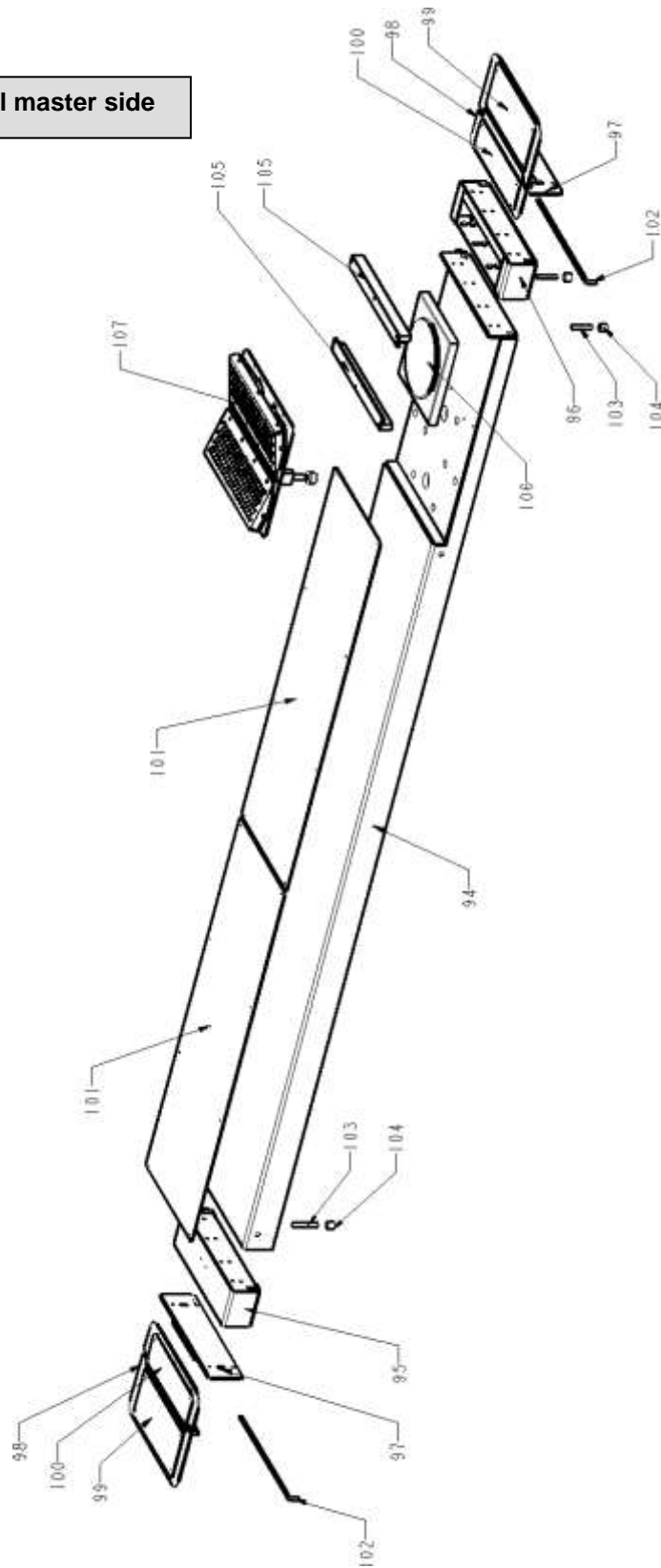
Picture 8: Pneumatic cylinder



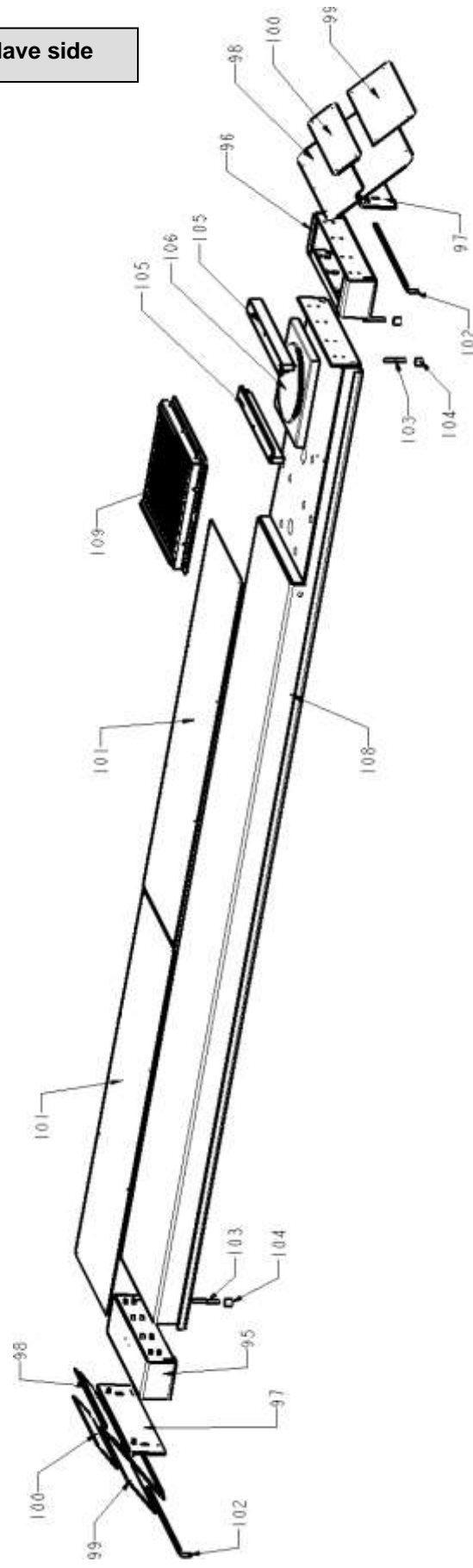
Picture 9: Valve



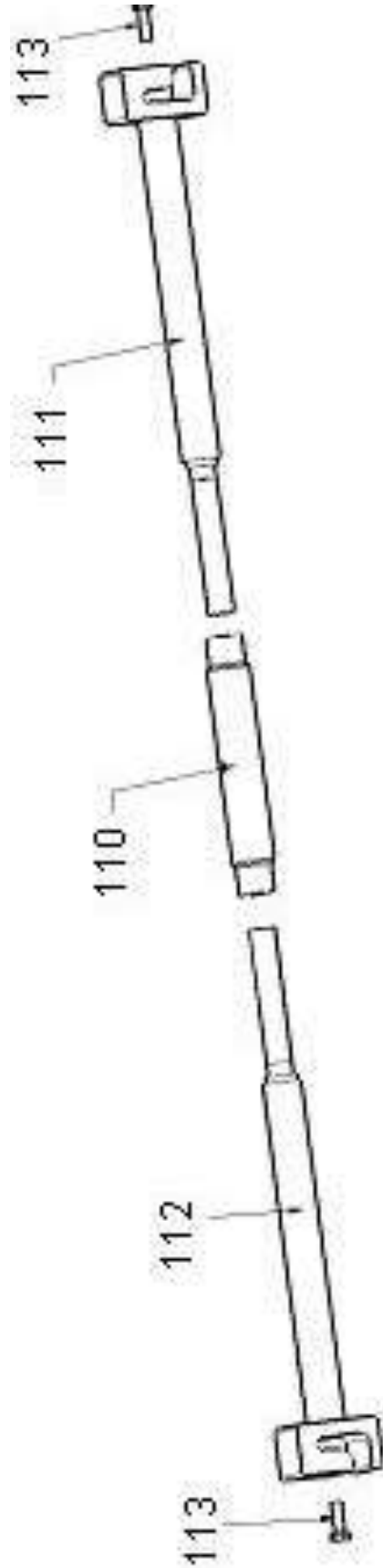
Picture 10: Drive-on rail master side



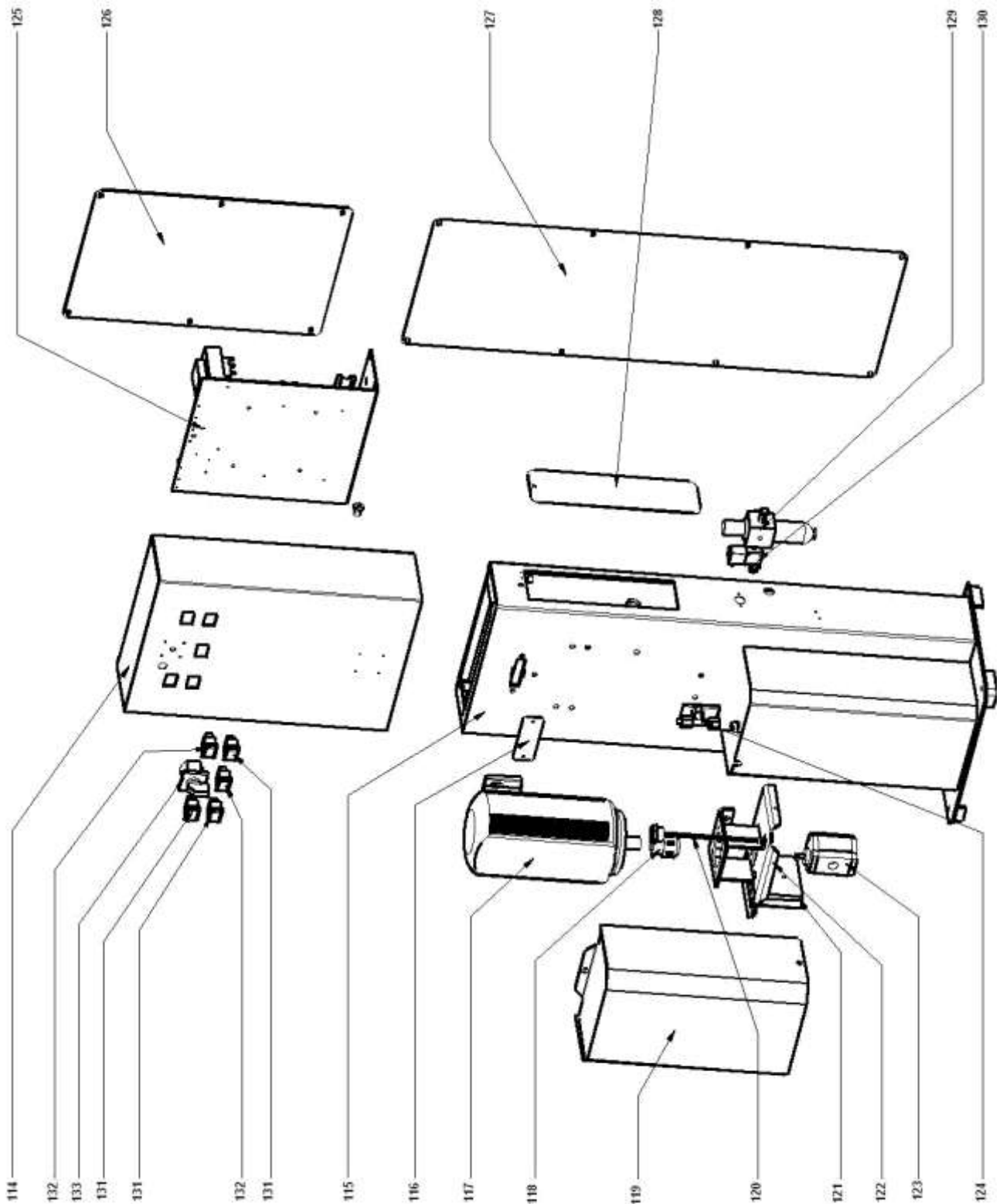
Picture 11: Drive-on rail slave side



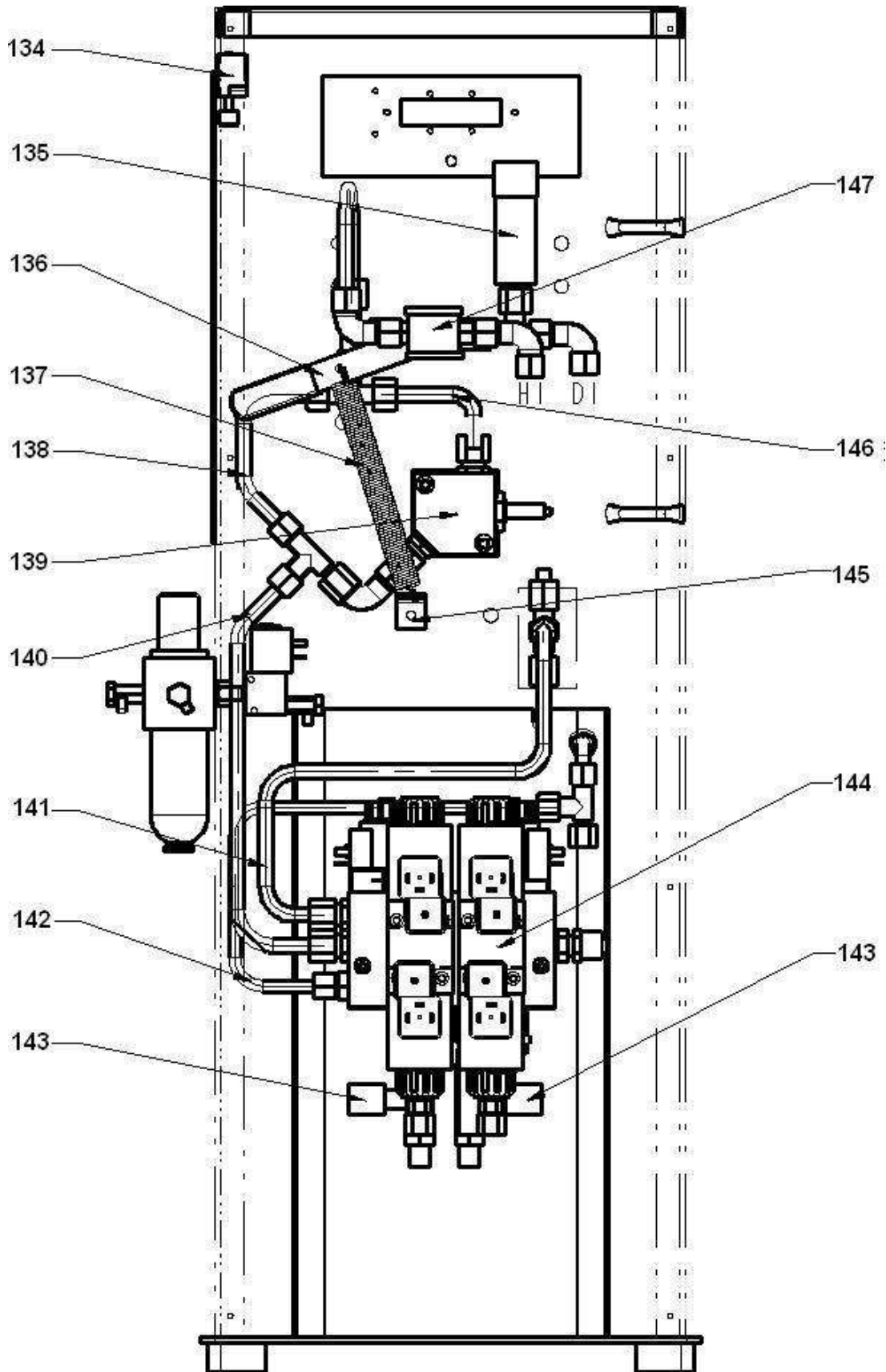
Picture 12: Traverse



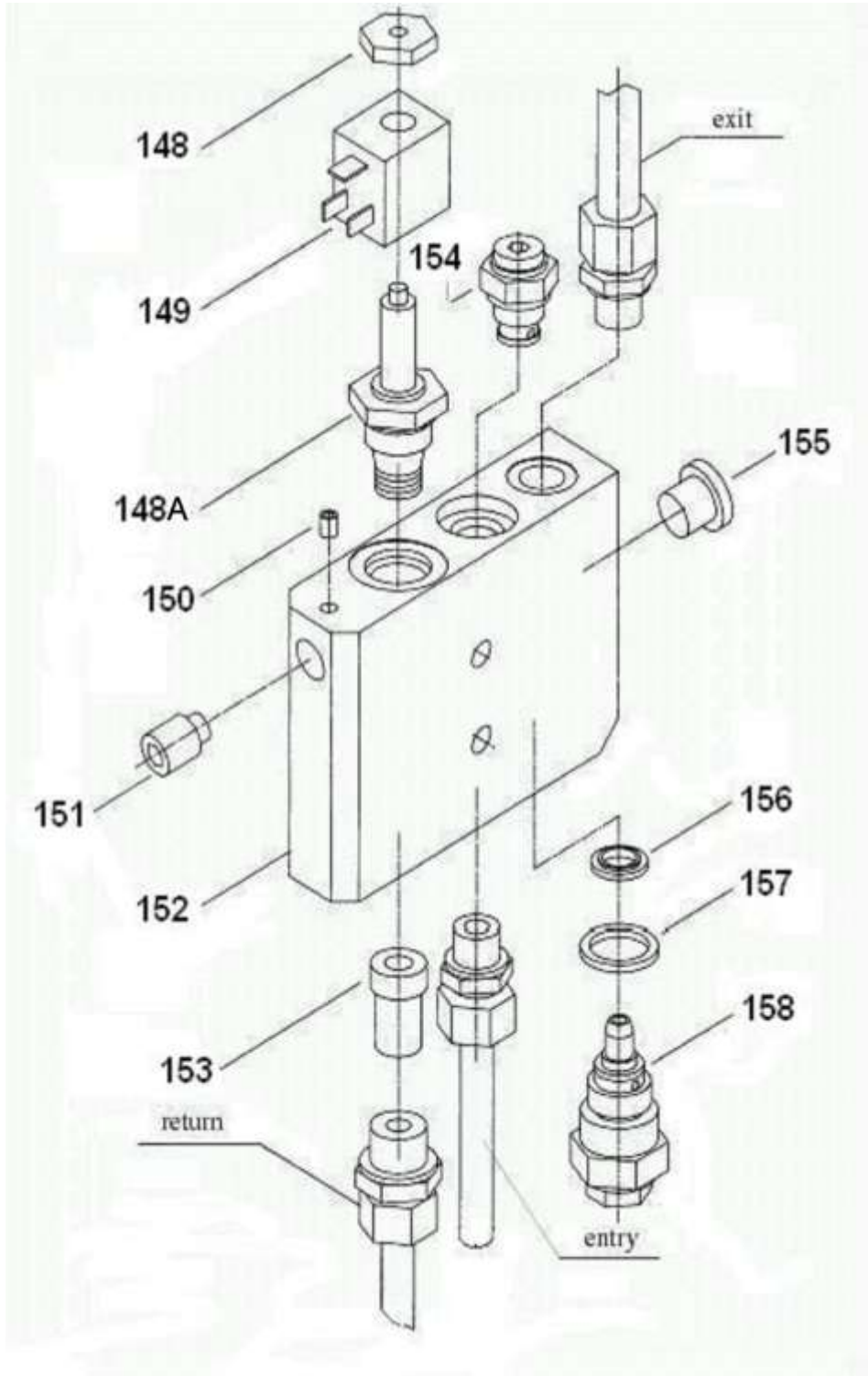
Picture 13: Control box



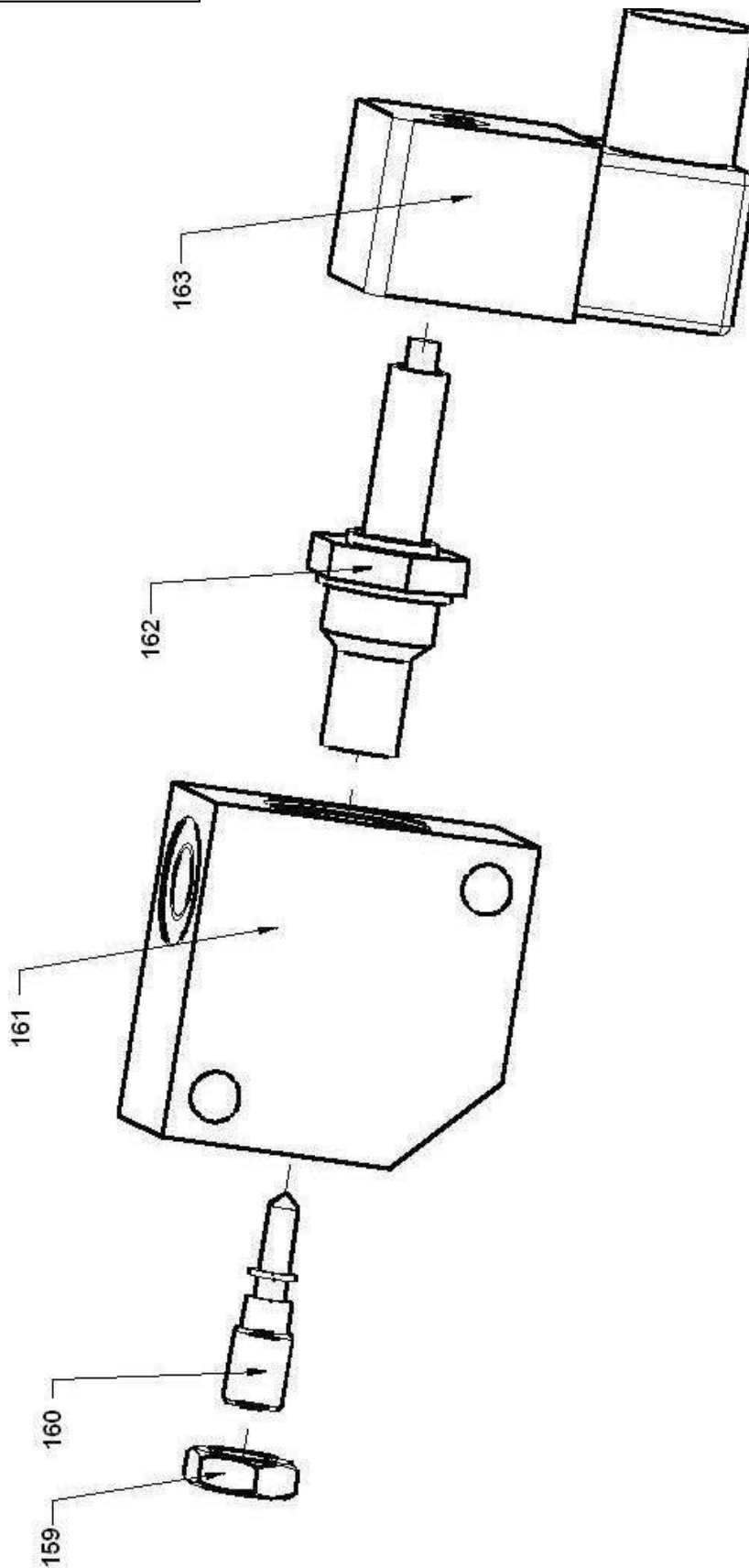
Picture 14: Control box internal



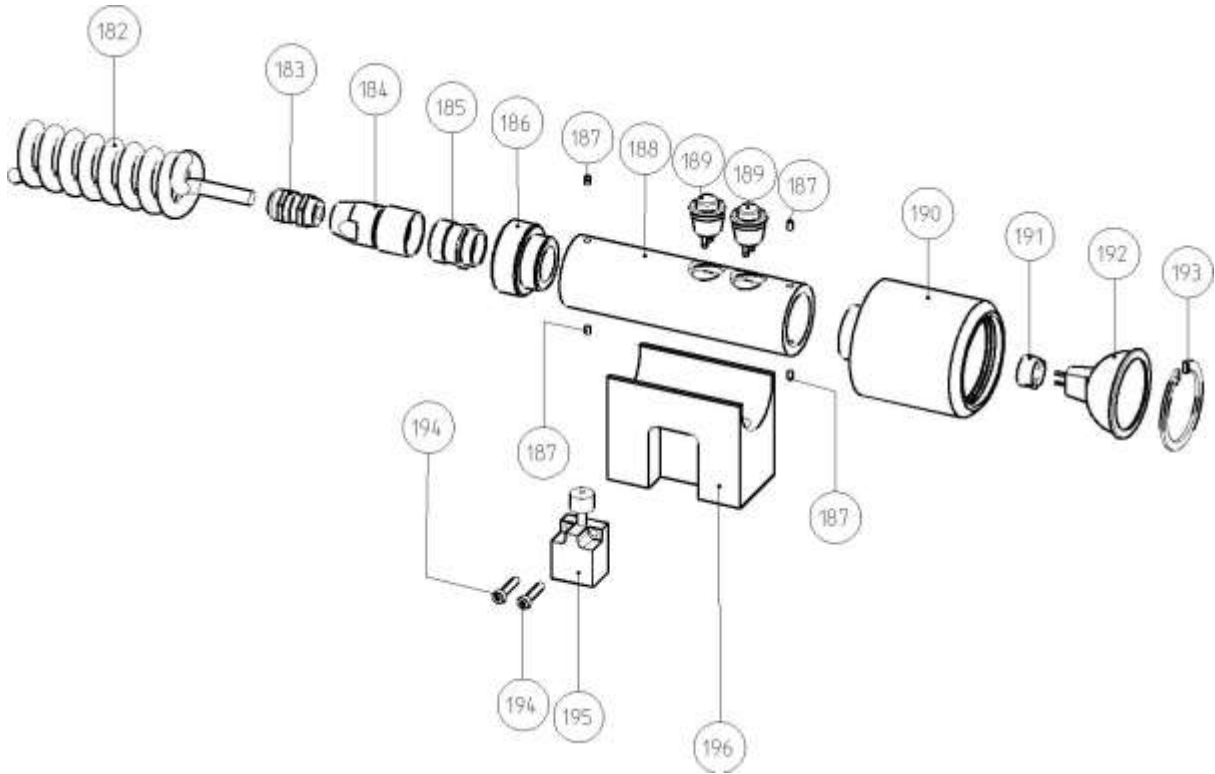
Picture 15: Hydraulic block



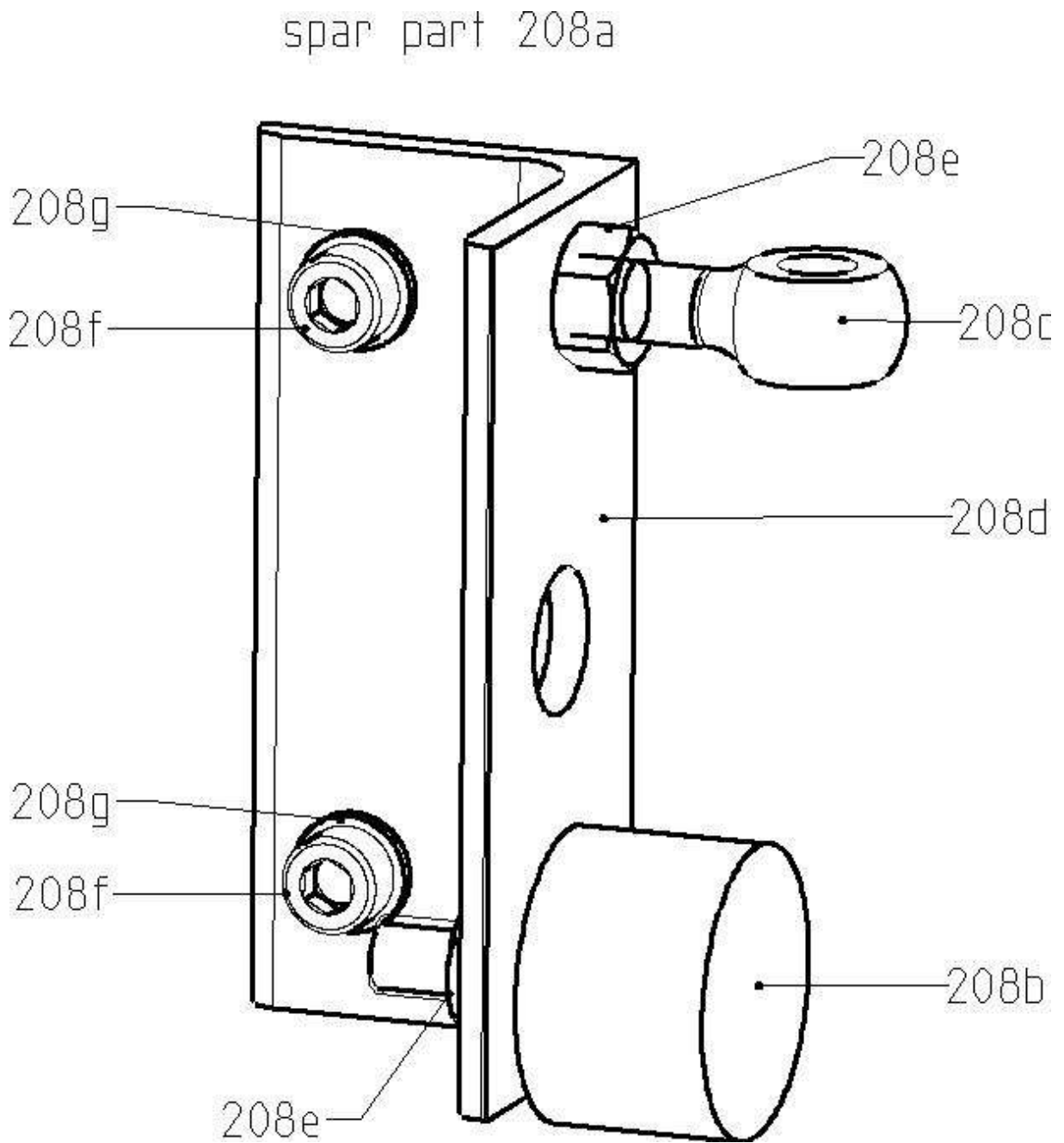
Picture 16: Bypass valve



Picture 17: Lamp



Picture 18: Stop for jack



Part No.

Description

No.

01	-	Lift complete
02	050ULN08201	Drive-on rail master side
03	050ULN08301	Drive-on rail slave side
04	035ULN08675	Traverse
05	035ULN01200	Power unit
1	030ULN46039	Scissors inside, master side
2	030ULN26003	Scissors outside, master side
3	030ULN46038	Scissors inside, slave side
4	030ULN26002	Scissors outside, slave side
5	035ULN10016	Ratchet (tube) master side
6	035ULN10001	Ratchet lift
7	035ULN10017	Ratchet (tube) slave side
8	030ULN45003 / 30	Plate, bottom master/slave side
9	030ULN06016	Forcing plate
10	030ULN46083	Suspension cylinder
11	030ULN46084	Suspension cylinder
12	035ULN06115	Bolt - top
13	030ULN06022	Sliding block
14	030ULN26064	Axle cylinder
15	KRONMUM24	Nut M24
16	030ULN45012	Plate, bottom
17	030ULN06066	Covering bolt
18	030ULN26037	Bolt center
19	040ULN06110	Bolt
20	035ULN09103	Covering
21	035UL05004	Adjusting metal sheet
22	030ULN06070	Bolt cylinder
23	035UL06023	Sliding block
24	990004	Limit switch
25	990004	Limit switch
26	030ULN05006	Metal sheet for limit switch
27	030ULN29017	Covering
28	030ULN45015	Metal sheet
29	030ULN45017	Base plate
30	035ULN05022	Crosshead guide
31	030ULN45020	Wrap around
32	9934M16ZN	Nut M16
33	9913M16X090ZN	Set screw
34	030ULN45011	Hexagon nut
35	9913M16X050ZN	Set screw
36	029UL30011	Metal Sheet
37	030ULN02008	Piston rod
38	030ULN02011	Limit of lift
39	980482	Bearing ring

No	Part No	Description
40	980283	O-ring seal
41	980482	Bearing ring
42	980122	Seal (compact) slave side
43	025AL42059	Piston slave side
44	035ULN10001	Ratchet
45	980482	Bearing ring
46	980283	O-ring seal
47	980482	Bearing ring
48	980126	Seal (compact) master side
49	025AL42020	Piston master side
49A	035ULN30017	Ratchet (tube) slave side
50	030ULN02050	Guide bush slave side
51	030ULN02033	Cylinder tube slave side
52	030ULN02061	Valve complete
53	030ULN10036	Pneumatic cylinder complete
54	980267	Stripper
55	980266	Rotating band
56	980357	O-ring inside
57	980284	Rotating band
58	980484	Bearing ring
59	980113	O-ring seal
60	035ULN30016	Ratchet (tube) master side
61	030ULN02014	Guide bush master side
63	030ULN02003	Cylinder tube master side
64	980267	Stripper
65	980266	Rotating band
66	980357	O-ring inside
67	980284	Rotating band
68	980483	Bearing ring
69	980112	O-ring seal
70	9912M04X045ZN	Socket screw
71	97980M04ZN	Spring ring
72	030ULN10037	Cylinder case
73	960001	Seal
74	9030ULN10039	Piston
75	9DFD-187ZN	Compression spring
76	99021M05ZN	Bolt washer
77	9912M05X055ZN	Socket screw
78	030ULN10038	Guide bush
79	030ULN10045	Cover
80	9OR15.54X2.62	O-ring seal
81	As 80	
82	960003	Screw connection
83	030ULN02062	Hydraulic block
84	980478	Magnet valve

No	Part No	Description
85	980630	Magnet
86	030ULN02066	Banjo bolt
87	985037	Seal ring
88	9GE10PLRED	Screwing
89	9439M10ZN	Nut M10 DIN439B
90	030ULN02064	Emergency lowering
91	980604	Bearing ring
92	9OR4.47X1.78	O-ring seal
93	96325D06X016	Plain pin
94	035ULN083803	Drive-on rail master side
95	035ULN083863	Extension rear
96	035ULN083873	Extension front
97	035UL28070	Adapter metal sheet
98	035UL48050	Ramp
99	035ULN08058	Alu plank
100	035ULN08056	Alu plank
101	035ULN083820	Alu plank
102	435H08096-UFL	Bolt
103	9913-M16X90	Grubscrew
104	035UNI08415	Buffer
105	035ULN083851	Wrap-around
106	1987009A42A	Rotary disc
107	03HS08081	Spid right
108	035ULN083903	Drive-on rail slave side
109	03HS08001	Spid left
110	91478M20ZN	Screw Shackle
111	035ULN08676	Hanging up left
112	035ULN08678	Hanging up right
113	9933M08X25ZN	Screw
114	035ULN01215	Power unit upper section
115	035ULN01203	Power unit lower surface
116	032ULN01040	Front sheet metal
117	990303	Motor 3,3kW
118	970290	Clutch
119	030ULN01025	Covering motor
120	980098	Oil level gauge
121	030ULN21076	Hydraulic block
122	030ULN01038	Pump Holder
123	980282	Pump 2,7ccm
124	9EW10PL	Union piece hyd.
125	035ULN01255	Structure sheet metal
126	035ULN01219	Cover above
127	025SPR21012	Cover down
128	030ULN01033	Covering
129	960039	Pneumatic unit
130	960047	Pneumatic valve

No	Part No	Description
131	990334	Press button
132	9951257	Main switch
133	990321	PVC cap
134	990300	Bypass switch
135	DSH000/003	Pressure switch
136	030ULN41130	Lever
137	9ZFZ141ZN	Tension spring
138	035ULN01225	Hydraulic pipe
139	032UL12364	Bypass Valve
140	035ULN01222	Hydraulic pipe
141	035ULN01224	Hydraulic pipe
142	035ULN01226	Hydraulic pipe
143	986263	One-way restrictor valve
144	99-571-00-00-5	Hydraulic block
145	030ULN01134	Springholder
146	035ULN01220	Hydraulic pipe
147	980513	Ball valve
148	980478	Magnet valve (inc 148A)
149	980630	Coil
150	9914M05X010	Set screw
151	9915M12X020ZN	Screw plug
152	232POW22039	Hydraulic block
153	980629	Brake valve
154	980480	Non return valve
155	980096	Screw plug
156	980240	Bonded seal
157	9OR17X2.5	O-ring seal
158	232NSTL02082	Pressure control valve
159	9439M10ZN	Nut M10 DIN439B
160	030ULN02064	Emergency drain
161	032UL12364	Hydraulic block
162	980478	Magnet valve
163	980630	Magnet
182	990369	helix cable Spirex 400P
183	990007	cable grommet
184	990373	connector
185	990374	connector
186	032ULB03112	lock
187	9913M4X5	setscrew DIN913 M4x5
188	032ULB03211	handle bar
189	990366	push button
190	032ULB03110	housing
191	9903681	socket
192	990368	halogen lamp
193	9472D050X2.0	locking ring DIN472 50x2
194	9912M4X20ZN	allen screw

No	Part No	Description
195	990300	limit switch
196	032UL03210	lamp holder
208a	050ULN08910	Stop for jack (complete assy)
208b	970424	Rubber stop
208c	9444-A-M8x30	Eye bolt
208d	050ULN08911	Elbow bracket
208e	9934M8ZN	nut
208f	9912M6x12ZN	Cylinder screw
208g	9125-11-A6-4	Washer

AFTER SALES SERVICE

Apart from the routine maintenance and adjustments stipulated in this manual the equipment must not be tampered with in any way. All further servicing must be carried out only by an engineer from an Authorised Agent. Failure to observe these conditions will invalidate the Guarantee.

On-Site Service / Overhaul / Spare Parts

If you require a Service Engineer to attend ON SITE, either due to an equipment fault, or for machine calibration, or if the equipment covered by this manual requires to be sent back for factory overhaul, or if you need spare parts, please contact our Product Support Helpline at the following number. Tel: 0844 665 7610 Fax: 0844 665 7604

Overseas

Service abroad is provided by the agent from whom your equipment was purchased.

Fully Comprehensive After-Sales Service

Call Crypton Helpline for details of local service agents please call 0844 665 7613

Technical Information

Crypton provide information and contracts covering:

Car Data, Fault Code Information, Diagnostic Information, Software Support Contracts, Software Updates & Accessories

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