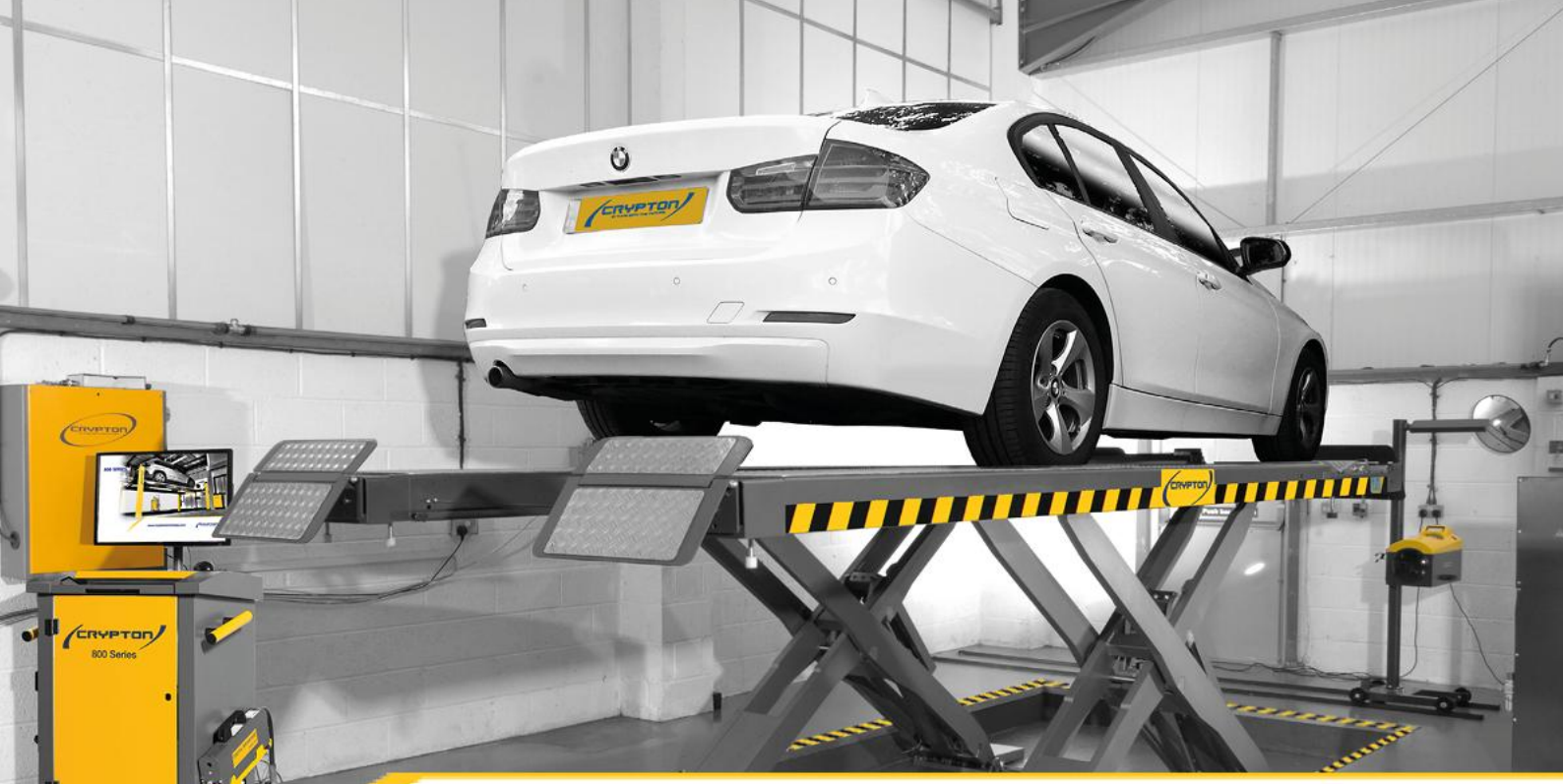


Scissor Lift

CSL872/873

Operating Instructions
I323060 Issue 2

Crypton - a Brand of the Continental Corporation

Table of Contents

Foreword

Crypton Lifts are the result of over 100 years experience in the automotive industry.
The high quality and the superior concept ensure reliability, a long lifetime and above all, economic business solution. To avoid unnecessary damage, injury or even death, read the operating instructions with care and observe the content.
Continental is not responsible for incidents involving the use for applications other than those for which they were designed.

Continental is not liable for any resulting damages. The user carries the risk alone.

Obligations of the user:

- To observe and adhere to the operating instructions.
- To follow the recommended inspection and maintenance procedures and carry out the prescribed tests.
- The operating instructions must be observed by all persons working with or around the lift.
- Above all, the chapter entitled "Safety Regulations" is very important and must be closely adhered to.
- In addition to the safety regulations stated in the operating instructions manual, the appropriate safety regulations and the operating procedures of the place of operation must also be considered.

Obligations of the operator:

The operator is obliged to allow only those persons complying with the following requirements to work with or around the unit.
- Persons who are familiar with the basic regulations concerning labor safety and accident prevention and who have been trained to operate the particular unit.
- Persons who have read and understood the chapters concerning safety and warning symbols.
Such persons are required to confirm that they have read and understood the chapter on safety and warning symbols by signing the appropriate form.

Dangers when operating the lift:

Crypton lifts are designed and built according to technical standards and the approved regulations for technical safety. The use of Crypton lifts for purposes other than those for which they were designed may result in injury or even death.

The lift must only be operated:
- For its intended purpose.
- In faultless condition concerning technical safety.

Organisational requirements:

- The instructions for use are to be kept at the place of operation, easily accessible at all times.
- In addition to the instructions for use, rules pertaining to other regulations i.e. accident prevention and environmental rules are to be observed and adhered to.
- The owner of the Crypton lifting system must ensure that operators and persons working with or around the lift occasionally conduct "refresher" courses to ensure that the appropriate operating procedures and safety precautions are known.
- Personal Protective Equipment (PPE) must be used according to the appropriate regulations.
- All safety and danger signs on or around the lift are to be observed and followed!
- Spare parts must comply with the technical requirements specified by the manufacturer. This is only warranted with original parts.
- Observe and adhere to the specified time intervals between tests and inspections.

Maintenance work and repairing faults:

- Adjustments, maintenance and inspections are to be followed according to the time intervals specified. Details regarding the exchange of parts and components as mentioned in the operating instructions are to be adhered to.
Such work may only be carried out by expert personnel.
- After maintenance and repair work, loose screws, nuts and bolts must always be firmly tightened!

Guarantee and liability

- Our "General conditions of selling and delivering" are enforced.
There will be no guarantee or liability for incidents involving injuries, death or damage to equipment if these incidents are the result of one or more 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 safety devices do not work, do not work properly or are not installed properly.
- Failure to follow the regulations of the operating instructions regarding transport, storage, installation, initiation, operation and maintenance of the lift.
- Unauthorized changes to the structure of the lift without first asking the manufacturer.
- Unauthorized changes or adjustments of important components of the lift (e.g. driving elements, power rating, motor speed, etc.).
- Incorrect maintenance practices.
- Catastrophes, acts of God or external reasons.

☞ *Fill out, sign and photocopy this sheet and send the original to the address below. The copy remains in the manual.*

Continental Automotive Trading UK Ltd
36 Gravelly Industrial Park
Birmingham B24 8TA
United Kingdom

Record of installation

The automotive lift

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

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

The initial safety check was carried out and the lift was started.
The installation was carried out by the operating authority/competent person (please delete as applicable).
The initial safety check was carried out by a competent person before the initial operation.
The operating authority attests to the correct installation of the automotive lift, the competent person attests to the correct initial operation.

Used dowels (*): _____ (Type/Name)

Minimum anchorage depth (*) kept: _____mm □ ok

Starting torque (*) kept: _____NM □ ok

....
Date Name of the operating authority Signature of the operating authority

....
Date Name of the competent person Signature of the competent person

Your customer service: ..... (stamp)
(*) see supplement of the dowel manufacturers

Record of handing over

The automotive lift

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

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

The safety was checked and the lift was started.

The persons listed below were introduced after the installation of the automotive lift. The introduction was carried out by an erector of 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 of the competent person Signature of the competent person

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

General information

The document **"Operating Instructions and Documentation"** contains important information about installation, operation and maintenance of the automotive lift.
- Confirmation of **installation of the automotive lift** is recorded on the **"Record of installation"** form and must be signed and returned to the manufacturer.
- Confirmation of initial, regular and extraordinary service/safety checks is recorded in the respective review 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.

Installation and check of the automotive lift

Only specialized staff/specialists are allowed to perform repair and maintenance work, and only such specialists are allowed to conduct safety checks on the lift. For the purpose of this document, these specialists will be called "experts" and "competent persons".

Experts are persons (for example, self-employed engineers) who have received instructions and have the appropriate experience to check and test 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 (e.g. the servicing technicians of the manufacturer or dealer are regarded as competent).

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.

Master document of the automotive lift

Lift–manufacturer

Continental Automotive Trading UK Ltd
36 Gravelly Industrial Park
Birmingham B24 8TA
United Kingdom

Application

The CSL872/873 is a lifting mechanism for lifting motor vehicles with a laden weight of 5000 kg. The automotive lift is an additional version for axial measurement, tyre- and brake service. The automotive lift can be installed above or below the floor surface. It is not allowed 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 individual wheel suspensions. The detection is possible up to an axle load of 1400 kg.

Changes to the construction

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

.....

.....

.....

Name and address of the expert

....
Place and date Signature of the expert

Re positioning of the automotive lift

Re position of the automotive lift, review by competent person, resumption of work (date, type of change, signature of the competent person)

.....

.....

.....

Name and address of the competent person

....
Place and date Signature of the competent person

CE Declaration of Conformity

EG- Konformitätserklärung

gemäß Maschinenrichtlinie Anhang II 1A

Declaration of Conformity according Machinery Directive 2006/42/EG ANNEX II 1A
Déclaration de conformité selon directive machines annexe II 1A
Declaración de conformidad según Directiva Maquinaria 2006/42/EG ANNEX II 1A
Dichiarazione di conformità in accordo alla direttiva 2006/42/EG ANNEX II 1A

Hiermit erklären wir, daß die Hebebühne, Modell: Hereby we declare that the lift model: Par la présente nous déclarons que le pont élévateur modèle: Por la presente declara, que el elevador modelo: Con la presente si dichiara che il sollevatore:	CSL 872 CSL 873
allen einschlägigen Bestimmungen der folgenden Richtlinien entspricht: fulfils all the relevant provisions of the following Directives: correspond aux normes suivantes: cumple todas las disposiciones pertinentes de las Directivas siguientes: adempie a tutte le richieste delle seguenti direttive:	
Maschinenrichtlinie / Machinery Directive **EMV Richtlinie** / EMC Directive	2006/42/EG 2004/108/EG
in Übereinstimmung mit den folgenden harmonisierten Normen gefertigt wurde was manufactured in conformity with the harmonized norms fabriqué en conformité selon les normes harmonisées en vigueurs. producido de acuerdo a las siguientes normas armonizadas. è stato fabbricato in conformità con le norme armonizzate	
Fahrzeug- Hebebühnen / Vehicle lifts	EN 1493: 2010
Beauftragter für die Technische Dokumentation Authorised to compile the technical file	Otto Nußbaum GmbH & Co. KG
Seriennummer Serial number	Seriennummer

Kehl- Bodersweier, 04.10.2016

Steffen Nußbaum
Geschäftsführer

DoC-NUS_Crypton_CSL872_CSL873_2016-10.docx

Otto Nußbaum GmbH & Co. KG · Korker Str. 24 · D-77694 Kehl-Bodersweier
Tel.: +49(0)7853/899-0 · Fax: +49(0)7853/8787 · www.nussbaum-group.de

CE

Technical information

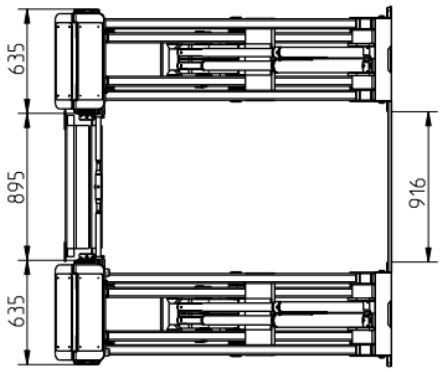
Technical ratings

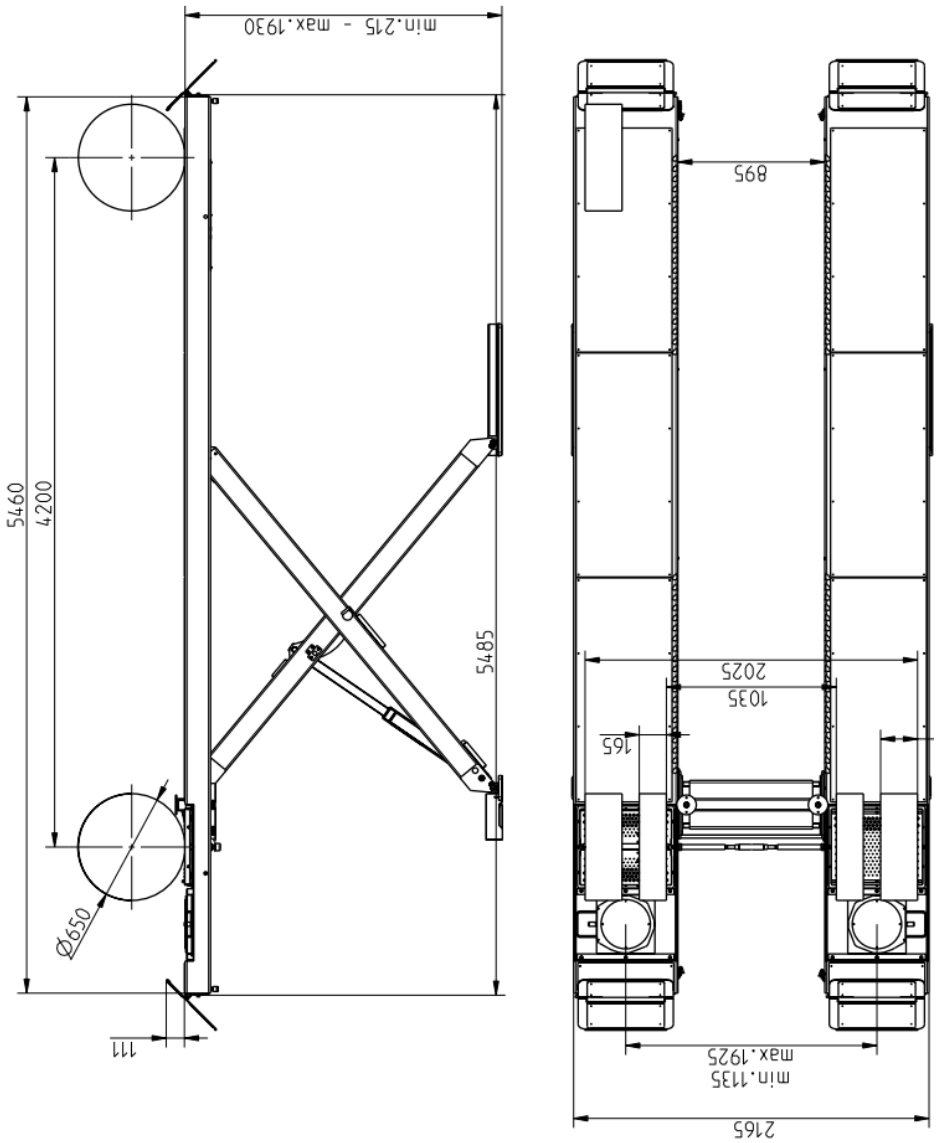
Lift Capacity without wheel free lift	5000 kg
Lift Capacity with wheel free lift	4500 kg
Load distribution	max. 2:1 in or against drive-on direction
Lifting time (main lift)	approx. 30 sec. with load
Lowering time (main lift)	approx. 30 sec. with load
Capacity Wheel Free Lift	2500 kg
Lifting time (wheel free lift)	approx. 5 sec. with load
Lowering time (wheel free lift)	approx. 12 sec. with load
Play Detector Capacity	max. axle load 1400 kg
Line voltage	3ph x 400 Volt , 50Hz
Power rating	3 kW
Motor speed	3000 rev/min.
Pump capacity	2,1 ccm
Hydraulic pressure	approx 270 bar
Pressure relief valve	approx 300 bar
Oil tank	approx. 14 Litre
Sound level	≤ 70 dB
Connection by customer	3~/N+PE, 400V, 50 Hz (standard version) with time lag fuse T16A

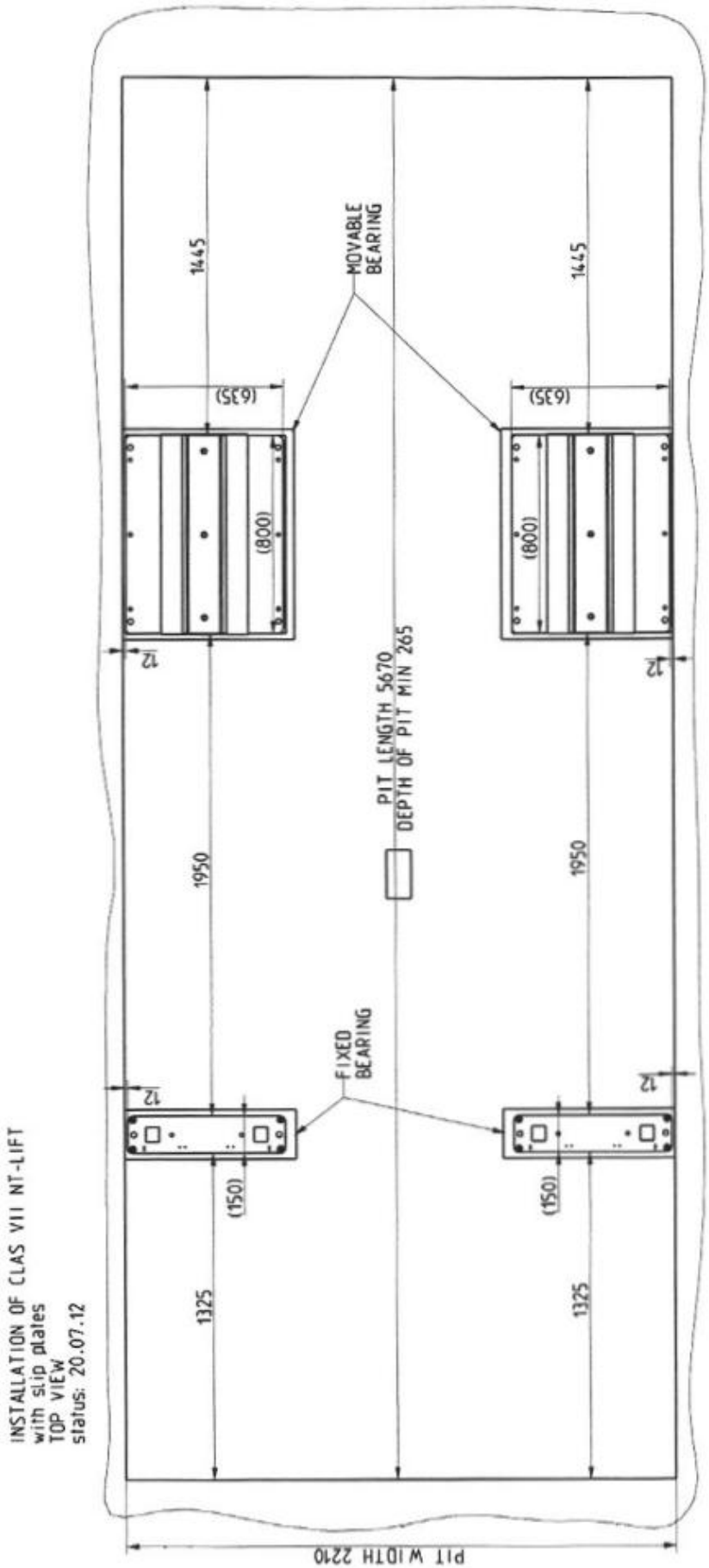
Safety devices

1. Pressure relief valve
   Overprint-safety of the hydraulic system
2. Holding valve
   safety device against unintentional lowering
3. Lockable main switch
   safety device against unauthorised operation
4. Feet protection
   safety device against bruises in the area of the feet
5. Two independent cylinders
   (each side master- and slave-cylinder)
   safety device against unintentional lowering
6. Seat valves at the cylinders of the wheel free lift
   safety device against unintentional lowering of the wheel free lift
7. CE-STOP
   safety device against squeeze

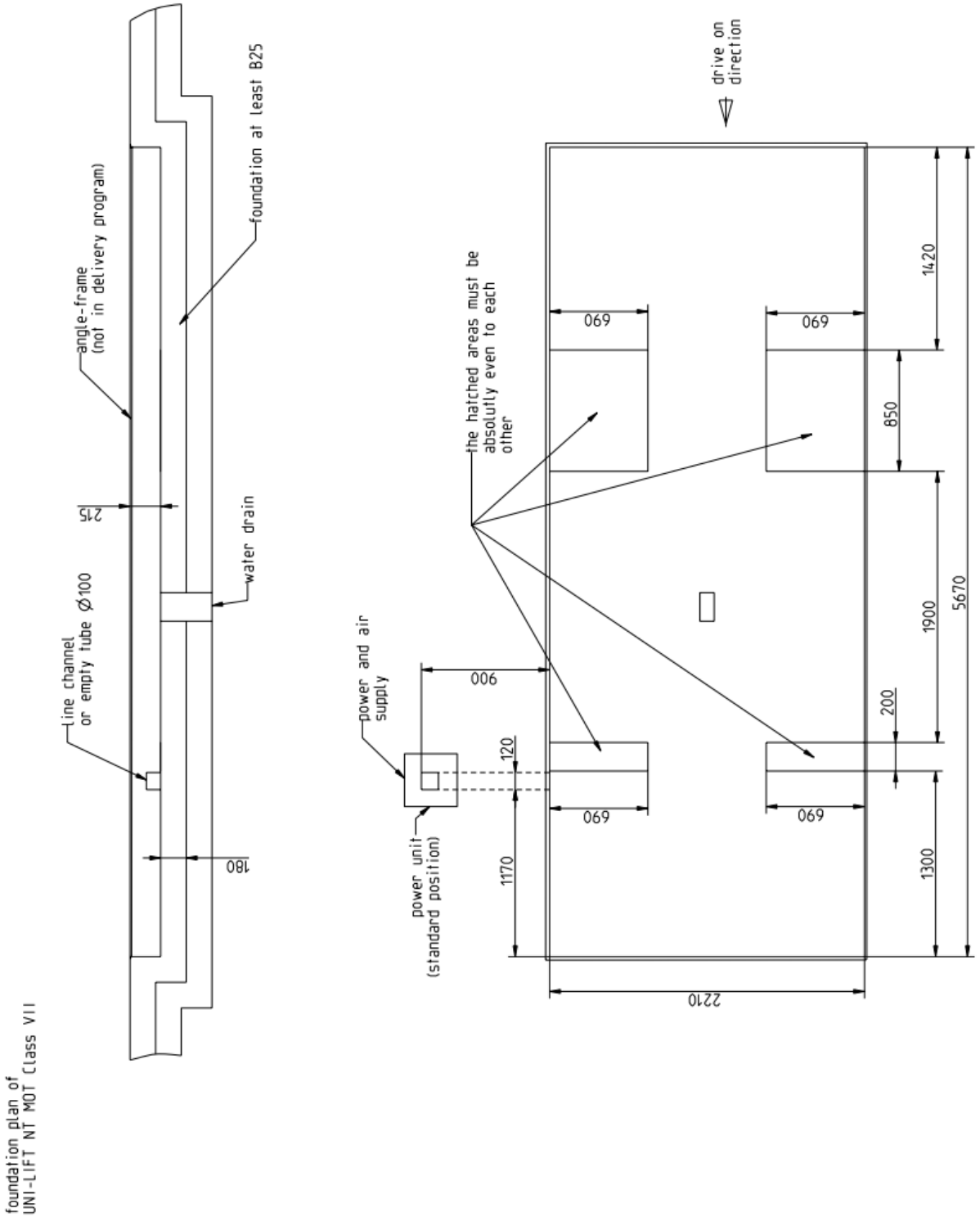
Datasheet


635
895
635
916

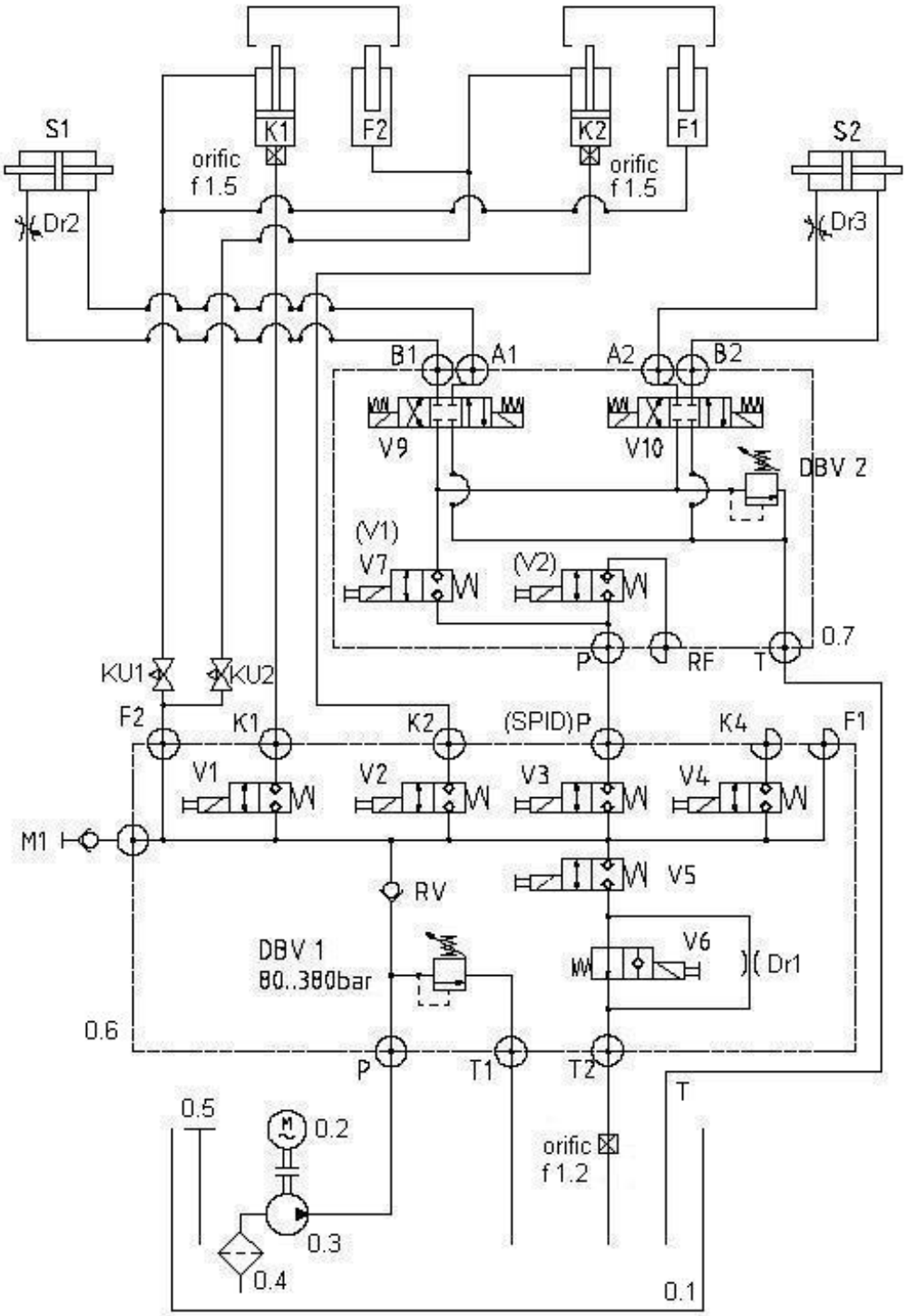

min.215 - max.1930
5460
4200
5485
Ø650
111
895
2025
1035
165
max.1925
min.1135
2165


INSTALLATION OF CLAS VII NT-LIFT
with slip plates
TOP VIEW
status: 20.07.12
MOVABLE BEARING
FIXED BEARING
1445
1445
(635)
(635)
(800)
(800)
12
12
12
12
PIT LENGTH 5670
DEPTH OF PIT MIN 265
1950
1950
(150)
(150)
1325
1325
PIT WIDTH 2210

Foundation plan



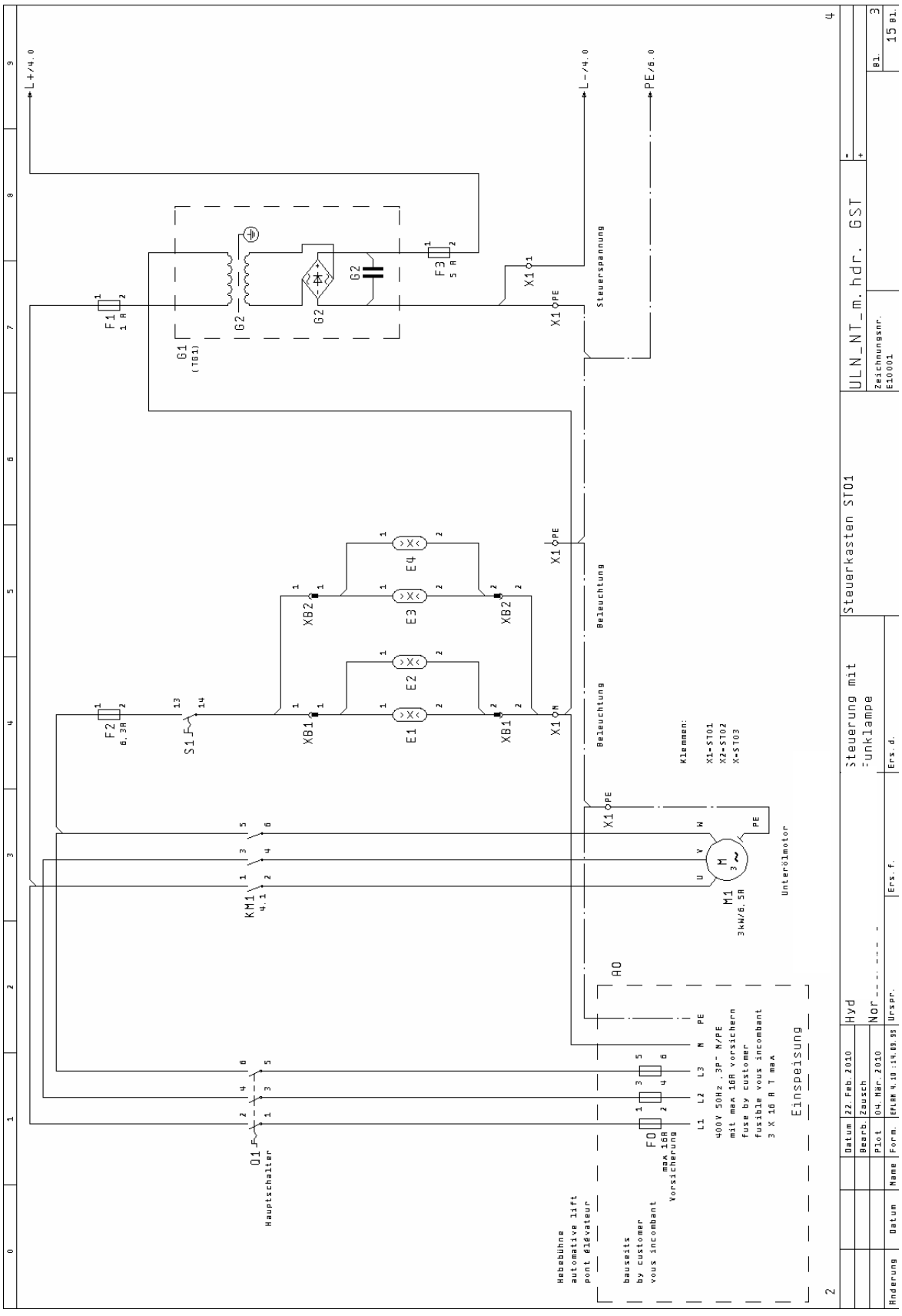
Hydraulic diagram drawing

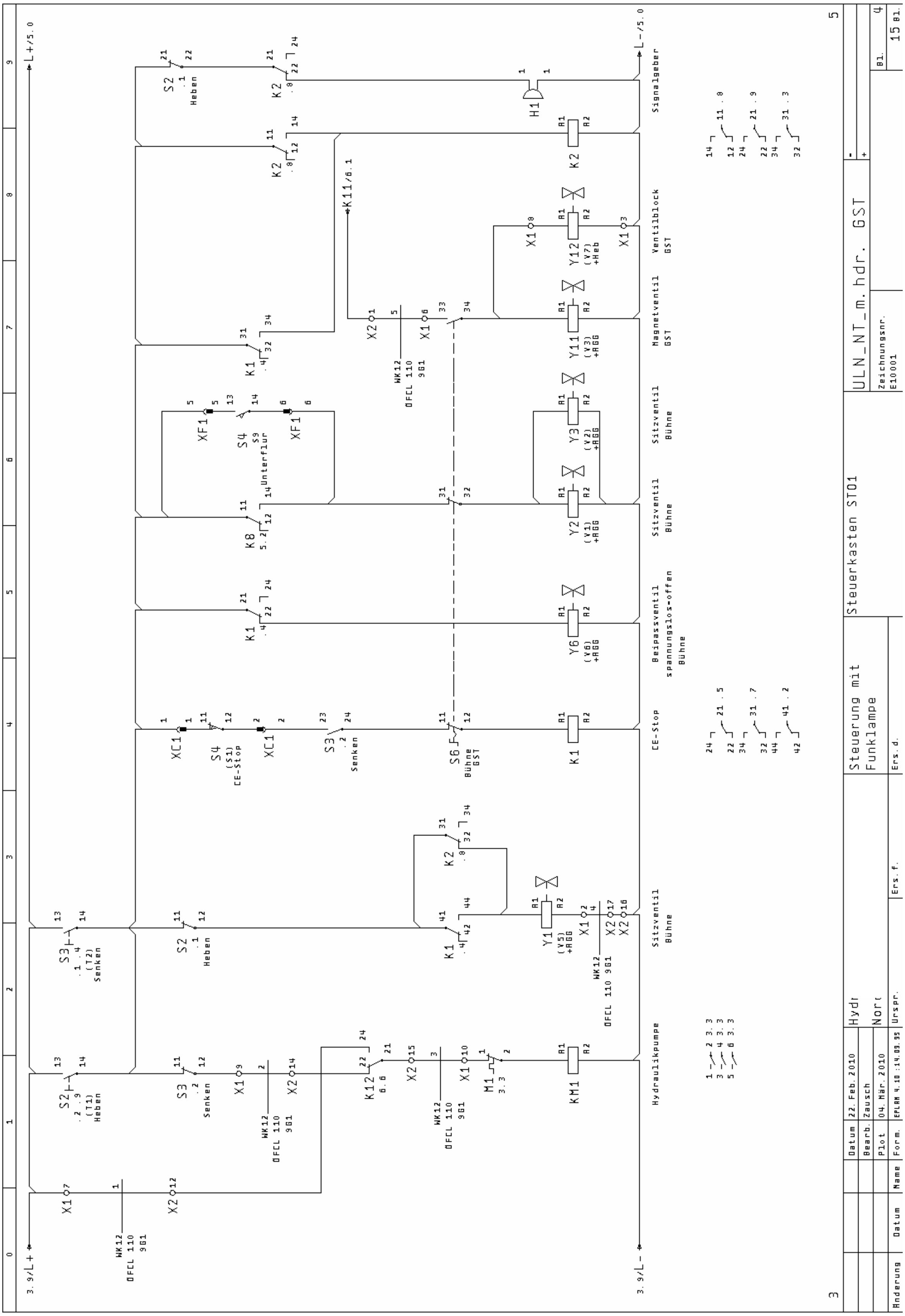


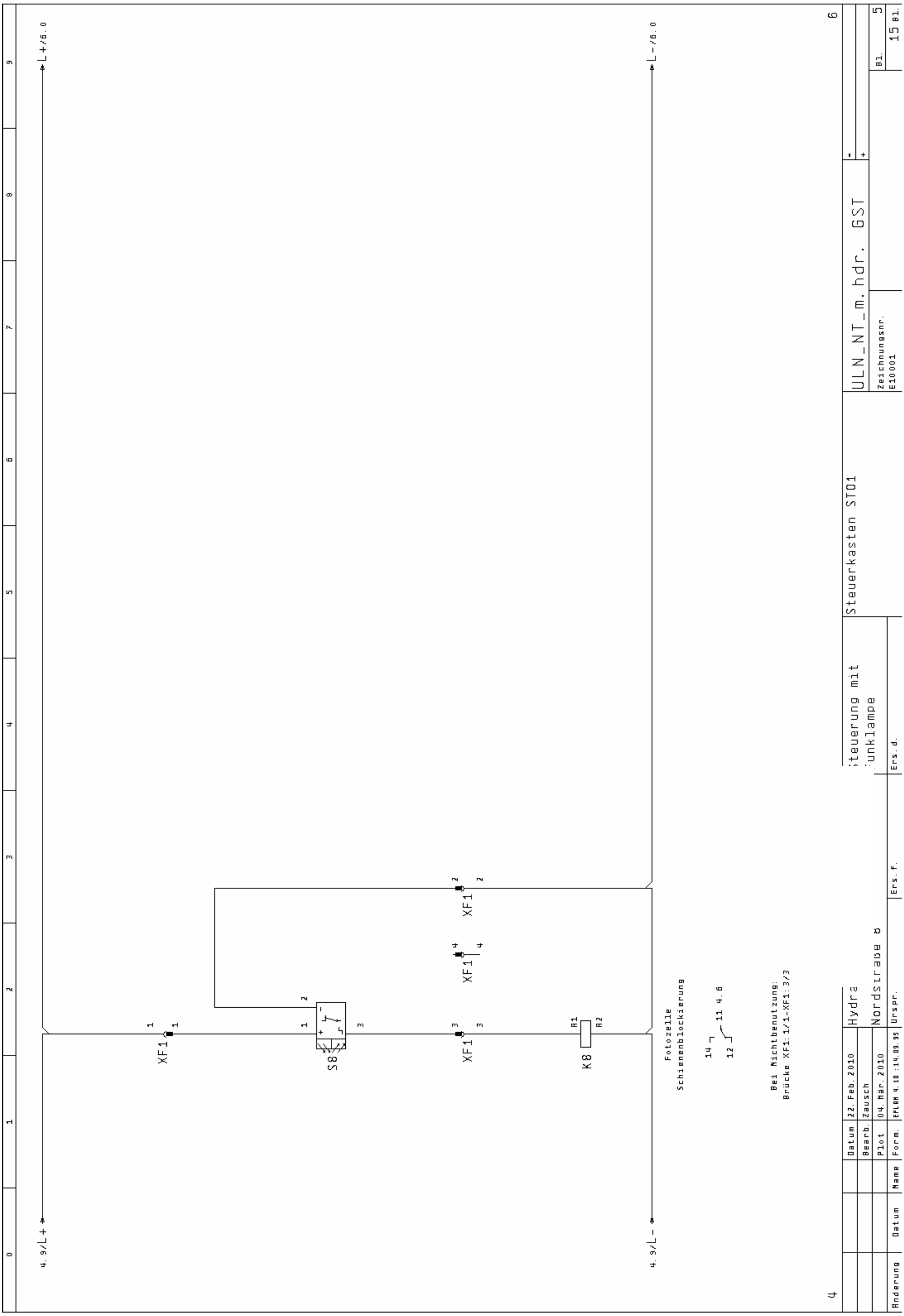
Hydraulic parts list

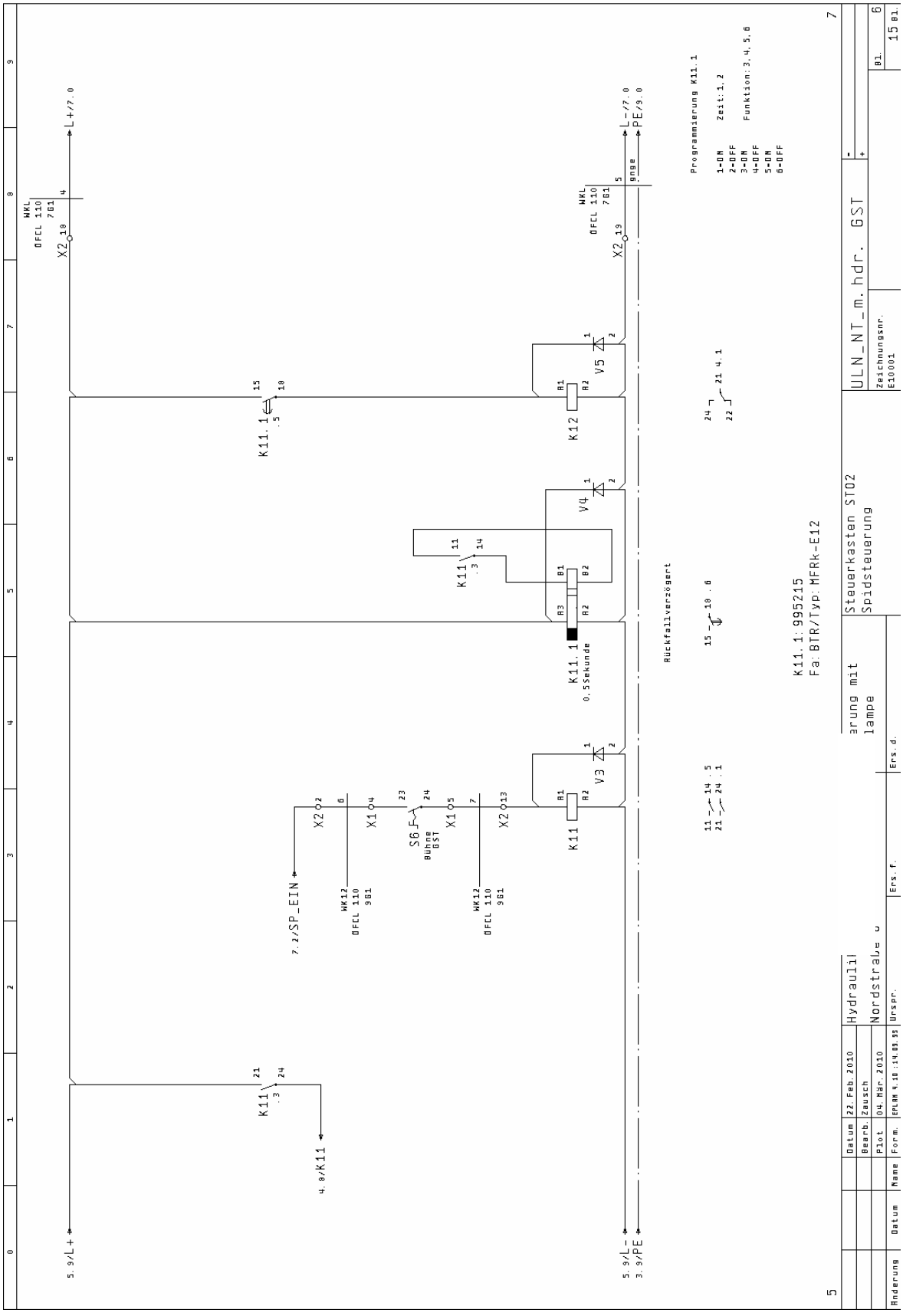
Pos.	Description
0.1	oil tank
0.2	motor 400 V; 50 Hz
0.3	gear pump 2.7cm^3/revolution
0.4	oil filter
0.5	oil level gauge
0.6	hydraulic block lift complete
0.7	hydraulic block play detector complete
V1/V2/V3	double seat valve
V4	double seat valve inoperable
V5	double seat valve
V6	poppet valve
Dr1	orifice
Dr2/Dr3	adjustable orifice
DBV1	pressure relief valve
DBV2	pressure relief valve
RV	holding valve
KU1/KU2	ball valve
M1	test port
V7 (V1)	double seat valve
(V2)	double seat valve inoperable
V9/V10	flow valve
K1/K2	cylinder master
F1/F2	cylinder slave
S1/S2	cylinder play detector

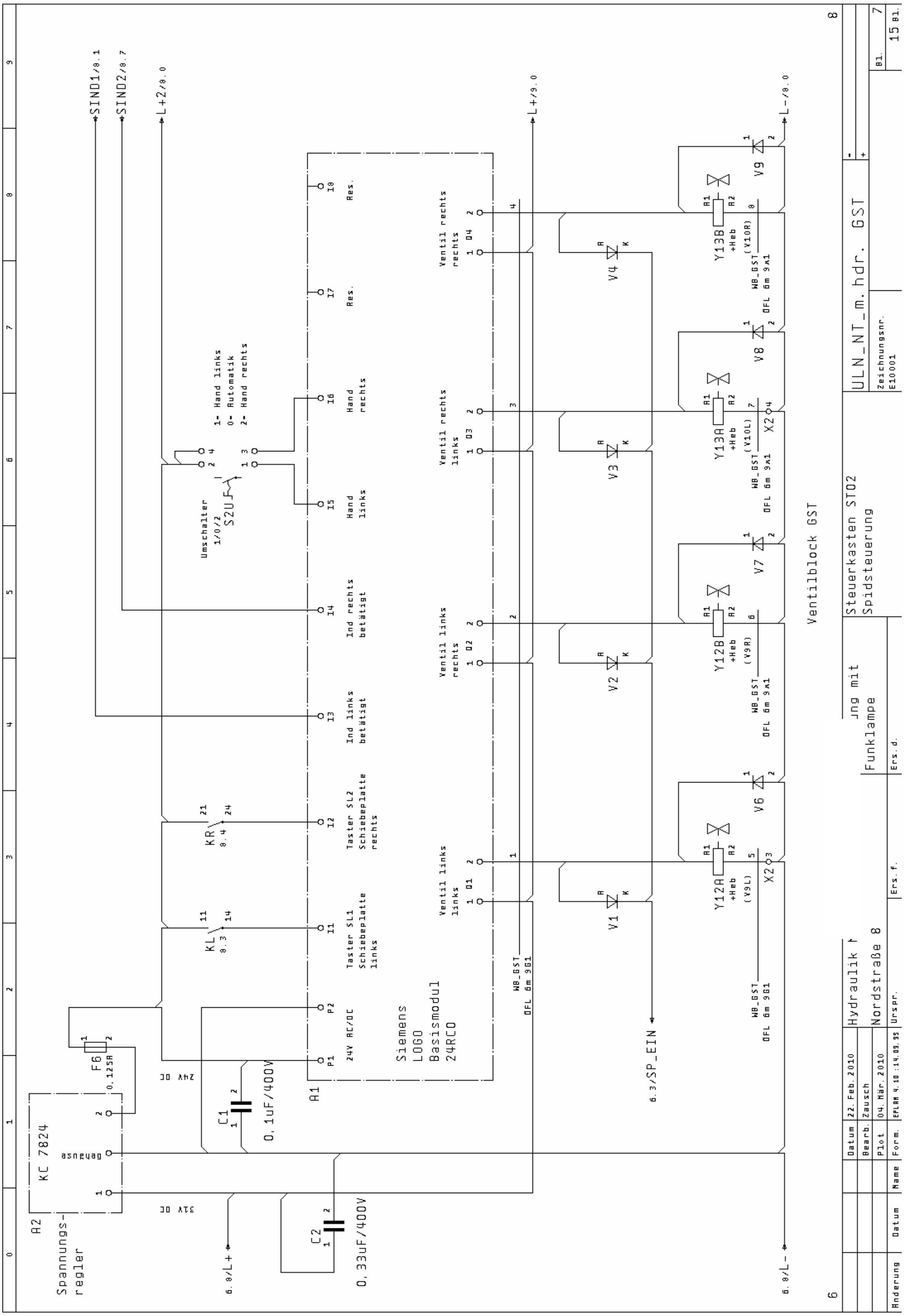
Electrical diagram drawing

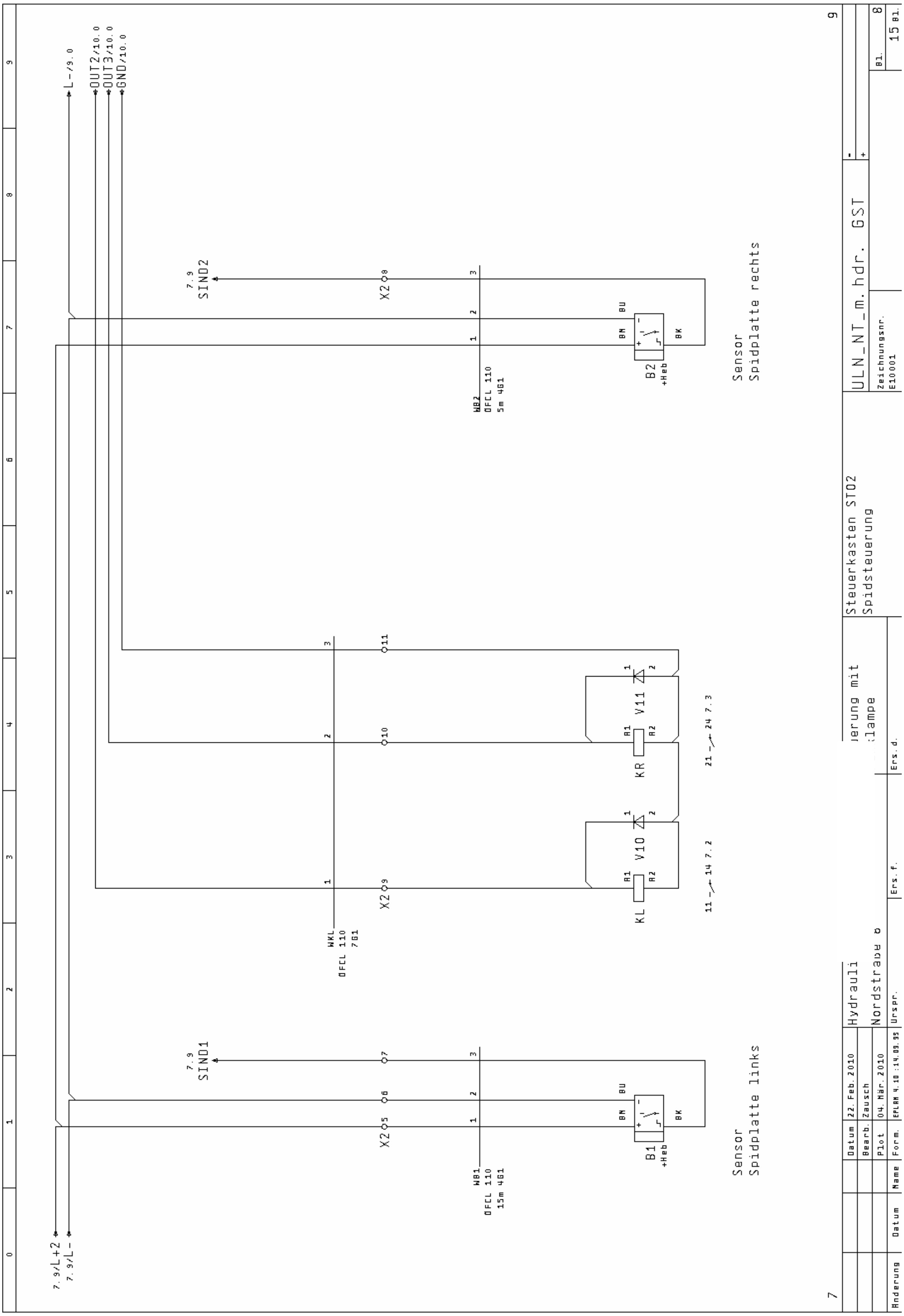


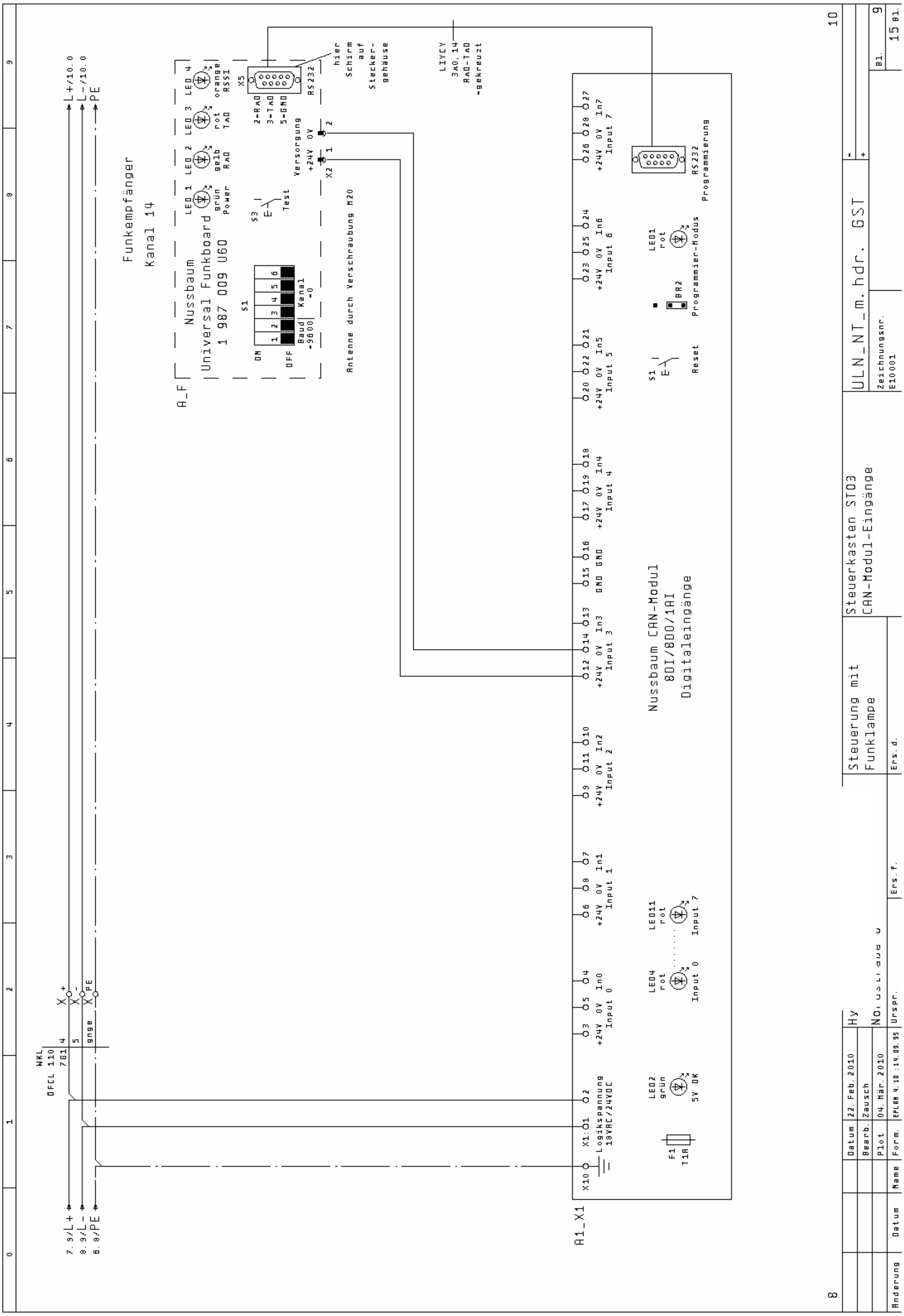

Steuerkasten ST01
Steuerung mit Funklampe
ULN_NT_m.hdr. GST
Zeichnungsnr. E10001
Hydraulikpumpe
Sitzventil Bühne
CE-Stop
Beipassventil spannungslos-offen Bühne
Sitzventil Bühne
Sitzventil Bühne
Magnetventil GST
Ventilblock GST
Signalgeber
Datum 22.Feb.2010
Bearb. Zausch
Plot 04.Mär.2010

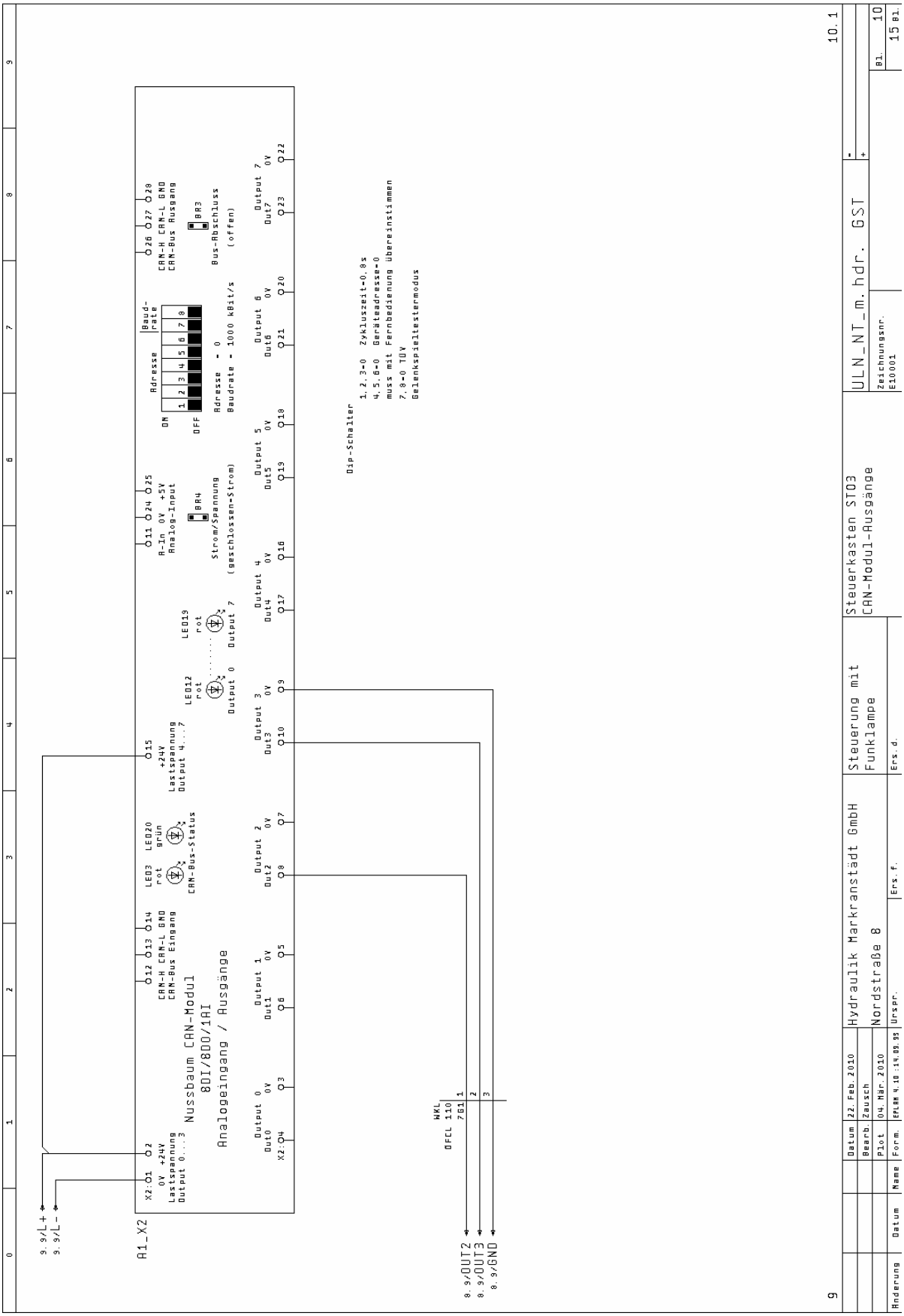

Steuerkasten ST01
ULN_NT_m.hdr. GST
Zeichnungsnr.
E10001
Steuerung mit
Funklampe
Hydra
Fotozelle
Schienenblockierung
Bei Nichtbenutzung:
Brücke XF1:1/1-XF1:3/3
XF1
S8
K8
Datum 22.Feb.2010
Bearb. Zausch
Plot 04.Mär.2010
Änderung
Datum
Name
Urspr.
Ers.f.
Ers.d.
L+/6.0
L-/6.0
4.9/L+
4.9/L-

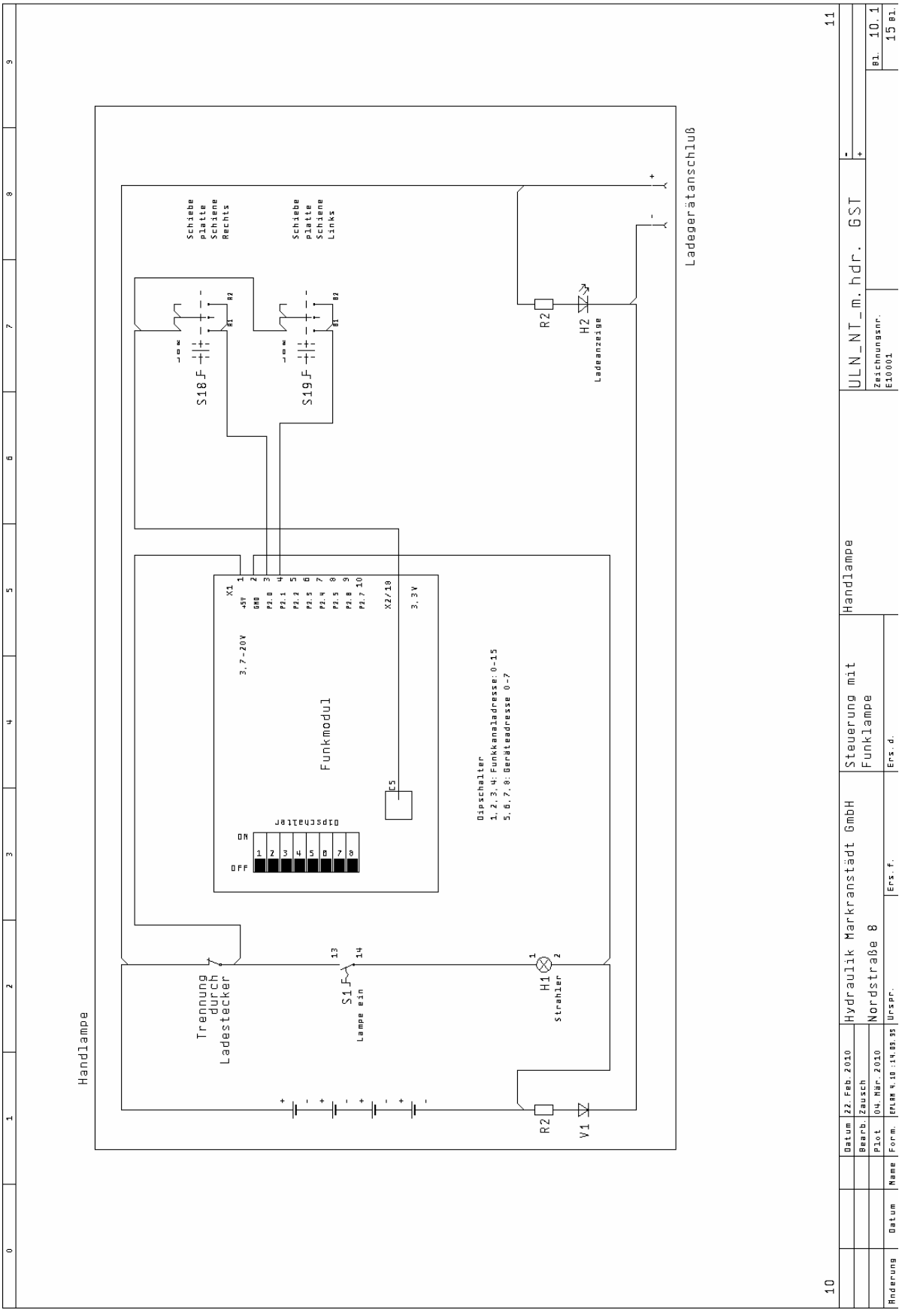

ULN_NT_m.hdr. GST
Steuerkasten ST02
Spidsteuerung
Hydraulik
Nordstraße
K11.1: 995215
Fa: BTR/Typ: MFRK-E12
Rückfallverzögert
Programmierung K11.1
1-ON Zeit: 1, 2
2-OFF
3-ON Funktion: 3, 4, 5, 6
4-OFF
5-ON
6-OFF
K11.1
0,5Sekunde
K11
K12
V3
V4
V5
S6 F
Bügel GST
7.2/SP_EIN
4.8/K11
5.9/L+
5.9/L-
3.9/PE
L+/7.0
L-/7.0
PE/9.0

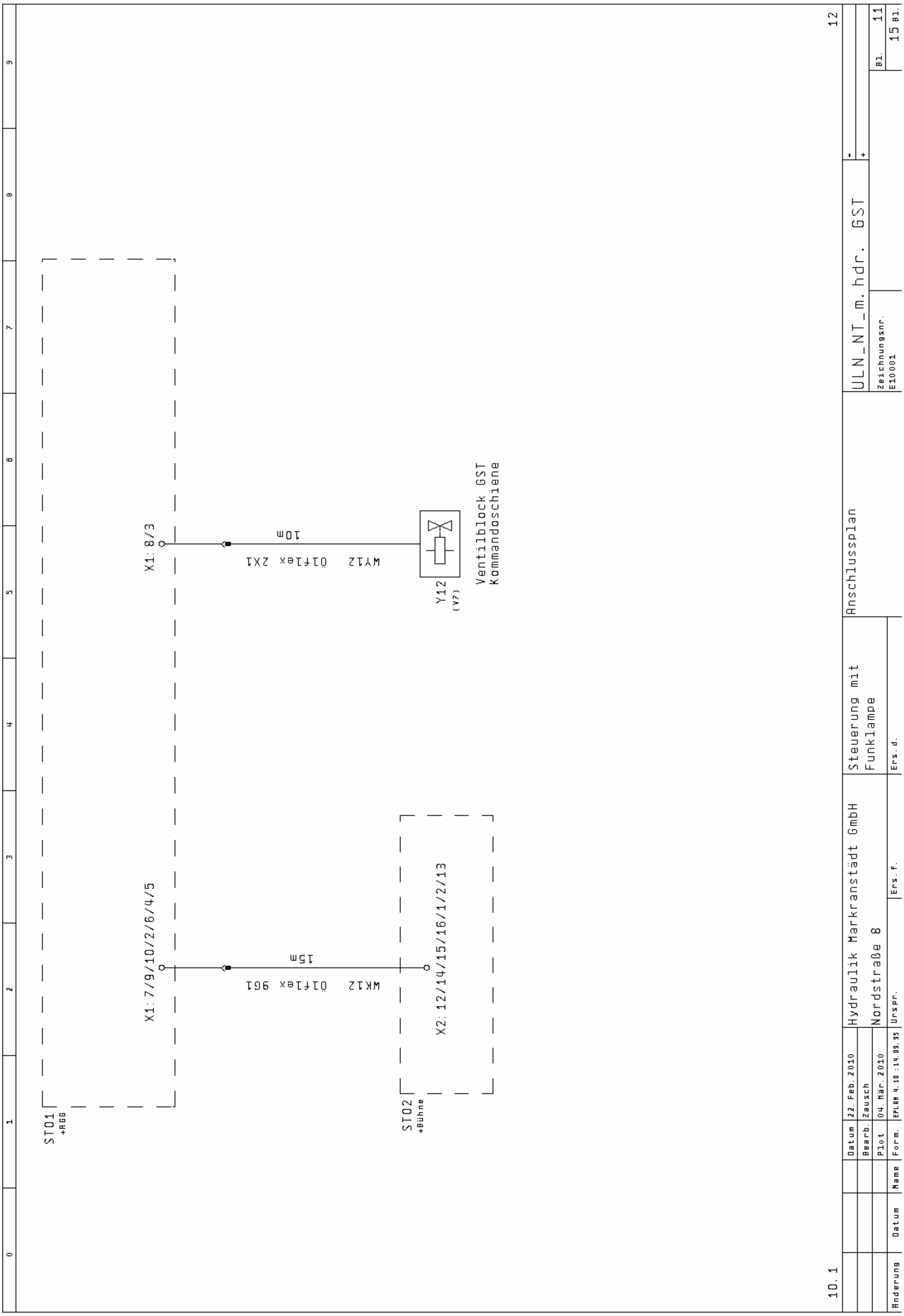

SIND1/8.1
SIND2/8.7
L+2/8.0
L+/9.0
L-/8.0
Umschalter 1/0/2
S2UF
1- Hand links
0- Automatik
2- Hand rechts
Res.
Hand rechts
Hand links
Ind rechts betätigt
Ind links betätigt
Taster SL2 Schiebeplatte rechts
Taster SL1 Schiebeplatte links
Ventil rechts rechts
Ventil rechts links
Ventil links rechts
Ventil links links
Siemens LOGO Basismodul 24RCO
24V AC/DC
A1
KL
KR
F6 0,125A
KC 7824
A2
Spannungs- regler
Gehäuse
24V DC
31V DC
C1
0,1uF/400V
C2
0,33uF/400V
6.8/L+
6.8/L-
6.3/SP_EIN
V1
V2
V3
V4
V6
V7
V8
V9
Y12A
Y12B
Y13A
Y13B
+Heb
(V9L)
(V9R)
(V10L)
(V10R)
X2
WB_GST
DFL 6m 9G1
DFL 6m 9x1
Ventilblock GST
Hydraulik
Nordstraße 8
Funklampe
Steuerkasten STO2
Spidsteuerung
ULN_NT_m. hdr. GST
Zeichnungsnr.
E10001
Datum 22. Feb. 2010
Bearb. Zausch
Plot 04. Mär. 2010
Änderung
Datum
Name
Urspr.
Ers. f.
Ers. d.
Bl. 7
15 Bl.

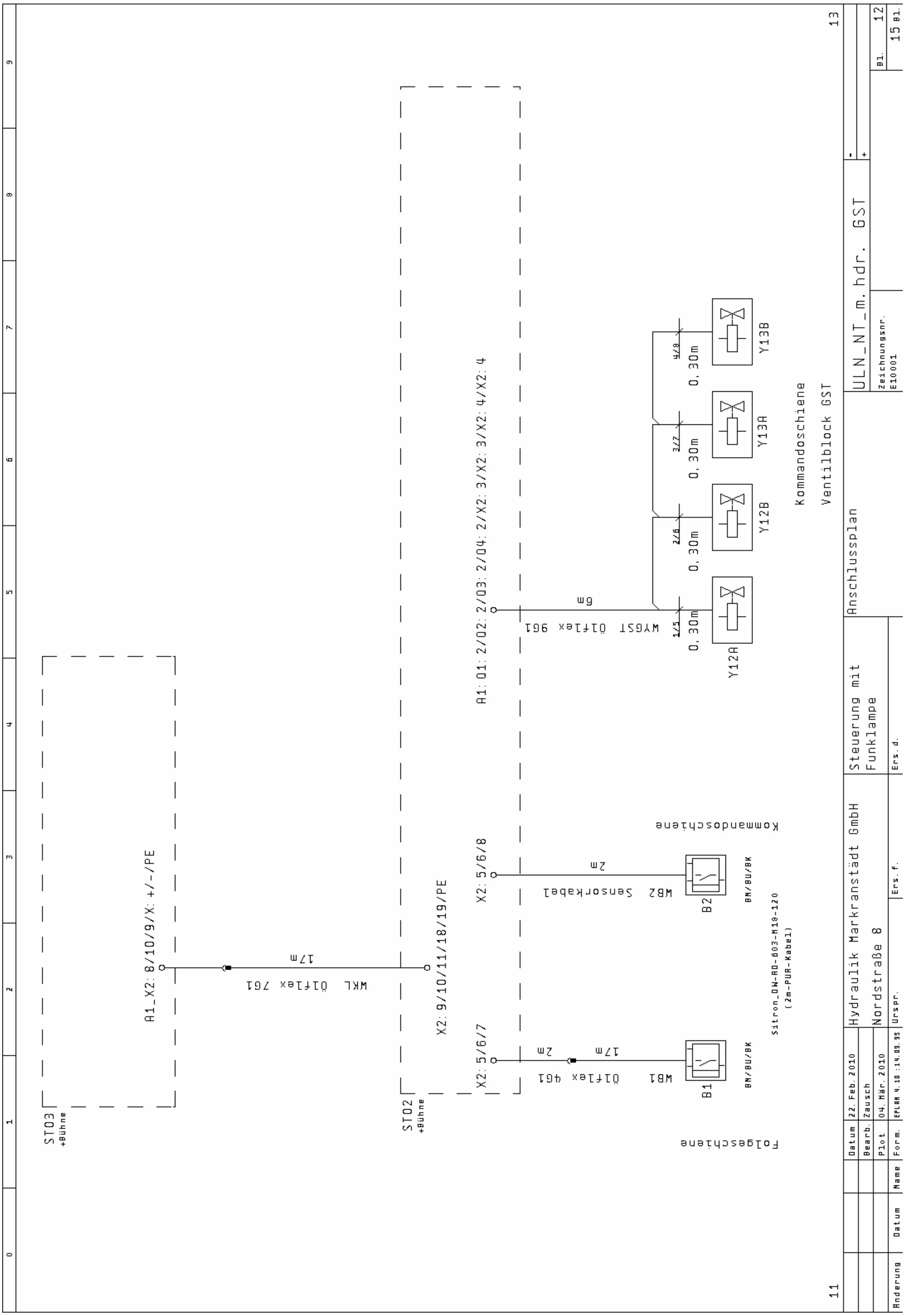

OUT2
OUT3
GND
SIND1
SIND2
X2
KL
KR
V10
V11
B1
B2
Sensor
Spidplatte links
Sensor
Spidplatte rechts
Steuerkasten ST02
Spidsteuerung
ULN_NT_m. hdr. GST
E10001
22. Feb. 2010
04. Mär. 2010

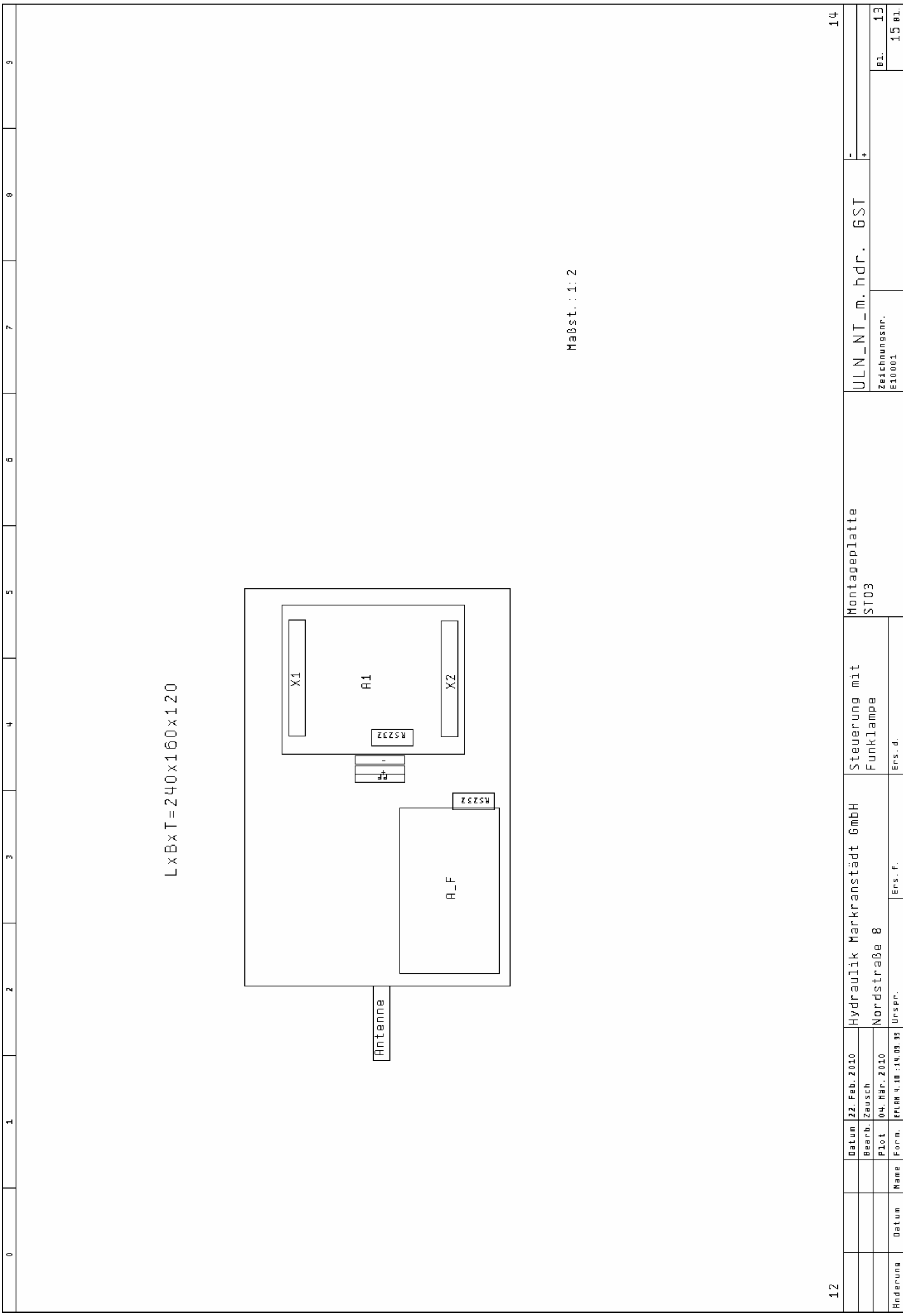

Funkempfänger
Kanal 14
Nussbaum
Universal Funkboard
1 987 009 U60
Nussbaum CAN-Modul
8DI/8DO/1AI
Digitaleingänge
Steuerkasten ST03
CAN-Modul-Eingänge
Steuerung mit
Funklampe
ULN_NT_m. hdr. GST


A1_X2
Nussbaum CAN-Modul
8DI/8DO/1AI
Analogeingang / Ausgänge
Steuerung mit Funklampe
Steuerkasten ST03
CAN-Modul-Ausgänge
Hydraulik Markranstädt GmbH
Nordstraße 8
ULN_NT_m.hdr. GST
Dip-Schalter
1.2.3=0 Zykluszeit=0.8s
4.5.6=0 Geräteadresse=0
muss mit Fernbedienung übereinstimmen
7.8=0 TÜV
Gelenkspieltestermodus
Adresse - 0
Baudrate - 1000 kBit/s
Bus-Abschluss (offen)
9.9/L+
9.9/L-
8.9/OUT2
8.9/OUT3
8.9/GND
WKL
DFCL 110


Handlampe
Trennung durch Ladestecker
S1
Lampe ein
H1
Strahler
R2
V1
Funkmodul
X1
+5V
GND
P2.0
P2.1
P2.2
P3.5
P2.4
P2.5
P2.6
P2.7
X2/10
3.3V
3.7-20V
Dipschalter
ON
OFF
1 2 3 4 5 6 7 8
S5
Dipschalter
1, 2, 3, 4: Funkkanaladresse: 0-15
5, 6, 7, 8: Geräteadresse 0-7
S18F
S19F
Schiebe platte Schiene Rechts
Schiebe platte Schiene Links
B1
B2
R2
H2
Ladeanzeige
Ladegeräteanschluß
Hydraulik Markranstädt GmbH
Nordstraße 8
Steuerung mit Funklampe
Handlampe
ULN_NT_m.hdr. GST
Zeichnungsnr.
E10001
Datum
Name
Änderung
Bearb.
Zausch
Plot
Form.
Urspr.
Ers. f.
Ers. d.
22. Feb. 2010
04. Mär. 2010
Bl. 10.1
15 Bl.


X1: 8/3
10m
WY12
Y12
(V7)
Ventilblock GST
Kommandoschiene
X1: 7/9/10/2/6/4/5
15m
WK12
X2: 12/14/15/16/1/2/13
ST01
+RGG
ST02
+Bühne
10.1
12
Datum
22. Feb. 2010
Bearb.
Zausch
Plot
04. Mär. 2010
Hydraulik Markranstädt GmbH
Nordstraße 8
Steuerung mit
Funklampe
Anschlussplan
ULN_NT_m.hdr. GST
Zeichnungsnr.
E10001
Bl.
11
15 Bl.


ST03 +Bühne
A1_X2: 8/10/9/X: +/-/PE
17m
WKL Ölflex 761
X2: 9/10/11/18/19/PE
ST02 +Bühne
X2: 5/6/7
2m
17m
WB1 Ölflex 461
B1
BN/BU/BK
Folgeschiene
X2: 5/6/8
2m
WB2 Sensorkabel
B2
BN/BU/BK
Sitron_DW-AD-603-M18-120 (2m-PUR-Kabel)
Kommandoschiene
A1: 01: 2/02: 2/03: 2/04: 2/X2: 3/X2: 3/X2: 4/X2: 4
6m
WYGST Ölflex 961
0,30m
Y12A
Y12B
Y13A
Y13B
Kommandoschiene
Ventilblock GST
Hydraulik Markranstädt GmbH
Nordstraße 8
Steuerung mit Funklampe
Anschlussplan
ULN_NT_m. hdr. GST
Zeichnungsnr. E10001
Datum 22. Feb. 2010
Bearb. Zausch
Plot 04. Mär. 2010
Änderung Datum Name
Bl. 12
15 Bl.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A1
X2
RS232
RS232
A_F
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Nordstraße 8
Steuerung mit
Funklampe
Montageplatte
ST03
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Zeichnungsnr.
E10001
Datum 22.Feb.2010
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Plot 04.Mär.2010
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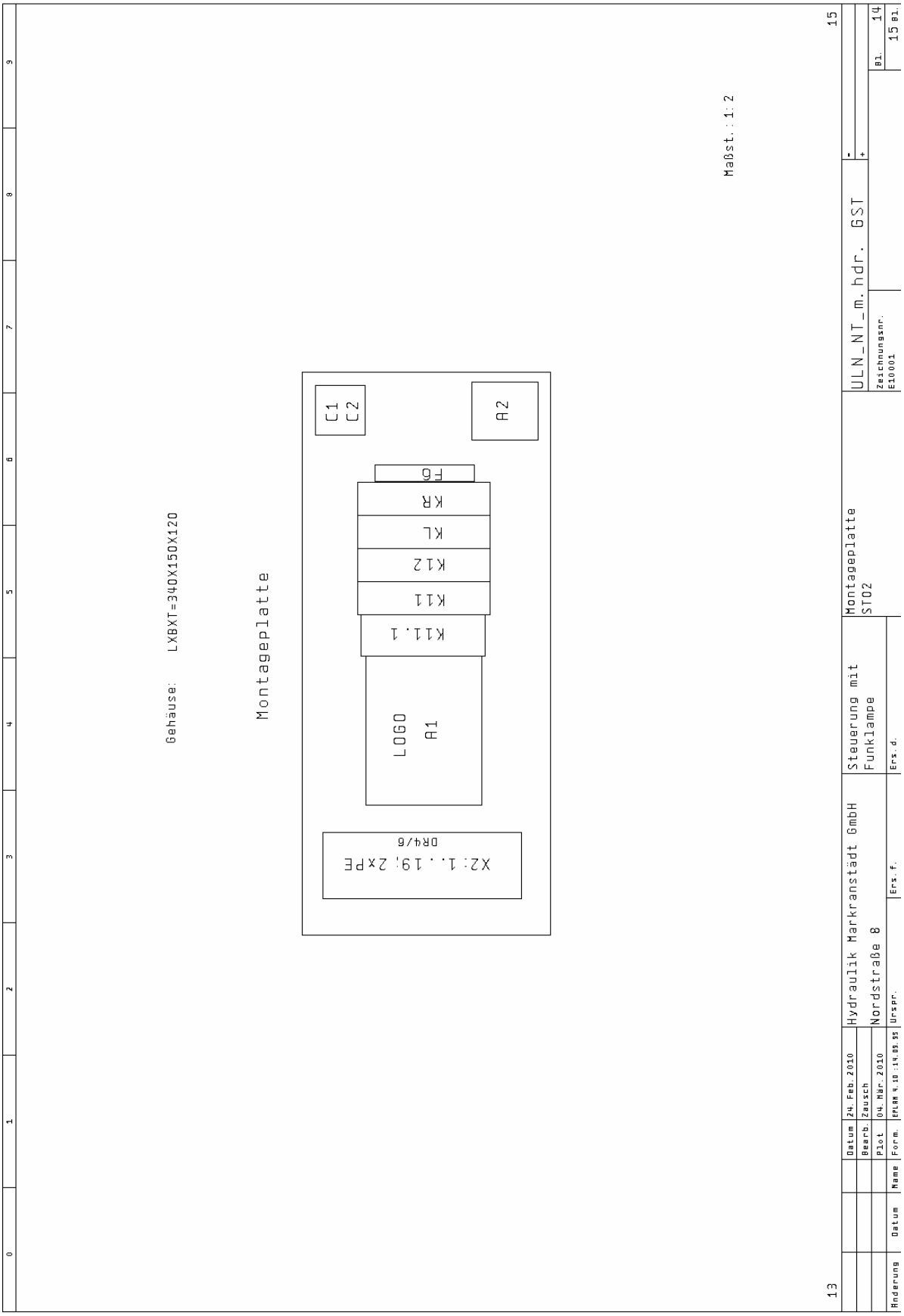
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C1
C2
A2
TD
KR
KL
K12
K11
K11.1
LOGO
A1
X2: 1. . 19, 2xPE
DR4/6
Hydraulik Markranstädt GmbH
Nordstraße 8
Steuerung mit
Funklampe
Montageplatte
ST02
ULN_NT_m.hdr. GST
Zeichnungsnr.
E10001
Datum
Name
Änderung
24. Feb. 2010
Zausch
04. Mär. 2010
EPLAN 4.10 : 14.09.95
Ursprr.
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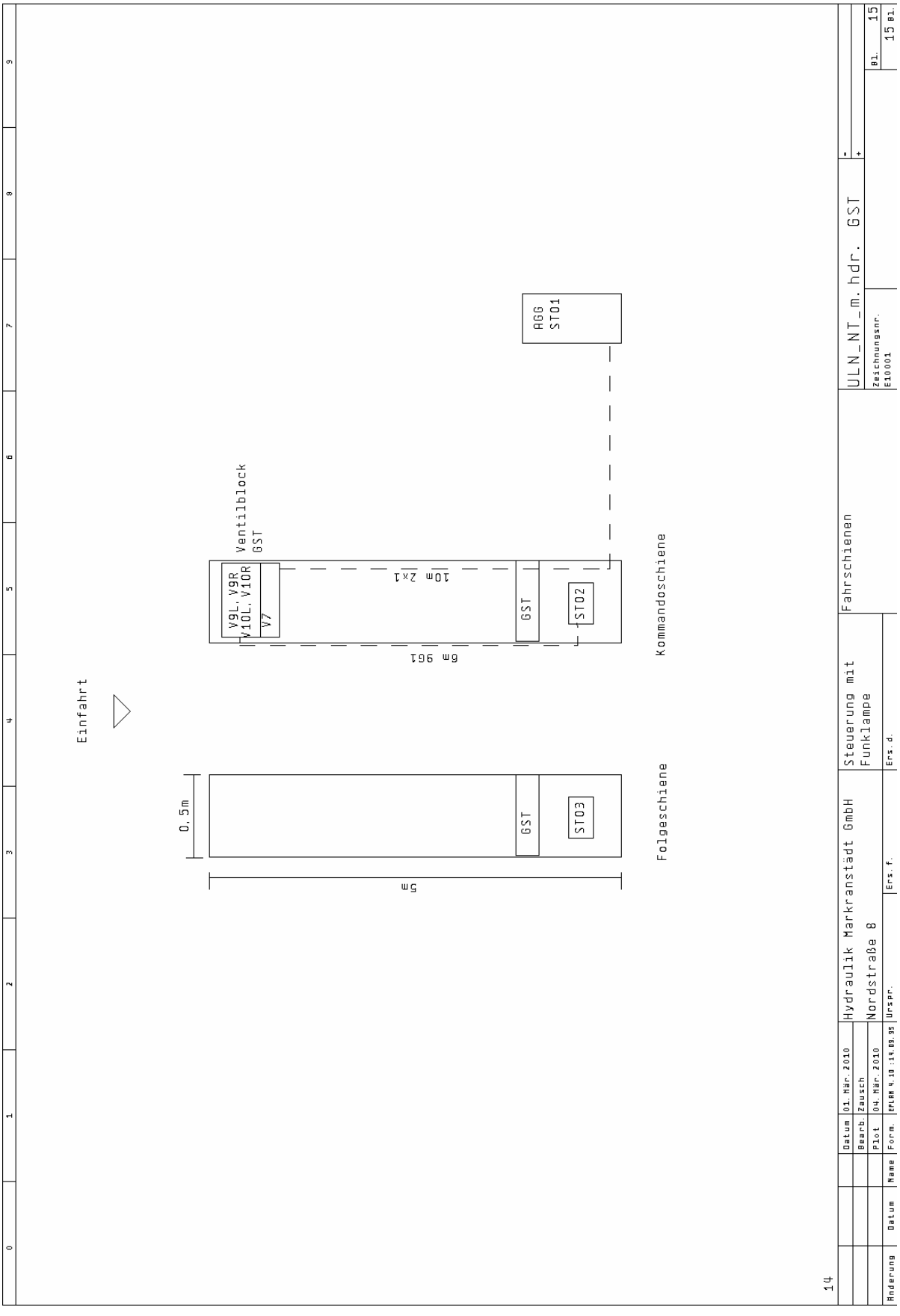

Einfahrt
0,5m
5m
GST
ST03
Folgeschiene
6m 9Ø1
10m 2x1
V9L, V9R
V10L, V10R
V7
Ventilblock
GST
GST
ST02
AØØ
ST01
Kommandoschiene
Steuerung mit Funklampe
Fahrschienen
ULN_NT_m.hdr. GST
Hydraulik Markranstadt GmbH
Nordstraße 8
Zeichnungsnr.
E10001
Bl. 15
15 Bl.
Änderung
Datum
Name
Datum 01. Mär. 2010
Bearb. Zausch
Plot 04. Mär. 2010
Form. EPLAN W.1D :14.03.05
Urspr.
Ers. f.
Ers. d.

Safety regulations

If you use the automotive lift, the following European regulations are to be considered:

BGG945: Examine of automotive-lifts; BGR500 Using automotive-lifts; (VBG14).

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

Additional safety-regulations

The following regulations are very important:

- The laden weight of the vehicle mustn't be more than 5000 kg for the automotive lift, 4500kg for the automotive lift with wheel free lift.
- The laden weight of the vehicle mustn't be more than 2500 kg for the wheel free lift.
- The maximum axle load for the Play Detectors is 1400 kg.
- The 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.
- The operating instructions must be followed whilst working with the lift.
- 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.
- During lifting or lowering the operator must observe the vehicle to ensure that the vehicle and the lift are functioning correctly.

- Position the pads as described by the vehicle manufacturer under the vehicle.
- Check the centre of gravity of the vehicle if heavy parts (e.g. the motor) are to be removed.
- If heavy parts must be removed (e.g. motor) the centre of gravity will change. Secure the vehicle before removing parts to avoid the possibility of the vehicle becoming insecure.
- 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 Installation of the standard-mobile column lift in hazardous or dangerous locations such as washing bays is dangerous and is not allowed.
- The automotive lift must be checked by an expert after changes in construction or after repairing carrying pads.

Operating instructions

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

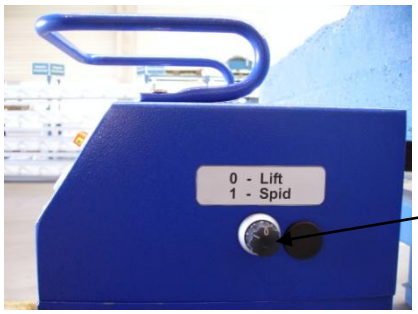
Lifting the vehicle

- Drive vehicle over the lift, longitudinal axes on line of the lift.

(Wheel free lift): If necessary use the ramps to secure the safety of the vehicle.

- Secure the vehicle against rolling away, put into gear and apply the parking brake.
- Check the dangerous places around 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" (see pic.1)
- Choose between main lift / wheel free lift (see pic.1)
- (wheel free lift) Position the polymer supports under the pick-up points which are described by the vehicle manufacturer. Do not lay them on edge! The vehicle might fall down!
- Raise the lift. Press the button "lifting".
- (wheel free lift): Stop the lifting when the wheels are free to check the safe position of the vehicle on the polymer pads.
- Lift the vehicle on the working height. Press the button "lifting".

pic. 1: operation unit



pic. 2

Pic. 3

Lowering the vehicle

- Check dangerous places around the lift and ensure that there are no objects or people in the immediate area of the lift or on the lift.
- Choose between main lift / wheel free lift (see pic. 1)
- Lower the vehicle to the working height or until the platform reaches the lowest point; press the button “lowering“.
- Observe the complete process.
- Before the lift reaches the lowest position, it stops (approx. 150 mm).
- Release the “lowering” control, observing the dangerous areas. Press the button again (you hear an acoustic signal) until the lift reaches its lowest position.
- When the lift is in its lowest position, remove the polymer supports (wheel free lift)
- Drive the vehicle off only when the main lift is in its lowest position.

Equalization of the platforms

Because there are two independent hydraulic systems, differences between the two rails should not normally appear when you operate the lift correctly.
Check possible mistakes before you equalize the two platforms (for instance a leakage of the hydraulic system or another external problem)

Equalize the rails only without load!
Before an equalization you have to remove any kind of load off the lift!

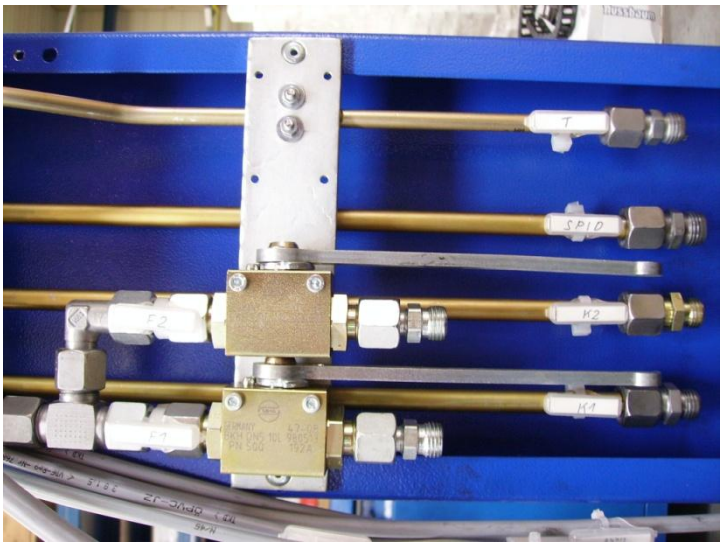
An equalization could be necessary when one side isn’t let down completely into the lowest position, or if the loads of the two rails are very different to each other, for example.

Correct equalization:

Situation: One rail is higher than the other.

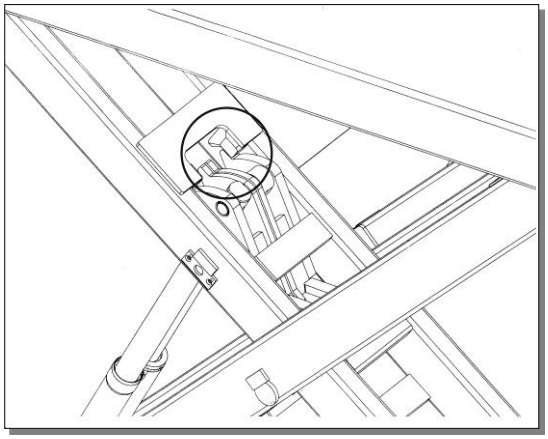
preparations/measures:

- Lower the lift as far as possible into the lowest position. Press button "lowering".



pic. 4: ball valves for the equalization of the lift.

- Remove the covers of the operation unit (back side)
- Pull ball valve KU1 and press button "lowering". One rail lowers. Put button and ball valve in normal (original) position again.
- Pull ball valve KU2 and press button "lowering". The second rail lowers also. Put button and ball valve in normal position again.
- Lift the rails 1500 mm.
- Check now the position of the cylinder levers. All four cylinder levers have to sit close to the limit stops of the scissors. (compare to pic 5)



pic. 5
cylinder levers (circle)
2 x each side of the lift

- If the cylinder levers do not sit right next to the limit stops, then the rails have to be equalised once again with the ball valves, according to the following description.

Equalization of the main lift:

- Choose the main lift at the reversing switch (see pic.1)
- Press button "lifting" and pull the ball valve KU1. Observe if the cylinder levers move to the limit stops. If no cylinder lever moves, put KU1 in his original position. Pull ball valve KU2 and press button "lifting".

Troubleshooting

If the lift does not work properly, the reason for this might be quite simple. Please check the lift for the potential reasons mentioned on the following pages. If the cause of problem cannot be found, please call Technical Support.

Problem: Motor does not start!	
Potential causes:	Solution:
No power supply	*Check the power supply*
Main switch is not engaged	*Put main switch on*
Fuse defective	*Check fuse and replace it if necessary*
The feed line is cut	*Repair it*
Thermal switch in the motor is active	*Let it cool down*

Problem: Motor starts, lift does not lifting!	
Potential causes:	Solution:
The vehicle is too heavy	*Unload it*
Level of the oil is too low	*fill oil reservoir*
Leakage of the hydraulic system	*Repair the system*
Gear pump does not work	*Call your service partner*

:

-

Problem: The lift does not lower!	
Potential causes:	Solution:
The lift is standing on a obstacle	*Push button "lifting"*
Hydraulic valve defect	*Call your service partner*
Fuse defective	*Check fuse and replace if necessary*
Button "lowering" not pushed	*Push the correct button!*
Seat valves cannot be unlocked	*Carry out emergency lowering*

Driving onto an obstacle

If the lift drives onto an obstacle, the hydraulic system has got no more pressure and the lift stops. To remove the obstacle the lift rails have to be raised a little. Therefore push button "lifting" until the obstacle can be removed.

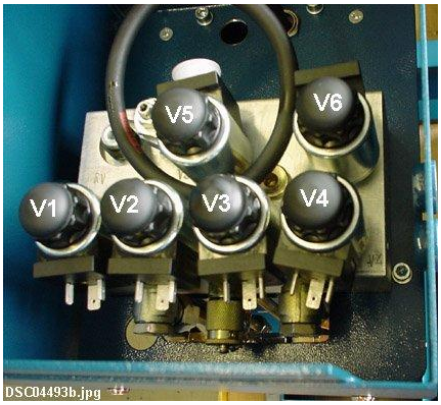
Emergency lowering of the main lift

Emergency lowering is an intervention into the control of the lift and can be only be carried out by an experienced person.
Emergency lowering must be carried in this order. Otherwise a malfunction can cause damage or lead to danger for body and lives.

Every kind of external leakage must be stopped. This is particularly important before an emergency lowering.

Examples of reasons which require an emergency lowering are disturbances of the valves or a breakdown of the power supply.

1. Disconnect the lift from the power supply before starting an emergency lowering procedure.
2. Open the covers of the aggregate. You have to be able to reach the seat valves of the hydraulic bloc. (pic. 6)
3. Check the dangerous areas of the lift and be sure that there are no objects or people in the immediate area, or on the lift.
4. Emergency lowering of the main lift: press simultaneously the valves V1, V2.
5. V4 without function.
6. The lowering starts immediately. If there is any danger, let off the valves and stop the emergency lowering!!



pic. 6
Valves with buttons for emergency lowering

7. Lower the lift to its lowest position.
8. Observe the complete process.

9. Change the defective part of the lift, before operating the lift again, if it is necessary. In this case, call your service partner.

Switch off the main switch and lock it. Do not operate the lift until the faulty parts are exchanged.

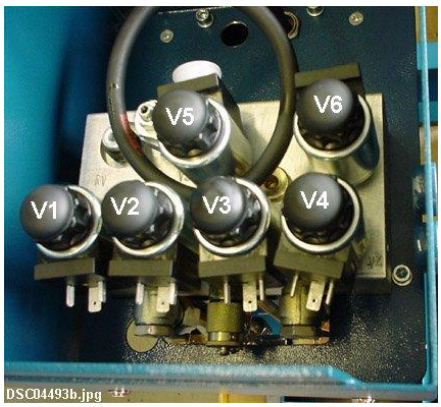
Inspection and Maintenance

Before conducting maintenance and repair work, preparations must be made to ensure that 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.

A service has to be performed at regular intervals of 3 months by the operator in accordance with this manual.
If the lift is used frequently, the intervals must be shortened. Observe the function of the lift while you use it. If there is disturbance or leakage call your service partner.

Maintenance plan of the lift

- Clean any sand or dirt from the piston rods of the hydraulic cylinders.
- Grease the piston rods with a high capacity lipid (approx. 5 g) of S2 DIN51503 KE2G from the Renolit Company.
- Clean and lubricate the moving parts of the lift (hinge bolts, sliding pieces, sliding surfaces) grease with a multipurpose lipid (example: Auto Top 2000 LTD. Agip).
- Grease the lubrication nipples with a multipurpose lipid. (example: Auto Top 2000 LTD. Agip).
- Check the paint finish and, if necessary, make a repair.
- Check the hydraulics hoses for wear or leakage.
- Check the oil level. Fill in clean, high quality oil (32 cst) in the oil tank.
- The hydraulic oil must be changed at least once a year. To change the oil, lower the lift into the lowest position. Empty the tank and replaced with clean oil, approx. 14 litres are needed. High quality hydraulic oil is recommended, it should be 32 cst. (e.g. HLP 32 LTD. OEST Company)
- Use an ATF-Suffix hydraulic-oil (OEST Company) if the ambient temperature is under 5 degree centigrade. After filling up, the hydraulic oil must be between the upper and low marking of the oil level gauge.
- As stated in § 52-3 of the VBG 14 European regulation, replace the hydraulic hoses, if necessary, but at latest after 6 years.
- Check the welding of the lift.
  - Check the safety devices of the lift.
  - Check the Polymer supports and replace them if necessary.



Valves (cartridges) must be tightened to approx. 30 – 35 Nm at regular intervals.

With intensive use of the lifting platform, the maintenance interval must be shortened.
Before cartridges can be tightened, the coils have to be removed by releasing the black turn-lock fastener.

Cleaning of the automotive lift

Regular and appropriate maintenance extends the life of the lift.
It is a prerequisite for claims for possible corrosion.
The best protection for the lift is regular cleaning of all types of dirt.
Including:

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

How often must the lift be cleaned?

This is dependent on the amount of usage of the lift, cleanness of the workshop and location of the lift. The degree of the dirt is dependent on the season, weather conditions and the ventilation of the workshop. Under extreme circumstances it may be necessary to clean the lift every week, but cleaning every month will usually suffice.

- Clean the lift and the floor with a non-aggressive and non-abrasive detergent. Use gentle detergent to clean all parts. Standard washing-up liquid and lukewarm water is recommended
- Do not use a steam jet for cleaning.
- Remove all dirt careful with a sponge and, if necessary, a brush.
- Pay attention that are no remains of the washing-up liquids on the lift after cleaning.
- Do not use aggressive means for cleaning the workshop floor or the lift.
- Do not leave any liquid in permanent contact.
- Dry the lift after the cleaning with a cloth.
- Do not use any high pressure device to clean the lift!

Safety checks

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

1. After the first installation, and before the initial operation,

Use the form "First safety check before initiation"

2. At regular intervals after the initial operation, at least annually.

Use the form "Regular safety check at least annually"

3. Every time the construction of the lift has been changed.

Use the form "Extraordinary safety check"

☞ *The first and the regular safety check must be performed by a competent person. It is recommended to service the lift at this occasion.*

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

This manual contains forms with a schedule for the safety checks. Please us the correct form for each safety check. The form should remain in this manual, after they have been filled out. There is also a short description about special safety devices.

Installation and Initiation

Instructions for installation

- The lift must be installed by technicians who have been trained by the manufacturer or its distribution partner. If the operator can provide trained mechanics, he can install the lift by himself. The installation has to be done according to this instruction.
- The standard lift must not be installed in hazardous locations or washing areas.
- Before installation a sufficient foundation must be proven or constructed.
- An even installation place must be provided. The foundations must be based in a frost resistance depth, both outside and indoors, where you must consider frost.
- An electrical supply 3~/N+PE, 400 V, 50 Hz has to be provided. The supply line must be protected with T16A (VDE0100 European regulation). The minimum diameter must be 2.5 mm^2.
- All cable ducts have to be equipped with protective coverings to prevent accidents.

Erection and doweling of the lift

- Install the lift according to the data sheet and the foundation plan.
- Install the operating unit at its designed place. Connect the power supply.
- Connect the hydraulics. All hoses are marked.
- Fill with hydraulic oil, approx. 14 litres are needed. A high quality hydraulic oil is recommended, it should be 32 cst. (e.g. HLP 32 LTD. OEST Company) After filling up, the hydraulic oil must be between the upper and low marking of the oil level gauge.
- Push button "lifting" until the vent screws (on the top of the slave cylinders, (pic. 7) can be reached. Deaerate the system according to chapter 9.3, if necessary.
- Adjust the lift: first one base plate, than the second base plate. If the floor is uneven, level it with metal strips. A continuous contact between the floor and the base plate must be guaranteed to avoid hollow spaces.

Dowel the lift:

We recommend LIEBIG safety dowels (German dowel manufacturer) or equivalent dowels from another manufacturer, but observe their instructions.

Before doweling ensure that the concrete goes to the top edge of the floor. For an existing concrete floor the dowels must be chosen according to pic. 8.
If floor tiles are laid on top of the concrete floor, the dowels have to be chosen according pic. 9. To ensure trouble-free operation, it is important that the base plates and sliding block guides are clean and greased. Check the adjustment of the base plates and dowel the lift: Drill holes to fix the dowels through the holes of the base plates. Clean the holes with pressure air. Put in the safety dowels.

- Dowel the aggregate in the floor.
- Tighten the Liebig-dowels with a torque key (M = 70Nm).

☞ *Each dowel must be tightened to the correct torque value. Otherwise the normal and safe function of the lift cannot be guaranteed. Observe the instructions of other dowel-manufacturers.*

- Raise and lower the lift several times with load. Check the torque of the dowels and check the hydraulic hoses tightness.
- Equalize the lift, if this is necessary.
- Mount the covers: Do not damage the cables.

De aerate the hydraulic system

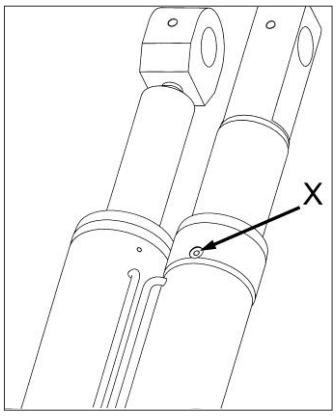
- The correct power supply, the correct hydraulic oil and the closeness of the hydraulic system have to be controlled after the installation of the lift.
  By connecting the hydraulic hoses, air might enter the hydraulic system and provoke problems of ganging. In consequence a de aerating is necessary.
  Check again the correct installation of the hydraulic hoses!

Effects, which make a de aerating necessary are, for example, a sudden lifting out of the lowest position or unequal rails.

Correct de aerating:

There have to be 14 litres of hydraulic oil filled in the oil tank.

- Choose the main lift at the reversing switch (pic.1)
- Open the vent screws on the top of the slave cylinders (pic. 5) a little bit.
  Do not open them completely.
- Push button "lifting". Air will stream out of the holes on the slave cylinders. Keep the screws open until only hydraulic oil comes out of the holes. Close the vent screws afterwards.



pic. 7
pos. X = vent screw on the top of the slave cylinders

Problems will occur if you do not close the vent screws!

- Push button "lifting" and raise the lift into the highest position. Repeat the procedure of de aerating, if necessary.
- Check if the vent screws are closed
- Push button "lowering" and lower the lift into the lowest position. (While you lower the lift it is possible that the oil-air mix makes sounds)
- Lift the rails on 1500 mm without load. Check the holding time.
- Check again if the cylinder levers: All four cylinder levers have to sit close to the limit stops.

Initiation

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

If the lift is installed by a competent person, he will perform this safety check. If the operator installs the lift by himself, he has to instruct a competent person to perform the safety check. The competent confirms the faultless operation of the lift in the installation record and form for the safety check and allows the lift to be used.

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

Changing the installation place

If the lift needs to be re located, the new site has to be prepared according to the regulations of the first installation, observing the following points:

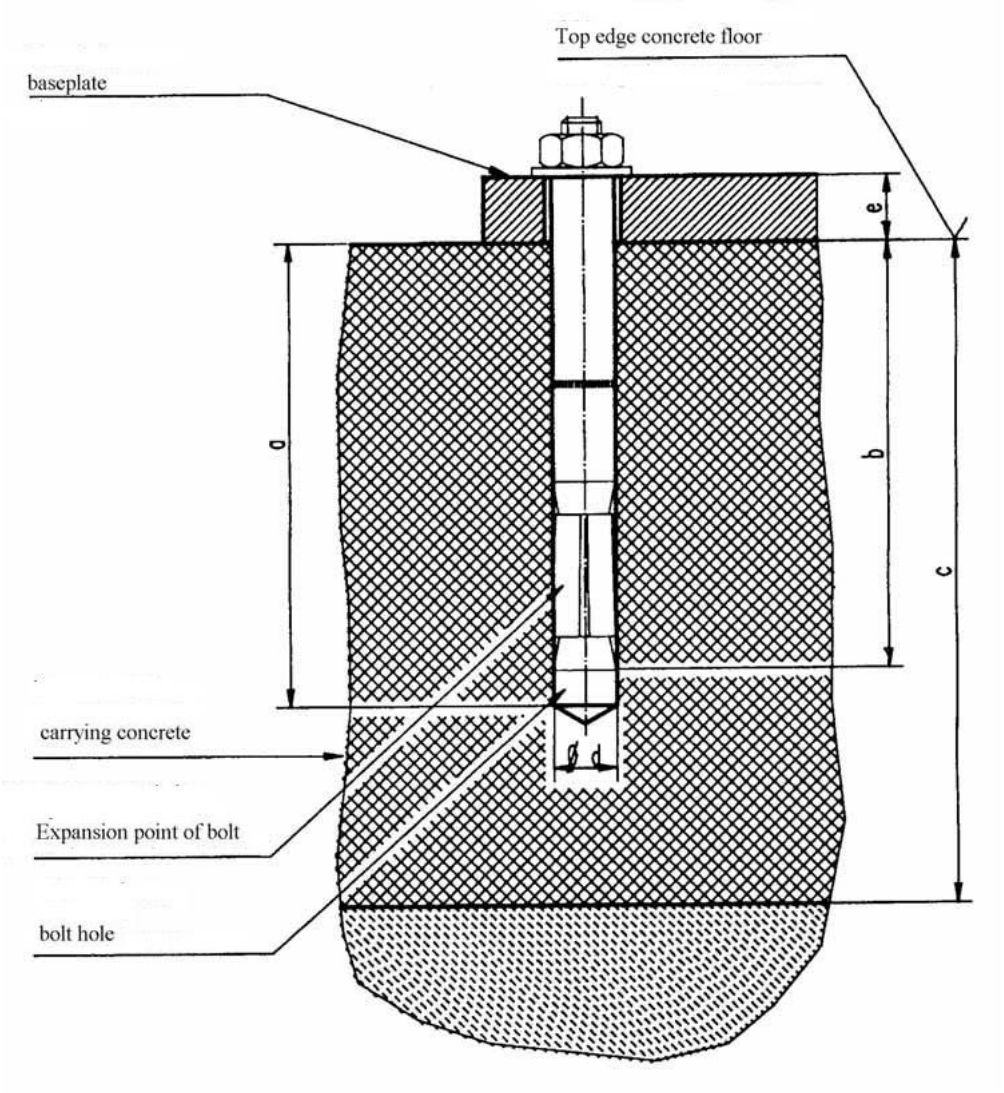
- Raise the lift to approx. 1000 mm.
- Remove the cover of the hydraulic tubes.
- Loosen the dowels.
- Lower the lift to the lowest position.
- Loosen the plug of the power supply.
- If necessary loosen the hydraulic hoses, but only on the operating unit.
- If necessary, use blind plugs to close the hoses.
- Disconnect the power supply.
- Transport the lift to its new place.
- Install the lift in accordance with the chapter " Installation and Initiation".
- Equalize and deaerate the lift!

Use new dowels, the used dowels cannot be used anymore.

A safety check must be carried out before re initiation by a competent person. Use form "Regular safety check"

Choice of dowel length - without floor pavement or tile surface

BM12-20

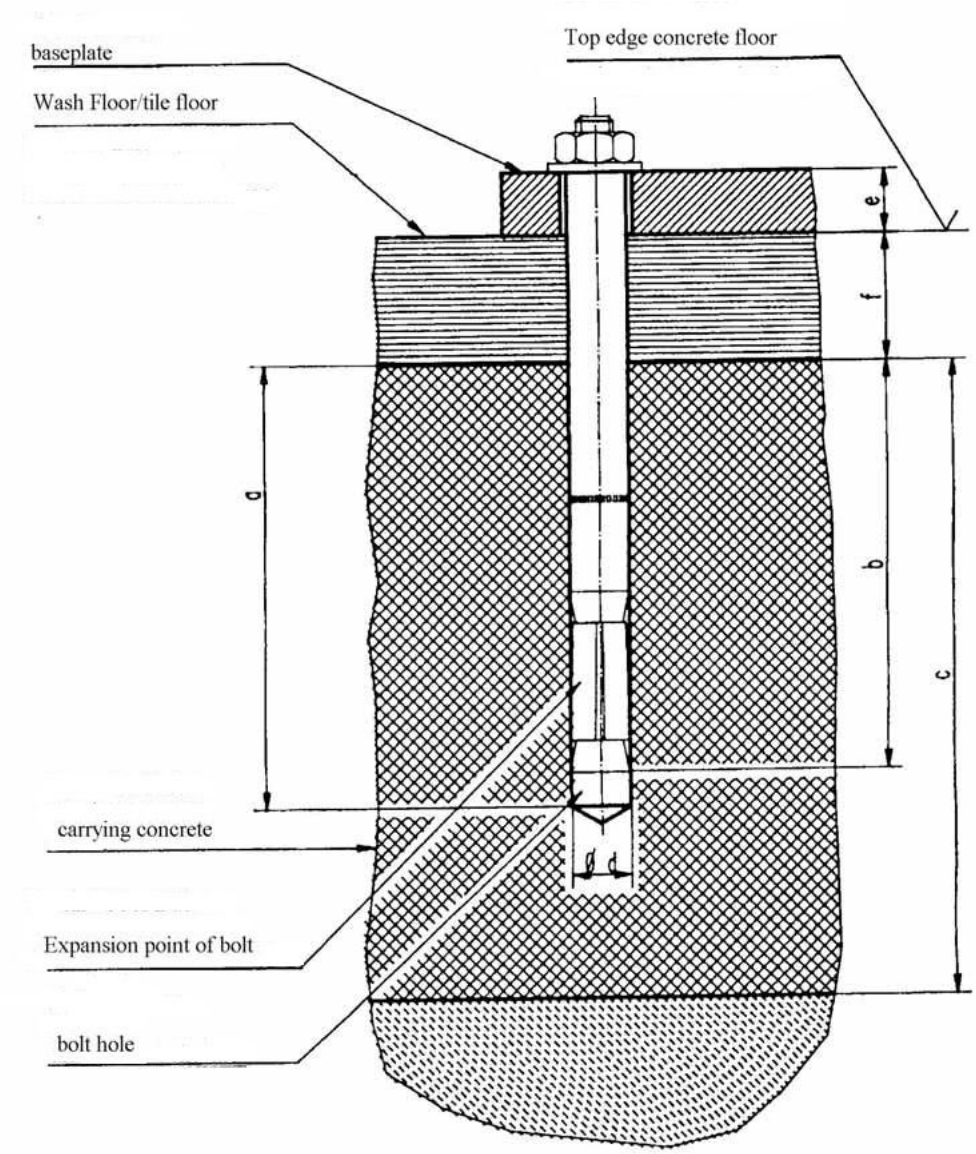


Liebig-dowels	
Dowel type	BM12-20/80/40
Drilling depth	a 100
Min. anchorage depth	b 80
Thickness of concrete	c min.160 (*)
Diameter of bore	d 20
Thickness of the lift-pieces	e 0-40
Quality of concrete	min. C20/25 with normal armouring
Number of dowels	12
Starting torque	70 Nm

(*) minimum thickness of concrete by using the mentioned dowels. Otherwise, observe the regulations of the foundation plan.

☞ *You can use equivalent dowels from another dowel manufacturer (with license) but observe their respective regulations.*

with floor pavement or tile surface



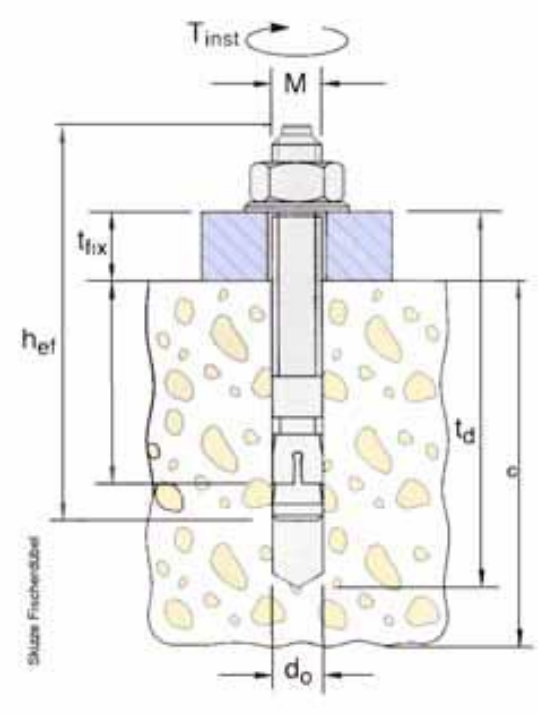
Liebig-dowels

Dowel type		BM12-20/80/65	BM12-20/80/100	BM12-20/80/140
Drilling depth	a	100	100	100
Min. anchorage depth	b	80	80	80
Thickness of concrete	c	min.160 (*)	min.160 (*)	min.160 (*)
Diameter of bore	d	20	20	20
Thickness of the lift-pieces	e-f	40-65	65-100	100-140
Quality of concrete		min. C20/25 with normal armouring		
Number of dowels		12	12	12
Starting torque		70 Nm	70Nm	70Nm

(*) minimum thickness of concrete by using the mentioned dowels. Otherwise, observe the regulations of the foundation plan.

☞ *You can use equivalent dowels from another dowel manufacturer (with license) but observe their respective regulations.*

Fischer – Dübel

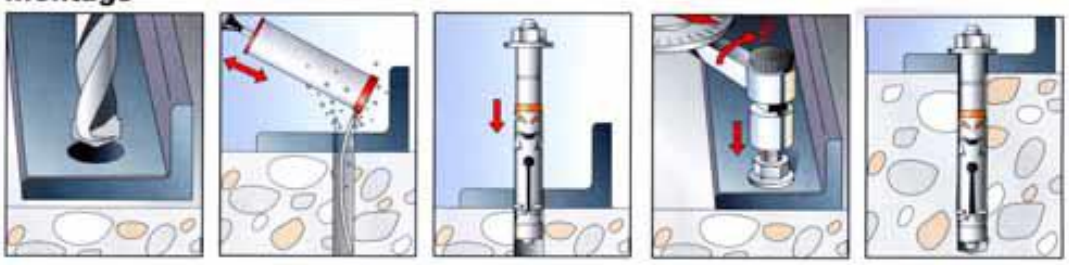


Subject to change without notice!

-

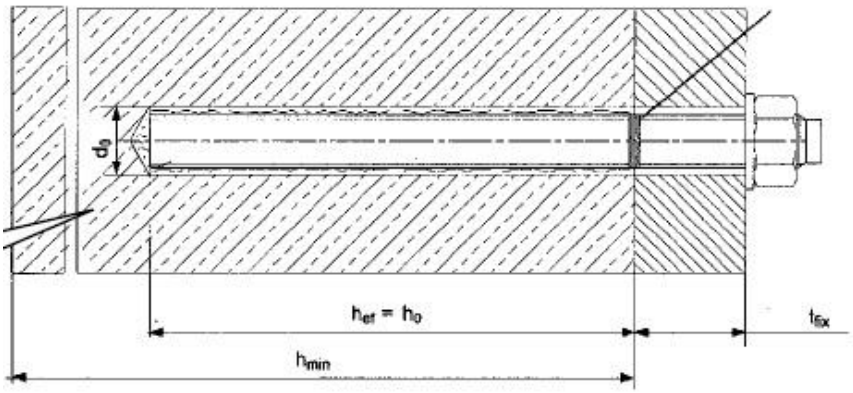
type of dowel		FH 18 x 100/100 B
drilling depth	td	230
min. anchorage depth	hef	100
thickness of concrete	c	see current foundation-diagram drawing
diameter of bore	do	18
thickness of the lift-piece	tfix	0-100
turníng moment	MD	80
total length	I	230
thread		M12
Number of bolts		12

Montage



☞ *It is possible to use equivalent safety-dowels of other manufacturers (with license) but follow their regulations.*

Hilti - Injection Anchors



Subject to change without notice!

concrete floor	without floor pavement (tiles)	
type of dowel		HIT-V-5.8 M12x150 Art.Nr.387061
drilling depth	ho	108
min.anchorage depth (mm)	hef	108
thickness of concrete (mm)	Hmin	min.138
diameter of bore	do	14
thickness of the lift-piece (mm)	tfix	max.19
turníng moment (Nm)	Tinst	40
total length (mm)	l	150
thread	M	12
number of bolts	d	12

☞ *Always observe the dowel manufacturers installation regulations.*
Use longer dowels with floor pavement and tiles

☞ *It is possible to use equivalent safety-dowels of other manufacturers (with license) but follow their regulations.*

First Safety check before installation

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction.....	☐	☐	☐	.....
Type plate.....	☐	☐	☐	.....
Warning designation, sticker.....	☐	☐	☐	.....
Function button ”lifting/lowering”.....	☐	☐	☐	.....
Function lever “main lift/wheel free lift“.....	☐	☐	☐	.....
Condition / Function ramp.....	☐	☐	☐	.....
Function play-detector.....	☐	☐	☐	.....
Condition/Function pocket-lamp.....	☐	☐	☐	.....
Safety of the bolts.....	☐	☐	☐	.....
Condition bolts and bearing.....	☐	☐	☐	.....
Condition sliding blocks.....	☐	☐	☐	.....
Condition colour.....	☐	☐	☐	.....
Construction (deformation, cracking).....	☐	☐	☐	.....
Torque moment of the dowel.....	☐	☐	☐	.....
Fixed seat of the screws.....	☐	☐	☐	.....
Condition operating unit.....	☐	☐	☐	.....
Condition piston rod.....	☐	☐	☐	.....
Condition of the cover.....	☐	☐	☐	.....
Closeness of the hydraulic system.....	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires.....	☐	☐	☐	.....
Function test with vehicle.....	☐	☐	☐	.....
Function test wheel free lift with vehicle.....	☐	☐	☐	.....
Condition Polymer supports.....	☐	☐	☐	.....
Condition welding.....	☐	☐	☐	.....
Function CE-Stop.....	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

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: ....
(Use another form for verification!) Signature of the operator

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction.....	☐	☐	☐	.....
Type plate.....	☐	☐	☐	.....
Warning designation, sticker.....	☐	☐	☐	.....
Function button ”lifting/lowering”.....	☐	☐	☐	.....
Function lever „main lift/wheel free lift“.....	☐	☐	☐	.....
Condition / Function ramp.....	☐	☐	☐	.....
Function play-detector.....	☐	☐	☐	.....
Condition/Function pocket-lamp.....	☐	☐	☐	.....
Safety of the bolts.....	☐	☐	☐	.....
Condition bolts and bearing.....	☐	☐	☐	.....
Condition sliding blocks.....	☐	☐	☐	.....
Condition colour.....	☐	☐	☐	.....
Construction (deformation, cracking).....	☐	☐	☐	.....
Torque moment of the dowel.....	☐	☐	☐	.....
Fixed seat of the screws.....	☐	☐	☐	.....
Condition operating unit.....	☐	☐	☐	.....
Condition piston rod.....	☐	☐	☐	.....
Condition of the cover.....	☐	☐	☐	.....
Closeness of the hydraulic system.....	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires.....	☐	☐	☐	.....
Function test with vehicle.....	☐	☐	☐	.....
Function test wheel free lift with vehicle.....	☐	☐	☐	.....
Condition Polymer supports.....	☐	☐	☐	.....
Condition welding.....	☐	☐	☐	.....
Function CE-Stop.....	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

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: ....
(Use another form for verification!) Signature of the operator

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction	☐	☐	☐	.....
Type plate	☐	☐	☐	.....
Warning designation, sticker	☐	☐	☐	.....
Function button ”lifting/lowering”	☐	☐	☐	.....
Function lever „main lift/wheel free lift“	☐	☐	☐	.....
Condition / Function ramp	☐	☐	☐	.....
Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

Result of the Check:

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

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Signature of the expert Signature of the operator

If failures must be repaired:

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

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction	☐	☐	☐	.....
Type plate	☐	☐	☐	.....
Warning designation, sticker	☐	☐	☐	.....
Function button ”lifting/lowering”	☐	☐	☐	.....
Function lever „main lift/wheel free lift“	☐	☐	☐	.....
Condition / Function ramp	☐	☐	☐	.....
Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

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: ....
(Use another form for verification!) Signature of the operator

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction	☐	☐	☐	.....
Type plate	☐	☐	☐	.....
Warning designation, sticker	☐	☐	☐	.....
Function button ”lifting/lowering”	☐	☐	☐	.....
Function lever „main lift/wheel free lift“	☐	☐	☐	.....
Condition / Function ramp	☐	☐	☐	.....
Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

Result of the Check:

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

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Signature of the expert Signature of the operator

If failures must be repaired:

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

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction	☐	☐	☐	.....
Type plate	☐	☐	☐	.....
Warning designation, sticker	☐	☐	☐	.....
Function button ”lifting/lowering”	☐	☐	☐	.....
Function lever „main lift/wheel free lift“	☐	☐	☐	.....
Condition / Function ramp	☐	☐	☐	.....
Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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Safety check carried out:.....

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Name, address of the competent:.....

Result of the Check:

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☐ Initiation possible, repair failures until.....
☐ No failings, Initiation possible

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Signature of the expert Signature of the operator

If failures must be repaired:

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

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction.....	☐	☐	☐	.....
Type plate.....	☐	☐	☐	.....
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Function button ”lifting/lowering”.....	☐	☐	☐	.....
Function lever „main lift/wheel free lift“.....	☐	☐	☐	.....
Condition / Function ramp.....	☐	☐	☐	.....
Function play-detector.....	☐	☐	☐	.....
Condition/Function pocket-lamp.....	☐	☐	☐	.....
Safety of the bolts.....	☐	☐	☐	.....
Condition bolts and bearing.....	☐	☐	☐	.....
Condition sliding blocks.....	☐	☐	☐	.....
Condition colour.....	☐	☐	☐	.....
Construction (deformation, cracking).....	☐	☐	☐	.....
Torque moment of the dowel.....	☐	☐	☐	.....
Fixed seat of the screws.....	☐	☐	☐	.....
Condition operating unit.....	☐	☐	☐	.....
Condition piston rod.....	☐	☐	☐	.....
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Closeness of the hydraulic system.....	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
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Function test with vehicle.....	☐	☐	☐	.....
Function test wheel free lift with vehicle.....	☐	☐	☐	.....
Condition Polymer supports.....	☐	☐	☐	.....
Condition welding.....	☐	☐	☐	.....
Function CE-Stop.....	☐	☐	☐	.....

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Regular Safety check

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Type of check	OK	defective or missing	veri-fication	remark
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Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

Result of the Check:

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

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Signature of the expert Signature of the operator

If failures must be repaired:

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

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction	☐	☐	☐	.....
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Warning designation, sticker	☐	☐	☐	.....
Function button ”lifting/lowering”	☐	☐	☐	.....
Function lever „main lift/wheel free lift“	☐	☐	☐	.....
Condition / Function ramp	☐	☐	☐	.....
Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

Result of the Check:

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

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Signature of the expert Signature of the operator

If failures must be repaired:

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

Regular Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction	☐	☐	☐	.....
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Function button ”lifting/lowering”	☐	☐	☐	.....
Function lever „main lift/wheel free lift“	☐	☐	☐	.....
Condition / Function ramp	☐	☐	☐	.....
Function play-detector	☐	☐	☐	.....
Condition/Function pocket-lamp	☐	☐	☐	.....
Safety of the bolts	☐	☐	☐	.....
Condition bolts and bearing	☐	☐	☐	.....
Condition sliding blocks	☐	☐	☐	.....
Condition colour	☐	☐	☐	.....
Construction (deformation, cracking)	☐	☐	☐	.....
Torque moment of the dowel	☐	☐	☐	.....
Fixed seat of the screws	☐	☐	☐	.....
Condition operating unit	☐	☐	☐	.....
Condition piston rod	☐	☐	☐	.....
Condition of the cover	☐	☐	☐	.....
Closeness of the hydraulic system	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires	☐	☐	☐	.....
Function test with vehicle	☐	☐	☐	.....
Function test wheel free lift with vehicle	☐	☐	☐	.....
Condition Polymer supports	☐	☐	☐	.....
Condition welding	☐	☐	☐	.....
Function CE-Stop	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

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: ....
(Use another form for verification!) Signature of the operator

Extraordinary Safety check

☞ Fill out and leave in this manual Serial number:_____

Type of check	OK	defective or missing	veri-fication	remark
Short operating instruction.....	☐	☐	☐	.....
Type plate.....	☐	☐	☐	.....
Warning designation, sticker.....	☐	☐	☐	.....
Function button ”lifting/lowering”.....	☐	☐	☐	.....
Function lever „main lift/wheel free lift“.....	☐	☐	☐	.....
Condition / Function ramp.....	☐	☐	☐	.....
Function play-detector.....	☐	☐	☐	.....
Condition/Function pocket-lamp.....	☐	☐	☐	.....
Safety of the bolts.....	☐	☐	☐	.....
Condition bolts and bearing.....	☐	☐	☐	.....
Condition sliding blocks.....	☐	☐	☐	.....
Condition colour.....	☐	☐	☐	.....
Construction (deformation, cracking).....	☐	☐	☐	.....
Torque moment of the dowel.....	☐	☐	☐	.....
Fixed seat of the screws.....	☐	☐	☐	.....
Condition operating unit.....	☐	☐	☐	.....
Condition piston rod.....	☐	☐	☐	.....
Condition of the cover.....	☐	☐	☐	.....
Closeness of the hydraulic system.....	☐	☐	☐	.....
Level of hydraulic oil	☐	☐	☐	.....
Condition hydraulic hoses	☐	☐	☐	.....
Condition electrical wires.....	☐	☐	☐	.....
Function test with vehicle.....	☐	☐	☐	.....
Function test wheel free lift with vehicle.....	☐	☐	☐	.....
Condition Polymer supports.....	☐	☐	☐	.....
Condition welding.....	☐	☐	☐	.....
Function CE-Stop.....	☐	☐	☐	.....

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

Safety check carried out:.....

Carried out the company:.....

Name, address of the competent:.....

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: ....
(Use another form for verification!) Signature of the operator

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 Department

- Outside UK mainland

  Service for export customers are provided by the agent from whom your equipment was purchased.

- UK After-Sales Service

  Call Crypton Support for details of local service agents.

- Technical Information

Crypton also provide information and contracts covering:

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

CONTACT DETAILS

Contact UK Sales on 0844 665 7613
Email sales@cryptontechnology.com

Contact Support – 0844 665 7610

Support Fax - UK 0844 665 7604
Email support@cryptontechnology.com

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