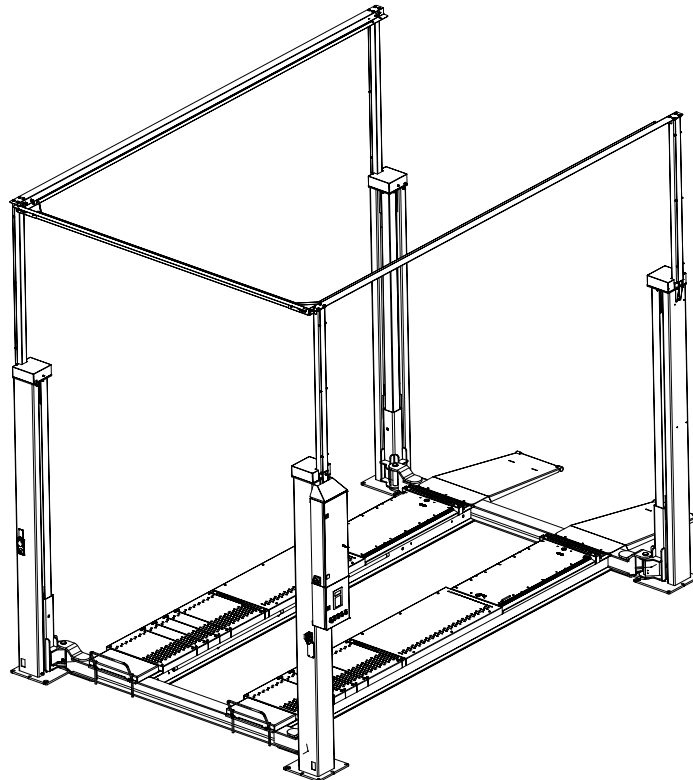


4.50 SL (BMW)

Automotive Lift date: 04/2012

Manual Date: 01.04.2012



Original Documentation

Operating Instruction and Documentation

Serial-number:.....

Retailer address / phone

Made in Germany



Nussbaum

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Foreword

Nußbaum lifting systems are the result of over 25 years experience in the automotive lifting industry. The high quality and the superior concept ensure reliability, a long lift lifetime and above all and economic business solution.

To avoid unnecessary damage, injury or even death, read the operating instructions with care and observe the contents.

Nußbaum lifts is not responsible for incidents involving the use of Nußbaum lifting systems for applications other than those for which they were designed.

The Otto Nußbaum GmbH & Co. KG 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 chapter 4 "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 to the following requirements to work with or around the unit.

- Persons being familiar with the basic regulations concerning labour safety and accident prevention and being trained to operate the particular unit.
- Persons having read and understood the chapter concerning safety and warning symbols.
- Persons using the lift 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:

Nußbaum-Lifts are designed and built according to technical standards and the approved regulations for technical safety. The use of Nußbaum 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 appropriate use
- In faultless condition concerning technical security.

Organisational Requirements

- The instructions for use are to be kept at the place of operation being easily accessible 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 adhered to.
- The owner of the Nußbaum 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 and 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 works, 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.
These works must only be carried out by expert personal.
- After maintenance- and repair works loose screws, nuts and bolts must always be firmly tightened!

Guarantee and liability

- Our “General conditions of selling and delivering” are in force.
There will be no guarantee or liability for incidents involving injuries or 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 security devices do not work, do not work correctly or are not installed correctly.
- 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 producer.
- Unauthorized changes of adjustments of important components of the lift (e.g. driving elements, power rating, motor speed, etc)
- Wrong or incorrect maintenance practice.
- Catastrophes, acts of God or external reasons.



After completely filling out this sheet including signatures, copy and return the original to the manufacturer. The copy must remain in the manual.

Otto Nußbaum GmbH & Co. KG
Korker Straße 24
D-77694 Kehl-Bodersweier

Record of installation

The automotive lift with the

serial number:..... was installed on:.....

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

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

The installation was carried out by the operating authority/competent (please delete as applicable).

The initial safety check was carried out by a competent person before the initial operation.

The operating authority confirms the correct installation of the automotive lift, the competent person confirms 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:..... at:.....

the safety was checked 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 of competent signature of the competent

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 once of, 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) which 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

Otto Nußbaum GmbH & Co.KG
Korker Strasse 24
D-77694 Kehl-Bodersweier

2.2 Application

The automotive lift is a lifting mechanism for lifting motor vehicles with a laden weight of up to 5000 kg . The max. load distribution is 2:1 either in or against the drive-on direction.

The automotive lift has been designed for servicing vehicles only. It has not been designed to carry people. Carrying people either directly on the lift or in vehicles that are on the lift is therefore not allowed.

The installation of the standard lift in hazardous or dangerous locations such as wash bays is dangerous and is therefore not allowed.

The operation of the lift is done directly on the control column. This column is positioned in front on the left side.

Changes of construction, repairing and changes of place must be registered in this master document.

2.3 Changes at the construction

Changes at the construction, expert checking, resumption of work
(date, kind of change, signature of the expert)

.....
.....
.....

name, address of the expert

.....
place, date

.....
signature of the expert

2.4 Displacement of the automotive-lift

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

.....
.....
.....

name, address of the competent

.....
place, date

.....
signature of the competent

2.5 Declaration of conformity

EG- Konformitätserklärung

Nussbaum

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:	4.50 SL
Hereby we declare that the lift model:	
Par la présente nous déclarons que le pont élévateur modèle:	4.55 SL
Por la presente declara, que el elevador modelo:	4.60 SL
Con la presente si dichiara che il sollevatore:	

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	2006/42/EG
Niederspannungsrichtlinie / Low Voltage Directive	2006/95/EG
EMV Richtlinie / EMC Directive	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 vigueur.
producido de acuerdo a las siguientes normas armonizadas.
è stato fabbricato in conformità con le norme armonizzate

Fahrzeug- Hebebühnen / Vehicle lifts	EN 1493: 1998
Elektrische Ausrüstung von Maschinen / Electrical equipment of machines	EN 60204 -1
Elektromagnetische Verträglichkeit / Electromagnetic compatibility (EMC)	EN 61000-6-2 , -6-3

Beauftragter für die Technische Dokumentation Authorised to compile the technical file	M. Golutzki (Nussbaum)
---	------------------------

Seriennummer Serial number	_____
	Seriennummer

Kehl- Bodersweier, 02.02.2010

Otto Nußbaum GmbH & Co. KG
Korker Straße 24
76941 Kehl-Bodersweier
07853/899-0
i.A. Thomas Hassler (CE)

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Nussbaum

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-lifts.de



3. Technical Information

3.1 Technical ratings

Capacity:	5000 kg
Load distribution:	max. 2:1 in or against the drive on direction
Lifting time:	approx 1 min. 34 sec.
Lowering time:	approx. 50 sec.
Line Voltage:	3 ~/N+PE, 400 Volt ,50 Hz
Power rating:	4 x 1,5 kW
Motor rotation:	1420 rotation/Min
Sound level L _{PA} :	≤ 70 dB
Connection by customer	3~/N+PE, 400V, 50 Hz fuse 32 Ampere (time-lag fuse) observe your regulations of your country
Optional: Energy set:	Pneumatic connection: air pressure 6-10 bar Electrical plug: 220V/50hz

3.2 Safety device

1. Safety switching in case the carrying nut breaks
Examination of the carrying nut with a wear-pin into the lifting carriage.
 2. Electronic disconnection
If the final position is reached, the lifting platform switched-off
 3. Electronic synchronisation
Safety device against unequal run of the lifting carriage
 4. Safety catch hook
Safety device against repeated raising if the lifting nut is broken
 5. Roll over safety device at the end of the platform
Safety device against falling down
 6. Totmann" control
After let go of the buttons, the current movement of the lift stops
- Optional:
7. foot protection
Safety device to avoid crushing
 8. CE-STOP + acoustic signal
Safety device to avoid crushing

3.3 Data sheet

Nur für interne Zwecke
Zeichnungsnummer
450SL20015

Alle Maße sind am Bau zu prüfen.
All dimensions must be examined
on construction sites.

Bauseits, on der Bediensäule bereitstellen:
Netzanschluss: 3PH, N/PE, 400V, 50Hz
Absicherung: 32 Ampere t-rog
Leistungsaufnahme: 4x 1,5 kW
optional für Energieleser und Achsheber:
Druckluft: lichte Weite 6mm, 6-10bar

Prepared by customer at the
operating column:
power supply: 3PH, N/PE, 400V, 50Hz
fuse: 32 Ampere time lag
motor power: 4x 1,5 kW
optiional: for Energy set and Jack
Air pressure: inner diameter 6mm, 6-10bar

Vir weisen in unseren Plänen
auf die Mindestanforderung
des Fundamentes hin,
jedoch der Zustand der örtlichen
Gegebenheiten (z.B. Untergrund)
obliegt nicht unserer Verantwortung.
Im Bedarfsfall ist ein Architekt,
Statiker hinzuzuziehen.

We point out the minimum requirement
at the foundation in our plans. The
condition of the local realities (z.B. ground)
does not lie in our responsibility.
If necessary, an architect must be
consulted.

Eigengewicht
own weight:
ca. 3000kg
dynamic factor
dynamischer Faktor: 1.151

Das Netzkabel wird
von unten eingeführt.
The power supply cable
inserted from the above
into the operating column

Bedienelement
operating elements
Anschlußstelle in Bedienkasten
electrical connection into the
operating unit

Achsenbetriebe bestehend aus:
Schneepatillen und Ausgelenk
mit Ausparungen für optionalen Drehsteller
wheal alignment set:
sliding plates and
reliefs for optional turntable

optionales
Energieleser
optional
Energy Set

Einfahrerichtung
Drive on direction

Betongüte
C20/25 normal reinforced
concrete
concrete
quantity of concrete
quantity of concrete
min. 160mm

Fundamentplatte ohne Bewehrung
(Estrich/F. liessen) min. 160mm
Foundation without floor
pavement/tiles min. 160mm

Massstab:
Verkstoff / Holzbezug
- / -
Gewicht: kg

Nenn ohne
Toleranzangaben

Nenn
M.G.

Datum
01.04.12

Bearb.
M.G.

Bemerkung
4.50 SL BMW
Schienenlänge/plate form 4600mm
Tragfähigkeit/capacity: max 5000kg

Zeichnungsnummer
7309-BMW

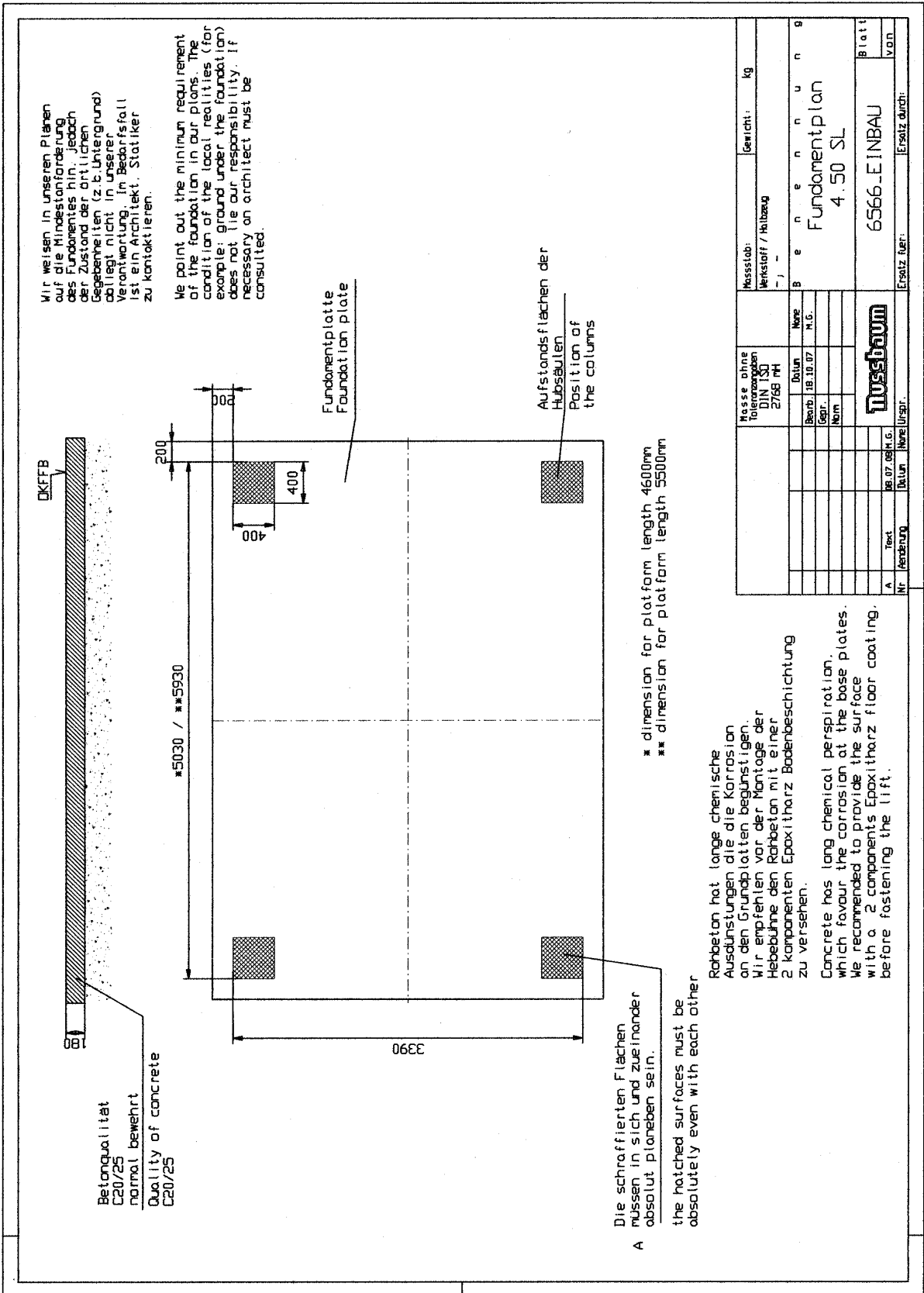
Blatt
von

Ersatz fuer:
Ersatz durch:

Alle Maße in Millimeter
all dimensions in millimeter


Mass- und Konstruktionsänderungen vorbehalten!
subject to alterations!

3.4 Foundation diagram drawing



3.5 Electrical diagram drawing

0	1	2	3	4	5	6	7	8	9
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Nussbaum Hebetchnik
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Korker Straße 24
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SCHALTPLAN

Erdung nach örtlichen Vorschriften
Vor Inbetriebnahme prüfen, ob Motorneinstrom mit Motorschutzrelais übereinstimmt. Alle Klemmstellen auf Ordnungsgemäße Verbindung und alle Kontaktschrauben auf festen Sitz prüfen.
Vor Inbetriebnahme Verdrahtung und Steuerung auf richtige Funktion überprüfen. Keine Inbetriebnahme von unbefugter Seite vornehmen lassen. Änderungen vorbehalten

OBJEKT : 4. XX SL Achsmess
ANLAGE :
KUNDE :
SCHALTPLANNR: 4. XX SL 06/07/001

1.) Schaltpläne und Schaltunterlagen
Die Schaltpläne werden von uns nach besten Wissen angefertigt. Für besagte Schaltpläne und Unterlagen sind wir nicht haftbar. Diese Unterlagen sind für die Ausführung der Schaltungen zu verwenden. Diese Unterlagen sind zu prüfen. Sollten Sie Änderungen an den Unterlagen anfragen, werden wir uns nach dem vom Auftraggeber überlassenen Unterlagen des Herstellers ausgeführt.

3.) Sicherheitsprüfung und Schutzmaßnahmen
Der Schaltplan wurde unter Beachtung der anerkannten Regeln der Technik nach VDE 0100/573 erstellt. Die Schaltung wurde durch einen Sachverständigen geprüft. Folgende Prüfungen wurden durchgeführt:
1. Prüfung der Schaltung auf Vollständigkeit der Schaltung nach VDE 0100/573.
2. Prüfung der Markierung der angedeuteten Schutzmaßnahmen bei indirektem Berühren nach VDE 0100/775 Par. 22.
3. Funktionsprüfung und Stückprüfung nach VDE 00/11 87.
4. Schutz gegen direktes Berühren nach VDE 0100/573 Par. 4.
5. Schutz bei indirektem Berühren nach VDE 0100/573 Par. 5.

2.) Funktionsprüfung der Schaltanlagen
Schaltpläne sind keine Serienzeugsnisse. Bei der Prüfung des Schaltplanes im Werk können Fehler wie Puffer, Übermisse und Mängel nicht einbezogen werden. Auch bei sorgfältiger Prüfung über das Werk hinaus kann es zu Mängeln kommen. Diese Mängel werden über unser Gewährleistung bei der Inbetriebnahme besichtigt. Keine Mängel, Übernahmen oder Nachbesserungen ohne schriftliche Genehmigung vor Schaltplanbestätigung und Inbetriebnahme. Nachbesserungen sind zu vermeiden. Die Kosten für Nachbesserungen durch Dritte können wir nicht anerkennen. Änderungen vorbehalten

3.) Sicherheitsprüfung und Schutzmaßnahmen
Der Schaltplan wurde unter Beachtung der anerkannten Regeln der Technik nach VDE 0100/573 erstellt. Die Schaltung wurde durch einen Sachverständigen geprüft. Folgende Prüfungen wurden durchgeführt:
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4. Schutz gegen direktes Berühren nach VDE 0100/573 Par. 4.
5. Schutz bei indirektem Berühren nach VDE 0100/573 Par. 5.

Diese Pläne sind auf einem CAD-System erstellt worden
Um die Pläne immer auf dem aktuellen Stand zu halten, bitten wir Änderungen nur durch uns vornehmen zu lassen.

Diese Schaltpläne sind unser geistiges Eigentum.
Sie dürfen ohne unsere Genehmigung weder vervielfältigt noch Dritten weitergegeben werden!

4. XX SL Achsmess

Deckblatt

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Tel.: +49(0)7853/899-0

Nussbaum
Tel.: +49(0)7853/899-0

Datum : 30.08.2007
Bearb. : BOE
Gepr. : BOE

Urspr. : Ers. F.
Ers. d. : Ers. d.

Bl. : 1

24 Bl.

Inhaltsverzeichnis

Spalte X: eine automatisch erzeugte Seite wurde manuell nachbearbeitet
IMMVERZ5 / 25.04.2001

Seite	Seitenbenennung	Seitenzusatzfeld	Datum	Bearb.	X
1	Deckblatt		05.06.2007	80E	
2	Inhaltsverzeichnis		30.08.2007	80E	X
3	Aenderung		05.06.2007	80E	
4	Hauptstrom		30.08.2007	80E	
5	Hauptstrom		30.08.2007	80E	
6	Frei		30.08.2007	80E	
7	Bedientasten		30.08.2007	80E	
8	Achskontrolller		30.08.2007	80E	
9	Säulensteuerung		30.08.2007	80E	
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13	-X2		05.06.2007	80E	X
14	-XHS1.2		05.06.2007	80E	X
15	-XHS2.2		05.06.2007	80E	X
16	-XHS3.2		05.06.2007	80E	X
17	-XHS4.2		05.06.2007	80E	X
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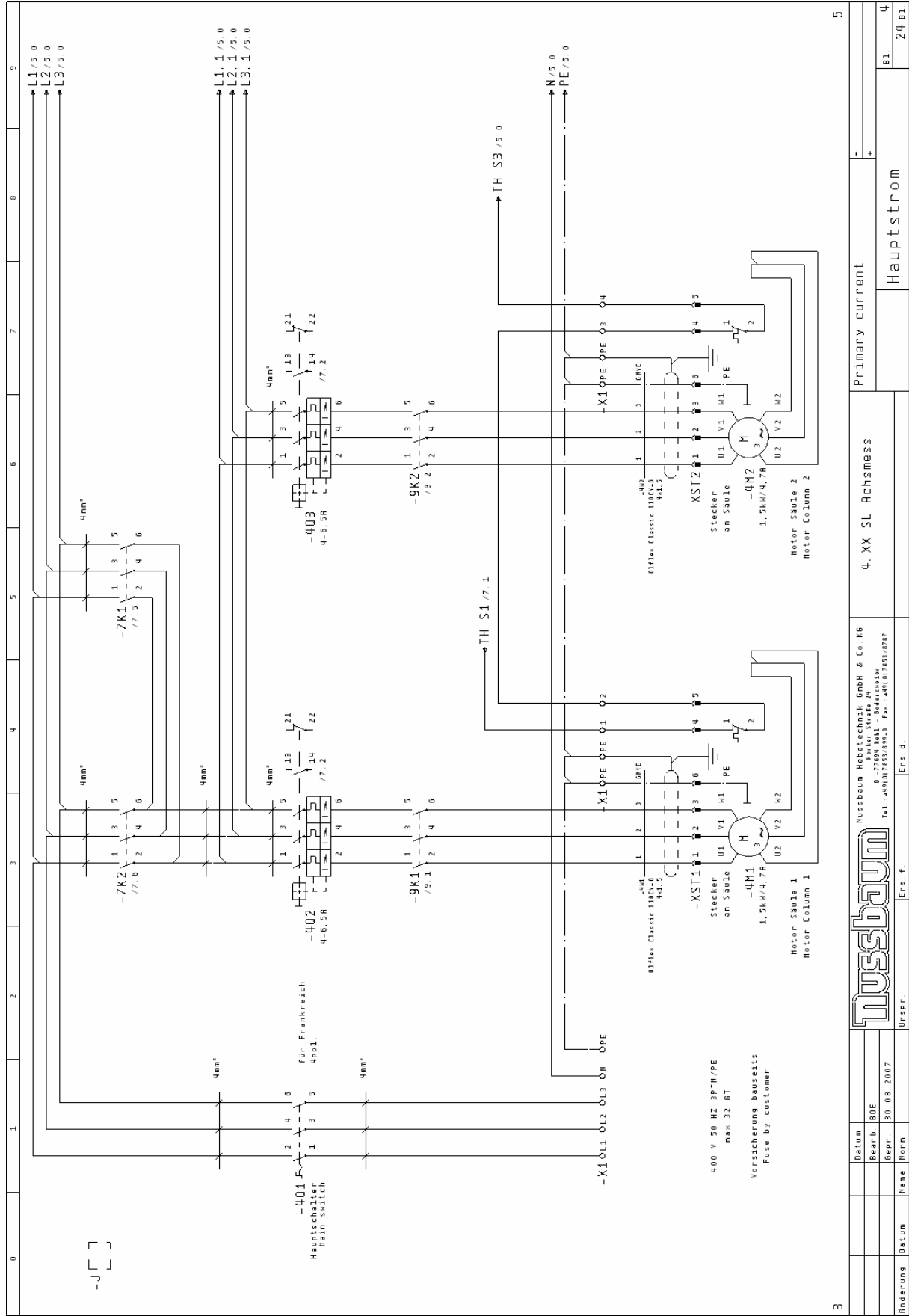
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									B1	Z
									24	B1

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ÄNDERUNGS- INFORMATIONEN

Nr.	Datum	Firma	Bearbeiter	Änderungen	ORT/SEITE

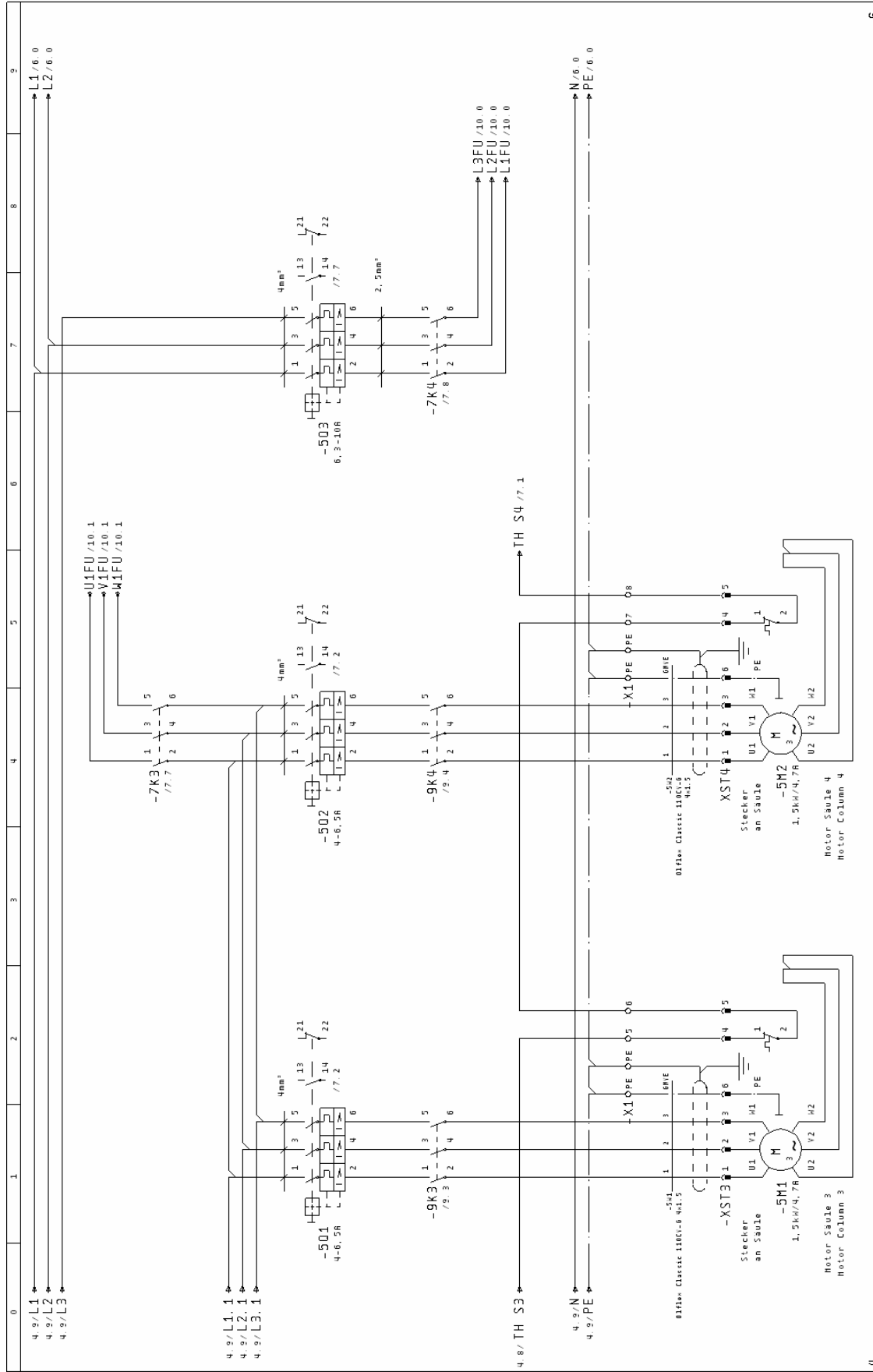
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Gepr.		30.08.2007	+	
Name			Änderung	
Form				
Urspr.		Nussbaum Hebe-technik GmbH & Co. KG Kaiser Straße 24 D-77084 Bad-Neudorf Tel.: +49 (0)7832/4222 Fax: +49 (0)7832/4227		B1
		Ers. F.		24 B1
		Ers. d.		



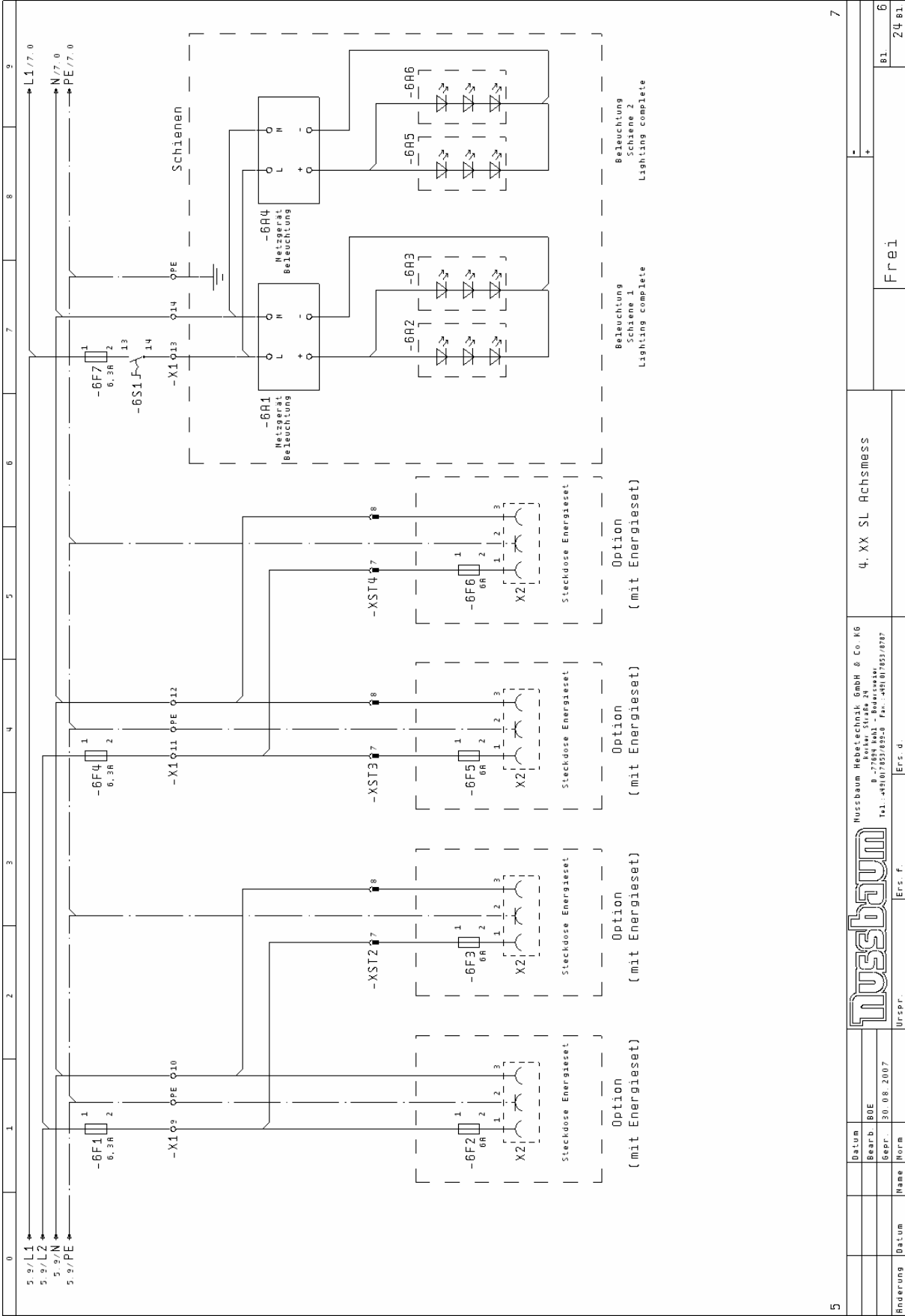
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Datum		Nussbaum Hebeltechnik GmbH & Co. KG	
Bearb.	BOE	Motor Straße 28	
Gepr.	30.08.2007	D-77091 Bad Soden - Bad Nauheim	
Name		Tel.: +49(0)6232/9320 Fax: +49(0)6232/9327	
Datum		Ers. f.	Ers. d.
		Hauptstrom	
		B1	24 B1



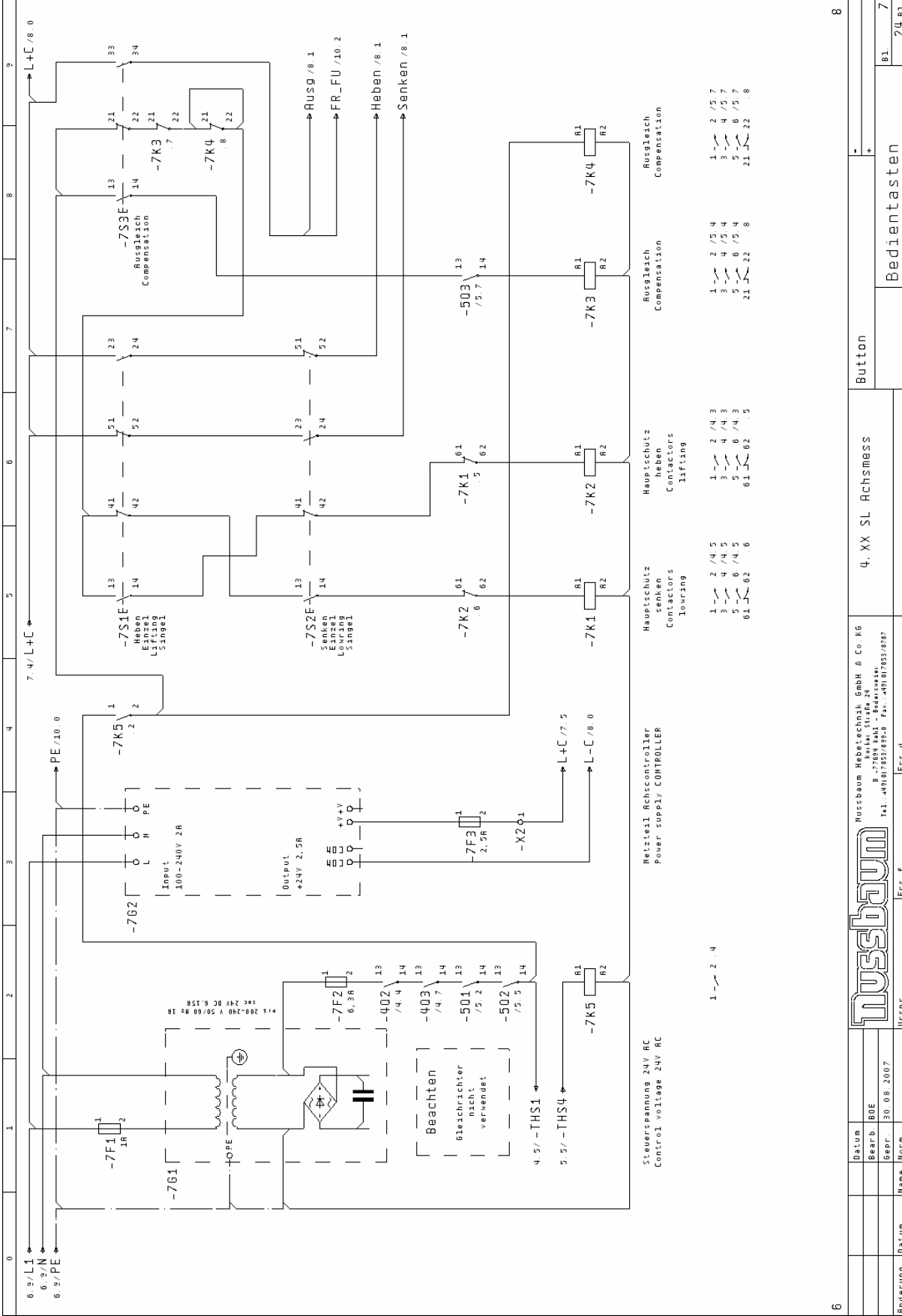
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4.8/TH S3	4.9/N	4.9/PE	TH S4 /7.1	L3FU/10.0	L2FU/10.0																				
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4. XX SL Achsmess		Primary current																							
		Hauptstrom																							
<table border="1"> <tr> <th>Datum</th> <th>Bearb</th> <th>80E</th> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>			Datum	Bearb	80E				<table border="1"> <tr> <th colspan="2">Nussbaum Hebe-technik GmbH & Co. KG</th> </tr> <tr> <td colspan="2">Körner Straße 24</td> </tr> <tr> <td colspan="2">D-72084 Bietigheim-Bissingen</td> </tr> <tr> <td colspan="2">Tel.: +49(0)7142/9320 Fax: +49(0)7142/9327</td> </tr> </table>			Nussbaum Hebe-technik GmbH & Co. KG		Körner Straße 24		D-72084 Bietigheim-Bissingen		Tel.: +49(0)7142/9320 Fax: +49(0)7142/9327							
Datum	Bearb	80E																							
Nussbaum Hebe-technik GmbH & Co. KG																									
Körner Straße 24																									
D-72084 Bietigheim-Bissingen																									
Tel.: +49(0)7142/9320 Fax: +49(0)7142/9327																									
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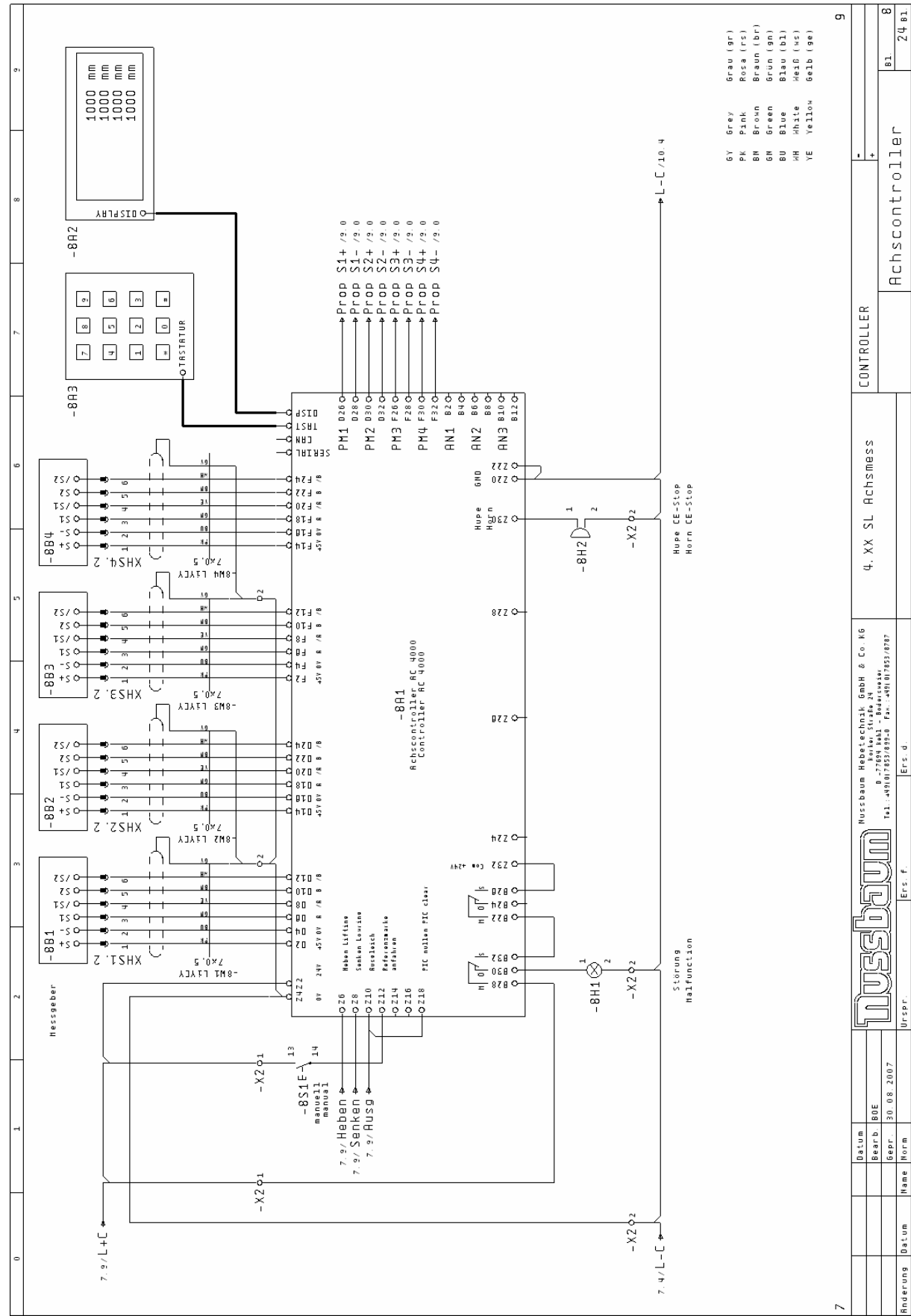


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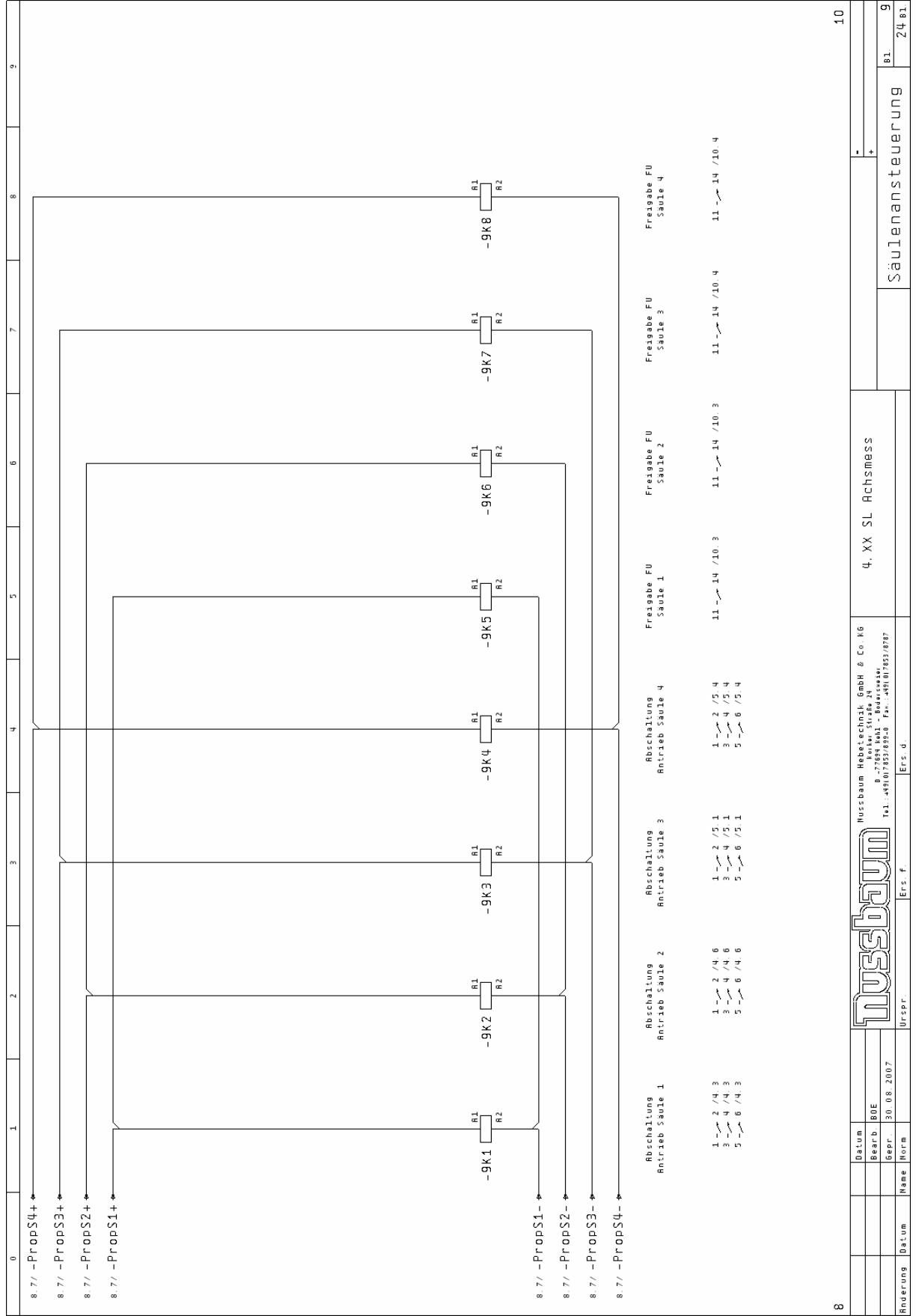
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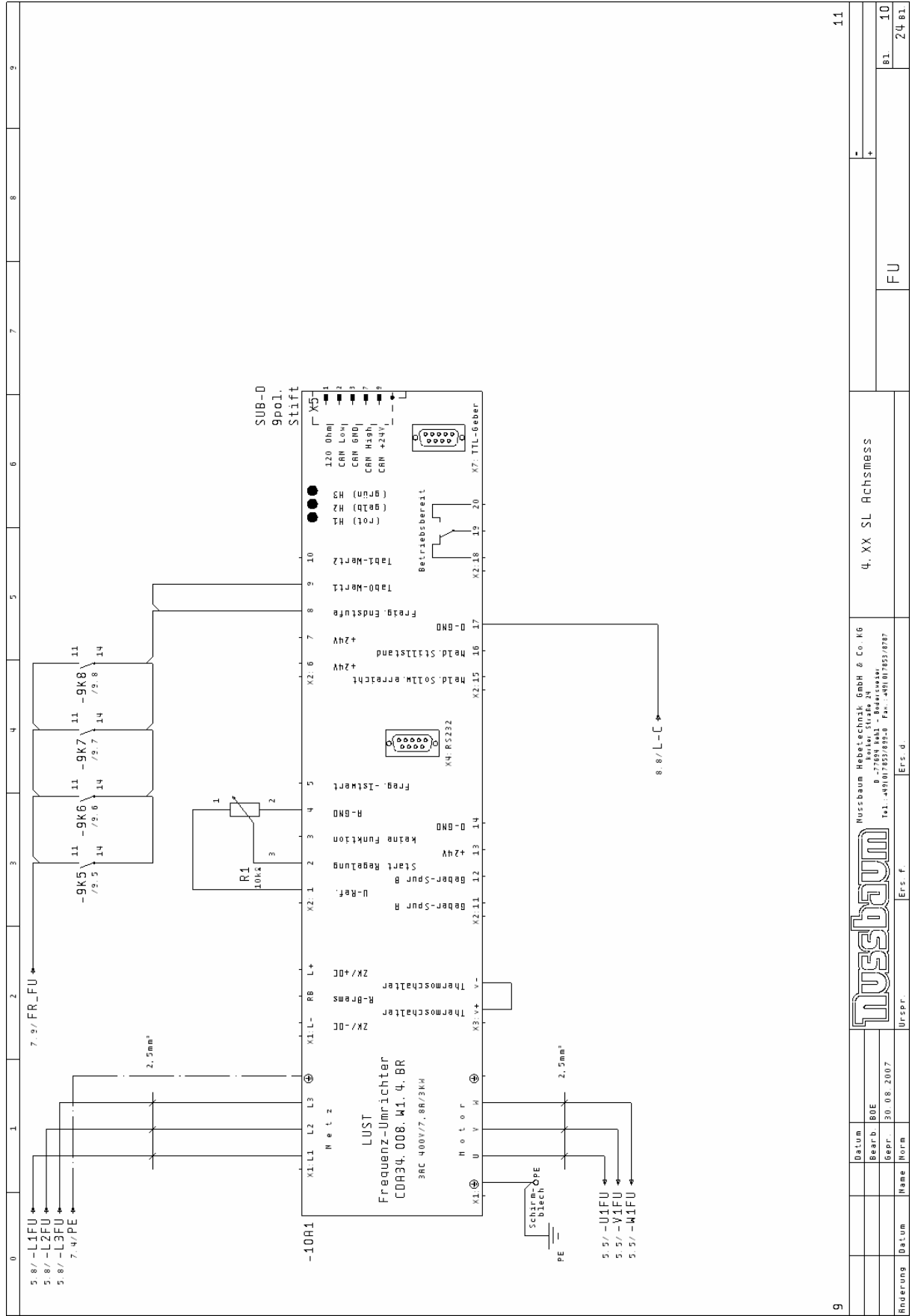
4. XX SL Achsmess	-		
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Nussbaum Hebeltechnik GmbH & Co. KG Körber Straße 24 D-72084 Bad-Bovensoden Tel.: 49(0)7142/93210 Fax.: 49(0)7142/93217		Ers. f	
Urspr.	Ers. d.	Ers. f	
Datum	Bearb	30.08.2007	
Name	Gepr.	30.08.2007	
Datum	Name		





7	9	CONTROLLER	4. XX SL Achsmess	Nussbaum Hebeltechnik GmbH & Co. KG Kaiserstraße 24 D-72084 Bielefeld - Bielefeld Tel.: +49(0)521/9221310 Fax: +49(0)521/9221317
8	8	Achscontroller		
9	8			

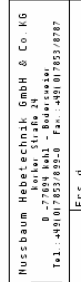




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Nussbaum									
Nussbaum Hebe-technik GmbH & Co. KG Körber Straße 3N D - 72094 Böck - Bodensachsen Tel.: +49(0)7142/42320 Fax: +49(0)7142/42327									
10	Datum		80E		4. XX SL Achsmess				12
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Ränderung		Datum		Name		Form		Urspr.	
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Anschluß		Anschluß										
Zielbezeichnung		Zielbezeichnung										
Klemmen-Symbol		Klemmen-Symbol										
Brücken		Brücken										
Klemmennummer		Klemmennummer										
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Zielbezeichnung		Zielbezeichnung										
Kabelname		Kabelname										
Kabeltyp		Kabeltyp										
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M-HH1		M-HH1										
M-HH2		M-HH2										
M-SH1		M-SH1										
M-SH2		M-SH2										
Funktionstext		Funktionstext										
Motor Säule 1		Motor Säule 1										
Motor Säule 2		Motor Säule 2										
Motor Säule 3		Motor Säule 3										
Motor Säule 4		Motor Säule 4										
Steckdose Energiesel		Steckdose Energiesel										
Beleuchtung Schiene 1		Beleuchtung Schiene 1										
13		13										
12		12										
24 B1		24 B1										
-X1		-X1										
4. XX SL Achsmess		4. XX SL Achsmess										
Nussbaum Hebeltechnik GmbH & Co. KG		Nussbaum Hebeltechnik GmbH & Co. KG										
Kaiser Straße 24		Kaiser Straße 24										
D-72694 Bad-Brünnchen		D-72694 Bad-Brünnchen										
Tel.: +49(0)7143/9330 Fax: +49(0)7143/9337		Tel.: +49(0)7143/9330 Fax: +49(0)7143/9337										
Ers. f.		Ers. f.										
Ers. d.		Ers. d.										
Urspr.		Urspr.										
Datum 05.06.2007		Datum 05.06.2007										
Bearb. BOE		Bearb. BOE										
Gepr. 30.08.2007		Gepr. 30.08.2007										
Name		Name										
Datum		Datum										
Ränderung		Ränderung										

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Anschluß		1	2	3	4	5	6		
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Kabeltyp		Funktionsstext							



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13	Datum	05.06.2007	15
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	Gepr.	30.08.2007	+
	Name		
	Datum		
	Urspr.		
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	Ers. d.		
		4. XX SL Achsmess	
			-XHS1.2
			B1
			14
			24 B1

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Datum 05.06.2007
 Bearb. BOE
 Gepr. 30.08.2007

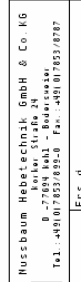
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4. XX SL Achsmess -XHS2.2

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B1 15
 B1 24 B1

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4. XX SL Achsmess

-XHS3.2

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	Brücken								
	Klemmen- nummer								
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	Ziel- bezeichnung								
	Kabeltyp								
	Funktionsstext	Motor Säule 2							
	Funktionsstext	Steckdose Energiesel							

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Nussbaum

4. XX SL Achsmess

-XST2

20

B1 19
24 B1

Ers. f. Ers. d.

Urspr.

Datum 05.06.2007
Bearb. BOE
Gepr. 30.08.2007

Name
Datum

Stückliste Bill of materials

MUSTOCKL 17_01.2003

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Bauteilbenennung Component design.	Menge Amount	Bezeichnung Designation			Typen number Model number	Lieferant Supplier	Artikelnummer Article number		
-J	1	E-Box mit Montageplatte			EB 1577 500	Paital	991364		
-J	1						EB 1579 500		
-4Q1	1	Hauptsch. Mot.-Rus 3P 40A .1lkH			R2251/6 1050	Herz GmbH	990375		
-X1	4	Reihenklammer H 16/12 schraub-schraub			H 16/12	Entrelec	990794		
-X1	1	Schutzleiterklammer H 16/12 P schraub-schraub			H 16/12 P	Entrelec	990844		
-X1	8	Reihenklammer D 6/8 R00 grau schraub-schn			D 6/8 R00	Entrelec	990593		
-X1	8	Schutzleiterkl D 6/8 P R00 schraub-schn			D 6/8 P R00	Entrelec	990594		
-X1	6	Reihenklammer D 1,5/6 R00 grau schn-schn			D 1,5/6 R00	Entrelec	990182		
-X1	3	Schutzleiterkl D 2,5/6 P R00 schn-schn			D 2,5/6 P R00	Entrelec	990183		
-X1	9	Schutzleiterklammer			H 2,5/5 PI	Entrelec	ENT 16518822		
-X1		Blanko Schild			RC510 5x10	Entrelec	ENT 23100007		
-4Q2	1	Motorstützschalter 4 - 6,5 A			11 5H18 32	Lovato electric	992162		
-4Q2	1	Hilfskontaktblock .15 10 Motorstützschalter			11 5HX11 11	Lovato electric	990848		
-X5T1	1	Steckergehäuse 6 polig ku			05 0-180906-0	RHP	990327		
-X5T1	6	Flachsteckhülse Stecker 6,3mm			05447 123 111	RHP	990328		
-X5T1	6	Flachsteckhülse Buchse 6,3mm CU2M ohne ISO			08632 123 211	RHP	990329		
-X5T1	1	Buchsengehäuse 6 polig ku			2 105 50290253	RHP	990330		
-4H1	1	Drehstrommotor 1,5kW/4,7A 50Hz SL			W7H1U40-239	Hannang GmbH	990950		
-4Q3	1	Motorstützschalter 4 - 6,5 A			11 5H18 32	Lovato electric	992162		
-4Q3	1	Hilfskontaktblock .15 10 Motorstützschalter			11 5HX11 11	Lovato electric	990848		
-X5T2	1	Steckergehäuse 6 polig ku			05 0-180906-0	RHP	990327		
-X5T2	6	Flachsteckhülse Stecker 6,3mm			05447 123 111	RHP	990328		
-X5T2	6	Flachsteckhülse Buchse 6,3mm CU2M ohne ISO			08632 123 211	RHP	990329		
-X5T2	1	Buchsengehäuse 6 polig ku			2 105 50290253	RHP	990330		
-4H2	1	Drehstrommotor 1,5kW/4,7A 50Hz SL			W7H1U40-239	Hannang GmbH	990950		
-201	1	Motorstützschalter 4 - 6,5 A			11 5H18 32	Lovato electric	992162		
-501	1	Hilfskontaktblock .15 10 Motorstützschalter			11 5HX11 11	Lovato electric	990848		
-X5T3	1	Steckergehäuse 6 polig ku			05 0-180906-0	RHP	990327		
-X5T3	6	Flachsteckhülse Stecker 6,3mm			05447 123 111	RHP	990328		
-X5T3	6	Flachsteckhülse Buchse 6,3mm CU2M ohne ISO			08632 123 211	RHP	990329		
-X5T3	1	Buchsengehäuse 6 polig ku			2 105 50290253	RHP	990330		
-5H1	1	Drehstrommotor 1,5kW/4,7A 50Hz SL			W7H1U40-239	Hannang GmbH	990950		
-5Q2	1	Motorstützschalter 4 - 6,5 A			11 5H18 32	Lovato electric	992162		
-5Q2	1	Hilfskontaktblock .15 10 Motorstützschalter			11 5HX11 11	Lovato electric	990848		
-X5T4	1	Steckergehäuse 6 polig ku			05 0-180906-0	RHP	990327		
-X5T4	6	Flachsteckhülse Stecker 6,3mm			05447 123 111	RHP	990328		
-X5T4	6	Flachsteckhülse Buchse 6,3mm CU2M ohne ISO			08632 123 211	RHP	990329		
-X5T4	1	Buchsengehäuse 6 polig ku			2 105 50290253	RHP	990330		
-5H2	1	Drehstrommotor 1,5kW/4,7A 50Hz SL			W7H1U40-239	Hannang GmbH	990950		
-5Q3	1	Motorstützschalter 6,3-10 A			11 5H18 36	Lovato electric	990847		
-5Q3	1	Hilfskontaktblock .15 10 Motorstützschalter			11 5HX11 11	Lovato electric	990848		
-6F1	1	Feinsicherung			FEINSICHERUNG	61F	990125		
-6F2	1	Einschraubsicherungshalter 5x20 mm			2218810	61F	990286		
-6F2	1	Feinsicherung			FEINSICHERUNG	61F	990125		
-6F3	1	bestehend aus 1 * Steckdose, 1 * Luftanschluss			EMERIESET SL BEBENSEITE	Musbaum	2255105092		
-6F3	1	Einschraubsicherungshalter 5x20 mm			2218810	61F	990125		
-6F3	1	Feinsicherung			FEINSICHERUNG	61F	990125		
-6F4	1	bestehend aus 1 * Steckdose, 1 * Luftanschluss			EMERIESET SL BEBENSEITE	Musbaum	2255105092		
-6F4	1	Einschraubsicherungshalter 5x20 mm			2218810	61F	990125		

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Tel.: 49(0)7142/9330 Fax: 49(0)7142/9337

4. XX SL Achsmess

Datum 30.08.2007									
Bearb BOE									
Gepr. 30.08.2007									
Änderung	Datum	Name	Norm	Urspr.	Ers. f.	Ers. d.	Stückliste		
							B1	22	
								24	B1

Stückliste Bill of materials

MUSTOCKL 17_01.2003

Bauteilbenennung Component design.	Menge Amount	Bezeichnung Designation	Typen number Model number	Lieferant Supplier	Artikelnummer Article number
-6F4	1	Feinsicherung	FEINSICHERUNG	61F	990286
-6F5	1	Einschraubversicherungshalter 5=20 mm	2918810	61F	990125
-6F5	1	Feinsicherung	FEINSICHERUNG	61F	990286
-X2	1	bestehend aus 1 * Steckdose, 1 * Lufianschluss	EMERIESET SL GEBENSEITE	Musbaum	2255L05092
-6F6	1	Einschraubversicherungshalter 5=20 mm	2918810	61F	990125
-6F6	1	Feinsicherung	FEINSICHERUNG	61F	990286
-X2	1	bestehend aus 1 * Steckdose, 1 * Lufianschluss	EMERIESET SL GEBENSEITE	Musbaum	2255L05092
-661	1	siehe Stückliste Mechanik	SIEME STÜCKLISTE MECHANIK	Zulieferer	XXXXXX
-662	1	siehe Stückliste Mechanik	SIEME STÜCKLISTE MECHANIK	Zulieferer	XXXXXX
-6F7	1	Sicherungsklemme Trenner 5=20 mm	H478 5F	Entrelac	990661
-6F7	1	Feinsicherung	FEINSICHERUNG	61F	990286
-663	1	siehe Stückliste Mechanik	SIEME STÜCKLISTE MECHANIK	Zulieferer	XXXXXX
-664	1	siehe Stückliste Mechanik	SIEME STÜCKLISTE MECHANIK	Zulieferer	XXXXXX
-665	1	siehe Stückliste Mechanik	SIEME STÜCKLISTE MECHANIK	Zulieferer	XXXXXX
-666	1	siehe Stückliste Mechanik	SIEME STÜCKLISTE MECHANIK	Zulieferer	XXXXXX
-761	1	Trafo + Gleichrichter + Kondensator	TRAFD 1-PH	Schmelzer	990835
-7F1	1	Sicherungsklemme Trenner 5=20 mm	H478 5F	Entrelac	990661
-7F1	1	Feinsicherung	FEINSICHERUNG	61F	990475
-7F2	1	Sicherungsklemme Trenner 5=20 mm	H478 5F	Entrelac	990661
-7F2	1	Feinsicherung	FEINSICHERUNG	61F	990286
-7K5	1	Leistungsschutz 5,7 kV 24 V 50-60 Hz	118612 01 A 24V AC	Lovato electric	990840
-762	1	Schall-Welzlager mit Rechtscontroller DC 24 V / 2,5A	500-F24	Penatron	990101
-7F3	1	Sicherungsklemme Trenner 5=20 mm	H478 5F	Entrelac	990661
-7F3	1	Feinsicherung	FEINSICHERUNG	61F	990124
-X2	8	Reihenklemme D 1,5/6 800 grau schn-zschn	D 1.5/6 800	Entrelac	990183
-751	1	Drucklaste Flach o. Tast. Platte (H22)	H22-D-X	Hoeller	990150
-751	1	Tastentplatte Pfeil (H22)	H22-XD-5-X7	Hoeller	990131
-751	1	Kontaktblock 15 10 (H22)	H22-RK11	Hoeller	990132
-751	1	Kontaktblock 15 10 (H22)	H22-R10	Hoeller	990133
-751	1	Kontaktblock 15 10 (H22)	H22-R10	Hoeller	990133
-752	1	Drucklaste Flach o. Tast. Platte (H22)	H22-D-X	Hoeller	990181
-752	1	Tastentplatte Pfeil (H22)	H22-XD-5-X7	Hoeller	990131
-752	1	Kontaktblock 15 10 (H22)	H22-RK11	Hoeller	990132
-752	1	Kontaktblock 15 10 (H22)	H22-R10	Hoeller	990133
-752	1	Kontaktblock 15 10 (H22)	H22-R10	Hoeller	990133
-752	1	Kontaktblock 15 10 (H22)	H22-R10	Hoeller	990133
-7K1	1	Leistungsschutz 10 kV 24 V 50-60 Hz	11 8F32 00 24V 50-60 HZ	Lovato electric	990845
-7K1	1	Kontaktblock 15,10 für Schutz BF...	11 6480 11	Lovato electric	990846
-7K2	1	Leistungsschutz 10 kV 24 V 50-60 Hz	11 8F32 00 24V 50-60 HZ	Lovato electric	990845
-7K2	1	Kontaktblock 15,10 für Schutz BF...	11 6480 11	Lovato electric	990846
-7K3	1	Leistungsschutz 7,7 kV 220 V AC	118F16 01 24V 50/60HZ	Lovato electric	991019
-753	1	Drucklaste Flach o. Tast. Platte (H22)	H22-D-X	Hoeller	990181
-753	1	Kontaktblock 15 (H22)	H22-R10	Hoeller	990133
-753	1	Kontaktblock 15 (H22)	H22-R10	Hoeller	990133
-753	1	Kontaktblock 15 (H22)	H22-R10	Hoeller	990133
-753	1	Start (I) (H22)	H22-XD-G-X1	Hoeller	991045
-7K4	1	Leistungsschutz 7,7 kV 220 V AC	118F16 01 24V 50/60HZ	Lovato electric	991012
-851	1	Drucklaster Einbau Klein 15	05 131	OSER GmbH	990306
-881	1	Rechtscontroller ASC 4000 Vollversion	990260	Musbaum	990260
-881	1	Federleiste 64pol für Rechtscontroller	FEDERLEISTE 64POL	Musbaum	991416
-881	1	Leiterkartenhalter/ Kartentasche	120X10029	Zubehör	993045
-881	1	Befestigungssatz für Leiterkartenhalter	120X10055	Zubehör	992046

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4. XX SL Achsmess

Datum 30.08.2007		-	
Bearb BOE		+	
Gepr. 30.08.2007			
Urspr.	Ers. f.	Ers. d.	Stückliste
			B1 23
			24 B1

Stückliste Bill of materials

MUSTECKL 17_01_2003

0	1	2	3	4	5	6	7	8	9
Bauteilbenennung Component design.	Menge Amount	Bezeichnung Designation			Typen number Model number	Lieferant Supplier	Artikelnummer Article number		
-861	1	Blechhalter RSC			45705 123 204	RHP	035UM103012		
-861	52	Flachsteckhülse 2,8			F 2,8	RHP	991352		
-861	52	Isolierhülse 2,8			H22-LH-R		991353		
-861	1	Leuchtmeldevorsatz rot.kon. (H22)			H22-L-R	Hoeller	990944		
-861	1	Befestigungsadapter (H22)			H22-A	Hoeller	990905		
-861	1	Lampenfassung LED weid (H22)			H22-LED-W	Hoeller	991193		
-861	1	Rotaness mit Hom 20			ROTANESS RADIAL RPL	Musbaum	901R0M08001		
-XH51.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990918		
-XH51.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990919		
-XH51.2	6	Stiftsteinsatz für Gerätestecker			STIFTEINSTRATZ	Spörle GmbH	991330		
-XH51.2	6	Buchsensteinsatz für Gerätestecker			BUCHSENEINSTRATZ	Spörle GmbH	991331		
-862	1	Rotaness mit Hom 20			ROTANESS RADIAL RPL	Musbaum	901R0M08001		
-XH52.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990918		
-XH52.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990919		
-XH52.2	6	Stiftsteinsatz für Gerätestecker			STIFTEINSTRATZ	Spörle GmbH	991330		
-XH52.2	6	Buchsensteinsatz für Gerätestecker			BUCHSENEINSTRATZ	Spörle GmbH	991331		
-863	1	Rotaness mit Hom 20			ROTANESS RADIAL RPL	Musbaum	901R0M08001		
-XH53.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990918		
-XH53.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990919		
-XH53.2	6	Stiftsteinsatz für Gerätestecker			STIFTEINSTRATZ	Spörle GmbH	991330		
-XH53.2	6	Buchsensteinsatz für Gerätestecker			BUCHSENEINSTRATZ	Spörle GmbH	991331		
-864	1	Rotaness mit Hom 20			ROTANESS RADIAL RPL	Musbaum	901R0M08001		
-XH54.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990918		
-XH54.2	1	Steckverb. Gerätestecker ku 6 pol.			STECKVERBINDER	RS Component	990919		
-XH54.2	6	Stiftsteinsatz für Gerätestecker			STIFTEINSTRATZ	Spörle GmbH	991330		
-XH54.2	6	Buchsensteinsatz für Gerätestecker			BUCHSENEINSTRATZ	Spörle GmbH	991331		
-862	1	Dagisonid akustischer Signalgeber			B/P 228	Deitron Components	990331		
-863	1	Fallaentlastur für RSC 4000			113-9503	Musbaum	940265		
-863	1	Tastaturkabel Rechtscontroller			990875	Musbaum	940265		
-862	1	Display für RSC 4000			DE16481 SV-LY/L	Musbaum	940257		
-862	1	Displayrahmen groß . mit Tastatur			990690	Musbaum	990690		
-862	1	Displaykabel Rechtscontroller			990874	Musbaum	990874		
-861	1	Leistungsschutz 7,7 kV 24V DC			11BF16C01 24V DC	Lovato electric	991506		
-862	1	Leistungsschutz 7,7 kV 24V DC			11BF16C01 24V DC	Lovato electric	991506		
-863	1	Leistungsschutz 7,7 kV 24V DC			11BF16C01 24V DC	Lovato electric	991506		
-864	1	Leistungsschutz 7,7 kV 24V DC			11BF16C01 24V DC	Lovato electric	991506		
-865	1	Klemmenrelais DEK-REL24 / I / 1 1+5			DEK-REL24 / I / 1	Phoenix Contact	991262		
-866	1	Klemmenrelais DEK-REL24 / I / 1 1+5			DEK-REL24 / I / 1	Phoenix Contact	991262		
-867	1	Klemmenrelais DEK-REL24 / I / 1 1+5			DEK-REL24 / I / 1	Phoenix Contact	991262		
-868	1	Klemmenrelais DEK-REL24 / I / 1 1+5			DEK-REL24 / I / 1	Phoenix Contact	991262		
-1061	1	LAPP Steuerleitung mit nummerierten Rtern und			0LFLEX CLASSIC 110 CY	LAPP	CDR 34 008 H1-N-8P		
H-401	1	LAPP Steuerleitung mit nummerierten Rtern und			0LFLEX CLASSIC 110 CY	LAPP	LAPP 1135 304 (461,5)		
H-402	1	LAPP Steuerleitung mit nummerierten Rtern und			0LFLEX CLASSIC 110 CY	LAPP	LAPP 1135 304 (461,5)		
H-501	1	LAPP Steuerleitung mit nummerierten Rtern und			0LFLEX CLASSIC 110 CY	LAPP	LAPP 1135 304 (461,5)		
H-502	1	LAPP Steuerleitung mit nummerierten Rtern und			0LFLEX CLASSIC 110 CY	LAPP	LAPP 1135 304 (461,5)		
H-801	1	Steuerleitung 7x0,5 mm ² geschämt			PVC STEUERLEITUNG LI1CY	Kabel Hächler GmbH & Co. KG	991336		
H-802	1	Steuerleitung 7x0,5 mm ² geschämt			PVC STEUERLEITUNG LI1CY	Kabel Hächler GmbH & Co. KG	991336		
H-803	1	Steuerleitung 7x0,5 mm ² geschämt			PVC STEUERLEITUNG LI1CY	Kabel Hächler GmbH & Co. KG	991336		
H-804	1	Steuerleitung 7x0,5 mm ² geschämt			PVC STEUERLEITUNG LI1CY	Kabel Hächler GmbH & Co. KG	991336		

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Datum 30.08.2007									
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4. Safety regulations

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

Especially the following regulations are very important:

- The laden weight of the lifted vehicle must not exceed 5000 kg for the automotive lift. Load distribution max. 2:1 in or against the drive on direction.
- While working with the lift the operating instructions must be followed.
- The automotive lift must be in its lowest position (fully collapsed), before the vehicle can be driving on to the lift. Only then can the vehicle be lifted.
- Vehicles with low clearance or vehicles that are specially equipped 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. (see data sheet "Record of handing over")
- 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.
- The automotive column lift must be checked by an expert after changes in the construction have been made.
- Position the rubber pads at the pick-up points under the vehicle as described of the vehicle manufacturer. (optional: version with Jack)
- Observe the complete lifting and lowering procedure.
- It is not allowed to install the lift in hazardous or dangerous locations (outdoor, washing bays).
- 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.

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 the vehicle onto the middle of the lift.



The complete wheels must be standing on the platform, otherwise the vehicle can fall down.

- Secure the vehicle against rolling, put into gear, apply the hand brake.
- Control the dangerous places of the lift and be sure that there are no objects or people in the immediate area of the lift or on the lift.
- Switch on the main switch. Raise the vehicle Press the button „Lifting“.
- Raise the vehicle to the required working height. Press the button “lifting“ .
- The roll over and roll back safe device must be activated when the lift was slightly raised.
- Observe the complete process.



Check the safe position of the vehicle on the platform.



The automotive-lift can regulate several times depending upon distribution of the load.



pic: operating elements

- 1 Main switch
- 2 Keyboard and LC-Display
- 3 Button „Lifting“
- 4 Button „Lowering“
- 5 Button „Equalisation“
- 6 Red light „Malfunction“
- 7 Switch „Lighting“ (optional)

5.2 Synchronism of the automotive lift

- The lift is equipped with an electronic synchronism.
- At the columns are potentiometer which recognizes the actual-position of the spindle.
- A lifting carriage is faster like the other lifting carriage. No matter whether when lifting or lowering. The electronic control system observe this procedure and stops the fastest carriage so long until all carriage have the same height again. The permitted regulation range is 18 mm.

5.3 Lowering the vehicle

- Control the dangerous places of the lift and be sure that there are no objects or people in the immediate area of the lift or on the lift.
- Before the lift reaches its lowest position, the lift stops automatically (CE-Stop). After the lift has stopped, check the danger area around the lift. Press the button "lowering". An acoustic signal will sound as the lift is further lowered. This is to warn against the risk of crushing as the lift is slowly lowered to its lowest position.
- Drive the vehicle in to the working height or to the lowest position.



The automotive-lift can regulate several times depending upon distribution of the load.

- Drive the vehicle from the platform.
- Observe the complete process.

6. Troubleshooting

If the lift does not work 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 still cannot be found, please call technical service.

Self-employer repair-working is prohibited.



Repairs at the security devices of the lift as well as repairs and examinations of the electrical fittings are forbidden.

Repairs at electrical system may be accomplished only by expert persons.

Problem: The lift does not lifting and not lowering!	
<u>possible causes:</u>	<u>remedying:</u>
<i>No electrical power supply</i>	<i>Examine the power supply</i>
<i>The main switch is not switched on</i>	<i>Examine the main switch</i>
<i>Press button „lifting“ is defective</i>	<i>Examine the press button</i>
<i>The fuse is faulty</i>	<i>Examine the fuse, replace it if necessary</i>
<i>The feed line is cut</i>	<i>Examine the feed line</i>
<i>The motor is overheated</i>	<i>Let it cool down</i>
<i>The plug connection between the motors are loose</i>	<i>Examine the plugs</i>
<i>The lift is not in the regulation range</i>	<i>Equalize manually (see chapter 6.4)</i>
<i>V-Belt is torn or defective</i>	<i>Shut down the lift. Replace the V-belt and adjust it again (see chapter 7.3)</i>
<i>Motor defective</i>	<i>Make an emergency lowering (see</i>

<p>Battery on the control board is empty. The lift drive out of the synchronism window</p>	<p>chapter 6.1) Phone the service partner</p>
--	---

Problem: The lift does not lifting!	
<u>possible causes:</u>	<u>remedying:</u>
Only 2 phases active	Examine by an electrician
V-Belt is torn or slack	Shut down the lift. Replace the V-belt and adjust it again (see chapter 7.3)
The lifting nut is broken, the safety device(catch hook) is active, the lift is not in the regulation range and the lift has switched off	Shut down the lift and phone the service partner
Top limit switch is active	Only lowering procedure is possible

Problem: The lift does not lowering!	
<u>possible causes:</u>	<u>remedying:</u>
the bottom limit switch is active	Only lifting procedure is possible
The lifting carriage or a platform is driven on a obstacle	Equalise the lift manually
V-Belt is torn or slack	Shut down the lift. Replace the V-belt and adjust it again (see chapter 7.3)

6.1 Emergency lowering

In case of power failure the lift can not lowered with the motors. In this case there is the possibility to lower the lift manually. Switch off the main switch and lock it. Remove all four cover of the v-belt pulleys. Turn alternately (5cm) the nuts on the top end of the spindle anticlockwise until the lift is in the lowest position. After it, remove the vehicle.



The emergency lowering must only carried out by persons which are instructed to using the lift. Please refer to the regulation "Lowering the vehicle".

Procedure the emergency lowering

- Switch off the main switch and lock it.
- Remove all four cover of the v-belt pulleys.
- Turn alternately (5cm) the nuts on the top end of the spindle anticlockwise until the lift is in the lowest position. After it, remove the vehicle.

In case of disturbance or defect, secure the lift against unauthorized person. Phone your service partner.

6.2 Driving onto an obstacle

If the platform or the lifting carriage is lowering on an obstacle, the motor from this side will be locked. The lift switched off if the lifting carriage are not more in the regulation range (approx. 50 mm).

An additional protection is the temperature control system in the motor. It interrupt the electrical circuit when it is overloaded. You can not work with the lift. Cool down approx. 5 – 10 min. dependently on the outside temperature.

After the locking of the motor, examine the V-belt, if necessary exchange it. Call your service-partner.

6.3 Function of safety device

The lift is equipped with a safety switching, which controls the wear of the main nut. If the lifting nut is broken, a safety nut which is conducted loose in the spindle, carries the load. After a break of the nut, the lift can only once being lowered in the lowest position. If the lift has reached the lowest position it is not possible to raise the lift again. The lifting carriage of the broken side gets mechanically locked. During the lifting the other side is driving out of the regulation range and switched off the lift. You can not work with the lift anymore. Call the service-partner.



If the safety device is active, Shut down the lift and phone your the service partner!



Switch off the main switch at all repairs and disturbances!



The electrical system may only be opened by trained persons!

6.4 Manually equalisation of the carriage

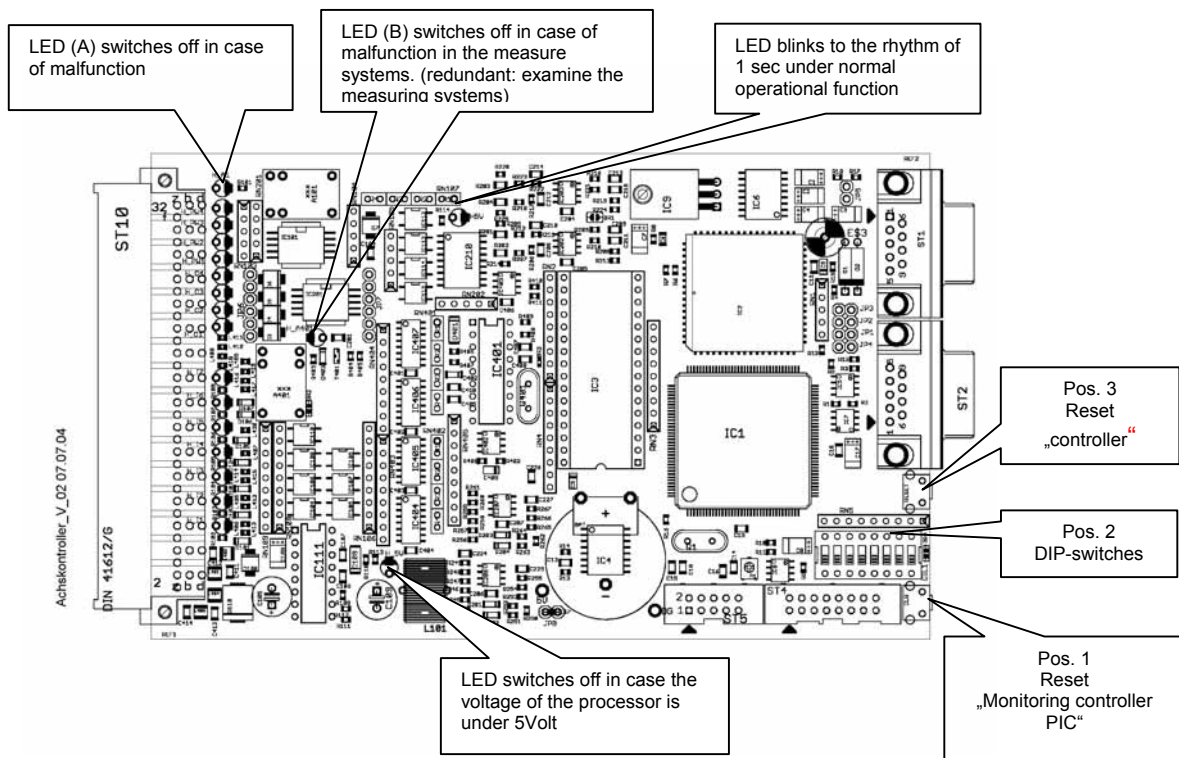
The lift is equipped with a position measuring system which guarantee the synchronisation of the lift. The electrical control recognises if one lifting carriage is approx. 20 mm earlier at the definite height. The electrical control stopped the motor of this carriage until both carriage have the same height again. After it both motors are working together again.

If the carriages of the lift are driving out of the regulation range/switching off window of approx. 5 0mm), the electrical control recognises this and switched off the lift.

To reach the normal function of the lift you must equal manually the carriages. Remove the cover of the V-Belt pulley at the top of the lift. Equal the lift: turn the nuts until the carriages have the same height.

- Carry out the equalisation with the lift only without load.
- Open the electrical box.
- See the DIP-switches on the controller (Pos.2).

Pic 4: DIP-switches on the board.



Only trained and authorized staff is allowed to work with the DIP-switches! The main-switch has to be switched off!

- DIP switch 5 (regulation ON/OFF)
- DIP switch 1 (only column 1 moveable)
- DIP switch 2 (only column 1 moveable)
- DIP switch 3 (only column 1 moveable)
- DIP switch 4 (only column 1 moveable)

example: Equal the column 1:

- Equalization the column 1 as follows:
- Move the DIP switch 5 on position "off" (regulation off)
- Move the DIP switch 1 on Position „ON“ (DIP switch 1 for column 1)
- Press the button „lifting“ or „lowering“ until the column has the same height as the other columns.
- Move the DIP switch 1 on position „off“.
- Move the DIP switch 5 on position „on“ (regulation on).
- If necessary repeat the procedure with the column 2,3 and 4 until all columns (lifting carriage are on the same height.
- Close the electrical box.

6.5 Driving to the Reference point

After 50 working steps shows the display „Referenzpunkt anfahren“ (Drive to the reference point“. Now, it is necessary to drive the lift to the reference point, because the height of the carriage can be examined.

This can be achieved by a variety of factors sturgeon (dirt, slack, interference pulses, etc.)

- Lower the lift into the lowest position
- Drive the vehicle from the platform

- Open the electrical box.
- Press the button (see pic 5) and hold it pressed and press simultaneously the button „lifting“ until the lift stops at the reference point. Turn off the main switch.



pic 5: button „reference point“

The reference point is marked at every column. Examine the points with the carriage. In case the level of the carriage and the reference point is not on the same height, level out manually the carriage at the spindle until the level is ok. In this case the main switch must be turned off.

Remove the cover at the top of the columns and turn the spindle with a suitable tool until the carriage is on the „reference point“.

switch power back and push on the keypad # enter 1234 and #, with the * go to menu point "reference point" and enter # now confirm with # again. push * several times to get to the menu point "return" and confirm with # finished.

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.



German legal guidelines : BSV (Prescription of working tools) + BGR500 (Work with working tools)

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 3 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 plan of 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.

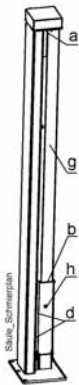
- a Grease the spindle bearing annually with a multipurpose fat. Remove the cover of the spindle (see g).

- b** Oiling the spindle and the lubricating felt between the carrying nut and the centring of the spindle one time a month with a thin oil as SAE15W40.
Attaching twice lifting and lowering the lift in the end position. After lifting and lowering the lift with load.
The lubricating interval has to be carried out at every maintenance. If the lift is in continuous operation, the maintenance rate has to be increased.
The nut between the column (c) and the covering (g) will be greased with an oil can.
The regular complete lubrication in the mentioned distances secures the absolutely easy operation for the lift.
- d** Grease the sliding blocks with a multipurpose fat.

Do not use an biodegradable adhesive oil for greasing the spindle.

A normal adhesive oil impaired the qualities of the lift. We recommend a thin Oil: for an example SAE15W40.

A over-lubrication or greasing with grease of the spindle through a intensive lubrication supplies reduce the degree of effectiveness of the lift.



pic 8: lubrication drawing

- h** Grease the sequence nut one time a month with multipurpose fat. Use the boring at the lifting carriage. (remove the cover of the spindle (g)).
- The electric parts are to be tested for damages.
 - 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.
 - Examine all the safety devices of the lift. (CE-Stop, cover,.....)
 - 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 laying 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).
 - Examine the condition and the function of the spindle centering (after running delay) annually, or if necessary. Adjust it, if necessary.
Is it not possible to adjust the spindle centering anymore, exchange it.



Pic 10: spindle centering
(after running, delay)

- Check that all screws and bolts are correctly torque (turning moments, see the list).

Turning moment for screws
property class 8.8

	0,10*	0,15**	0,20***
M8	20	25	30
M10	40	50	60
M12	69	87	105
M16	170	220	260
M20	340	430	520
M24	590	740	890

property class 10.9

	0,10*	0,15**	0,20***
M8	30	37	44
M10	59	73	87
M12	100	125	151
M16	250	315	380
M20	490	615	740
M24	840	1050	1250

Drehmomenttabelle 8.8-10.9 E

- 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 phosphatized, dry

7.2 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.

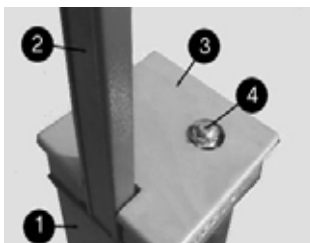
During poor conditions it may be necessary to clean the lift once week, but cleaning once a month will suffice.

Clean the lift and the floor with a non-aggressive and non-abrasive detergent. Use a gentle detergent to clean the parts. Use an 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.
- After cleaning dry the automotive-lift with a suitable type of cloth and inject it with a wax spray or an oil spray.

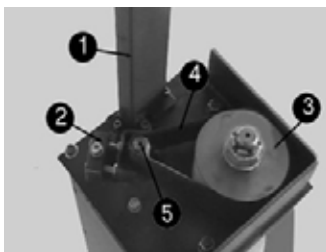
7.3 Adjust the Polylex-belt

If the V-belt was exchanged, the V-belt must be adjusted, again. Remove the cover of the V-belt.

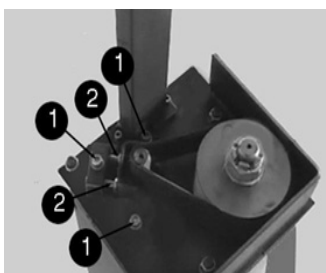


pic 10: cover of the belt (version with raising pipe)
1: column
2: raising pipe
3: cover of the belt
4: spindle

The new V-belt tension must be adjusted at the stretch device. (pic.11). Loose the three screws at the motor easily. (pic. 11, No.1). The belt can be loosened or tightened at the screws. (pic.11, No.2).



pic 11: position of the belt
1: raising pipe
2: stretch device
3: V-belt pulley
4: Polyflex-belt
5: shaft of the motor



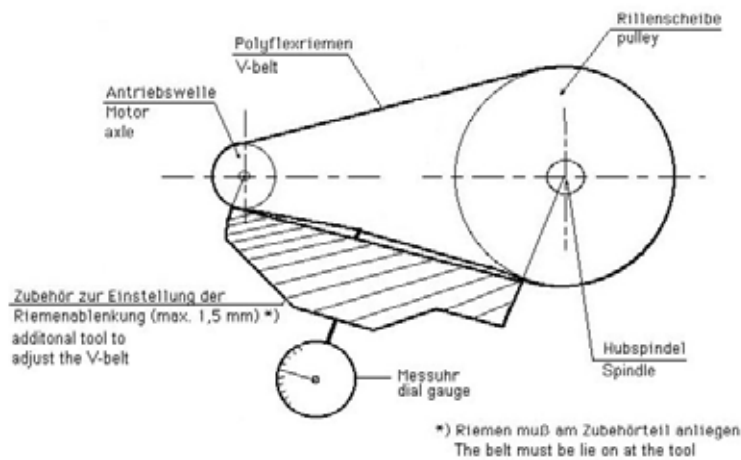
pic 12: adjust the belt tension
1: the three screws of the motor
2: adjusting screws

The belt tension gets adjusted with the help of an accessory. (pic. 13; This accessory can be ordered from Nußbaum).

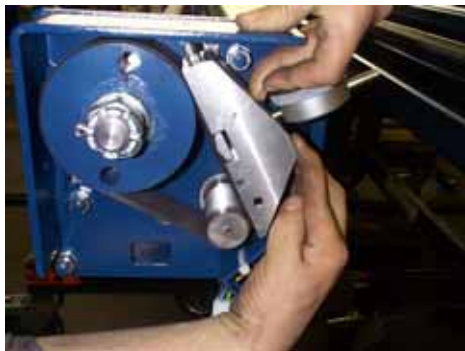


pic 13: accessory

- Put the device on a solid flat surface. Push it down until the pin is on the flat surface. Position the clock on zero. Turn the ring of the clock so long until the indicators are on zero. Put the device on the V- belt (pic.14,15). The indicator of the clock may only turn mini. 1 (1mm) until 1,5 (1,5mm) turn.



pic14: measuring instrument



pic 15: Put the measuring device on the V-belt

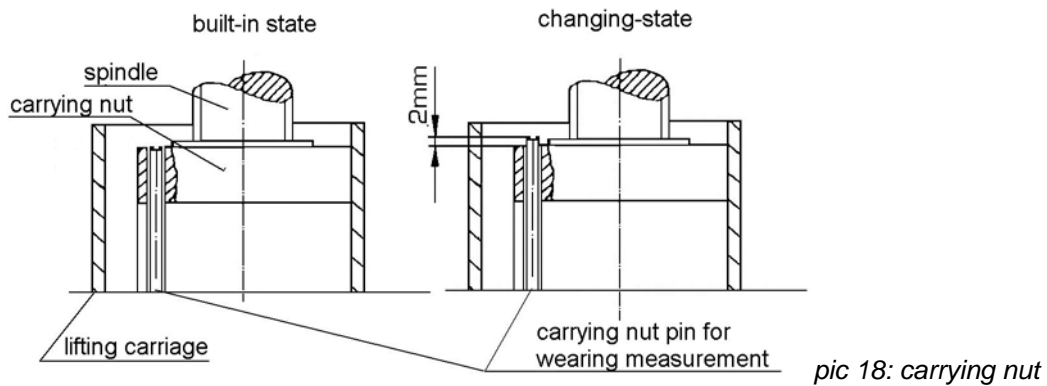
- Bring the screws back in initial position.

7.4 Examine the carrying nut system

- Carrying nut (optical wearing device). To check the carrying nut, take off the covering of the spindle (pic.3,pos.b). There is a pin built in the carrying plate (pic.16). This pin must be even with the top edge of the carrying plate (upper side of the lifting carriage; built-in state pic.17). If the pin looks 2 mm out of the top edge at the annually check (pic.17 changing state). The carrying nut and the sequence nut must be replaced.



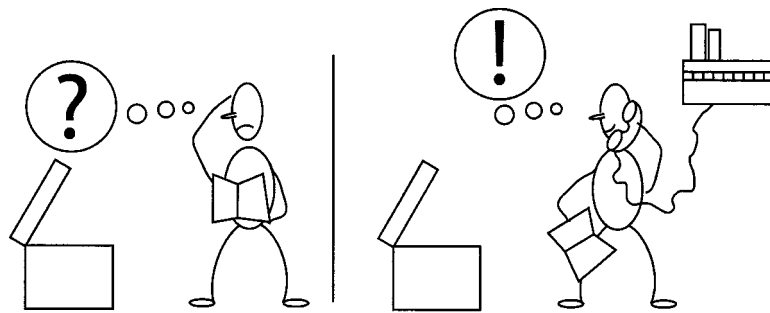
pic 16: the carrying-nut wear pin marked with red safety colour



7.5 Examine of the stability of the automotive lift

- Examine the dowels with a torque key as described by the dowel manufacturer. Observe the declaration of the dowel manufacturer.

8. Installation and Initiation



pic 18:

8.1 Regulations

- The installation of the lift is performed by trained technicians of the manufacturer or one of its distribution partners. If the operator can provide trained mechanics, he or she can install the lift by him or herself. The installation has to be done according to this regulation.
- Installing the standard-automotive lift in a hazardous location or a washing bay is not allowed.
- Before installation a sufficient foundation must be constructed. If the foundation is already constructed then proof that the foundation conforms to the standard is required.
A level foundation for the installation is required. The foundations must be based in a frost resistance depth, both outdoors and indoors in a position where the installer believes there is no chance of frost.
- An standard electrical supply 3~/N+PE, 400 V, 50 Hz must be provided. Observe the electrical power supply of your country.
The supply line must be protected with a time-lag fuse T32A (VDE0100 German regulation).
The minimum diameter amounts to 2.5 mm².
- All cable ducts must be equipped with protective coverings to prevent accidents.
- After assembly of the lift, the protective grounding of the lift must be examined after International Electronical Commission (IEC) guidelines (60364-6-61) before first start-up by operators. Also an insulation resistance examination is recommended.

8.1.1 Erection and doweling of the lift

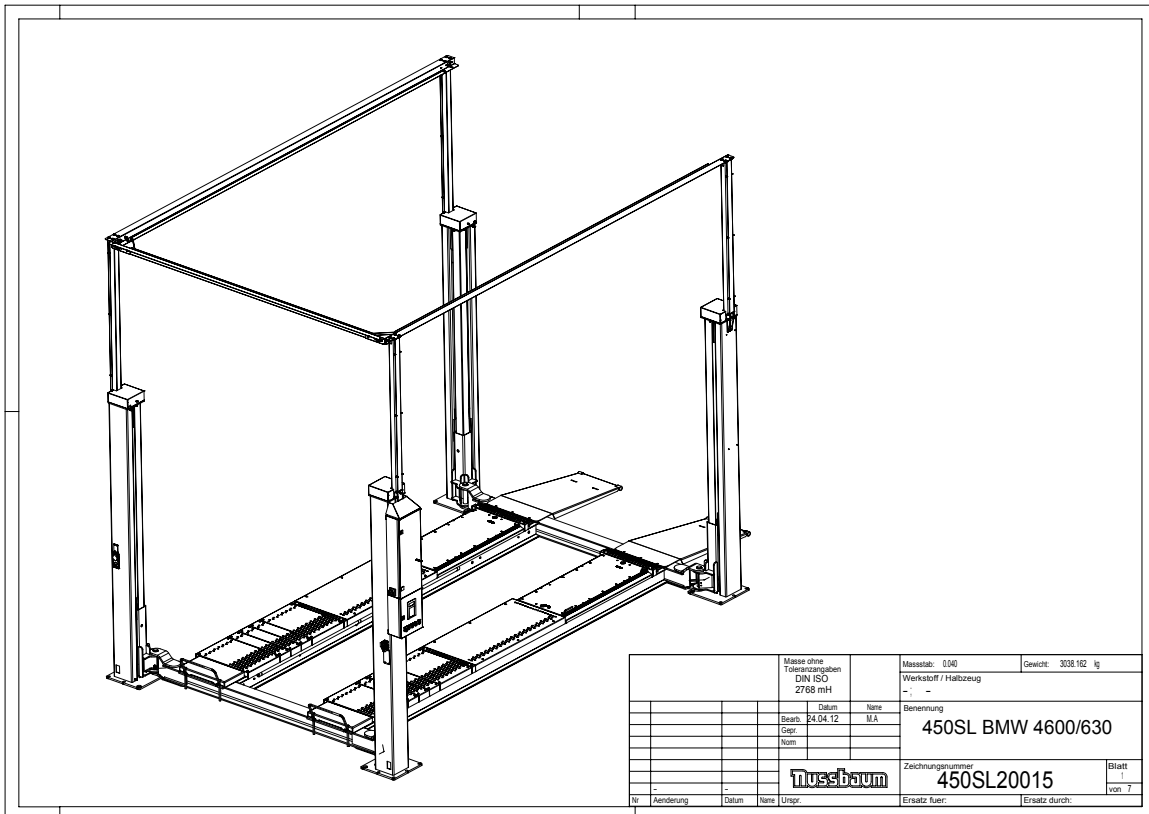


Before installation the lift, secure the installation area to prevent access to unauthorised persons. Use devices such as cranes, fork lift trucks and supports to transport the lift and avoid accidents.

Before installation of the lift create a sufficiently concrete by customer. The operator is responsible for the installation place. A concrete with a quality of minimum C20/25 and a thickness without tiles and floor pavement is necessary (thickness => see the foundation drawing).

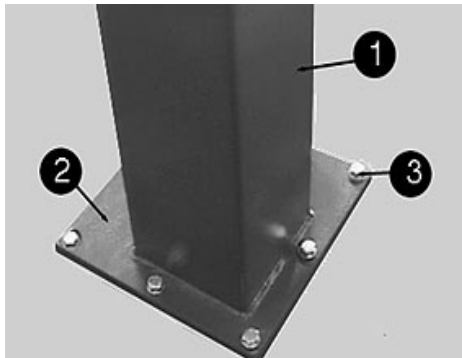
We point out the minimum requirement of the foundation in our plans. The condition of the local realities (for example: the ground under the foundation) does not lie in our responsibility. The execution of the installation situation must be individually specified by the planning architect or by the engineer engaged in statically calculations in the special case.

In case of doubt a test boring has to be performed and a dowel is to set in. Afterwards the dowel is tighten with a torque which is described of the dowel manufacturer.
If there are defectives (cracks or hairline cracks) in the zone of influence $\varnothing 200$ mm, the foundation cannot be used to install the lift on it.



pic 19: complete automotive-lift

A foundation must be constructed in accordance with the data sheet "foundation plan". It must be paid attention of an even installation place of the lift because of a straight contact between lift and concrete floor.



pic 20: dowel position

1: column

2: base plate

3: dowel

- Concrete has long chemical perspiration, which favour the corrosion at the base plates. We recommended to provide the surface with a 2 components Epoxitharz floor coating, before fastening the lift.
- Bore the holes to position the dowels through the bore holes of the base plates (pic.20). Clean the holes with pressure air. Insert the dowels. The lift manufacturer demands e.g. Liebig safety dowels or equal dowels of other manufacturer (with licence) but observe the regulation. (bore hole, torque...).. Before doweling check the concrete floor with quality C20/25(B25) if the concrete floor goes to the top edge of the floor. In this case the dowels have to be chosen in according to the description (Dowels without tiles, floor pavement). If the ground is covered with floor tiles, the dowels have to be chosen according to description (Dowels with tiles, floor pavement). Observe the table of FISCHER Dowel manufacturer, too.
- Examine the lining up of the columns with spirit level.
- If necessary put thin metal sheets between the base plate and the floor until the lift is in the correct vertical position and the contact between the base plate and the floor is available.
- Tighten the dowels with the dynamometric key. Observe the regulations of the dowel manufacturer.



Each dowel must be tightened with the demanded torque. Otherwise the normal function of the lift can not guaranteed.

- If the dowel is tightened with the demanded torque, the curved washer lies flat on the base plate. A safe dowel connection is guaranteed.

8.2 Initiation



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

If the lift is installed by a competent person, he or she is to perform the security check. If the operator installs the lift by him or herself, he or she must instruct a competent person to perform the security check.

The competent confirms the faultless function of the lift in the installation record and the form for the security check and authorises the use of the lift.



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

8.3 Change of lift location

If the place of installation shall be changed, the new place has to be prepared in according to the regulations of the first installation. The changing should be performed in accordance with the following points:

- Lift or lower the carriage to medium height.
- Take away current supply from the lift.
- If necessary remove the ascending pipe and the traverse.
- Remove the cover of the lift.
- Disconnect the plugs.
- Loosen the dowels.
- Dismount the columns.
- Dismount the crossbeams.
- Transport the lift to the new installation place.
- Install the lift in accordance with chapter 8 "Installation and Initiation"



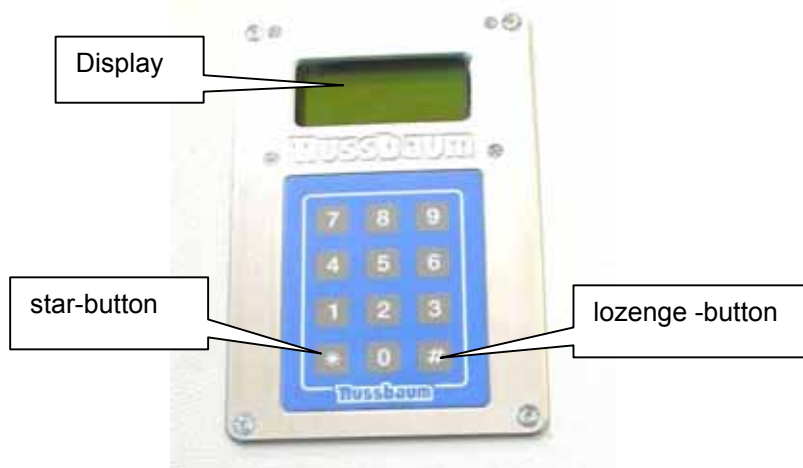
Use new dowels, the used dowels can not be used anymore.

A security check must be performed before re initiation by a competent person. Use the sheet "Regular security check".

8.4 Key in the reference point with the keyboard

After mounting and adjusting of the lift and platforms, raise the lift on a comfortable working height. (e.g. approx. 1250mm)

Position the arrow sticker at the lifting carriage and the column after entering of the new reference point. (see the drawing)

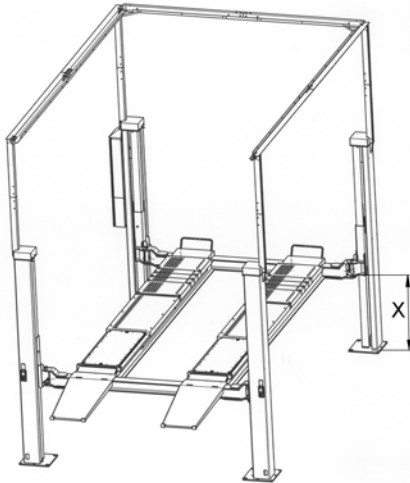


Function button:

<*> (star): back to the position display

<#> (lozenge): confirm button

- Measure the distance (X) between the lower edge of the lifting carriage and the upper side of the base plate. Carry out the procedure at all four columns.



- The smallest measure will be used later as the new reference point height.

Login to the service operation:

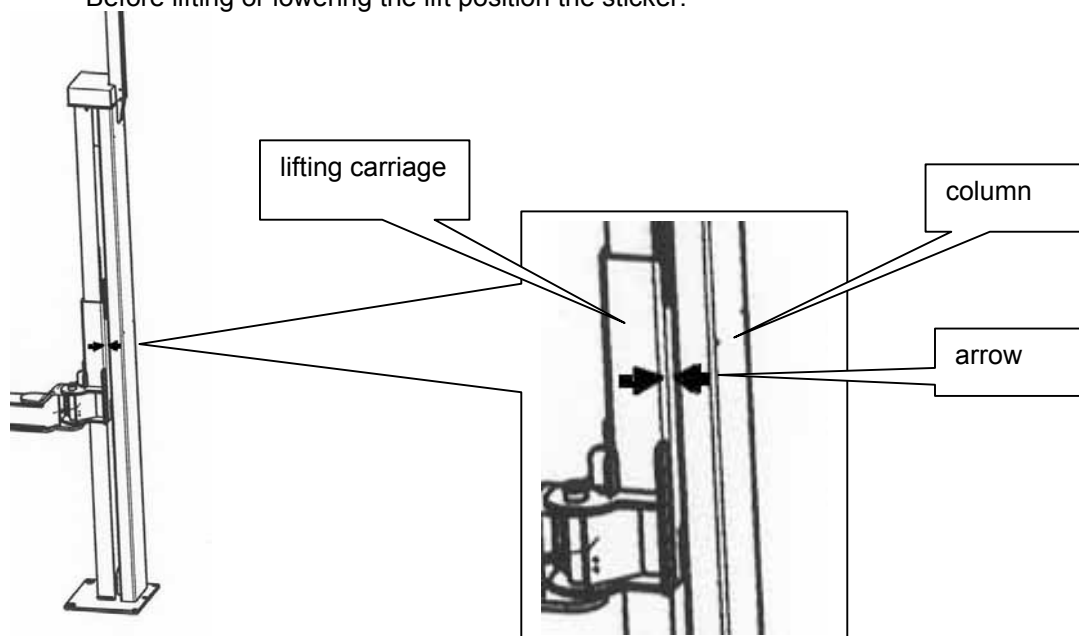
- (#) Press it at the keyboard,

Passwort
_ _ _ _

- Enter the numbers 1,2,3,4.
After the correct entering, it will be change into the main menu..
- Press the (*) button until to the Display shows „Referenzpunkt“.
- A menu item is selected with <>.
- Then press the button (#).The adjusted value will be displayed.
- Enter now the smallest 4-digit value in the keyboard. (e.g. 1237)
- Then press the button (#).The entered value is confirmed.
- Press the button (*) until the position display (start position).

1	xxxx
2	xxxx
3	xxxx
4	xxxx

- Before lifting or lowering the lift position the sticker.



Unequal height after an lifting procedure „Referenzfahrt“

If you find after an lifting procedure a unequal position of one or more marker arrows, the unequal height must be corrected manually.

Switch off the main switch before the different columns will be adjusted.

Remove the above cover of the affected column. Turn the spindle with a suitable tool until the arrows are again on the same height. Repeat the procedure if necessary at the other columns. Switch on the main switch if the adjusting is finished.

9. 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 before initiation”
2. In regular intervals after the initial operation, at least annually.
Use the form “Regular security check at least annually”
3. Every time the construction of that particular lift has been changed.
Use the form “Extraordinary security check”



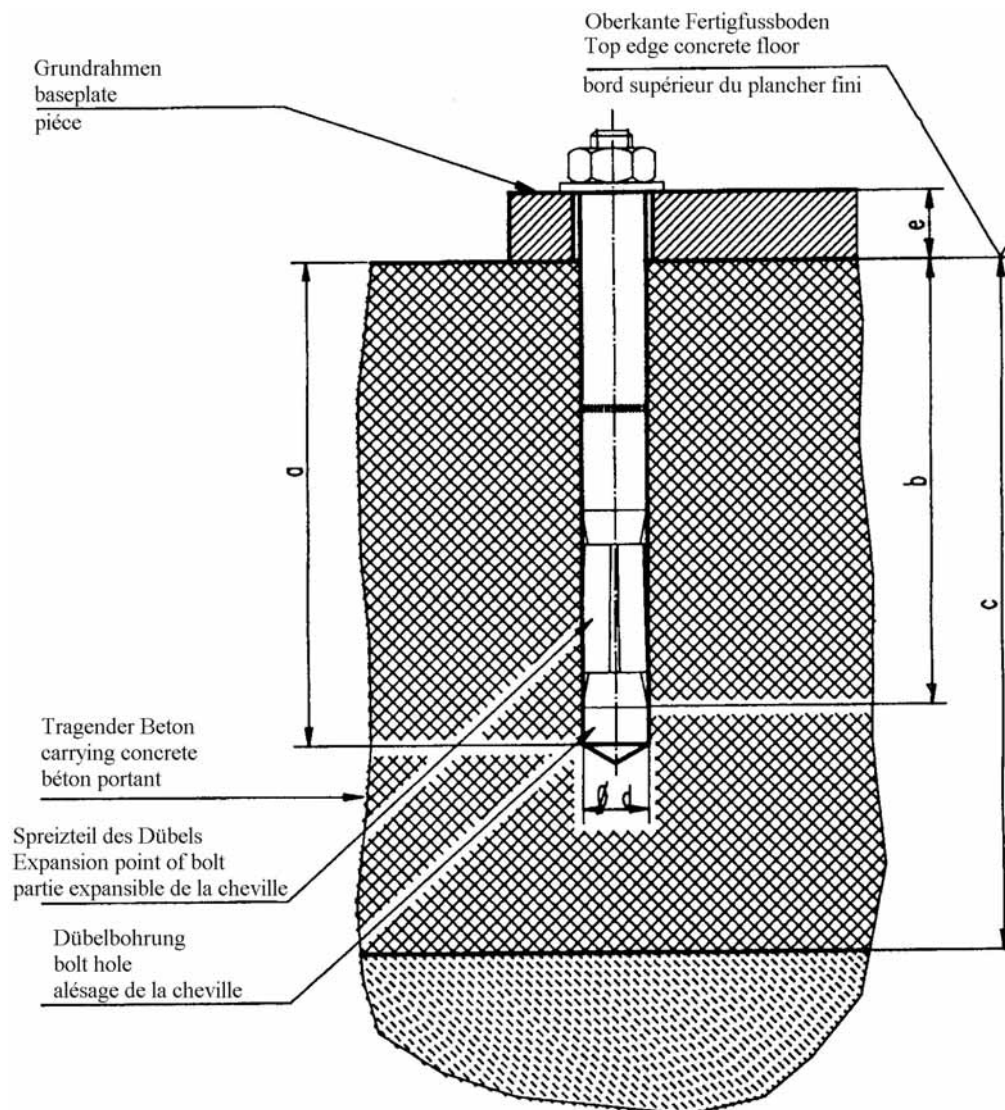
The first and the regular security check must be performed by a competent person. It is also recommended to carry out a service on the lift at this time.



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

This manual contains forms with a schedule for the security checks. Please use the appropriate forms for the security checks. The forms should remain in this manual after they have been filled out. A short description about special safety devices follows.

pic: Selection of Liebig-Dowels without tiles, floor pavement

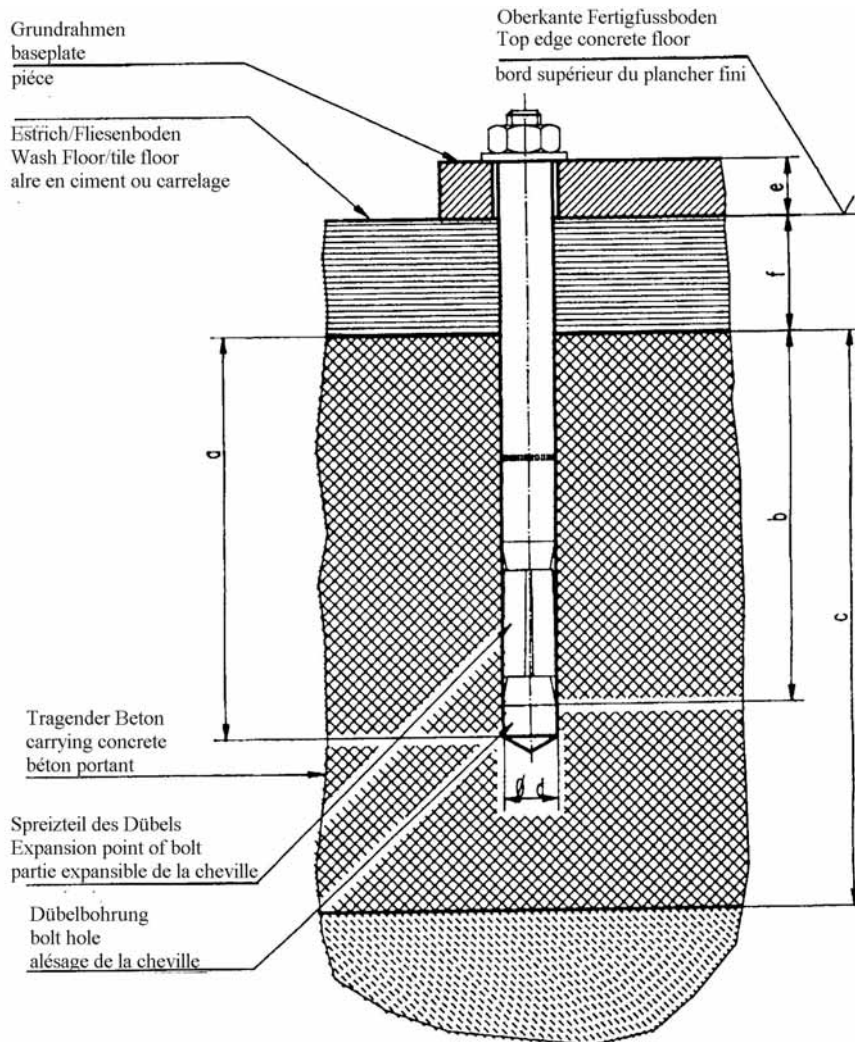


Liebig dowels	
Dowel typ	BM12-20/80/40
Drilling depth	a 100
Min. anchorage depth	b 80
Thickness of concrete	c min.160 (*)
Diameter of bore	d 20
Thickness of the lift-pieces	e 0-40
Quality of concrete	min.C20/25 with normal armouring
Number of bolts	according to the lift type
Starting torque	70 Nm

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

It is possible to use equivalent dowels from another dowel manufacturer (with license) but observe their regulation.

pic: Selection of Liebig-Dowels with tiles, floor pavement

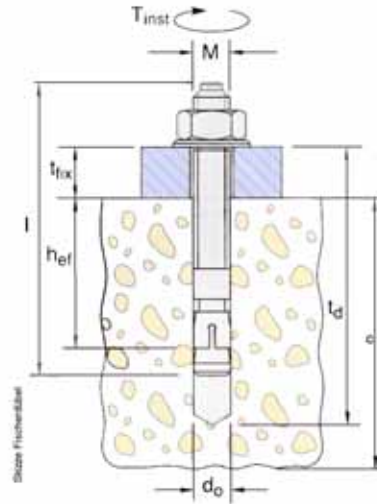


Liebig dowels

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

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

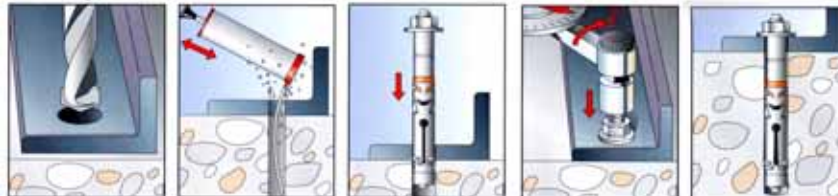
It is possible to use equivalent dowels from another dowel manufacturer (with license) but observe their regulation.



Änderungen vorbehalten!
subject to alterations!
sous réserve des modifications!

fischer-dowel		4.50 SL ^f		
Dübel typ of dowel type de cheville		FH 15/50 B Bestellnr. 970265	FH 18 x 100/100 B Bestellnr. 972230	FH 24/100 B Bestellnr. 970267
Bohrtiefe drilling depth Profondeur de l'alésage	t _{cl}	145	230	255
Mindestverankerungstiefe min.anchorage depth Profondeur minimale d'ancrage	h _{ef}	70	100	125
Betonstärke thickness of concrete Épaisseur 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	d _o	15	18	24
Bauteildicke thickness of the lift-piece Épaisseur de la pièce	t _{fix}	0-50	0-100	0-100
Anzugsdrehmoment Nm turning moment moment d'une force	M _D	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	24		
	g	14		

Montage



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.

First security check before installation



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Regular security check and maintenance



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)

Extraordinary security check



Fill out and leave in this manual

Serial-number: _____

kind of check	all right	defect missing	ver-ification	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
short operating instruction at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker capacity at the column.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sticker lubrication/maintenance plan.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Automotive-lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „lifting/lowering“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function button „equalisation“.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function Display.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Electrical box.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function main switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety seeger ring at the bolts (carriage).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function CE-Stop + acoustic signal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts and DU-bearings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Platform.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function drive on ramps.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition colour.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Construction (deformation, cracking)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque moment of screws and dowels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Poly V-Belt.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition, Function spindle centering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Crossbeam & cable channel.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition Spindle and carrying nut.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition carrying nut wear pin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete (cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical cables and plugs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test with vehicle.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function test „driving to the end position “.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function equalisation of the lift.....	<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:.....

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:

.....

signature of the operator

(Use another form for verification!)