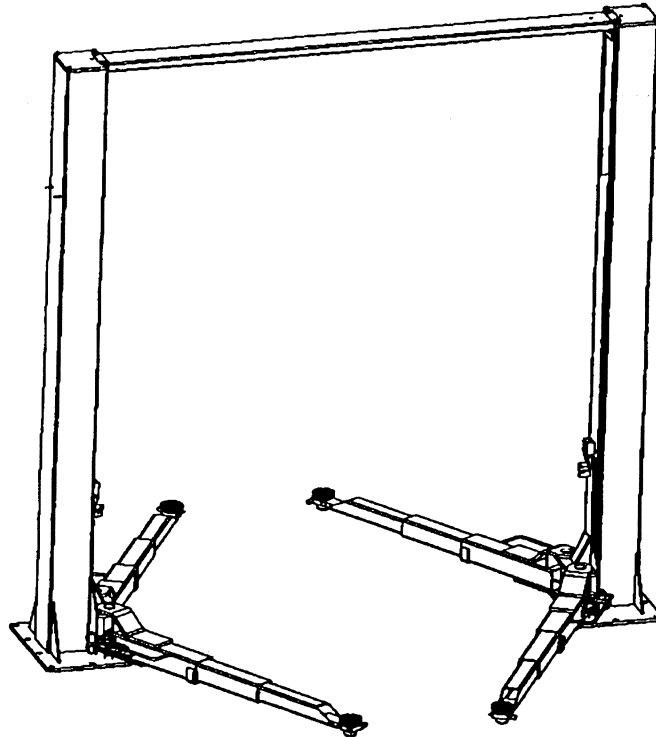


2.50 HDL

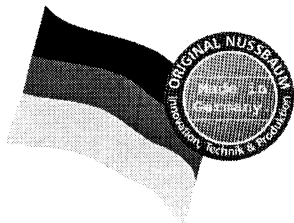
Date: 30.03.1999



Operating Instruction and Documentation

Serial-number:.....

Retaileradresse/phone



Nussbaum
HEBETECHNIK

Nussbaum Hebeteknik GmbH & Co.KG//Korker Straße 24//D-77694 Kehl-Bodersweier//Tel+49(0)7853/8990
Fax: +49 (0) 78 53 / 87 87//E-mail: nussbaum.lifts@t-online.de//http://www.nussbaum-lifts.de

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Appendix

Document "First security check before Installation"

Document "Regular security check"

Document "Extraordinary security check"

Forword

Nussbaum-Lifts are a result of long-standing experiences.

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

To avoid unnecessary damages and dangers, read the operating instruction attentive and observe the contents.

Another or the described purpose going out use is not valid when not as agreed.

This is valid particularly for climb and go.

Company Nussbaum is not liable for damages arising from this. The user carries the risk alonely.

For the use belonged:

- to observe all the notice in the operating instruction and
- the following of the inspection and maintenance work and the prescribed tests.
- The instruction for use have to be observed by all persons working with the lift.
- Especially the chapter "Safety/accident Prevention" has to be observed.
- In addition to the safety remarks of the instructions for use the regulations and instructions being valid at the place of operation have to be considered.

Obligations of the operator:

The operator is obliged to allow only those persons complying to the following requirement to work at the unit

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

Dangers when operating with the lift:

The Nußbaum-Lifts are designed and built according to technical standard and the approved regulations for technical security. Yet, danger for body and life of the operator may turn up when using the lift inexpertly.

The lift must only be operated :

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

Organising requirements

- The instructions for use are constantly to be kept at the place of operation being at hand at any time.
- In addition to the instructions for use rules pertaining to other regulations i.e. accident prevention and environmental rules are to be observed and directed.
- Safety- and danger alert operation of personal is occasionally and by observing the instructions for use to be controlled.
- As far as required and ordered by regulations personal protective equipment is to be used
- All safety- and danger-hints at the lift are to be observed!
- Spare parts must comply with technical requirements laid down by the manufacturer. This is only warranted with original parts.
Consider time intervals given or fixed in instructions for use for repeated tests/inspections.

Maintenanceworks, remedy of faults and disposal

- Fixed Adjusting-, maintenance- and inspectionworks and time intervals including Details for exchange of parts/part components as mentioned in the instructions for use are to be adhered.
These works must only be carried out by expert personal.
- After maintenance- and repair works loose screw connections must always be firmly tightend!

Record of handing over

The automotive lift 2.50 HDL 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 from an erector of the lift-manufacturer or from a franchised
 dealer (competent person).

.....
 date name signature

.....
 date name signature

.....
 date name signature

.....
 date name signature

.....
 date name signature

.....
 date name signature

.....
 date name of competent signature of the competent

Your customer service is the company:.....

.....

1. Introduction

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

To furnish proof of **installation of the automotive lift** the form "Record of Installation" must be signed and returned to the manufacturer.

To furnish proof of the singular, felt this documentation contains forms. The forms should be used to document the checks. They should not be removed from this documentation.

Every **Changes to the construction** and **displacement** of the automotive lift must be registered in the "**Master document**" of the lift.

1.1 Installation and check of the automotive lift

Only specialist staff is allowed to do work concerning safety and to do the safety checks of the lift. They are called experts and competent person in this document.

Experts are persons (for example self-employed engineers, experts) which have received instruction and have experience to check and to test automotive lifts. They know the relevant labour and accidents prevention regulations.

Competent person are persons who have acquired adequate knowledge and experience with automotive lifts. They took part in training from the lift-manufacturer (servicing technicians of the manufacturer or dealer, are competent)

1.2 Information of Warning

To show danger and to show important information the three symbols below are used. Pay attention to those passages, which are marked with these symbols



Danger! This sign indicates danger to life. Inexpert handling of the described operation may be dangerous to life.



Caution! This sign cautions against possible damage to the automotive lift or other material defects in case of inexpert handling .



Attention! This sign indicates for an important function or other important notes.

2.5 CE-Certificate/attestation of conformity

The automotive lift 2.50 SL with the serial number.....
Is in accordance with the tested lift (CE-Certificate-number 04-205-1382/95)

.....
place, date

.....
company stamp, signature

ZERTIFIKAT
CERTIFICATE



ANLAGENTECHNIK GMBH

Registrier-Nr./Registered No.:

04 205-1382/95

EG-Baumusterprüfbescheinigung gemäß Anhang VI der EG-Richtlinie 89/392/EWG
EC-type approval according to appendix VI of the EC-directive 89/392/EEC

Zeichen des Auftraggebers Reference of applicant	Auftragsdatum Date of application	Altzeichen File reference	Prüfbericht Nr. Test report No.	Ausstellungsdatum Date of issue	Gültigkeit bis Expiry date
Müller	30.03.95	7.2-1456/95	2943/95	08.09.1995	08.09.2000


Hiermit wird bestätigt, daß das nachfolgend genannte Produkt den grundlegenden Anforderungen der Richtlinie des Rates vom 14.06.89 zur Angleichung der Rechtsvorschriften der Mitgliedstaaten über Maschinen, sowie der Änderung 91/368/EWG und 93/44/EWG, entspricht.
We hereby certify that the product mentioned below meets the basic requirements of the council directive dated 14.06.89 on the approximation of the laws of the member states relating to machinery, as well as the amendments 91/368/EEC and 93/44 EEC.

CE 0044

Antragsteller: Otto Nußbaum GmbH, Korker Str. 24
Applicant: 77694 Kehl

Fertigungsstätte: s.o.
Manufacturing plant:

Produktbeschreibung: Fahrzeughebebühne Typ : 2.50 HDL
Product description:


TÜV CERT - Zertifizierungsstelle
der RWTVV Anlagentechnik
im Institut für Produkterprobung und
Werkstofftechnik, notifiziert bei der EG-
Kommission unter Nr. 0044

RWTVV Anlagentechnik GmbH
Institut für Produkterprobung
und Werkstofftechnik
Längemarchstr. 20
45141 Essen
Tel.: +201-825-3218
Fax: +201-825-3209

3. Technical Information

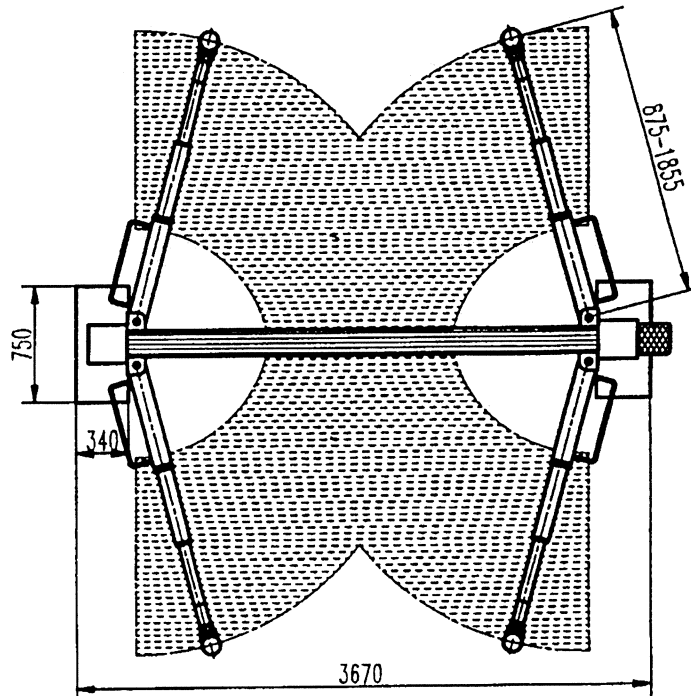
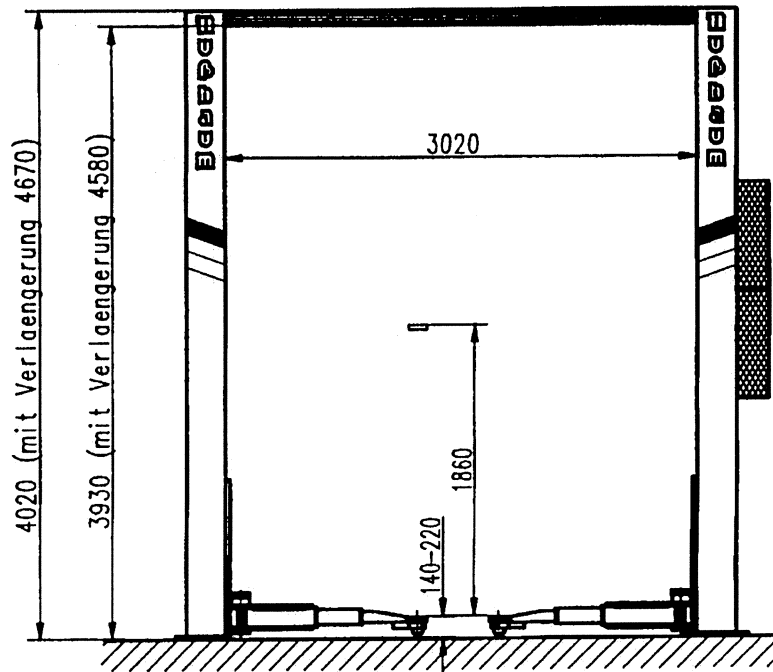
3.1 Technical ratings

Lifting capacity:	5000 kg
Load distribution:	2:1 in or against drive-on direction
Lifting time:	approx. 25 - 40 sec.
Lowering time:	approx. 25 - 40 sec.
Lifting height:	max. 1860 mm
Line voltage:	3 x 400 V , 50 Hz
Control voltage:	24 V
Power rating:	3 kW
Motor speed:	2800 rotation/min
Oil pump:	3 ccm/rotation
Hydraulik pressure:	approx. 180 bar
Pressure relief valve:	approx. 250 bar
Oil Tank:	approx. 12 liter
Sound level:	≤ 75 dBA

3.2 Safety devices

1. Lockable main switch
safety device against unauthorized operation
2. Pressure relief valve
overprint-safety of the hydraulic system
3. Foot protector
safety device against squeeze
4. safety ratchet
safety device against unintentional lowering
5. hydraulic unlocking holding valve
safety device against unintentional lowering

3.3
Datasheet



Hydro-Lift 5 000 MB

with MB carrying arms

07.09.1994 / Schalast

EINBAU1077

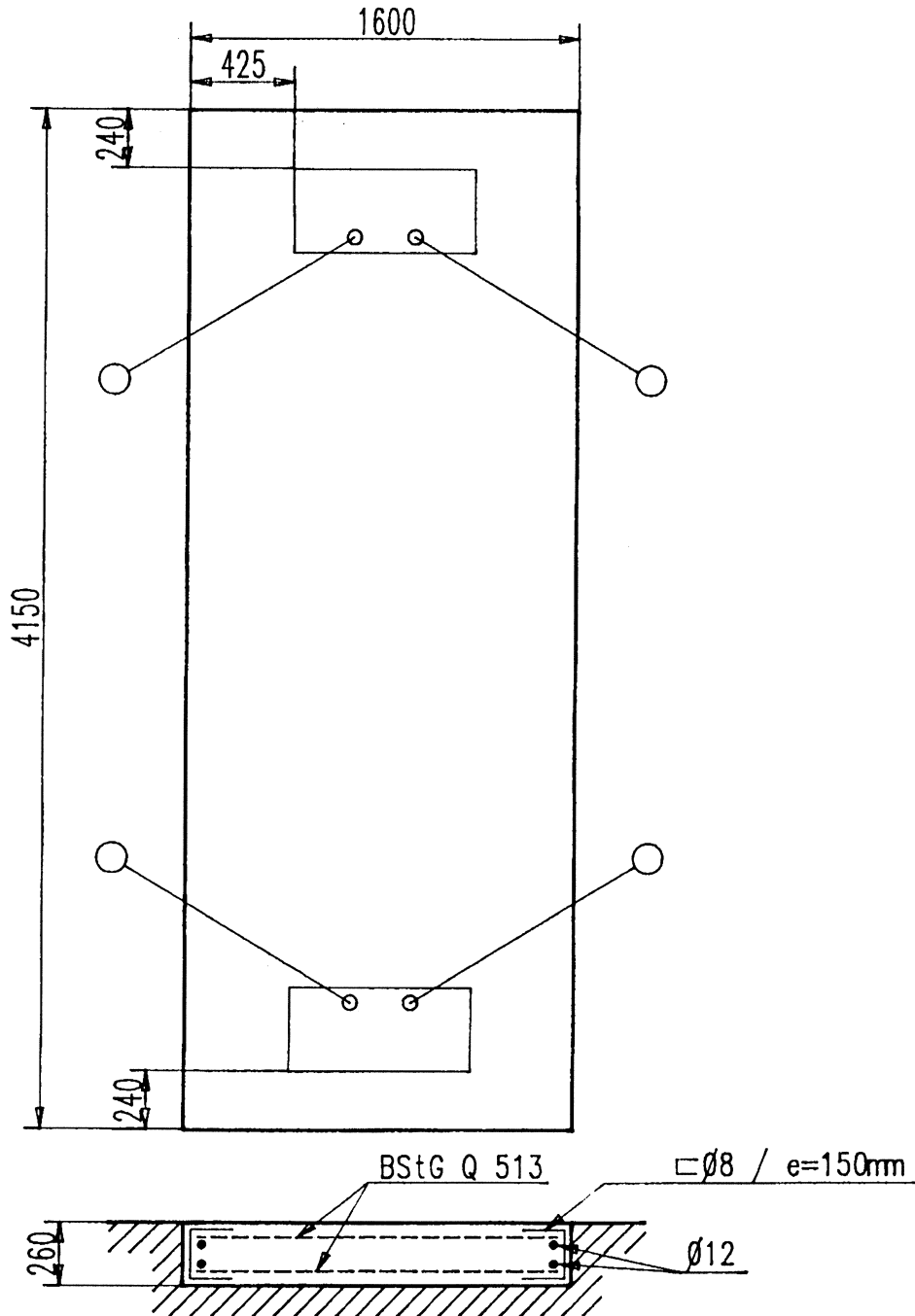
TUPBAUM

HEBETECHNIK

TEL 07853/899-0 FAX 07853/8787
FERTIGUNGSTECHNIK UND MASCHINENBAU
77694 KEHL-BODERSWEIER

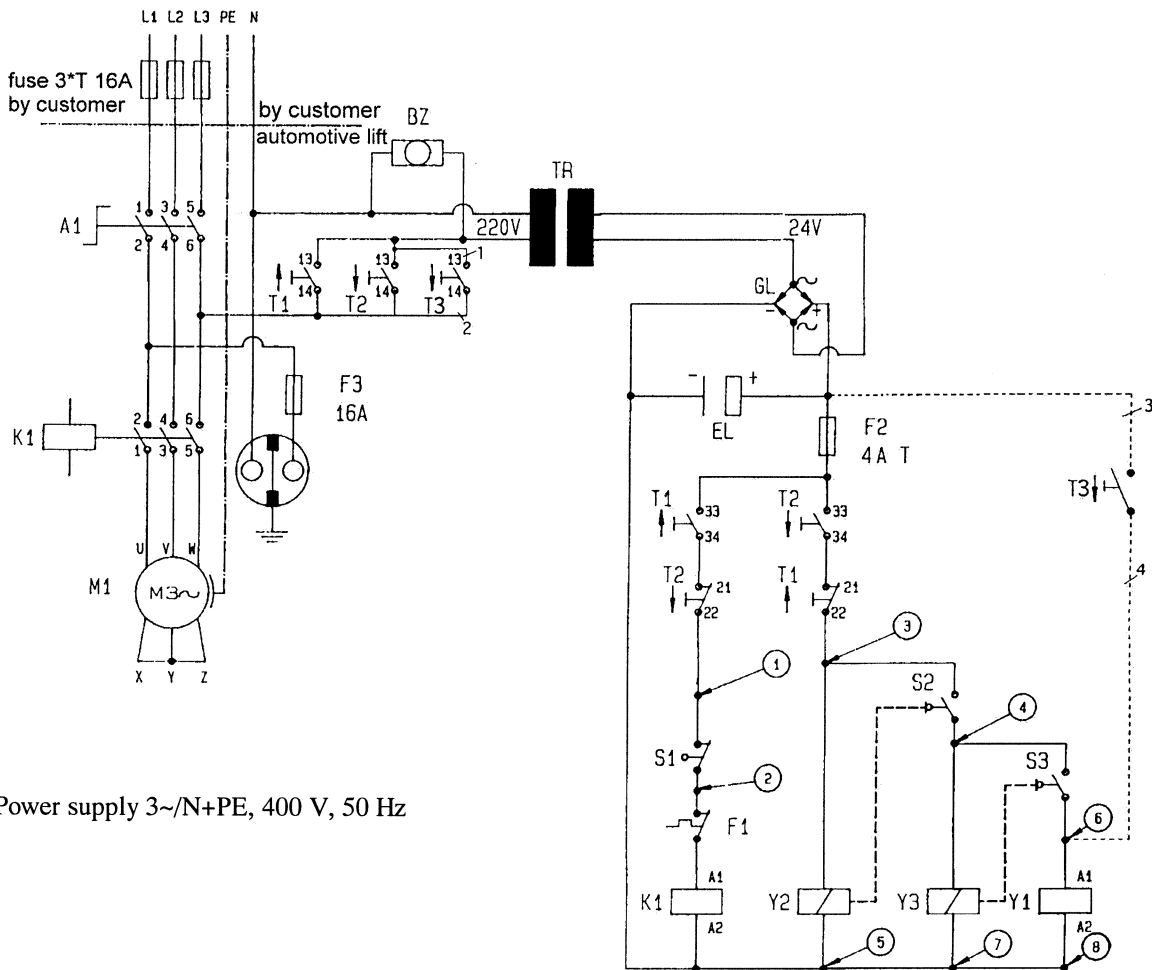
3.4

Foundation plan



Reinforcement in both directions at the upper and lower side of the plate min. $4\text{cm}^2/\text{m}$
 (for example: structural steel Q513)
 revolving $\text{Ø}8 / e=150\text{ mm}$
 at the edges $\text{Ø}12$
 concrete quality min. B25 (DIN1045)
 concrete covering for stiffenig steel min. 2 cm
 foundation base: frost-protected floor!

Electrical diagram drawing

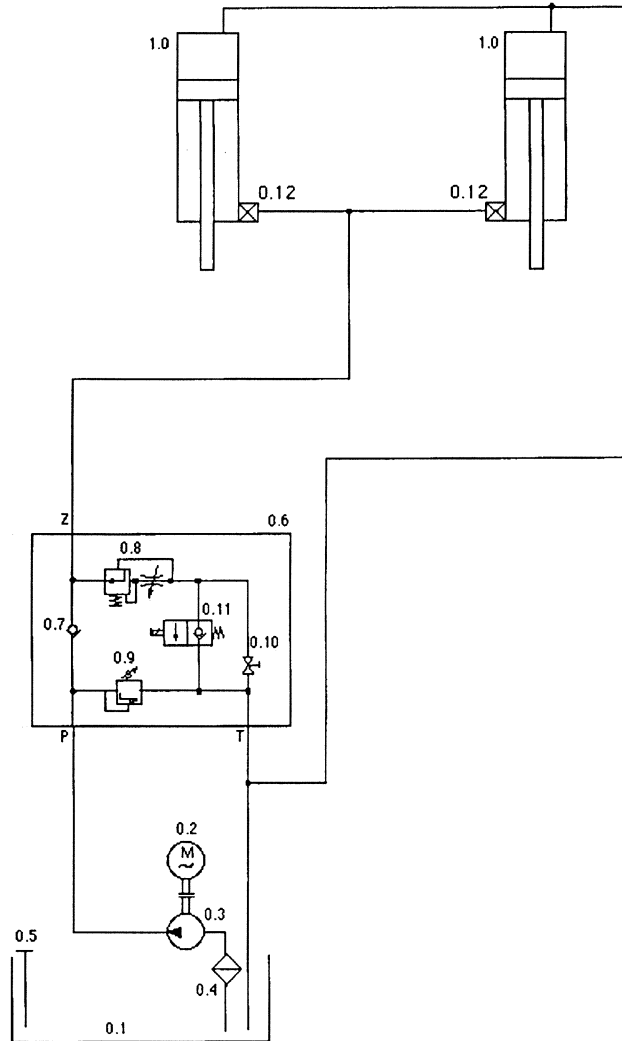


Power supply 3~/N+PE, 400 V, 50 Hz

Electrical part list

- A1: main switch
- M1: motor
- K1: up contactor
- Y1: electrovalve
- Y2: electromagnet
- Y3: electromagnet
- T1: button "lifting"
- T2: button "lowering"
- T3: button "lowering in the ratchet"
- S1: top limit switch
- S2: limit switch at the electromagnet
- S3: limit switch at the electromagnet
- TR: transformer
- GL: rectifier
- F1: thermofuse in the motor
- F2: fuse 4A
- F3: fuse 16 A
- BZ: elapsed time indicator
- EL: capacitor

Hydraulic diagram drawing



Hydraulic part list

- 0.1 oil tank
- 0.2 motor
- 0.3 gear pump
- 0.4 oil filter
- 0.5 oil level gauge
- 0.6 hydraulik block complete
- 0.7 holding valve
- 0.8 flow control valve
- 0.9 pressure control valve
- 0.10 emergency lowering
- 0.11 electrical holding valve
- 0.12 set screw with a bore hole
- 1.0 cylinder

4. Safety regulations

Using automotive lifts for working the Regulations of Accident Prevention (VBG1: General Regulations, VBG14: Automotive lifts) must be observed.

Especially the following regulations are very important

- During working with the lift the operating instructions must be followed.
- The laden weight of the lifted vehicle mustn't be more than 5000 kg. The Load distribution is 2:1 in or against drive-on direction.
- Only trained personnel over the age of 18 years old are to operate this lift.
- During lifting or lowering the vehicle it must be observed from the operator.
- Position the pads as described of the vehicle manufacturer under the vehicle.
- Observe the complete lifting and lowering process.
- It's not allowed to stay under the lifted or lowered vehicle (except for the operator).
- It's not allowed to transport passengers on the lift or in the vehicle.
- It's not allowed to climb onto the lift during lifting or lowering or onto a lifted vehicle.
- The automotive lift must be checked from an expert after changes in construction or after repairing carrying pads.
- It's not allowed to start with operations at the lift before the main switch is switched off.
- It's not allowed to install the standard-automotive lift in hazardous location.

5. Operating instructions



*The Safety Regulations must be observed during 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 in the lift.
- Safeguard the vehicle against rolling away, switch into gear, activate the parking brake.
- Position the adjustable pads under the vehicle which are described by the vehicle manufacturer.
- 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.
- Lift the vehicle free. Check the position of the pads under the vehicle again.
- Press the button “↑” until the wheels are free. (see pic.1)
- If the wheels are free stop the lifting and check the sit of the pads again.



Check the pads under the vehicle again, otherwise the vehicle can fall down.

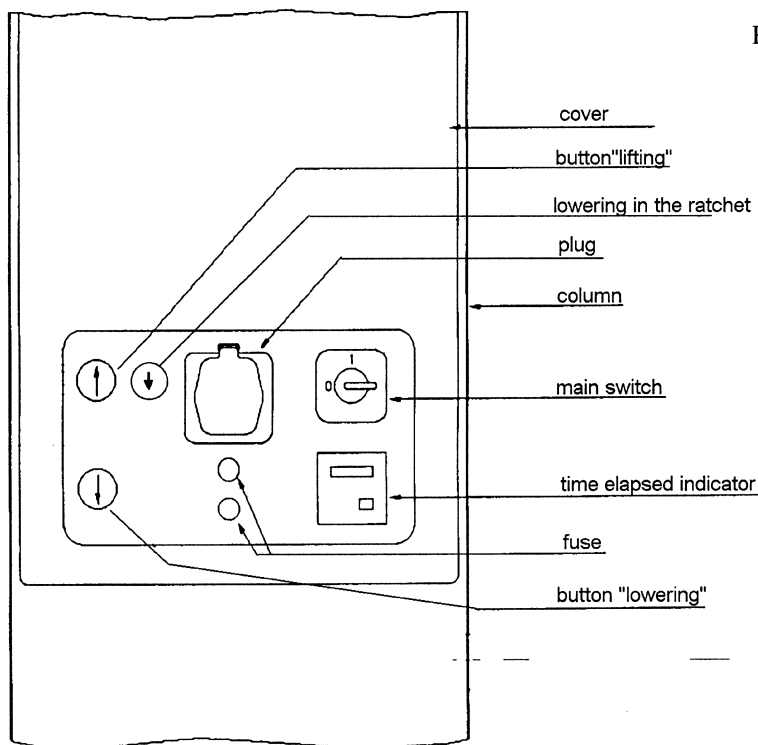
- Lift the vehicle on the working height.

5.2 Lower 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.
- Press the button “↓” (see pic. 2)
- Lower the lift at the height for working or until the carrying arms reach the lowest position.
- If the lift is in the lowest position turn the carrying arms to the outside.

5.2 Lower the lift in the ratchet

- 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.
- Press the button “↓ lowering in ratchet ” (see pic. 2). The safety ratchets not unlatch. The lift is lowering in the next possible ratchet.
- To raise the automotive lift from the ratchet you must press the button “↑” .



Pic.2 operating unit

6. Troubleshooting

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



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

Problem: The lift does not lifting and not lowering!

possible causes:

the main switch is not switched on
the main switch is faulty
the fuse is faulty
the feed line is cut
the motor is overheated

remedying:

switch it on
replace it
replace it
replace it
let it cool down

Problem: The lift does not lifting!

possible causes:

the top limit switch is active
the oil level is too low

remedying:

check it
refilling

Problem: The lift does not lowering!

possible causes:

the main switch is not switched on
the fuse is faulty
the ratchet is locked
lift is driven on a obstacle
the valve is faulty

remedying:

switch it on
replace it
raise the lift
raise the lift
replace it

6.1 Emergency lowering in case of power failure

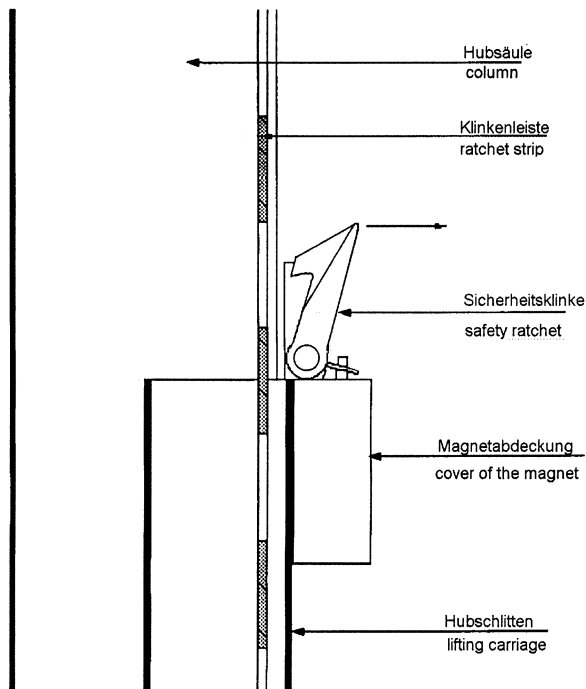
In case of power failure or defective valve the lift can not lowered any more. In this case there is the possibility to lower the lift manually.



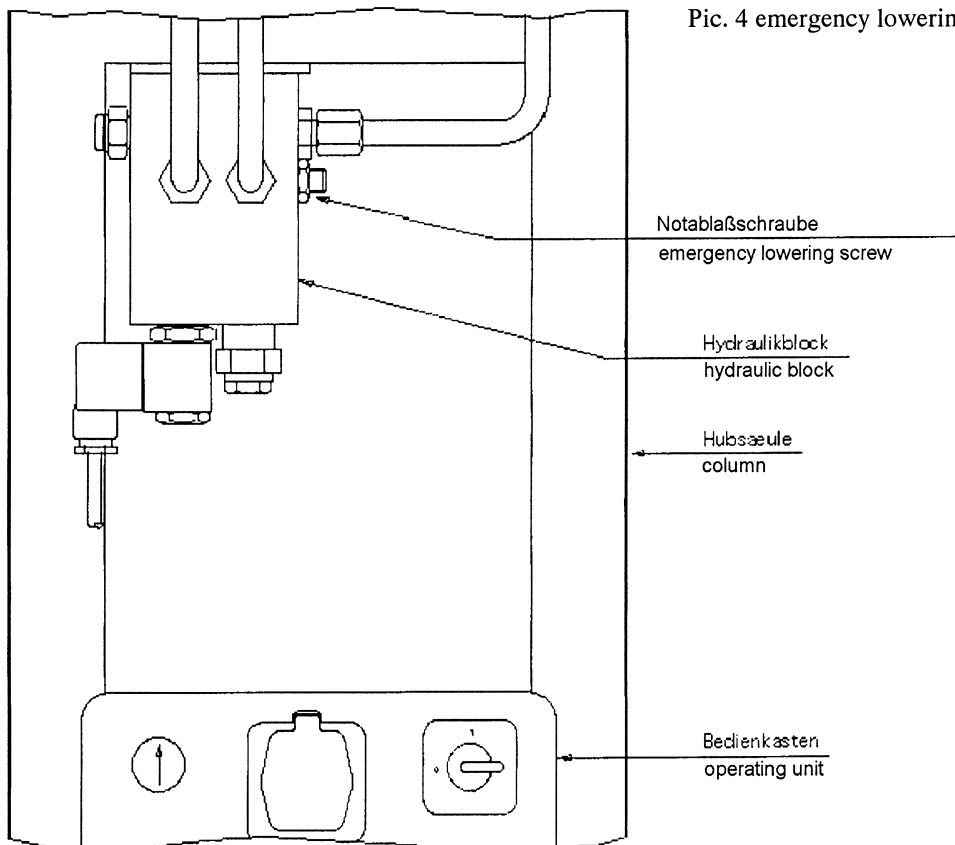
The emergency lowering must only carried out by persons which are instructed to using the lift. Please refer to the regulation "Lowering the vehicle".

Procedure – emergency lowering

- You can carry out the emergency lowering only when the ratchets are not locked.
- When only the valve is defective, you can raise the lift a little, until the ratchets are free. Press the button "↑".
- Remove the covers of the ratchets.
- Move the ratchet manually back and support it with an appropriate support between the ratchet strip and the ratchet or fix the pulled back ratchet with a wire that the ratchet can not engage any more. This has to be done at each of the two columns. (see pic. 3)



Pic. 3 the ratchet



Pic. 4 emergency lowering screw

- Loose the red security locknut at the hydraulic block (see pic. 4)
- Open the emergency lowering screw one turn, until the lowering process starts.
- Close the emergency lowering screw and safe it with red coloured security locknut when the lift is at the lowest position.

- Loose the ratchets. That they can engage again.
- Mount the cover.

7. Maintenance

A regular service has to be performed every three months by the lifts operator according to the following schedule. If the lift is in continuous operation or dirty environment, the maintenance rate has to be increased.

During daily operation the lift has to be watched carefully for its correct function.

In case of any malfunction the technical service of the retailer has to be informed.

7.1 Inspection and Maintenance of Nussbaum lifts

Nussbaum lifts have been designed and manufactured for longevity and safe operation. Proper installation and operation, regular inspections and ensuing preventative maintenance by authorized personnel and product care, are the key to operators safety,

product reliability, low overall repair costs, qualified warranty claims and finally, longevity of the lift. Our lifts are German TÜV and European CE certified and meet or surpass the safety standards of the countries in which we sell. European regulations for instance, oblige inspection by qualified personnel, every 12 months during the life span of the lift.

Whatever the regulations are in a given country, the following are the minimum, requirements regarding the maintenance of Nussbaum lifts.

1. Product care. On an daily/weekly basis by lift operator

Always contact qualified service personnel whenever there is a safety issue. Check for anomalies at all times in particular after electrical power failure or flooding of the shop floor (check sealing of the canister of in-ground TOP lifts). Execute equalization procedure of lifts with master/slave system (JUMBO- and UNI-LIFTS). Check for leaky and kinked pipes and hoses. Clean the lift and the floor with a non-aggressive detergent. Prevent corrosion by oiling metallic parts or paint retouch. Check filters, grease/lubrication needs and air pressure. Check condition of lifting pads/polymer supports.

2. Inspection. At least once a year by qualified technician

Safety related:

- Check the proper functioning of all mechanical, electrical, hydraulic and pneumatic safety locking functions
- Check for proper anchoring of the lift to the floor and floor cracks
- Check for potential structural failures, in particular of welded parts
- Check for bending or distortion of mechanical parts

Maintenance related:

- Check for hydraulic/air leaks and condition of pipes/hoses
- Check electrical connections, switches and fuses
- Check for wear of all bearings, hinge points and shafts
- Check condition of lifting pads
- Check for leakage to the in-ground lift canister
- Check for corrosion building

3.Preventative maintenance by qualified technician

- Replace **hydraulic oil** once every year approx. 12 litre
- Replace **hydraulic hoses** at least once every 6 years
- Take proper **Product care** as recommended in Point 1
- Replace **Safety related** parts whenever there is the slightest doubt
- Replace or repair worn or improper functioning **Maintenance related** parts, before they break down. This avoids costly repairs at a later date

Inspection, repair and maintenance may be done by technicians from Nussbaum, Nussbaum's distributor or end-user. This personnel must be trained on the particular models of lift which they service. They must be able to make a judgment as to the repair or maintenance that needs to be done in order to ensure full safety, operational reliability and structural integrity during the life time of the lift. Proper maintenance records should be kept to back up possible warranty claims.

7.2 Cleaning of the automotive lift

A regular and appropriate maintenance served the preservation of the lift.

It can be a prerequisite for claims at possible corrosion.

The best protection for the lift is the regular cleaning of dirt of all manner.

- Including this:

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

How often must the lift be cleaned ?

This is dependent on the use, of the working with the lift, of the cleanness of the workshop and location of the lift. The degree of the dirt is dependent on the season, of the weather conditions and the ventilation of the workshop.

Under bad circumstances it is necessary to clean the lift every week, but a cleaning every month can suffice.

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


- Do not use for cleaning a steam jet cleaning
- Remove all dirt careful with a sponge if necessary with a brush.
- Pay attention that are no remains of the washing-up liquids on the lift after cleaning.
- Do not use aggressive means for cleaning the workshop floor and the automotive lift.
- A permanent contact with every kind of liquid is forbidden. Do not use any high pressure device for cleaning the lift.

8. Security check

The security check is necessary to guarantee the safety of the lifting 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 recommended to service the lift at this occasion.*

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

This manual contains form with a schedule for the security checks. Please us the adequate form for the security checks. The form should remain in this manual after they have been filled out. In the following there is a short description about special safety devices.

9. Installation and Initiation

9.1 Installation of the automotive lift

Regulations for the installation

- The installation of the lift is performed by trained technicians of the manufacturer or its distribution partner. If the operator can provide trained mechanics, he can install the lift by himself. The installation has to be done according to this regulation.
- The standard lift must not be installed in hazardous locations or washing areas.
- Before installation a sufficient foundation must be proved or constructed.
- An even installation place has to be provided. The foundations must be based in a frost resistance depth, both outside and indoors, where you must reckon with frost.
- An electrical supply 3~/N+PE, 400 V, 50 Hz has to be provided. The supply line must be protected with T16A (VDE0100 German regulation). The minimum diameter amounts to 2,5 mm².
- The cable entry in the column is located in operating column topside. Another possibility is the location of the cable entry in a boring at the base plate. However the cable has to be secured with a cable bushing. Do not fold the cables!

9.2 Erection and doweling of the lift

- Install the automotive lift in according to the data sheet and the foundation plan and line it up.
- Put both synchronizing ropes over the rolls at the top and insert them from the upper side in column. The ropes must not be crossed!
- Connect hydraulic hose between the two columns. Don't fix connection at opposite side too tight and don't fasten the connection. Be sure that hydraulic hose doesn't hinder the course of the synchronizing ropes.
- Connect the oil return line (synthetic material) at the top of the column. Fasten it with cable clamps.
- Put traverse topside on columns and fix it with enclosed cylinder screws and washers.
- Check the position of the lift again.
- Bore holes to fix the dowels through the borings of the base plates. Clean holes with pressure air. Put in safety dowels with washers in borings.

The manufacturer demands LIEBIG safety dowels type B 25 or equal dowels of another manufacturer.

Before doweling check concrete floor with quality B 25 if the concrete floor goes to the top edge of the floor. In this case the dowels have to be chosen according to

picture 7. If the ground is covered with floor tiles, the dowels have to be chosen according to picture 8.

- Check line-up of the columns and look if they are vertical. If they aren't vertical correct with suitable bases.
- Tighten the dowels with a dynamometric key (for example : Liebig : M = 180 Nm)



Each Liebig-dowel must be tightened with a torque of 180 Nm. The normal function of the lift cannot be guaranteed

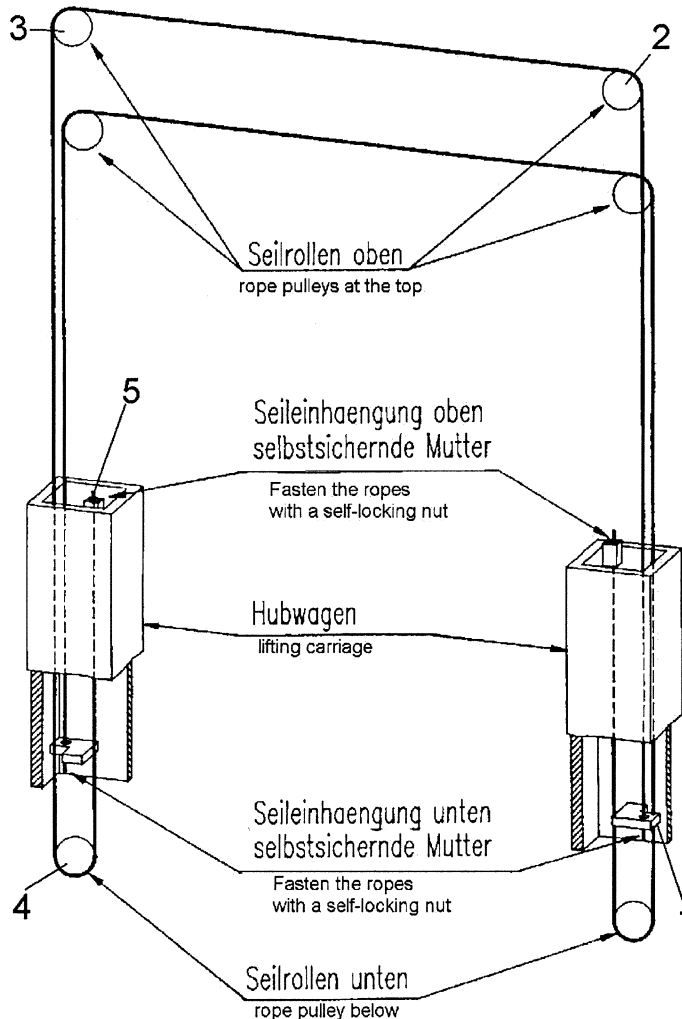
- Connect power supply. The cable entry is at topside of operating column (standard version)
- Fill oil-tank with oil: viscosity 32 cst, approximatly 12 litre. Oil level = between the upper and lower marking of the oil level gauge.
- Turn operating switch to position "↑": Only one side of the lift is lifted. Raise the lift until oil comes out of the loosen threaded joint at topside of the opposite column.
- Fasten the threaded joint at top of opposite side.
- Load this carriage which has got a higher position (stand on it) and turn simultaneously operating switch to position "↑". Only that carriage without load is lifted. That carriage must be lifted until the carriage at the operating side is 10 cm higher than the carriage at the opposite side.
- Mount the carrying arms (refer to data sheet Power-Lift), lubricate bolts and secure them with enclosed circlips at both ends.



The bolts of the carrying arms must be secured at both ends, otherwise a safe connection between carriage and carrying arm can not be guaranteed.

- Mount the ropes. (see pic.6)
- Start at the command side:
- Put the rope from the top in the column. Observe the position of the rope and the pulley.
- Mount the rope in the hang-up plate (Pos. 1). Fasten the self-locking nut approximatly 3 turns.
- Carry the rope around the pulley.(Pos. 2)
- Carry the rope to the other column and lay it around the pulley (Pos.3)
- Dismount pulley (Pos.4) at lower side of column (opposite side) by loosing the circlip. Lay the synchronizing rope from topside round the pulley.
- Mount the pulley with the rope. Fasten the circlip again.

- Mount the rope at the hang-up plate (Pos.5). Fasten the self-locking nut approx. 3 turns.
- Repeat the process with the second rope. (see Pic. 6)
- The ropes must not be crossed!



Pic. 6 the ropes

- Lower automotive lift to lowest position and lift it afterwards 500 - 600 mm. Both ropes must be tightened lightly. In any other case the self-locking nuts at the upper side of both carriages must be adjusted again.



Pay attention that each of the two ropes is tightened regularly and that it is not too slack, otherwise exactly synchronization can not be guaranteed.



Pay attention that the ropes are not too tight, otherwise there is the possibility that the lift jerks, or that the lift is too slow while lowering.



The ropes do not carry load. They must regulate an exactly synchronization of the lift.

- Deaerating the lift: lower the lift to the lowest position. Loosen thread joint at lower side of cylinder which must be deaerated. Raise the lift approx 800 – 1000 mm until oil comes out of the thread joint. Now close the thread joint and fasten it.



In case the lift jerks while lowering there are two possibilities: the synchronizing ropes are too tight or oil is in oil circulation (deaerate in according to the instruction)

- Mount the “switch-off covering”. Pay attention, that the "switch-off covering" is smooth and that the lift is switched off when the covering is pressed up. This covering is for switching off, when a vehicle drives on it.

9.3 Initiation



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

If the lift is installed by a competent person, he will perform this security check. If the operator installs the lift by himself, he has to instruct a competent person to perform the security check.

The competent confirms the faultless function of the lift in the installation record and form for the security check and allows the lift to be used.



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

9.4 Changing the installation place

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:

- Raise the lift to the medium height.
- Remove the power supply
- Remove the cover of the lift.
- Dismount the carrying arms.
- Remove the cross arm between the two columns.
- Disconnect the hydraulic connections.
- Dismount the ropes.
- Loosen the dowels.
- 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 reinitiation by a competent person. Use form "Regular security check".

Pic. 7: choice of the dowel length without floor pavement or tile surface

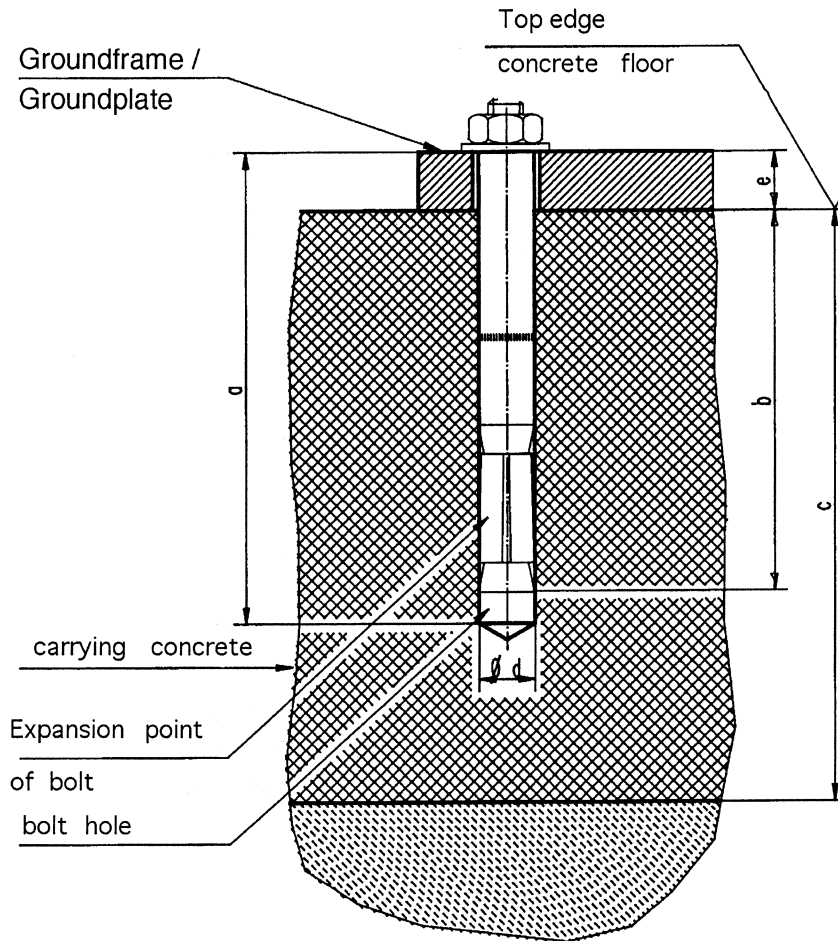


Table to picture 7.

Liebig-dowels

Dowel type		B25/130	B25/165
Drilling depth	a	200	235
Min. anchorage depth	b	165	165
Thickness of concrete	c	260	260
Diameter of bore	d	25	25
Thickness of the lift-pieces	e	0-35	35-70
Number of dowels		10	10
Starting torque		in according to the dowel manufacturer	



You can use equivalent dowels from another dowel manufacturer with licence, but observe their regulations.

Pic. 8: choice of the dowel length with floor pavement or tile surface

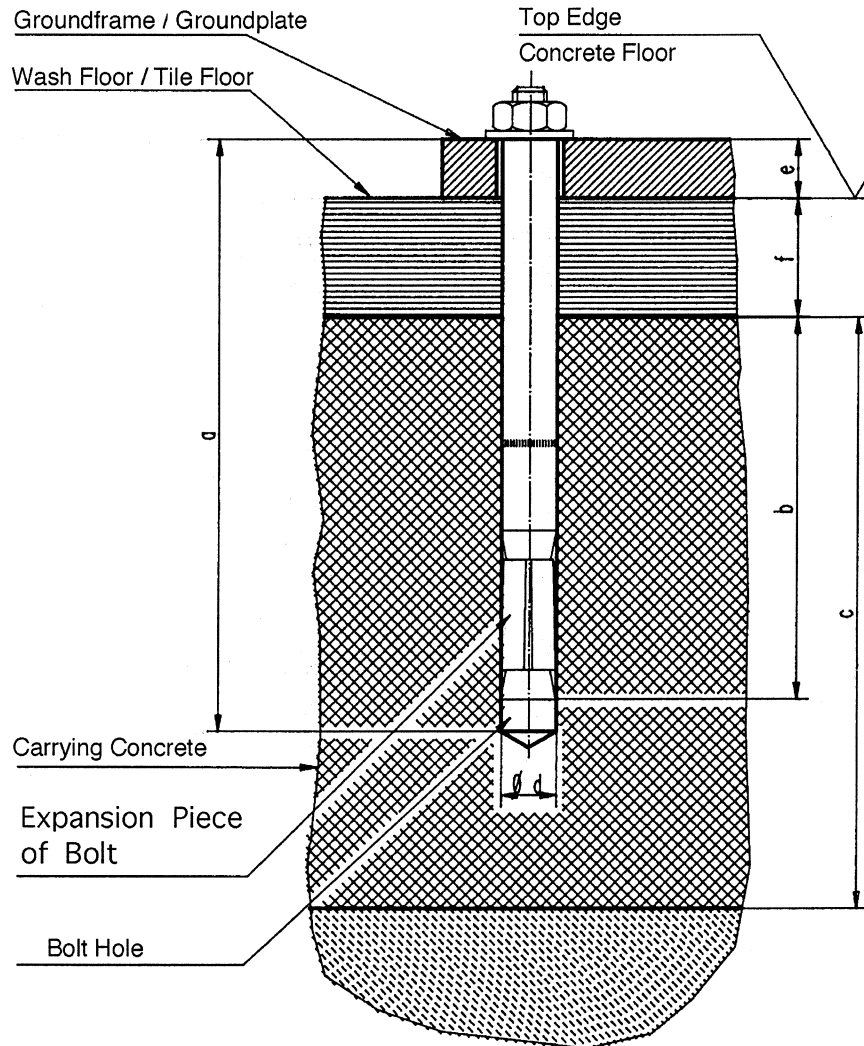


Table to picture 8.

Liebig-dowels

Dowel type		B25/130	B25/165	B25/190	B25/240
Drilling depth	a	200	235	260	310
Min. anchorage depth	b	165	165	165	165
Thickness of concrete	c	260	260	260	260
Diameter of bore	d	25	25	25	25
Thickness of the lift-pieces	e	0-35	35-70	70-95	95-145
Number of dowels		10	10	10	10
Starting torque		in according to the dowel manufacturer			



You can use equivalent dowels from another dowel manufacturer with licence, but observe their regulations.

First security check before installation

filling out and leave in this manual

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

filling out and leave in this manual

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

filling out and leave in this manual

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

 *filling out and leave in this manual*

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

filling out and leave in this manual

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

 filling out and leave in this manual

kind of check	all right	defect missing	ver- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

 *filling out and leave in this manual*

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

 filling out and leave in this manual

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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

 filling out and leave in this manual

kind of check	all right	defect missing	veri- fication	remark
Type plate.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning designation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designation lifting/lowering.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detailed operating instruction.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Main switch lockable.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the ropes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of carrying arm bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Securing of pads.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction (deformation, cracking).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Torque of the dowels.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixed seat of the screws.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition of the piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition coverings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition electrical wiring.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition operating unit.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition bolts.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing device of carrying arms.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition foot protection.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition concrete floor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smooth running of the lift.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function top limit switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function automotive lift with load.....	<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!)