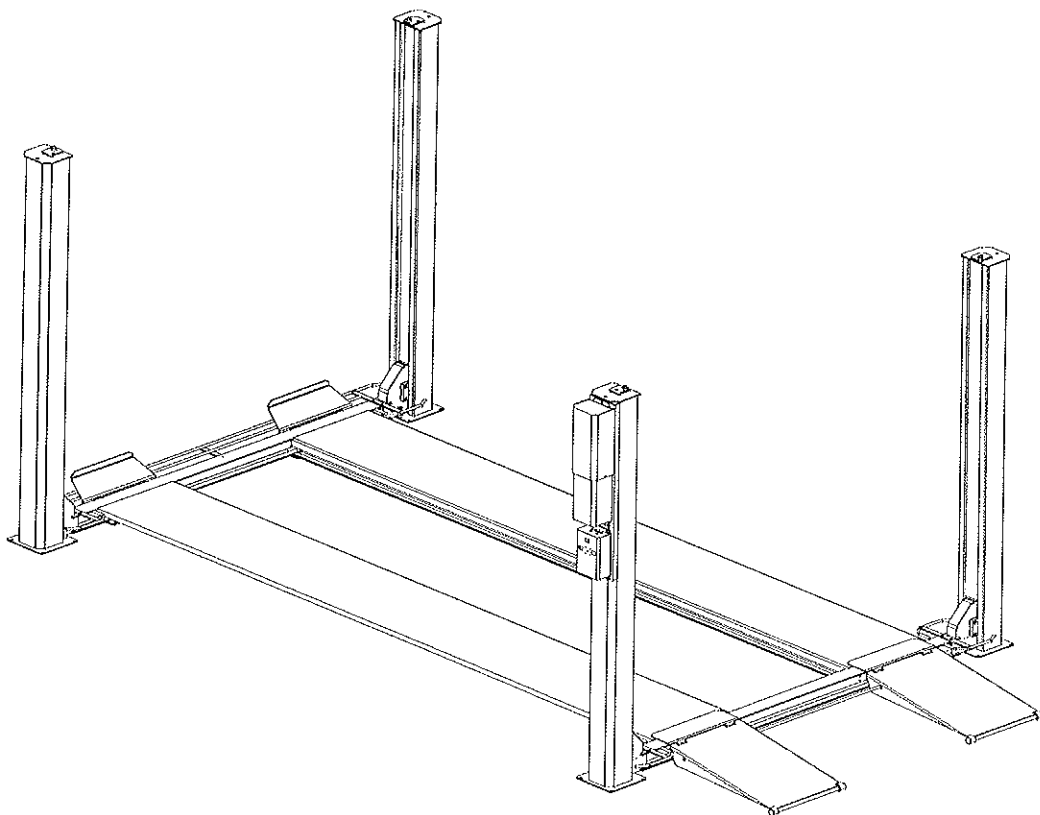


# **TUPBAUM**

## **HEBETECHNIK**

**4.30 H**

valid: January 1995



### **Operating instruction and documentation**

serial-number:.....

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## Appendix

- Document "First security check before Installation"
- Document "Regular security check"
- Document "Extraordinary security check"



Send this record, filled in and undersigned, to the automotive manufacturer after the installation

Otto Nußbaum GmbH & Co.KG

Korker Straße 24

777694 Kehl-Bodersweier

Germany

## Record of installation

The automotive lift 4.30 H with the

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

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

the safety was checked and the lift was startet.

The installation was effected from the operating authority / competent (please delete as applicable)

The safety of the automotive lift was checked from the competent before the initial operation

The operating authority attest the installation of the automotive lift, the competent attest the correct initial operation.

.....  
date name of the operating authority signature of the operating authority

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

## Record of handing over

The automotive lift 4.30 H with the

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

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

the safety was checked and the lift was startet.

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).

.....  
date name signature

.....  
date name signature

.....  
date name signature

.....  
date name signature

.....  
date name signature

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

## 1. Introduction

The document "**Operating Instructions and Documentation**" contains important information about installation, running and preserving of the 4.30 H.

To furnish proof of **installation of the automotive lift** the form "Record of Installation" must be sent undersigned to the manufacturer.

To furnish proof of the single, regular and special security checks this documentation contains forms. The forms should be used to document the checks. They should also be left in this documentation.

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

### **Installation and check of the automotive lift**

Only specialist staff is allowed to do the works concerning safety and to hold the safety checks of the lift. They are called experts and competents in this document.

**Experts** are persons (for example self-employed engineers, TÜV-experts) which have got an instruction and experience to check and to test automotive lifts in an expert's report. They know the signified regulations for protection of labour and prevention of accidents.

**Competents** are persons which have got enough knowledge and experience with automotive lifts. They took part in a training from the lift-manufacturer (servicing erectors of the manufacturer and the franchised dealer are Competents)

### **Information of danger**

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



***Danger!***

*This sign marks a danger to life. Inexpert handling of the marked series of event ist dangerous to life*



***Caution!***

*This sign marks a caution against possible damage of the automotive lift or other material defects in case of inexpert handling .*



***Indication!***

*This sign marks an indication for an important function or for another important note.*

## 2. Master document of the automotive lift

**Lift designation** 4.30 H  
**Lift-manufacturer** Otto Nußbaum GmbH & Co.KG  
Korker Straße 24  
77694 Kehl-Bodersweier  
Germany  
**valid:** October 1994

### Application

The automotive lift 4.30 H is a lifting stage for lifting motor vehicles with a laden weight of 3000 kg. The max. load sharing is 3:2 in or against drive-on direction. The automotive lift is equipped for working under the lifted vehicle. The lift is not equipped for entering the drive-on rails. Anyway it is not allowed to carry persons with the lift.



**Changes of construction, repairings and changes of place must be registered in this master document**

**Changes of 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

**Change of automotive-lift-place, expert checking, resumption of work** (date, address and signature of the competent)

.....  
name, address of the competent

.....  
place, date

.....  
signature of the competent

**CE-certificate/attestation of conformity**

The automotive lift 4.30 H with the serial number.....  
is in accordance with the tested lift (CE-certificate-number 04 205-2961/94)

.....  
place, date.....  
company stamp, signature**ZERTIFIKAT  
CERTIFICATE****RWTÜV**

ANLAGENTECHNIK GMBH

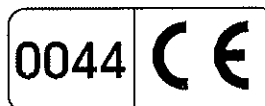
Registrier-Nr./Registered No.:

**04 205-2961/94****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 <i>Reference of applicant</i>	Auftragsdatum <i>Date of application</i>	Aktenzeichen <i>File reference</i>	Prüfbericht Nr. <i>Test report No.</i>	Ausstellungsdatum <i>Date of issue</i>	Gültigkeit bis <i>Expiry date</i>
	02.05.94	7.2-490/94	2575/94	02.09.94	02.09.99

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. Zusätzlich zur CE-Kennzeichnung muß die Kennnummer der RWTÜV Anlagentechnik GmbH angebracht werden. Dies kann in der nachfolgend abgebildeten Form erfolgen.

*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. Additional to the CE-marking the notifiable number for RWTÜV Anlagentechnik GmbH has to be affixed. This can be done in the illustrated form.*



Antragsteller: Otto Nußbaum & Co. KG  
Applicant: Korker Str. 24, 77694 Kehl

Fertigungsstätte: s.o.  
Manufacturing plant:

Produktbeschreibung: Hebebühne 4.30 H  
Product description: Fabrik-Nr. 081379

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

RWTÜV Anlagentechnik GmbH  
Institut für Produkterprobung  
und Werkstofftechnik  
Langemarckstr. 20  
45141 Essen  
Tel.: +201-825-3216  
Fax: +201-825-3209

### 3. Technical information

#### Technical ratings

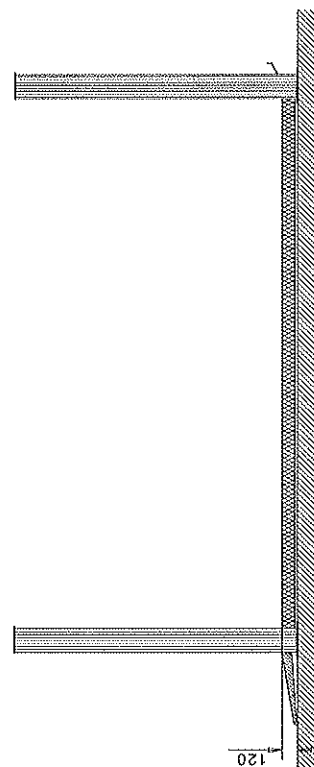
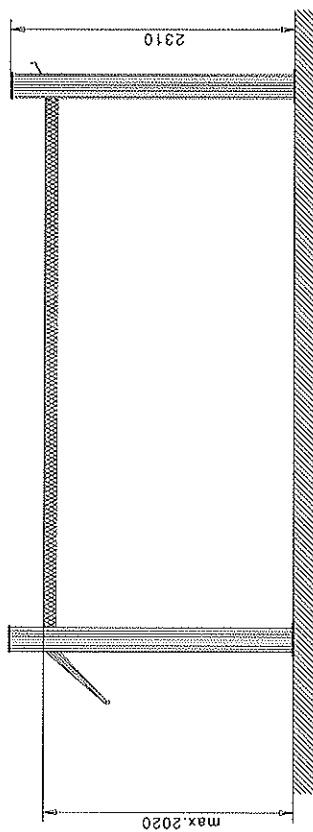
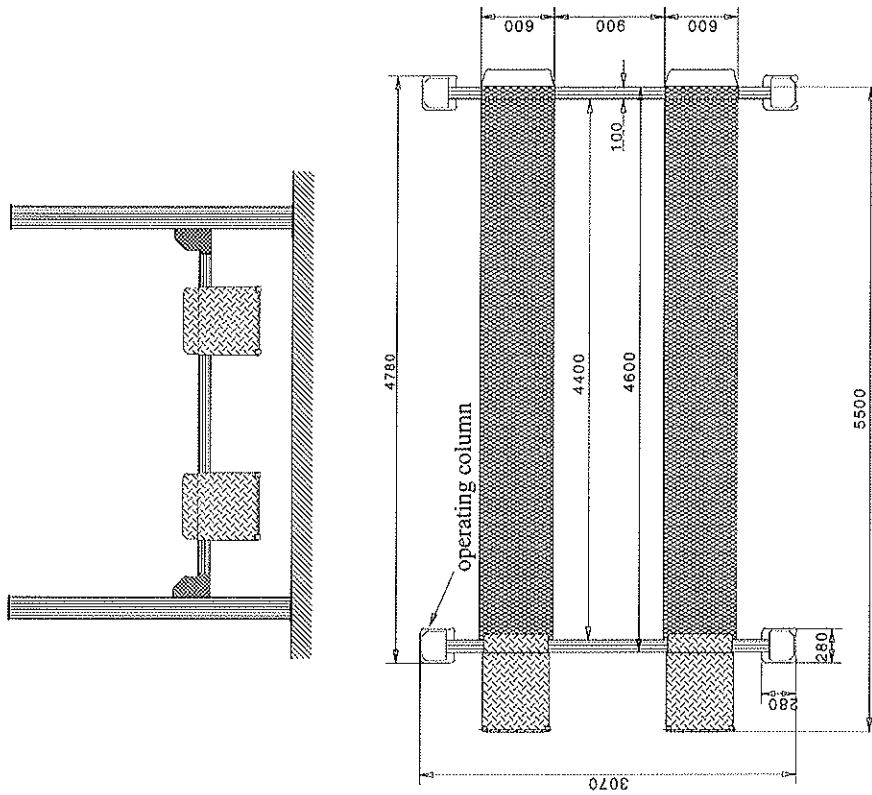
Lifting capacity:	3000 kg
Load sharing:	max. 3:2 in or against drive-on direction
Lifting time:	ca. 32 sec
Lowering time:	ca. 25 sec
Max. height of lifting:	1900 mm
Line voltage:	380 V three phase current
driving voltage:	24 V
Power rating:	3,0 KW
Motor speed:	2800 revolution/minute
Output oil pump:	3 ccm/revolution
Hydraulic pressure:	200 bar
Responding pressure of the pressure relief valve:	240 bar
Hold-up oil-tank:	ca. 10 litre
sound level (measured at operating panel)	≤ 70 dBA

#### Safety devices

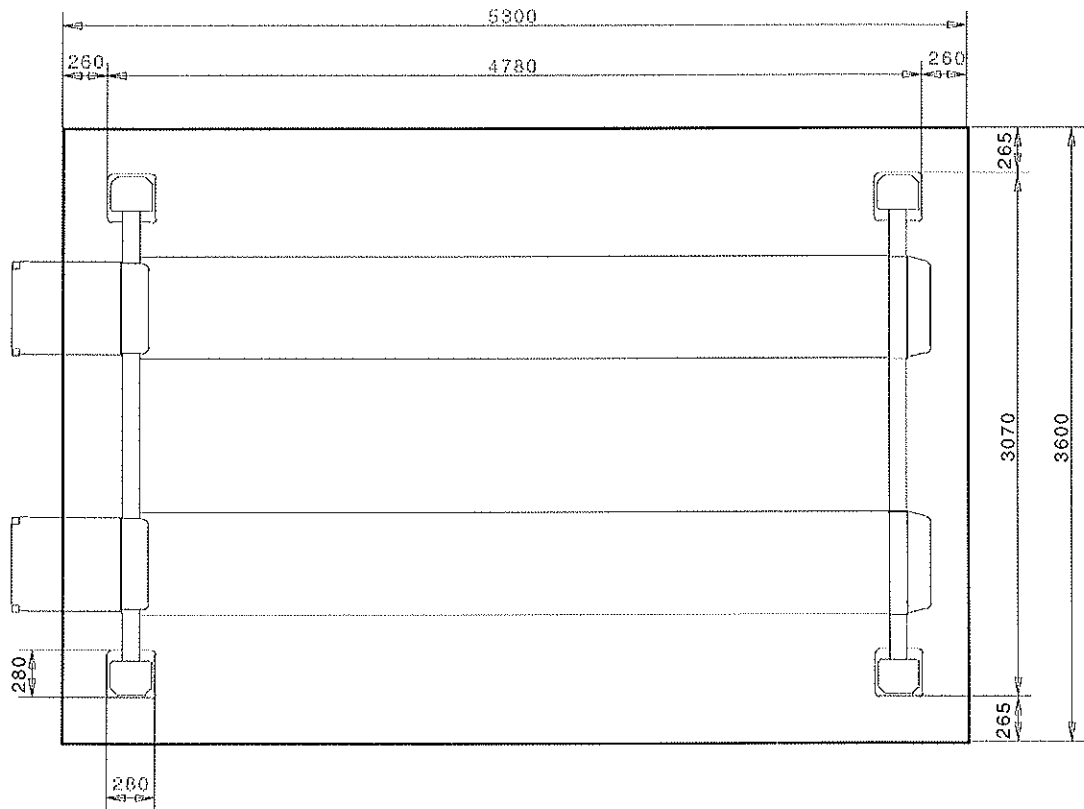
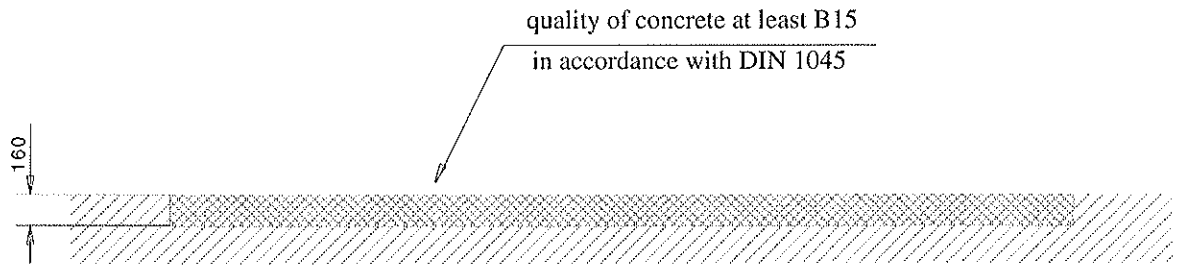
1. piston rod  
Safety device of the load against falling down of the vehicle in case of torn rope
2. ratchet  
safety device of the load against unintentional lowering in case of leak hydraulic system
3. Lockable main switch  
Safety device of the vehicle against unauthorized using
4. Safety device against slack rope  
Safety device against falling down when vehicle has driven onto an obstacle
5. pressure relief valve  
Overpring-safety of the hydraulic system
6. Roll-off safety at the rails  
Safety device of the vehicle against falling down



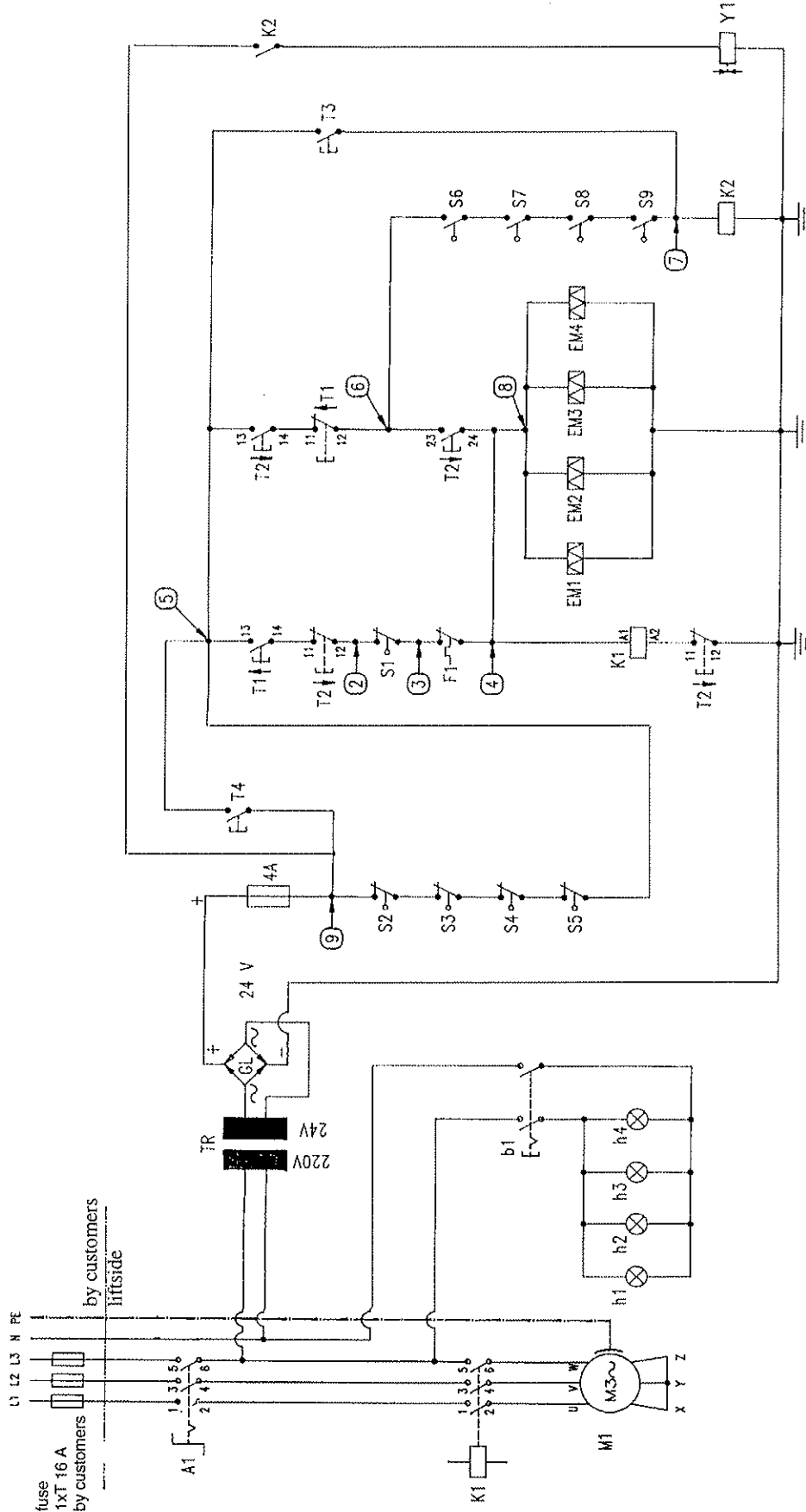
## Data sheet



### Foundation plan



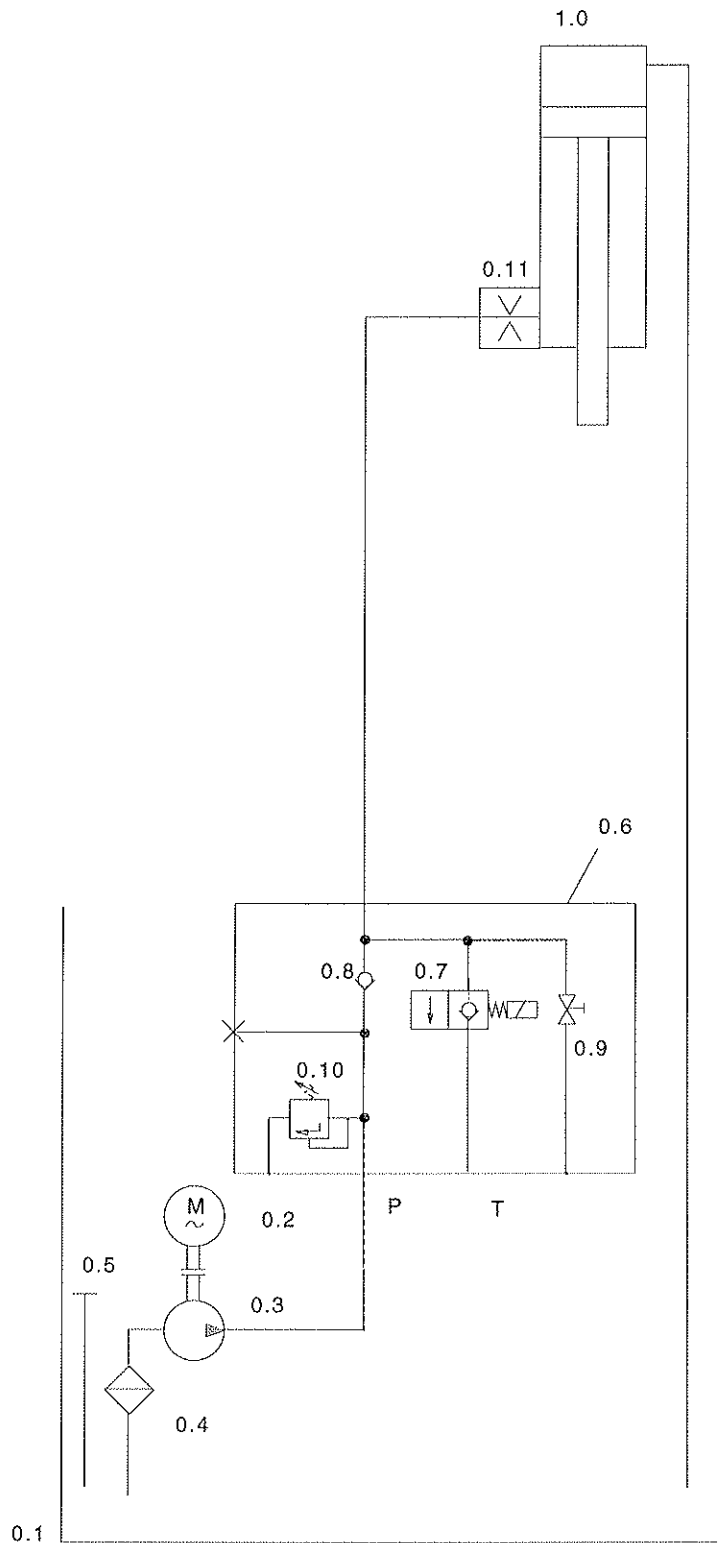
### Electrical diagram drawing



**Parts list of electrical diagram**

A1:	main switch 3-phases
M1:	motor 3~, 380 V, 3,0 kW
K1:	up contactor motor
T1:	button "up"
T2:	button "down"
T3:	button "Lowering the automotive lift in ratchet"
T4:	bypass switch
S1:	height limit switch
S2:	slack rope switch
S3:	slack rope switch
S4:	slack rope switch
S5:	slack rope switch
S6:	announcement "ratchet is unlocked"
S7:	announcement "ratchet is unlocked"
S8:	announcement "ratchet is unlocked"
S9:	announcement "ratchet is unlocked"
TR:	transformer 220 V~ / 24 V~
GL:	rectifier
b1:	light switch
F1:	thermofuse in motor
Y1:	hydraulic valve (in hydraulic block)
K2:	relay of hydraulic valve (in hydraulic block)
h1:	lighting
h2:	lighting
h3:	lighting
h4:	lighting
b1:	light switch
EM1	electromagnetic (ratchet)
EM2	electromagnetic (ratchet)
EM3	electromagnetic (ratchet)
EM4	electromagnetic (ratchet)
1-9:	number of clamped connection

**Hydraulic diagram drawing**



**Parts list of hydraulic diagram**

- 0.1 : oil-tank
- 0.2 : motor
- 0.3 : gear pump
- 0.4 : oil-filter
- 0.5 : oil level gage
- 0.6 : hydraulic block complete
- 0.7 : electrical controlled holding valve
- 0.8 : holding valve
- 0.9 : emergency lowering
- 0.10: pressure relief valve
- 0.11: screen
- 1.0 : hydraulic 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**

- The laden weight of the lifted vehicle mustn't be more than 3000 kg, the maximum load sharing is 3:2 in drive-on direction or against drive-on direction
- While the automotive lift is working the operating instructions must be followed
- Only trained personnel over the age of 18 years old are to operate this lift
- While the vehicle is lifted or lowered it must be observed from the operator
- 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
- Keep key to a safe place during normal operation of the lift. The key must not be in the lock.

## 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!*

The operating elements are shown in picture 1.

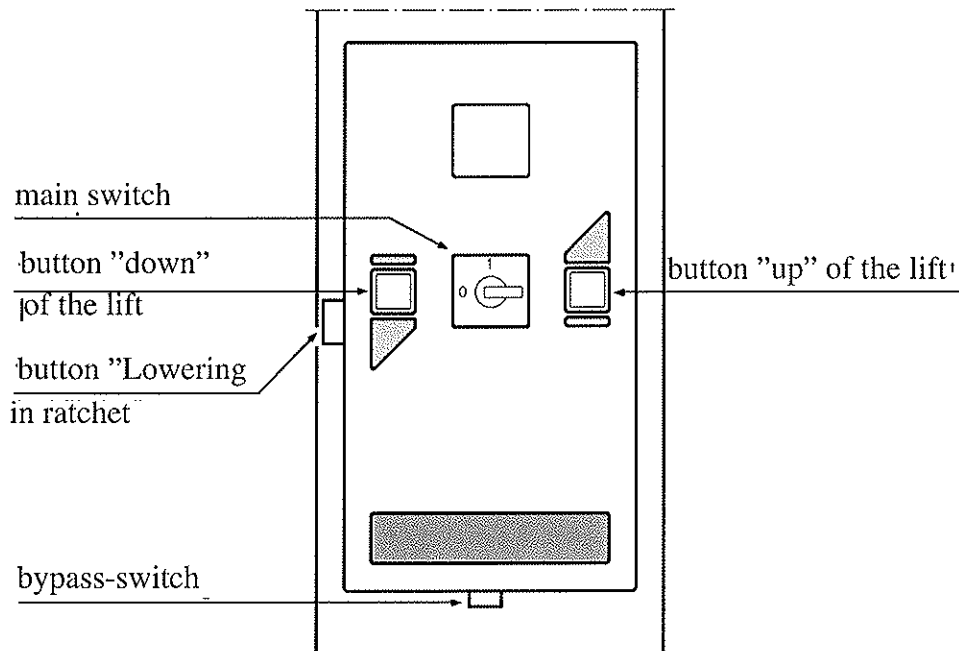
### **Lifting the vehicle with the automotive lift**

- Drive vehicle on the lift, longitudinal direction and transverse direction in centre



*Each wheel must stand completely on the rail otherwise the vehicle might fall down*

- Safe the vehicle against rolling away, switch into gear
- 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

**pic. 1:** operating elements


- Switch on the control system; main switch on position "1"
- Lift the vehicle on the height for working; push lifting button of the lift

### Lowering the vehicle with the automotive lift

- 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
- Lower the vehicle at the height for working or until the rails reach the lowest point; push lowering button of the lift

### Lowering in ratchet-strip

- Push button "lowering in ratchet"
- Push button "lowering in ratchet" until all of the four ratchets are engaged and the lift does not lower any more.

 *For lowering the drive-on rails from described position with engaged ratchets, lift the lift with button "up" a little bit. Afterwardes the lift can be lowered to lowest position. In case the lift can not be lowered with only pushing button "up", it can be started with short activating of bypass switch.*



*Use bypass switch only for lifting of the lift out of ratchet. Do not use bypass switch for normal operation of the lift because very important safety devices are no longer in force.*



## 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.



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

### **Problem: Motor does not start, lift is neither lifting nor lowering!**

**Potential causes  
of trouble:**

- Main switch is not engaged
- Fuse is defective: replace fuse
- Feed line is cut
- power failure (see below)
- lift has driven on an obstacle (see below)
- torn rope (call service)
- slack carrying ropes (see page 18)

### **Problem: Lift is not lifting!**

**Potential causes  
of trouble:**

- Level of hydraulic oil is too low
- vehicle is too heavy
- hydraulic line is blocked up or dirty
- pistons jam
- emergency lowering screw is not closed

### **Problem: Lift is not lifting but lowering !**

**Potential causes  
of trouble:**

- Motor is overheated: let it cool down for app. 10 min
- Height limit switch is activated

### **Problem: Lift is not lowering but lifting !**

**Potential causes  
of trouble:**

- defective magnetic valve in hydraulic block (see below)
- Ratchets are engaged: move the lift up before lowering.

### **Problem: Lift can not be lifted after lowered in ratchet!**

**Potential causes  
of trouble:**

- carrying ropes are slack (see page 18)

## Lift can not be lifted after it is set down in ratchet or in lowest position



*Before starting with the following failure correcting action look about torn ropes. If a rope is torn the main switch must be switched off and be locked. The lift must be shut down until the defective rope is replaced.*

In case the lift can not be lifted after set down in ratchet or in lowest position, the key switch at lower side of the operating case must be activated (see pic. 1). Simultaneously button "up" must be pushed until the lift has started.



*While activating the key switch, only button "up" must be pushed. If button "down" is pushed the vehicle might fall down.*



*The key switch must only be activated to correct a malfunction. It must not be activated for normal operation of the lift.*



*After finishing with failure correcting action the key must be removed and be kept at a safe place.*

Afterwards the lift can be lowered or lifted as described in this manual.

## Driving on an obstacle

If the lift is running onto an obstacle, it stops selfinstructed. The lift can neither be lifted nor lowered. In this case push bypass switch at lower side of operating box (see pic. 1) and simultaneously button "up", until the lift is at a position where the obstacle can be removed.



*After activating the bypass switch push only button "up". If button "down" is pushed the vehicle might fall down.*

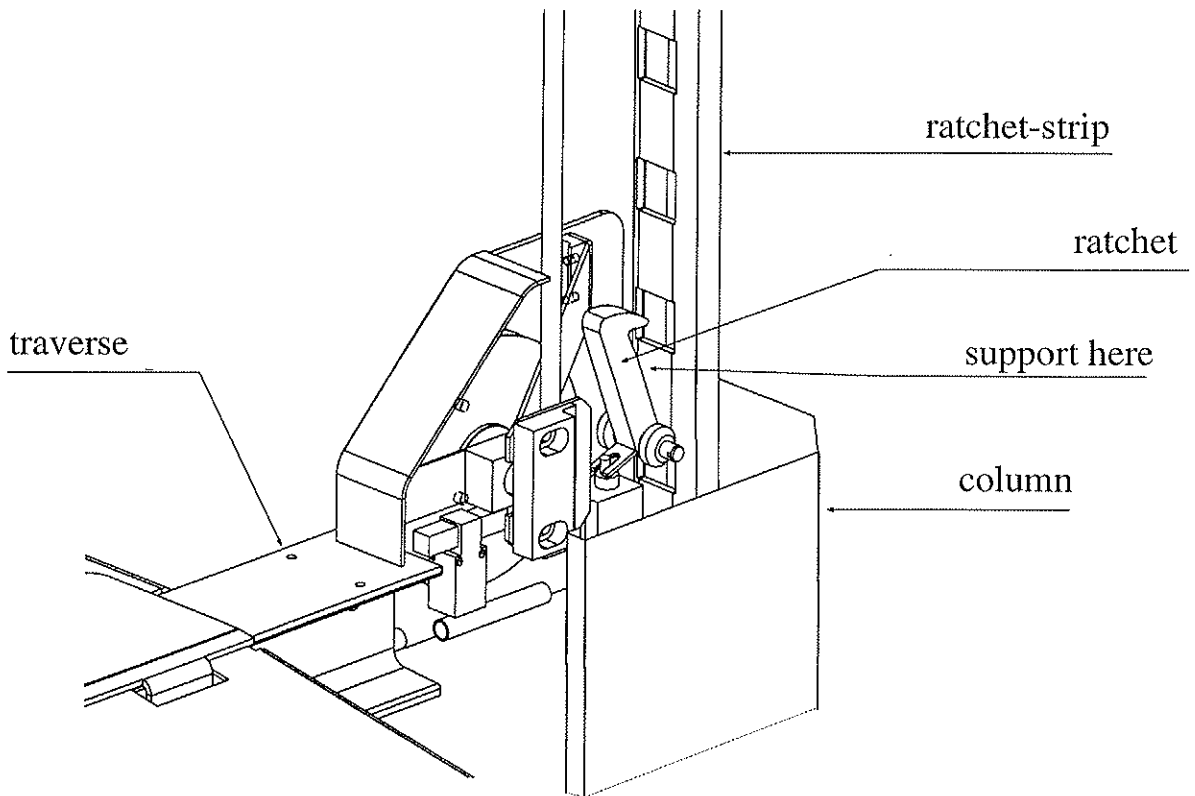
Afterwards the lift can be lowered or lifted as described in this manual.

## Emergency lowering in case of power failure or defective valve

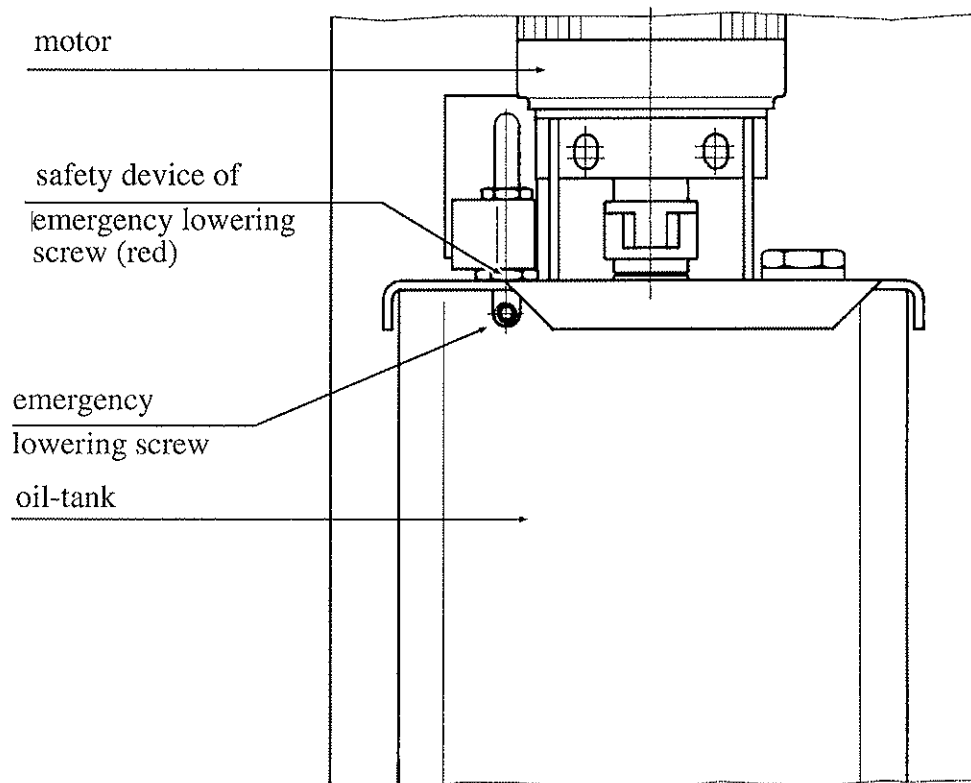
In case of power failure or defective electromagnet, the hydraulic valve of the lift can not be opened any more. Therefore the lift cannot be lowered. In this case there is the possibility to open the hydraulic valve manually and to lower the lift to lowest position. So the vehicle can be driven off from the lift.



*In case of power failure emergency lowering can only be performed when the ratchets are not engaged (when the ratchets can be pulled back manually). In case of defective valve the lift can be lifted a little bit by pushing button "up". So there is the possibility of pulling back the ratchets manually.*



**pic. 2:** Pulling back of the ratchet



**pic. 3:** Position of emergency lowering screw



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

- pull back ratchet manually and lay a suitable support (wedge, cloth) between ratchet-strip and ratchet or fix the pulled-back ratchet with the help of a wire. So the ratchet tooth of the ratchet can not engage in ratchet-strip any more (see pic. 2). This step should be taken at all of the four columns.
- Remove motor covering by opening the screws.
- Loosen red security nut with a hexagon socket screw (see pic. 3)
- Loosen emergency lowering screw (set screw) one turn to start emergency lowering
- Fasten emergency lowering screw and safe it with the red coloured security nut when the lift is at lowest position.



*After finishing the emergency lowering, the emergency lowering screw and the security nut (coloured red) must be brought into the position they have had before. Otherwise a malfunction of the lift can occur.*

- Loosen ratchets (remove support or wire) that they can be engage again.



*To guarantee the safe running of the lift the supports must be removed from the ratchet to bring the ratchet in its normal function*

- Drive down vehicle from the lift.

## 7. Maintenance

A regular service has to be performed every three months by the lift' s 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 or leakage the technical service has to be informed.

### Maintenance schedule for the lift


- clean piston rods of hydraulic cylinder from sand and dirt
- Clean and lubricate running pieces of the lift (hinge bolts, sliding pieces, sliding surfaces)
- grease lubricating nipples
- Check ratchets if they engage smoothly and grease striking surfaces.
- Check level of hydraulic oil
- Condition of carrying rope: If torn wires can be discovered the complete rope-set must be changed.


The hydraulic oil has to be changed at least once a year. To change the oil lower the lift into its lowest position. Empty the tank and replace the oil, approximately 10 litres are needed. A high quality hydraulic oil is recommended, its viscosity should be 36 cst.

## 8. Security check

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

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

 *The first and regular security checks must be performed by a competent. 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 forms with a schedule for the security checks. Please use the adequate form for the security checks. The form should remain in this manual after they have been filled out.

## 9. Installation and Initiation

### Installation of the lift

#### Regulations for the installation

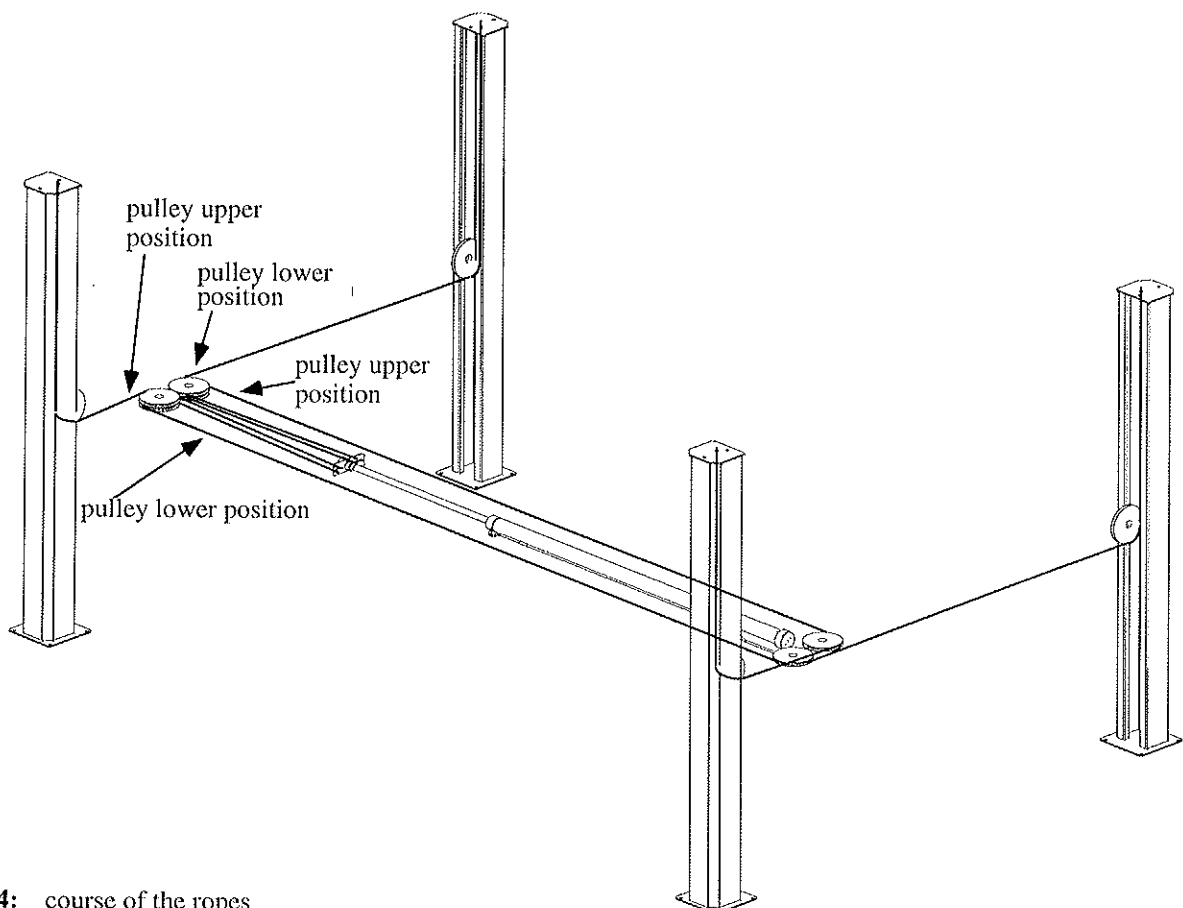
- The installation of the lift is performed by trained technicians of the manufacturer or its distribution partner. If the operator can provide trained mechanics, he can install the lift by himself. The installation has to be done according to this regulation.
- The standard lift must not be installed in hazardous locations or washing areas.
- An electric supply 3~/N + PE, 380 V, 50 Hz has to be provided. The supply must be protected by customers (fuses). The electrical connection is located in command unit.
- All cable ducts have to be equipped with protective coverings to prevent accidents.

#### Erection and doweling of the lift

Normally a special foundation for the lift 4.30 H is not necessary. But it is necessary to dowel the columns at 4 points and to safe the lift against slipping. For this a concrete floor without reinforcement, thickness of 160 mm and quality B 15 is needed. In case of doubt a test drill is necessary and a dowel is to put in. Afterwards the dowel is to fasten with a

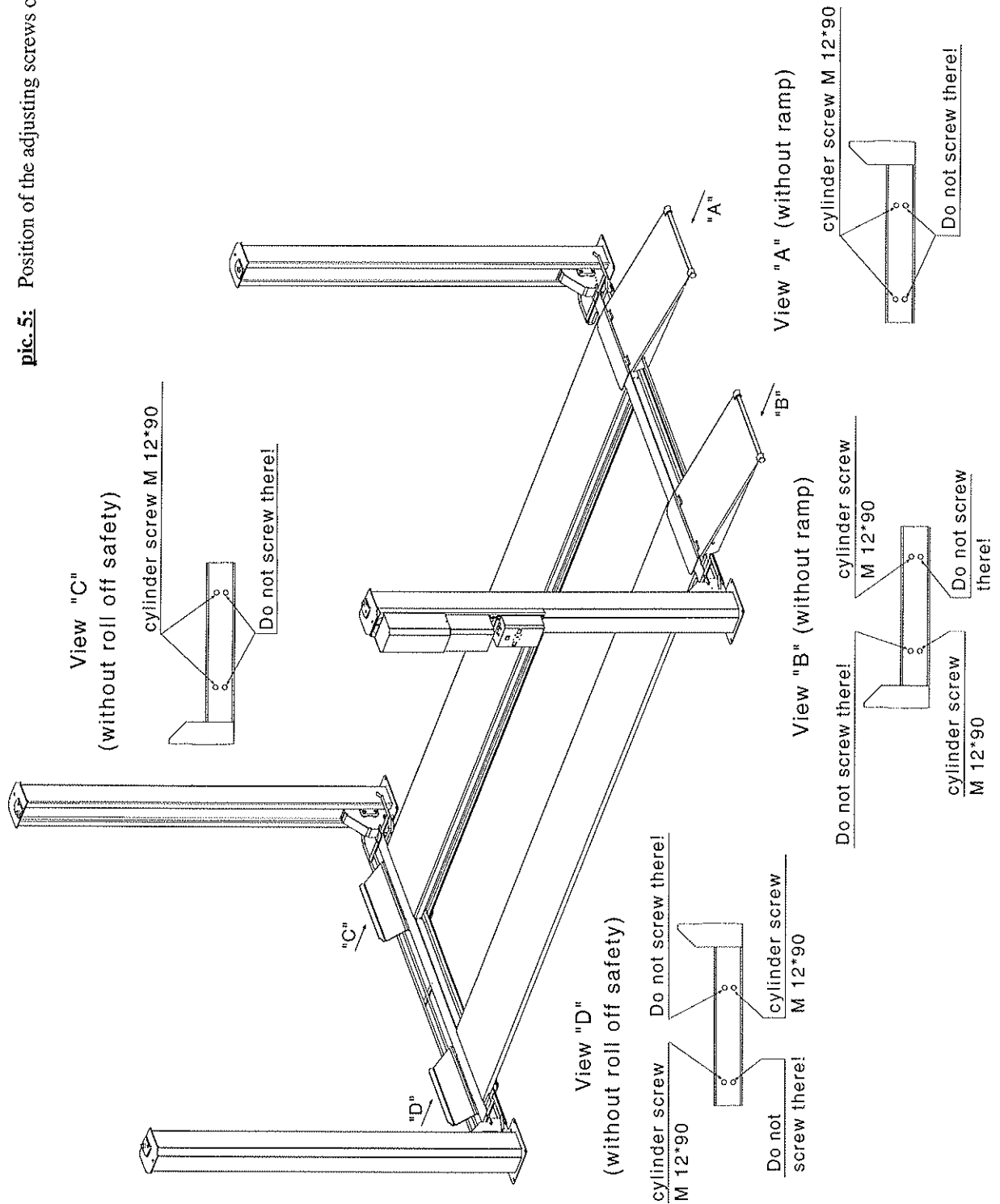
torque of 50 Nm. If the necessary torque is too low or if there are cracks in the concrete floor, a foundation in accordance with the sheet "foundation plan" is to be erected. As well it must be paid attention that the installation place is even to guarantee a horizontal erection of the lift.

- Put drive-on rails on two erection trestles at installation place, pay attention of exactly difference between the drive-on rails (refer to data sheet)
- Position traverses on the face of the drive-on rails
- Mount ropes (see **pic. 4**)
- Fix traverse at rails, pay attention, that the screws are positioned in accordance with **pic. 5**
- Position columns at ends of traverses
- Line up operating column (with bubble level) and drill holes for dowel-fixing through four bore-holes of base plates. Clean bore-holes with pressure air. Put in safety dowels with washers in borings.
- Take carrying ropes through columns to upper side and fix them in the head plate.
- Insert stopping rod from upper side through the head plate
- Check position of the lift and position of the operating columns



**pic. 4:** course of the ropes

pic. 5: Position of the adjusting screws of drive-on rails



- 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 15 or equal dowels of another manufacturer. Before doweling check concrete floor with quality B 15 if the concrete floor goes to the top edge of the floor. In this case the dowels have to be chosen according to **picture 6**. If the ground is covered with floor tiles, the dowels have to be chosen according to **picture 7**.

- Tighten the dowels a little bit.



*Each dowel must be tightened with a torque of 50 Nm. Otherwise the normal function of the lift cannot be guaranteed*

- Connect power supply.
- Connect hydraulic hoses at operating column



*before operating the lift pay attention to sections "safety regulations" and "operating instruction".*

- Fasten screws at traverse
- Fill in oil-tank, approximately 10 litres.
- Activate bypass switch and button "up" for lifting of the drive-on rails
- Remove erection trestles and set lift down in ratchets
- Line up columns with the help of a bubble level
- Tighten dowels with a dynamometric key (M = 50 Nm)
- Mount switch off strips
- Mount drive-on ramps, loading ramp and foot protector
- Adjust sliding guidance at traverse (ca. 4-5 mm reciprocating movement between sliding guidance and column)
- Adjust regular height of the rails at all of the four columns by moving the nuts, which fix the carrying ropes in the head plate. For demanded measuring accuracy of all important vehicle manufacturer it is necessary to install the lift (4.30H) very exactly and to line it up. For this to the following points should be paid attention:
- Lift automotive lift to eye level and set it down in ratchet (refer to operating instructions)
- Position each of the measuring scales on traverse and check niveau of the two rails (if they have got the same level) with land leveler.
- Line up drive-on rails by moving of fixing screws of ratchet strips on head plates exactly




*The drive-on rails must exactly have the same level in all of the four directions (right side/left side, frontside/ backside) when they are set down in ratchets. Only in this case a correct axial measurement can be guaranteed.*

- Lift the automotive lift out of the ratchets, set it down a second time in ratchet and




check equal niveau of the rails a second time.

- Position measuring scales on wheel floor surfaces at frontside on turning plates and at backside in the middle of the push plates.
- Check rail niveau with land leveler if they have got the same level and line up drive-on rails exactly by moving of the fixing screws of the ratchet strips at top of the head plate

 *The turning plates and the push plates must have the same overall height (50mm)*


- Lift the automotive lift out of the ratchets, set it down a second time in ratchet and check equal niveau of the rails a second time.
- Lower lift to lowest position and place measuring scales on traverse outside.
- Check equal level of the rails with land leveler and with a "folding rule"
- Line up drive-on rails at bottom by adjusting of the adjusting screws at traverse
- Lift automotive lift, lower it again and check evenness of the rail-floor niveau a second time.
- Lift and lower the lift with vehicle several times, tighten dowels a second time (M = 50 Nm).

## Initiation

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

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

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

## Changing of the installation place

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

- Position two erection trestles under the drive-on rails
- Lower the lift until the drive-on rails lay on the erection trestles
- Disconnect electrical current supply from lift
- Loosen fixing nuts of the carrying ropes on the head plate and removethem
- Dismount stopping rods
- Loosen traverse from drive-on rails and pull carrying ropes out of traverses
- Transport lift to new installation place
- Install lift in accordance with chapter "Installation and Initiation" of the lift.



*Use new dowels, The used dowels cannot be used any more.*



*A security check must be performed before reinitiation by a competent. Use form "Regular security check".*

**Fig. 6:** Choice of dowel lengths 4.30 H (without floor pavement or tile surface)

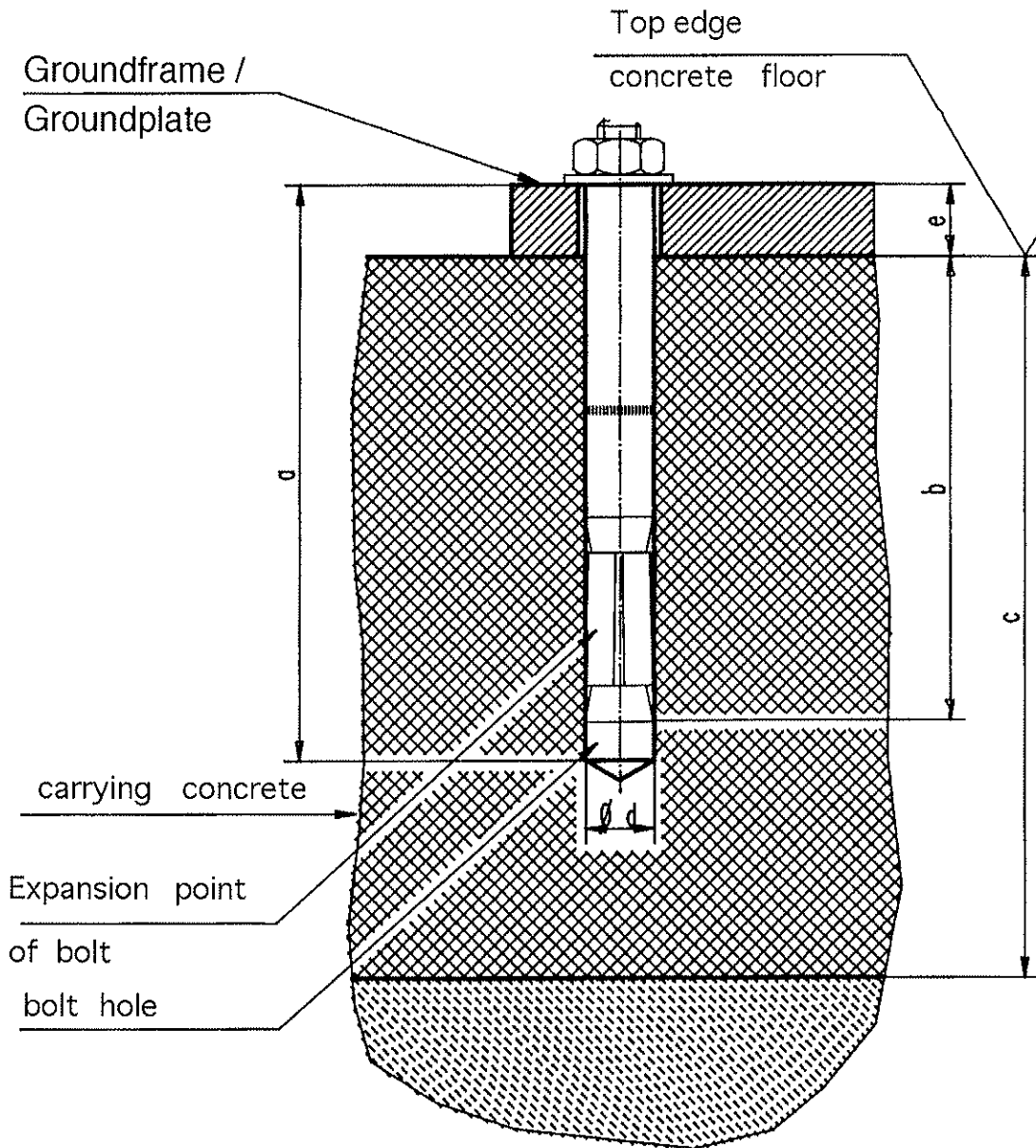


table to picture 6:

type of dowel		B15/70	B15/95
drilling depth	a	112	137
min. anchorage depth	b	72	72
thickness of concrete	c	160	160
diameter of bor	d	15	15
thickness of the lift-piece	e	0-40	40-65

**pic. 7:** Choice of dowel lengths 4.30 H (with floor pavement or tile surface)

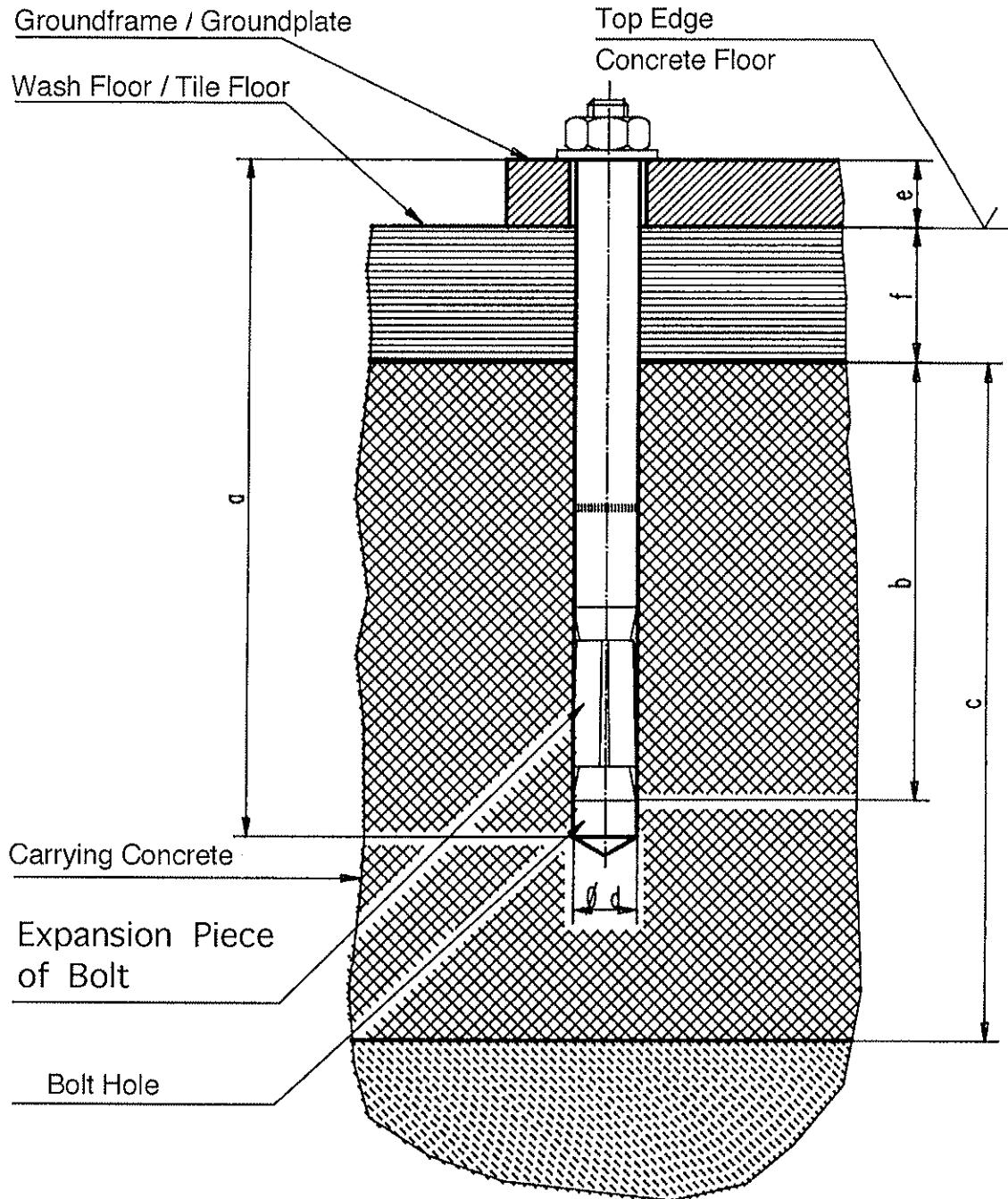


table to picture 7:

type of dowel		B15/70	B15/95	B15/120	B15/145
drilling depth	a	112	137	162	187
min. anchorage depth	b	72	72	72	72
thickness of concrete	c	160	160	160	160
diameter of bor	d	15	15	15	15
thickness of the lift-piece + thickness of floor pavement	e+f	0-40	40-65	65-90	90-115

#### First security check before installation



to fill in and to leave in  
this document

kind of check	all right	defect lacking	veri- fication	Remark
Type plate .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Short operating instructions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Warning designation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Detailed operating instructions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Designation Lifting/Lowering .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Main switch lockable .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Safety device of hinge bolt .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Construction (deformation, cracking) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Fixed seat of the carrying screws .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition roll-off safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition foot protector .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition slide-guidance traverse.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition carrying rope and hang-up .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition pulleys and carrying rope.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition coverings .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition stopp. rod and stopp. element ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition electrical wires .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition earth conductor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Closeness of hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function slack rope switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function test automotive lift with vehicle ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition of concrete floor (cracks).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function limit switches .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

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

security check carried out: .....

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



to fill in and to leave in this document

kind of check	all right	defect lacking	verification	Remark
Type plate .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Short operating instructions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Warning designation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Detailed operating instructions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Designation Lifting/Lowering .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Main switch lockable .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Safety device of hinge bolt .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Construction (deformation, cracking) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Fixed seat of the carrying screws .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition roll-off safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition foot protector .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition slide-guidance traverse.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition carrying rope and hang-up .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition pulleys and carrying rope.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition coverings .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition stopp. rod and stopp. element ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition electrical wires .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition earth conductor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Closeness of hydraulic system.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function slack rope switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function test automotive lift with vehicle ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition of concrete floor (cracks) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function limit switches .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

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

security check carried out: .....

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



to fill in and to leave in this document

kind of check	all right	defect lacking	ver-ification	Remark
Type plate .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Short operating instructions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Warning designation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Detailed operating instructions .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Designation Lifting/Lowering .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Main switch lockable .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Safety device of hinge bolt .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Construction (deformation, cracking) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Fixed seat of the carrying screws .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition roll-off safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition foot protector .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition slide-guidance traverse.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition carrying rope and hang-up .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition pulleys and carrying rope.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition coverings .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition stopp. rod and stopp. element ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition surface piston rod.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition electrical wires .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition earth conductor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition hydraulic hoses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Level of hydraulic oil.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Closeness of hydraulic system .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function slack rope switch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function test automotive lift with vehicle ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Condition of concrete floor (cracks) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
Function limit switches .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

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

security check carried out: .....

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! )