



Crypton CML3000
Mid Rise Lift
3000Kg

OPERATING INSTRUCTIONS

I322991 Iss 2
March 2015

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1 Foreword

Crypton Lifts are the result of over 100 years experience in the automotive industry.

The high quality and the superior concept ensure reliability, a long lifetime and above all, economic business solution. To avoid unnecessary damage, injury or even death, read the operating instructions with care and observe the content.

Crypton is not responsible for incidents involving the use for applications other than those for which they were designed.

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

1.1 Obligations of the user:

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

1.2 Obligations of the operator:

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

- Persons who are familiar with the basic regulations concerning labor safety and accident prevention and who have been trained to operate the particular unit.
 - Persons who have read and understood the chapters concerning safety and warning symbols.
- Such persons are required to confirm that they have read and understood the chapter on safety and warning symbols by signing the appropriate form.

1.3 Dangers when operating the lift:

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

The lift must only be operated:

- For its intended purpose.
- In faultless condition concerning technical safety.

1.4 Organisational requirements:

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

1.5 Maintenance work and repairing faults:

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

1.6 Guarantee and liability

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

Fill out, sign and photocopy this sheet and send the original to the lift manufacturer.
The copy remains in the manual.

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

2 Record of installation

The automotive lift

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

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

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

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

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

The operating authority attests to the correct installation of the automotive lift, the competent person attests to the correct initial operation.

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

Minimum anchorage depth (*) kept: _____mm ok

Starting torque (*) kept: _____NM ok

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

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

Your customer service: (stamp)

(* see supplement of the dowel manufacturers

3 Record of handing over

The automotive lift

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

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

The safety was checked and the lift was started.

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

.....
Date	Name	Signature

.....
Date	Name	Signature

.....
Date	Name	Signature

.....
Date	Name	Signature

.....
Date	Name	Signature

.....
Date	Name	Signature

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

Your customer service: (stamp)

4 General information

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

- Confirmation of **installation of the automotive lift** is recorded on the “**Record of installation**” form and must be signed and returned to the manufacturer.
- Confirmation of initial, regular and extraordinary service/safety checks is recorded in the respective review forms. The forms are used to document the checks. They should not be removed from the manual.

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

4.1 Installation and check of the automotive lift

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

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

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

4.2 Warning symbols

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



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



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



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

6 CE Declaration of Conformity



CE Declaration of Conformity

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

Hereby we declare that the lift models: C2L3000E, CML3000 and
C2L4500H fulfill all the relevant provisions of the following Directives:

Machinery Directive: 2006/42/EG
EMC Directive: 2004/108/EG

And were manufactured in conformity with the following harmonized norms:

Vehicle Lifts: EN1493: 2010
Electromagnetic compatibility (EMC): EN61000-6-2, -6-4

Authorised to compile the technical file:

Dr Martin Huck
Otto Nussbaum GmbH & Co KG, Korcker Str. 24, D-77694, Kehl, Germany.

Serial Number: _____

05.02.2015 _____

Pete Houlden
Head of Aftermarket Program Management

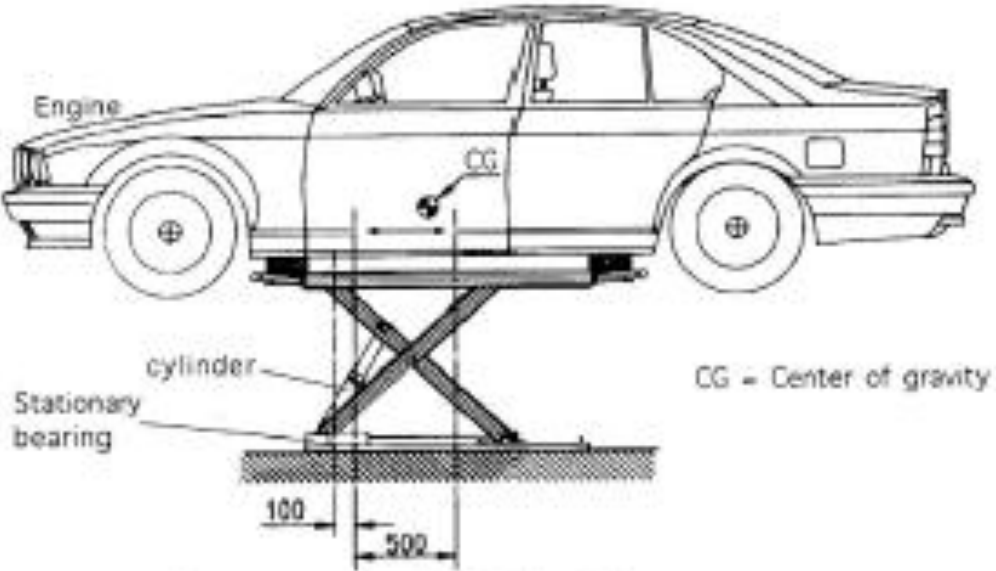
Continental Automotive Trading UK Ltd
Crypton Technology Business Park, Bristol Road, Bridgwater, Somerset. TA8 4BX

Crypton – A Brand of the Continental Corporation

I322994 Iss1

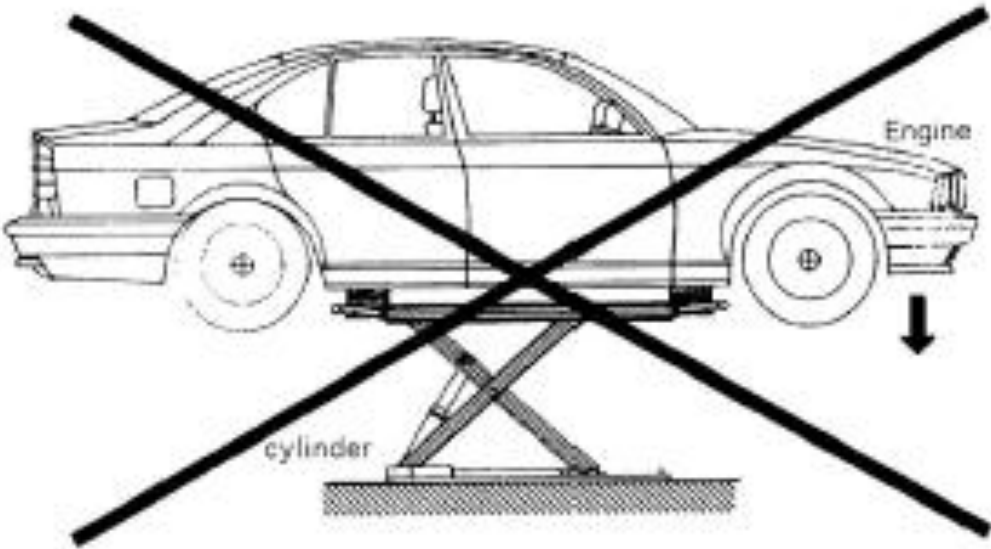
6.1 Drive on directions

Front drive vehicle

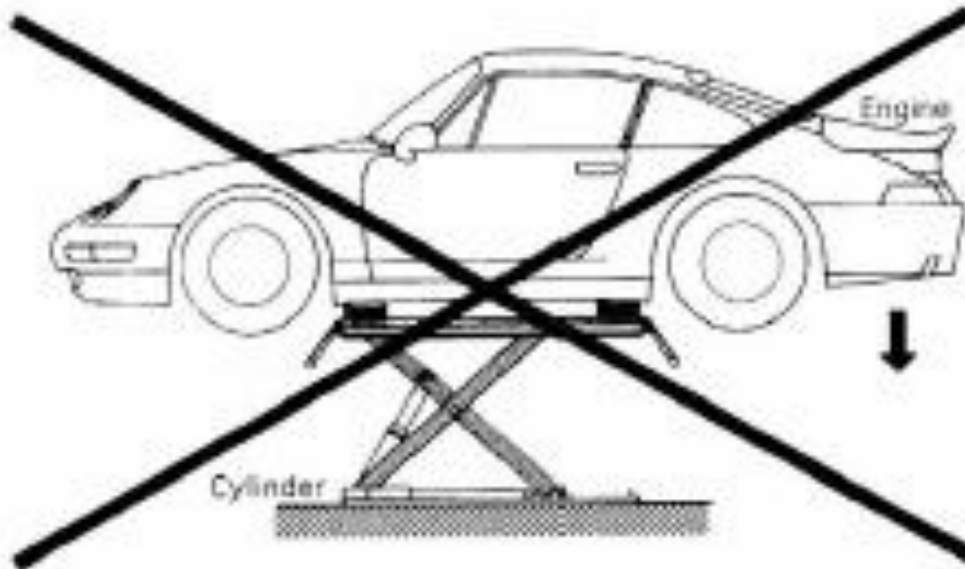
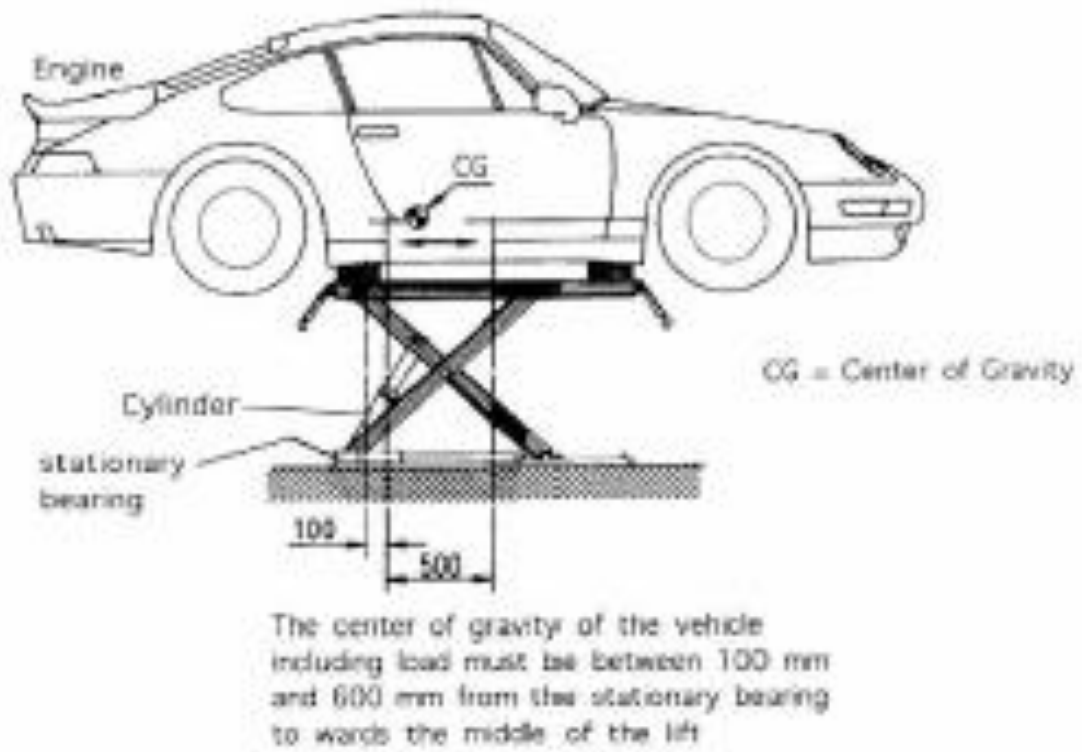


CG = Center of gravity

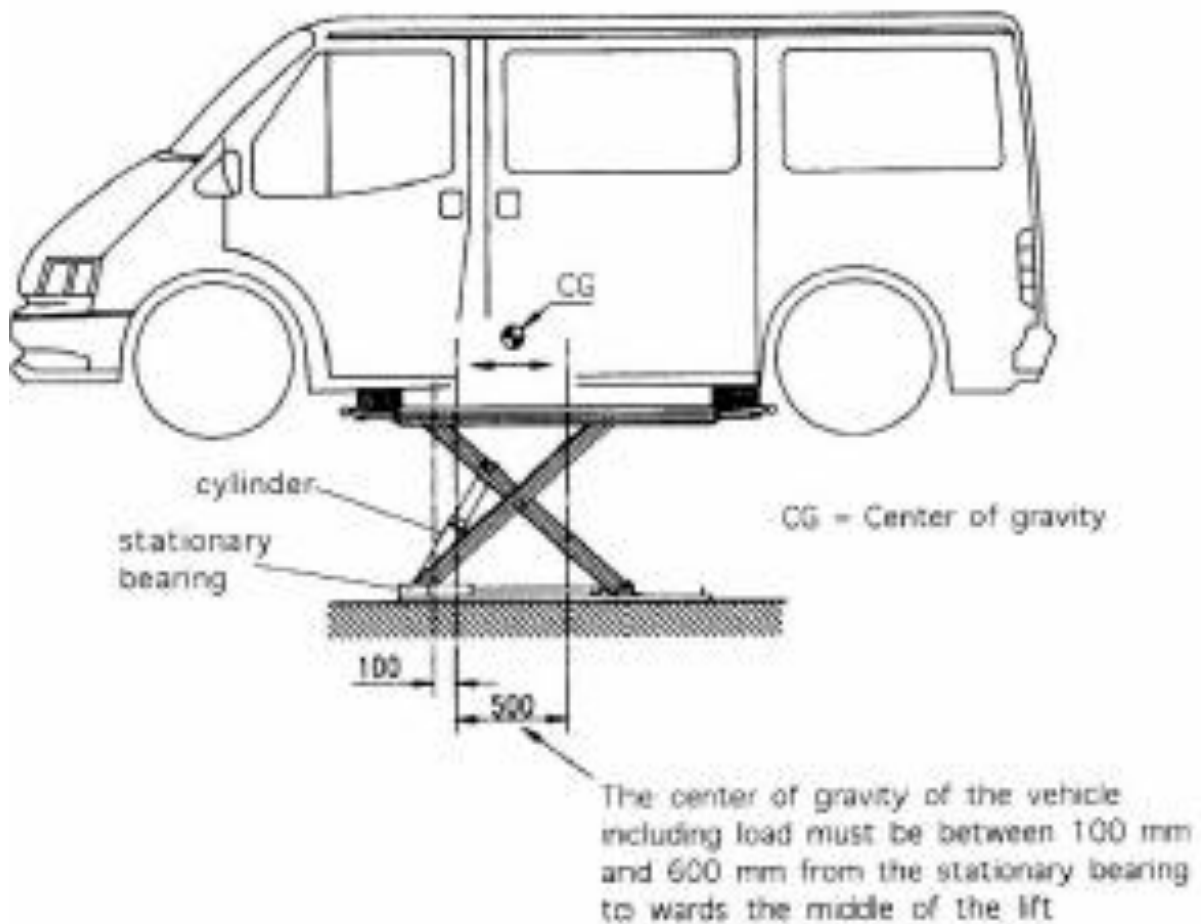
The center of gravity of the vehicle including load must be between 100 mm and 600 mm from the stationary bearing to wards the middle of the lift



rear drive vehicle



subject to alterations



The motor of the vehicle must be always located above the stationary bearing, otherwise the vehicle can fall down.



The centre of gravity of the vehicle including load must be between 100 mm and 600 mm from the stationary bearing towards the middle of the lift.

7 Technical Information

7.1 Technical ratings

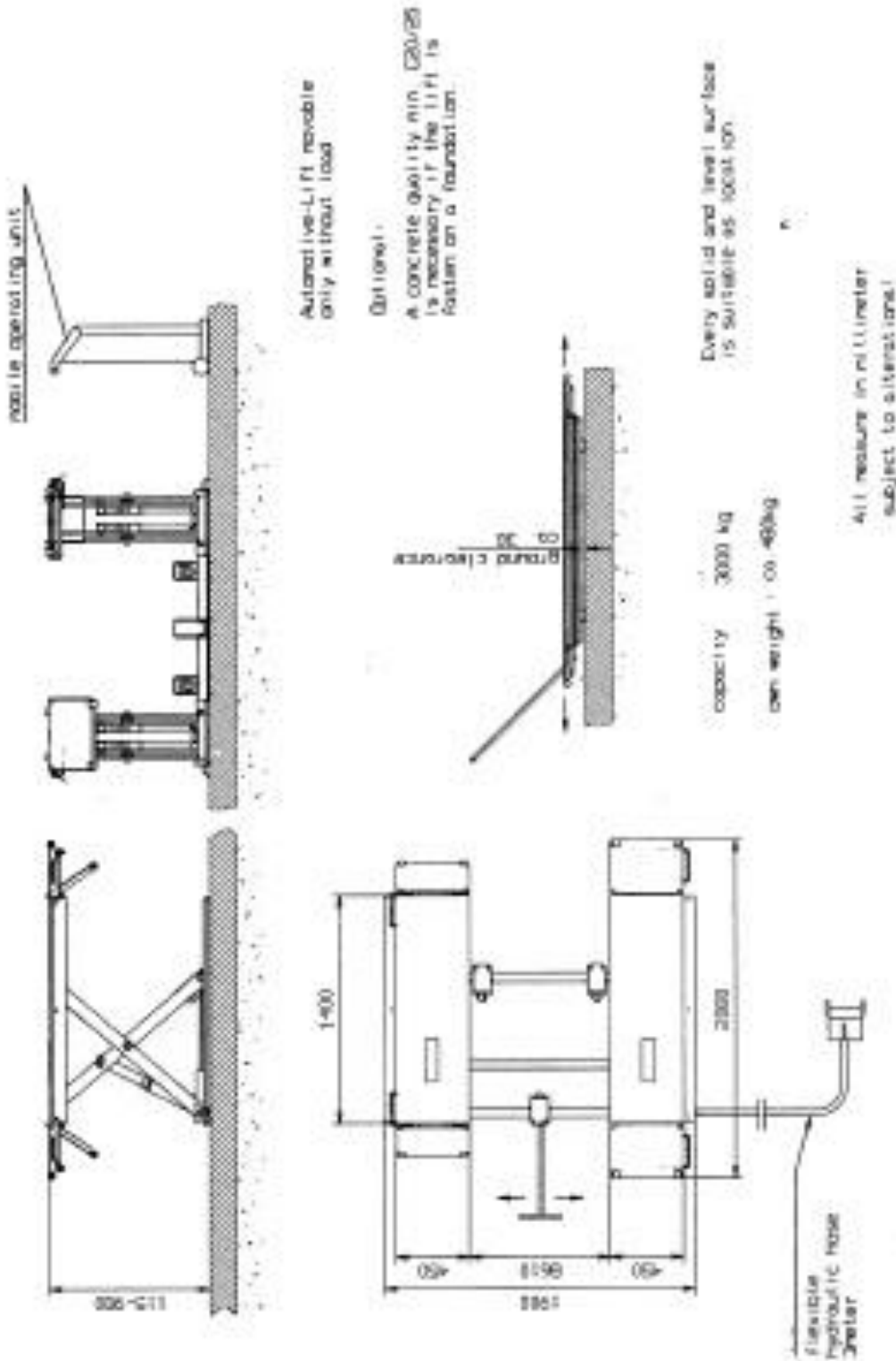
Capacity:	3000 kg
Load distribution:	3:2 in or against drive-on direction (Observe the centre of gravity of the lift)
max height: max.	980 mm
Lifting time:	approx. 11 sec without load
Lowering time:	approx. 35 sec without load
Hydraulic pressure	approx. 230 bar
Pressure relief valve	approx. 260 bar
Hydraulic Oil (not supplied)	high quality 32 cst oil (e.g. HLP 32 LTD. OEST Company) Note: use ATF-Suffix hydraulic-oil (OEST Company) if the ambient temperature is under 5 degrees centigrade
Oil tank	approx. 8 Litre
Sound level	≤ 75 dB(A)
Connection by customer	230V a.c. nominal, single phase 50/60 Hz with 16 Amp (time lag fuse) <i>Observe the respective country regulations</i>



7.2 Safety device

1. Flow control valve
Safety device against over-rapid raising or lowering
2. Pressure relief valve
Overprint-safety of the hydraulic system
3. Foot protector
Safety device against squeeze
4. Lockable main switch
Safety device against unauthorised operation
5. "Totmann" control
Let go off the operation button and the lift stops the movement

7.3 Data sheet



Automatic-Lift movable only without load

Optional:

A concrete quality min. C20/25 is necessary if the lift is fasten on a foundation.

Every solid and level surface is suitable as location.

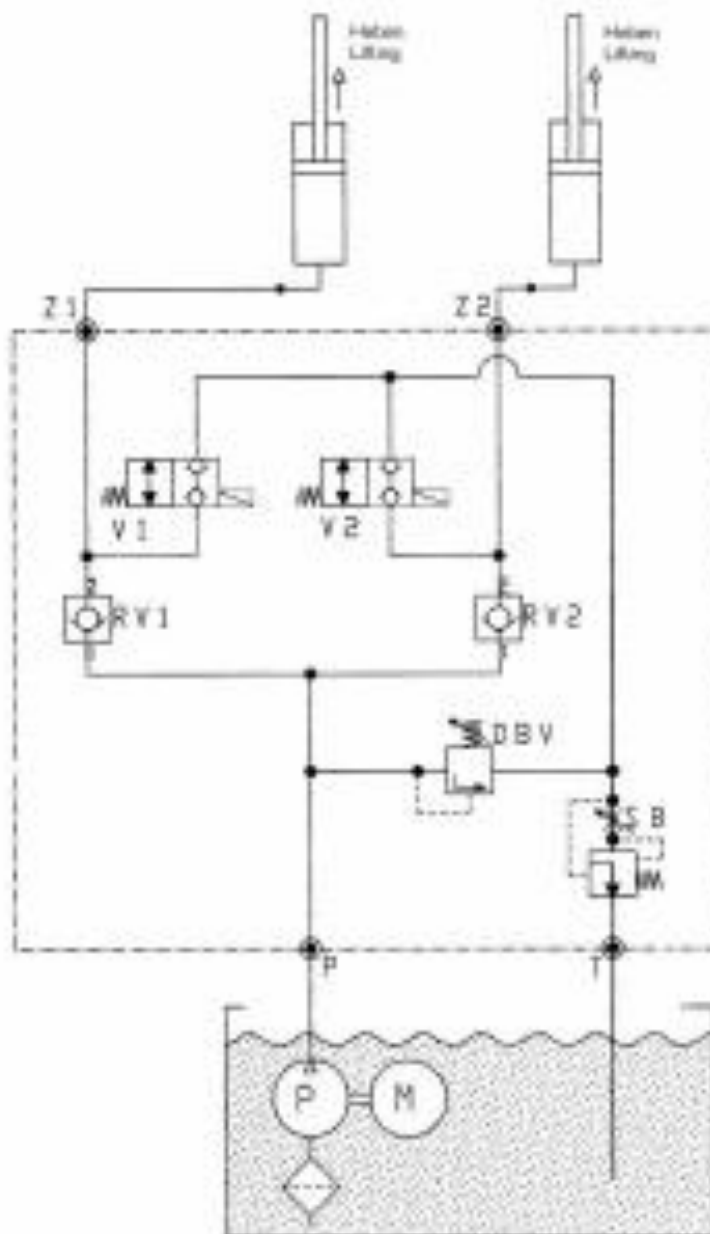
capacity 3000 kg

own weight : 66-650kg

All measure in millimeter subject to alterations.

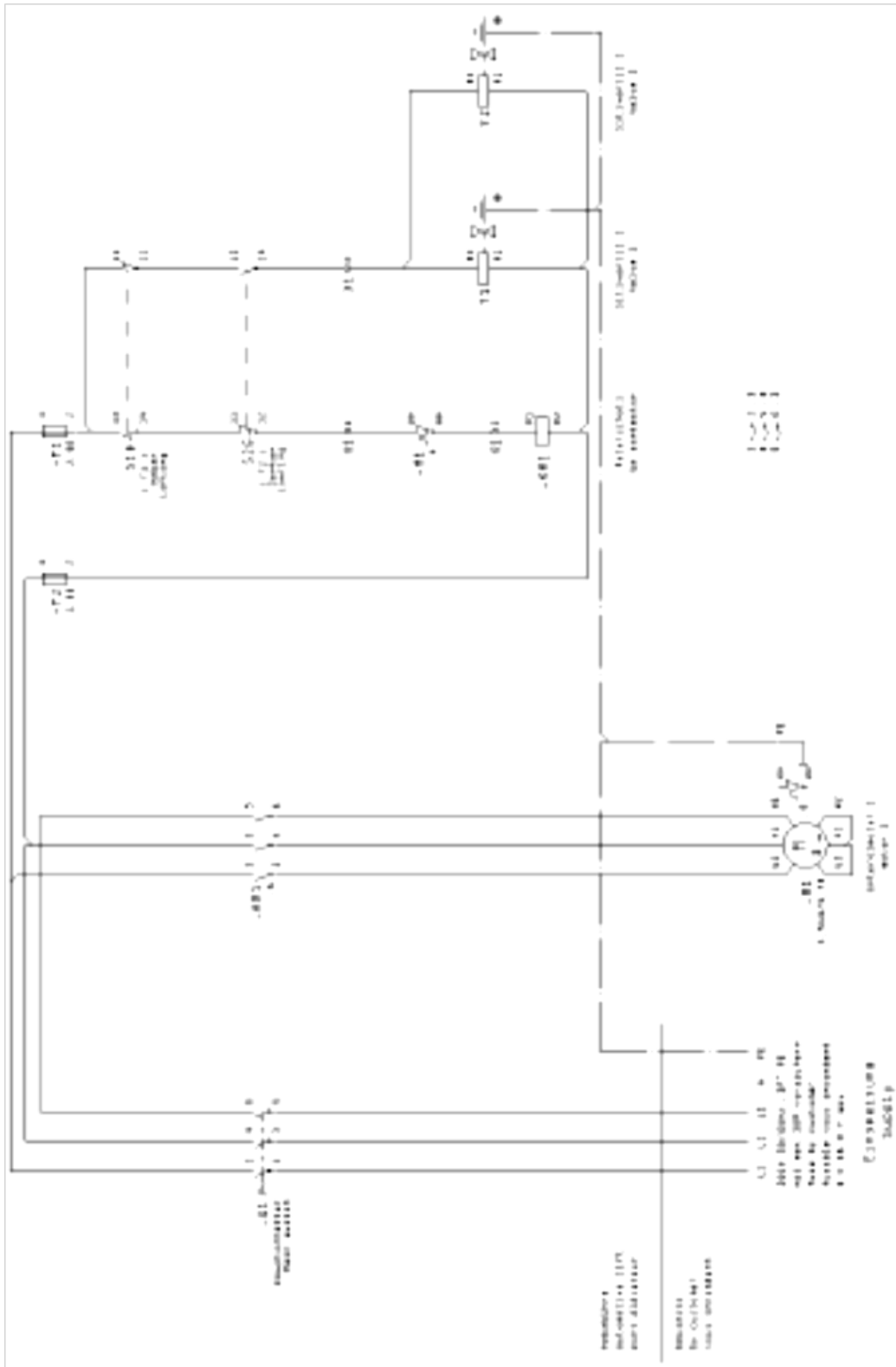
BE PULL OUT THE HOSE FROM THE HOSE AT THE CONNECTION IN OUR PLATE. THE CONNECTION OF THE HOSE INCLUDES THE HOSE AND HOSE CONNECTOR. IT IS NECESSARY TO CHECK THE HOSE AND CONNECTOR.

7.4 Hydraulic diagram drawing



- 0.1 oil filter 980012
- 0.2 sub oil motor 1,5 kW 991333
- 0.3 gear pump 4,3 cm³ 160554
- 0.4 hydraulic block 232HL01051
- DBV pressure control valve 232NSTL02082
- RV1 holding valve 980480
- RV2 holding valve 980480
- V1 hand valve 158561
- V2 hand valve 158561
- SB lowering valve 981063
- 1.0 Cylinder 025SPB22101
- hydraulic lines 025SPB44000 complete

7.5 Electric diagram



8 Safety regulations

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

The following regulations are very important:

- Observe the detailed operating instructions.
- The laden weight of the lifted vehicle must not exceed 3000 kg
- The maximum load distribution is 3:2 in or against the drive-on direction.
- Observe the centre of gravity.
- The lift must be in its lowest position, before the vehicle can be driven over it.
- The lift must only be used on a solid and level surface.
- While working with the lift the operating instructions must be followed.
- Only trained personnel over the age of 18 years old are to operate this lift.
- No one is to stand within the working area (danger area) during lifting and lowering.
- No one is to be raised or lowered either directly or on the vehicle by the automotive lift.
- No one is to climb onto the automotive lift or onto an already raised vehicle.
- The lift must be checked by an expert after any changes have been made to the construction
- The main switch must be switched off and locked before work on the vehicle can commence.
- This is a safety precaution to ensure that the lift does not move during work.
- The main switch must be switched off and locked before any maintenance or repair work on the automotive lift itself can be carried out.
- During lifting or lowering the operator must observe the vehicle to ensure that the vehicle and the lift are functioning correctly.
- Installation of the standard vehicle lift in hazardous or dangerous locations such as washing bays is dangerous and is not allowed.
- Always check the centre of gravity of the vehicle if heavy parts (eg the engine) are removed.
- If heavy parts must be removed, then the centre of gravity will change.
- Secure the vehicle before removing parts to avoid the possibility of the vehicle becoming insecure.
- Vehicles with low ground clearance, optional equipment (sport equipment), or sport vehicles, should be previously measured to ensure damage does not occur.

9 Operating instructions



**All Safety Regulations must be observed during working with the automotive lift.
Read the safety regulations section carefully before working with the lift!**



If the vehicle is very short, the ramps must be taken off to guarantee that all wheels are free.

If the vehicle is very long, the carrying arms must be pulled out to extend the platforms.

9.1 Lifting the vehicle

- Remove the ramps, if the wheelbase is too short and the wheels are standing on the ramps.

Observe the centre of gravity.



If necessary fold out the extension ramps.

- Chock the vehicle against rolling and put into gear.
- Check around the lift to make sure that there are no objects or people in the immediate area of the lift or on the lift itself.
- Switch on the control system; main switch on position "1" (see pic.1)
- Position polymer supports under the pick-up points which are described by the vehicle manufacturer. Do not lay them on their side, as the vehicle could tip over!
- Raise the lift by pressing the button "Lifting".
- Stop lifting when the wheels are free to check the safe position of the vehicle on the polymer pads.
- Lift the vehicle to the working height by press the button "Lifting" .
- Observe the complete process.



Pic.1:
operating unit
Button "Lifting"
Button "Lowering"
Main switch

9.2 Lowering the vehicle

- Check around the lift to make sure that there are no objects or people in the immediate area of the lift or on the lift itself.
- Lower the lift to the required working height or to its lowest (or fully collapsed) position.
- Press the button "lowering"
- Observe the complete lowering process.
- If the lift is in its lowest position, remove the polymer supports.
- Only drive the vehicle out of the lift when it is in the lowest position.

9.3 Change the operating position

- Lower the lift to its lowest position.
- Drive the vehicle from the lift.
- Raise the lift to a height of approx. 500mm.
- Use the mobile set. Put in the steering roller and the fixed roller.
- Lower the lift to its lowest position. Simultaneously, the base-plates lift themselves.
- Now the automotive-lift is movable.
- When the lift is in its new position, remove the steering rod
- Remove the mobile set.

10 Troubleshooting

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

Problem: Motor does not start	
<i>Potential causes:</i>	<i>Remedy:</i>
<i>No power supply</i>	<i>Check the power supply cable</i>
<i>The main switch</i>	<i>Check the switch</i>
<i>Press button "▲" is defective</i>	<i>Check the lifting button</i>
<i>The Fuse is defective</i>	<i>Check it or replace it</i>
<i>The motor is defective</i>	<i>Call the service partner</i>

Problem: Motor starts, lift does not lifting!	
<i>Potential causes:</i>	<i>Remedy:</i>
<i>The vehicle is too heavy</i>	<i>Unload the vehicle.</i>
<i>Level of the oil is too low</i>	<i>Refill if necessary. Lower the lift in the lowest position. Remove the cover of the hydraulic unit. After the fill the oil level is between the upper and low marking of the oil level gauge (approx. 10 Litre)</i>
<i>Gear pump does not work</i>	<i>call your service partner</i>
<i>The pressure control valve is defective</i>	<i>Lower the lift in the lowest position. Remove the covering operating unit. Switch off the main switch. Remove the valve and clean it.</i>


Problem: The lift does not lower!	
<i>Potential causes:</i>	<i>Remedy:</i>
<i>The rail is sitting on a object and the lift stops through mechanical resistance.</i>	<i>Raise the lift with the button "▲" until the object can be removed.</i>
<i>The fuse is defective</i>	<i>Check it or replace it</i>
<i>The way valve is defective</i>	<i>Carry out emergency lowering. (read chapter emergency lowering) Remove the vehicle. Remove the valve and clean it. If necessary replace it.</i>

10.1 Lowering on an obstacle

If the automotive-lift is lowered onto an obstacle, the lift stops automatically. In this case press the button "lifting", until the obstacle can be removed.

10.2 Emergency Lowering


 **Emergency lowering is an intervention into the control of the lift and can only be carried out by an experienced expert.**

 **Emergency lowering must be carried in the following order. Otherwise a malfunction can lead to further damage or even danger to body and lives.**



- Check around the lift to make sure that there are no objects or people in the immediate area of the lift or on the lift itself.
- Switch off the main switch
- Loosen and remove the front cover of the operating unit.
- Press the black cap of the valves down simultaneously.
- The lowering process starts.
- Observe the complete process.
- Lower the lift in the lowest position.
- Remove the polymer supports.
- After emergency lowering, the lift must shut down until the defective parts have been changed.

11 Inspection and Maintenance

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

To minimize downtime and to ensure that the lift remains functional, maintenance work should be pre planned with your service provider.

A service must be performed at regular intervals of 3 months by the operator, in accordance with following service manual. If the lift is used continuously or in a dirty environment, the maintenance rate must be increased.

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

11.1 Maintenance plan of the lift

- Before beginning any maintenance work isolate the power supply. Secure the main switch (lock it). Secure the danger area around the automotive lift and secure the lift against unintentional lowering.
- Clean the piston-rod using compressed air.
- Grease the piston rods with a high capacity lipid (approx. 5 g of S2 DIN51503 KE2G available from the Renolit Company).
- Grease the lubricate nipples with a multipurpose lipid. (example: Auto Top 2000 LTD. Agip).
- Clean and lubricate the moving parts of the lift (hinge bolts, sliding pieces, sliding surfaces) grease with a multipurpose lipid (example: Auto Top 2000 LTD. Agip).
- Check the hydraulic tubes for leakage.
- Check the oil level. Fill the tank with a clean, high quality oil (32 cst) (e.g. HLP 32 LTD. OEST Company)
- The hydraulic oil has to be changed at least once a year. To change the oil, lower the lift into its lowest position. Empty all tanks and refill with clean oil, approx. 10 litres per hydraulic unit are needed.
 - Use an ATF-Suffix hydraulic-oil (OEST Company) if the ambient temperature is under 5 degrees centigrade. After filling, the hydraulic oil must be between the upper and lower markings of the oil level gauge.
 - Remove the old oil according to the appropriate regulations.
- Check all welded joints for cracks on the automotive-lift.
 - If any cracks are found on the lift cease use immediately. Switch-off and secure the main switch (lock) and call the service partner.
- Check all surfaces and repair if necessary.
- Damage to external surfaces, must be immediately repaired.
 - If these repairs are not made immediately, permanent damage to the powder-coated surface may result.
 - Repair and clean damaged areas with an abrasive paper (grain 120). After this is complete, use a suitable paint (observe the RAL Number).
- Check the zinc surface and repair it with a suitable tool. Use abrasive paper (grain 280).
 - White rust can result from moisture laying in certain areas for long periods of time. Poor aerating can also result in rust formation.
 - Rust may result from mechanical damage, wear, aggressive sediments (de-icing salt, liquids) or insufficient cleaning.
 - Repair and clean these areas with abrasive paper (grain 280).
 - After this is complete, use a suitable paint (observe the RAL Number).
- Check all the safety devices of the lift.
- Check the electric cable and channels for Damage.
- Check that all screws and bolts are correctly torque (turning moments, see the list Pic. 19)

11.1.1 Turning Moment for Screws

Property class 8.8

	0.1*	0.15**	0.20***
M8	20	25	30
M10	40	50	60
M12	69	87	105
M16	170	220	260
M20	340	430	520
M24	590	740	890

Property class 10.9

	0.1*	0.15**	0.20***
M8	30	37	44
M10	59	73	87
M12	100	125	151
M16	250	315	380
M20	490	615	740
M24	840	1050	1250

* Sliding friction 0.10 for very good surfaces, lubricated

** Sliding friction 0.15 for good surfaces, lubricated oder dry

*** Sliding friction 0.20 for surface black or phosphatised, dry

pic 4:

11.2 How often must the lift be cleaned?

Regular and appropriate maintenance practices will aid the preservation of the lift.

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

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

Dirty deposits that can cause rust include:

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

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

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

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

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

12 Safety check

The safety 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 safety check before initiation"

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

Use the form "Regular safety check at least annually"

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

Use the form "Extraordinary safety check"



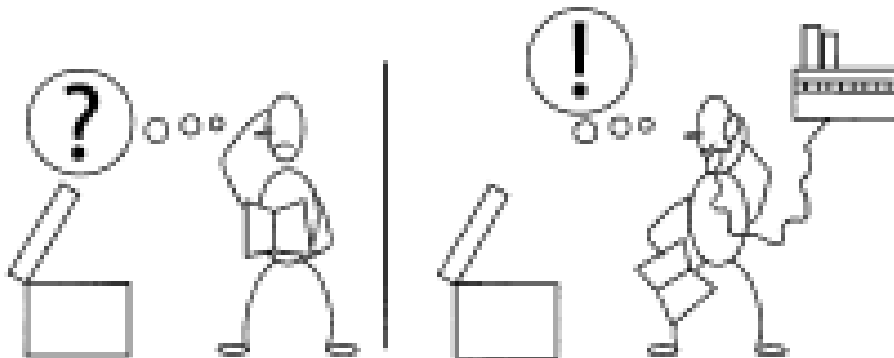
The first and the regular safety check must be performed by a competent person. It is recommended to service the lift at this occasion.



After the construction of the lift has been changed (changing the lifting height or capacity for example) and after serious maintenance works (welding on 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 correct form for the safety 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.

13 Installation



13.1 Regulations

- It is possible to fasten the Lift on a even floor with dowels. (See the dowel pages)
- In this case, the installation of the lift should be carried out by a manufacturer trained technician. If the operator can provide trained mechanics, he or she can install the lift by him or herself. The installation has to be done according to this regulation.
- Drill holes in the foundations so that base plates can be bolted down. Clean the holes with compressed air. Put masonry bolts in and secure. The lift-manufacturer recommends Liebig, Fischer or Hilti safety masonry bolts or equally good bolts from another manufacturer (with licence). Be sure to observe their regulations (bore hole, torque...). Before bolting, check that the concrete- floor is of quality min.C20/25, thickness min.160mm normal armouring. If the entire floor is concrete (there is no surface covering), bolts must be selected according to a floor without a surface covering. If the ground is covered with floor tiles or some other form of surface covering, the bolts must be selected according to the floor with floor covering.

- Installing the standard-automotive lift in a hazardous location or a washing bay is not allowed.
- Before installation a sufficient foundation must be constructed. If the foundation is already constructed then proof that the foundation conforms to the standard is required.
- A level foundation for the installation is required. The foundations must be based in a frost resistant depth, both outdoors and indoors in a position where the installer believes there is no chance of frost.
- An electrical supply 230V a.c. nominal, single phase 50/60 Hz. mains supply must be provided.
- The supply line must be protected with a time-lag fuse T16A (VDE0100 European regulation).
- The minimum diameter amounts to 2.5 mm².
- All cable ducts must be equipped with protective coverings to prevent accidents.

13.2 Change the installation place

The automotive–lift is a flexible lifting device. It is possible to change the position of the lift only without load.

Every solid and even surface is suitable as location.

The CML3000 is quickly operational. The operating unit is moveable, too.

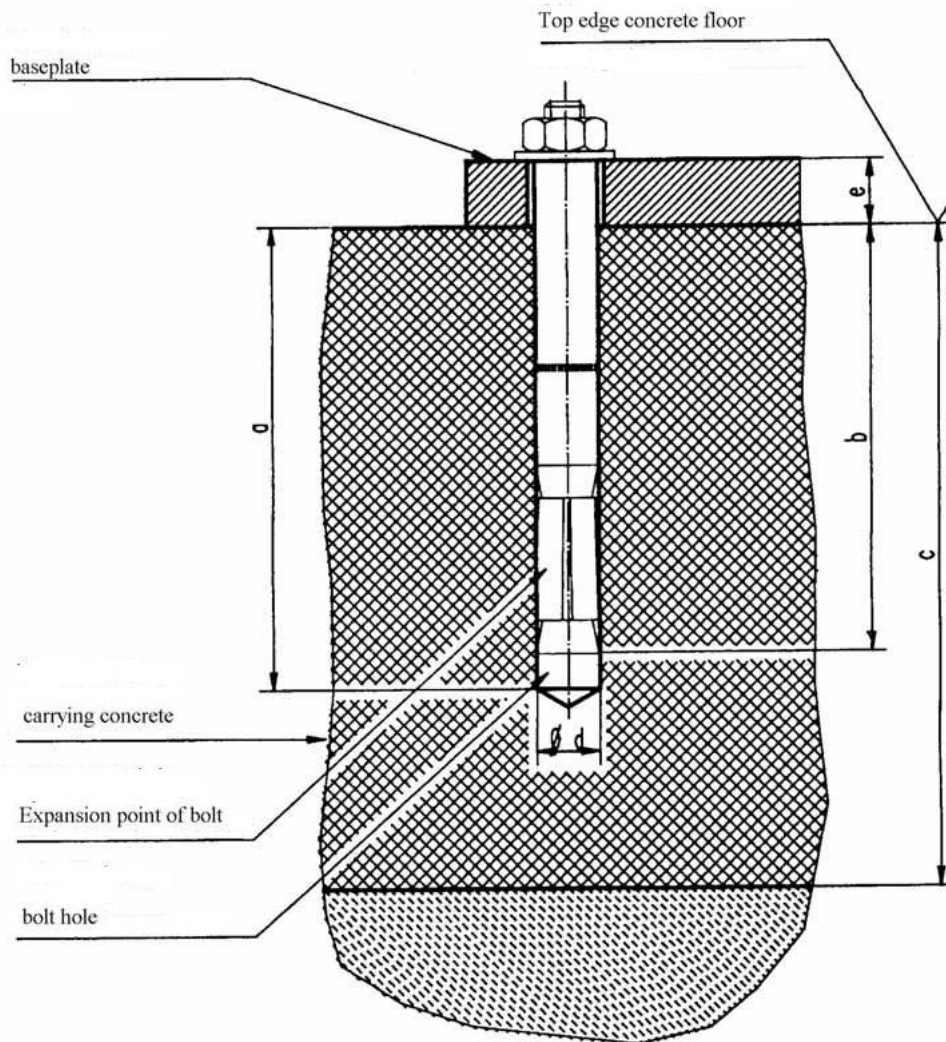
By changing the installation place, you must follow the installation instructions.



Always use new dowels, the old dowels cannot be used.

14 Choice of dowel length

14.1 without floor pavement or tile surface

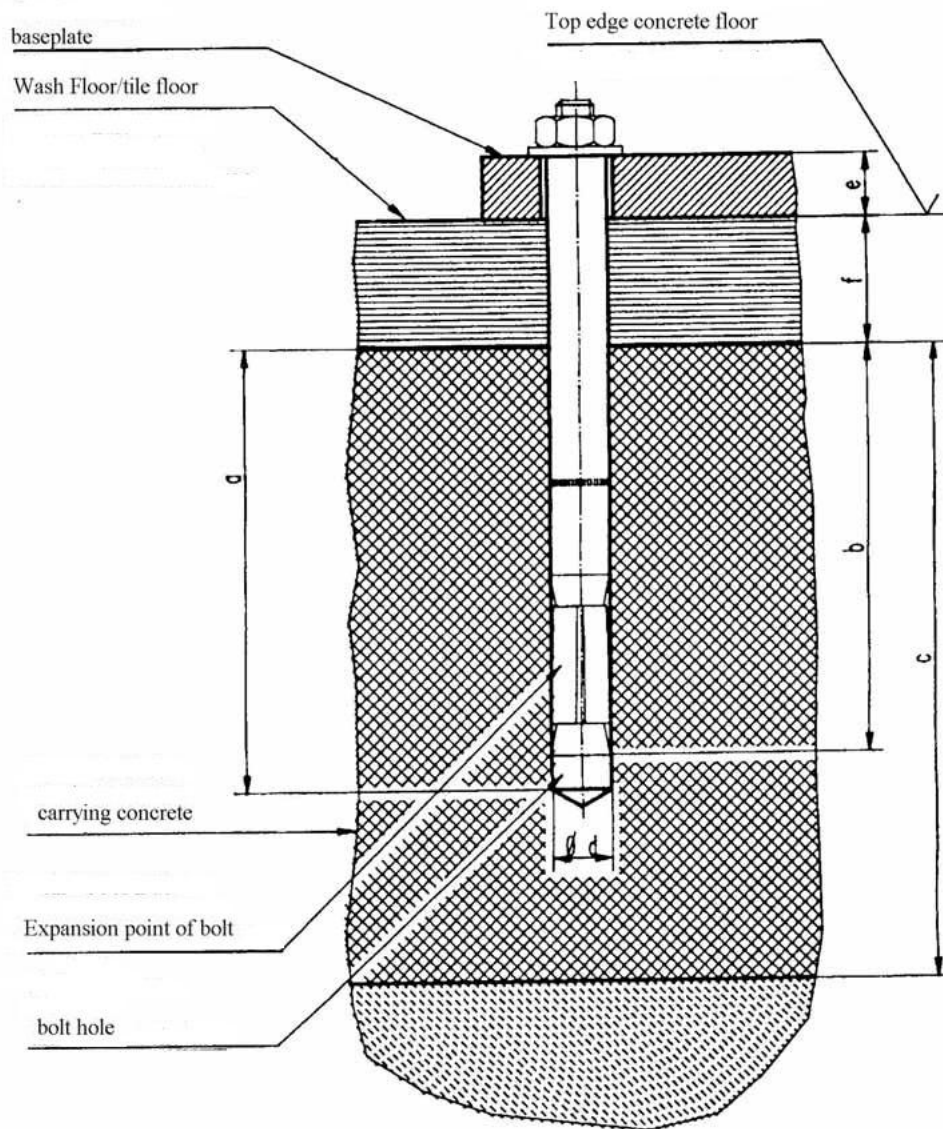


Liebig-dowels	
Dowel type	BM10-/70/40
Drilling depth	a 185
Min. anchorage depth	b 70
Thickness of concrete	c min.140 (*)
Diameter of bore	d 15
Thickness of the lift-pieces	e 0-40
Number of dowels	8
Starting torque	40 Nm

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

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

14.2 with floor pavement or tile surface



Liebig-dowels

Dowel type		BM10-15/70/65	BM10-15/0/100	BM10-15/70/140
Drilling depth	a	85	85	85
Min. anchorage depth	b	70	70	70
Thickness of concrete	c	min.140 (*)	min.140 (*)	min.140 (*)
Diameter of bore	d	15	15	15
Thickness of the lift-pieces	e-f	40-65	65-100	100-140
Quality of concrete		min. C20/25 with normal armouring		
Number of dowels		8	8	8
Starting torque		40 Nm	40Nm	40Nm

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



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

15.1 Regular safety check and Maintenance



Complete and leave in this manual

Serial number:

Type of Check	OK	Defect or Missing	Verification	Remarks
Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
Function button „lifting“				
Function "Lowering Lever"				
Detailed Operating Instruction				
Condition of the concrete				
Safety Devices of hinge bolt				
Condition of the colour				
Construction (deformation, cracks)				
Torque of the dowels (bolts)				
Torque Moments of the screws				
Condition of operating unit				
Condition of surface piston rod				
Condition of the covers				
Condition of the electrical cables				
Level of hydraulic oil				
Closeness of the hydraulic system				
Condition of hydraulic hoses				
Function test with vehicle				
Function of safety devices				
Condition of welding				
Condition, function mobile set				
(Mark here if applicable. In case of verification, mark in addition to the first mark!)				

Safety check carried out by:

Name of company:

Name and address of the competent person:

- Result of the Check:
- Initiation not permitted, verification necessary
 - Initiation possible, repair failures until
 - No failings, initiation possible

..... Signature of the expert Signature of the operator

If failures must be repaired:

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

15.2 Regular safety check and Maintenance



Complete and leave in this manual

Serial number:

Type of Check	OK	Defect or Missing	Verification	Remarks
Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
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Failures repaired at: Signature of the operator
 (Use another form for verification!)

15.3 Regular safety check and Maintenance



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Sticker "centre of gravity"				
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Function button „lifting“				
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15.4 Regular safety check and Maintenance



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

15.5 Regular safety check and Maintenance



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Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
Function button „lifting“				
Function "Lowering Lever"				
Detailed Operating Instruction				
Condition of the concrete				
Safety Devices of hinge bolt				
Condition of the colour				
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Condition of the electrical cables				
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Closeness of the hydraulic system				
Condition of hydraulic hoses				
Function test with vehicle				
Function of safety devices				
Condition of welding				
Condition, function mobile set				
(Mark here if applicable. In case of verification, mark in addition to the first mark!)				

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Name of company:

Name and address of the competent person:

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 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!)

15.6 Regular safety check and Maintenance



Complete and leave in this manual

Serial number:

Type of Check	OK	Defect or Missing	Verification	Remarks
Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
Function button „lifting“				
Function "Lowering Lever"				
Detailed Operating Instruction				
Condition of the concrete				
Safety Devices of hinge bolt				
Condition of the colour				
Construction (deformation, cracks)				
Torque of the dowels (bolts)				
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Condition of the electrical cables				
Level of hydraulic oil				
Closeness of the hydraulic system				
Condition of hydraulic hoses				
Function test with vehicle				
Function of safety devices				
Condition of welding				
Condition, function mobile set				
(Mark here if applicable. In case of verification, mark in addition to the first mark!)				

Safety check carried out by:

Name of company:

Name and address of the competent person:

- Result of the Check:
- Initiation not permitted, verification necessary
 - Initiation possible, repair failures until
 - No failings, initiation possible

..... Signature of the expert Signature of the operator

If failures must be repaired:

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

15.7 Regular safety check and Maintenance



Complete and leave in this manual

Serial number:

Type of Check	OK	Defect or Missing	Verification	Remarks
Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
Function button „lifting“				
Function "Lowering Lever"				
Detailed Operating Instruction				
Condition of the concrete				
Safety Devices of hinge bolt				
Condition of the colour				
Construction (deformation, cracks)				
Torque of the dowels (bolts)				
Torque Moments of the screws				
Condition of operating unit				
Condition of surface piston rod				
Condition of the covers				
Condition of the electrical cables				
Level of hydraulic oil				
Closeness of the hydraulic system				
Condition of hydraulic hoses				
Function test with vehicle				
Function of safety devices				
Condition of welding				
Condition, function mobile set				
(Mark here if applicable. In case of verification, mark in addition to the first mark!)				

Safety check carried out by:

Name of company:

Name and address of the competent person:

Result of the Check: Initiation not permitted, verification necessary
 Initiation possible, repair failures until
 No failings, initiation possible

..... Signature of the expert Signature of the operator

If failures must be repaired:

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

15.8 Regular safety check and Maintenance



Complete and leave in this manual

Serial number:

Type of Check	OK	Defect or Missing	Verification	Remarks
Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
Function button „lifting“				
Function "Lowering Lever"				
Detailed Operating Instruction				
Condition of the concrete				
Safety Devices of hinge bolt				
Condition of the colour				
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Torque of the dowels (bolts)				
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If failures must be repaired:

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

15.9 Regular safety check and Maintenance



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Serial number:

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Type plate/label				
Short operating instructions				
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Condition of the covers				
Condition of the electrical cables				
Level of hydraulic oil				
Closeness of the hydraulic system				
Condition of hydraulic hoses				
Function test with vehicle				
Function of safety devices				
Condition of welding				
Condition, function mobile set				
(Mark here if applicable. In case of verification, mark in addition to the first mark!)				

Safety check carried out by:

Name of company:

Name and address of the competent person:

- Result of the Check:
- Initiation not permitted, verification necessary
 - Initiation possible, repair failures until
 - No failings, initiation possible

..... Signature of the expert Signature of the operator

If failures must be repaired:

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

15.10 Extraordinary safety check and Maintenance



Complete and leave in this manual

Serial number:

Type of Check	OK	Defect or Missing	Verification	Remarks
Type plate/label				
Short operating instructions				
Sticker "max. capacity"				
Sticker "centre of gravity"				
Condition automotive-lift				
Function button „lifting“				
Function "Lowering Lever"				
Detailed Operating Instruction				
Condition of the concrete				
Safety Devices of hinge bolt				
Condition of the colour				
Construction (deformation, cracks)				
Torque of the dowels (bolts)				
Torque Moments of the screws				
Condition of operating unit				
Condition of surface piston rod				
Condition of the covers				
Condition of the electrical cables				
Level of hydraulic oil				
Closeness of the hydraulic system				
Condition of hydraulic hoses				
Function test with vehicle				
Function of safety devices				
Condition of welding				
Condition, function mobile set				
(Mark here if applicable. In case of verification, mark in addition to the first mark!)				

Safety check carried out by:

Name of company:

Name and address of the competent person:

- Result of the Check: Initiation not permitted, verification necessary
 Initiation possible, repair failures until
 No failings, initiation possible

..... Signature of the expert Signature of the operator

If failures must be repaired:

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

16 AFTER SALES SERVICE

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

16.1 On-Site Service / Overhaul / Spare Parts

If you require a Service Engineer to attend ON SITE, either due to an equipment fault, or for machine calibration, or if the equipment covered by this manual requires to be sent back for factory overhaul, or if you need spare parts, please contact our Product Support Department

- **Outside UK mainland**

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

- **UK After-Sales Service**

Call Crypton Support for details of local service agents.

- **Technical Information**

Crypton also provide information and contracts covering:

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

16.2 CONTACT DETAILS

Contact UK Sales on 0844 665 7613

Email sales@cryptontechnology.com

Contact Support – 0844 665 7610

Support Fax - UK 0844 665 7604

Email support@cryptontechnology.com

Continental Automotive Trading UK Ltd
36 Gravelly Industrial Park
Birmingham B24 8TA
United Kingdom
www.cryptontechnology.com

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The sale of this product is subject to our standard terms, conditions and relevant product warranty