

Operating manual | Inspection book
including spare parts list
Version: USA
Manual date: 13.01.2020

OP+POWER LIFT HF 3S 8000-V1.0-EN

POWER LIFT HF 3S 8000

Serial No.:

1	General informations	5	5	Operating manual.....	23
1.1	Lift purpose	5	5.1	Positioning the vehicle	23
1.2	Liability.....	5	5.2	Lifting the vehicle.....	24
1.3	Owner/Employer responsibilities	5	5.3	Lift synchronization.....	25
1.4	Lift operator responsibilities.....	6	5.4	Lowering the vehicle	25
1.5	Safety regulations	6			
1.6	Safety devices.....	7	6	Behaviour in cases of error.....	25
1.7	Safety labels affixed to lift	8	6.1	Emergency discharge	26
1.8	Protocols	9	6.2	Moving onto an obstacle	27
1.9	Set up and test the lift	9			
	Set up protocol.....	10	7	Maintenance and care of the lift.....	27
	Transfer protocol	11	7.1	Maintenance plan.....	28
2	System master sheet	12	7.2	Cleaning the lift.....	33
2.1	Manufacturer	12	7.3	Checking the stability of the lift.....	33
2.2	Purpose	12			
2.3	Changes to the design / construction	12	8	Assembly and commissioning	33
2.4	Changing the assembly location	12	8.1	Set up guidelines.....	33
3	Technical information	13	8.2	Lifting arm assembly	38
3.1	Technical data	13	8.3	Lifting arm alignment.....	38
3.2	Safety devices.....	13	8.4	Commissioning	38
3.3	Data sheet	14	8.5	Changing the assembly location	38
3.4	Hydraulic plan	16	9	Safety inspection	42
3.5	Electrical circuit diagram.....	17	9.1	Single safety inspection before commissioning ..	43
4	Installation	23	9.2	Regular safety inspection and maintenance	44
			9.3	Exceptional safety inspection	54

Spare parts list **55**

1 General informations

 *Important safety instructions – Save these instructions*

1.1 Lift purpose

Nussbaum lifting systems are the result of over 35 years' experience in the automotive lifting industry. The high quality and superior concept ensures reliability, a long Lift lifetime, and a strong economic business solution for your automotive lifting needs. The HF 3S 8000 are a hydraulic asymmetric two-post Lift with a lifting capacity of 8000 pounds. The Lift features a powerful integrated power unit and hard-chromed cylinders. The maximum load distribution is 2000 lbs per arm.

1.2 Liability

To avoid unnecessary damage, injury or death, read all operating instructions carefully. Nussbaum is not liable for any damages, injuries, or deaths resulting from misuse of the Lift. The user carries the risk alone.

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:

- Inappropriate use of the Lift to include: Inappropriate installation, operation, and maintenance of the Lift.
- Use of the Lift while security devices are inoperative, not working properly, or are installed incorrectly.
- Failure to follow the operating instructions regarding transport, storage, installation, initiation, operation, and maintenance of the Lift.
- Unauthorized changes to the design and operation of the Lift.
- Wrong or incorrect maintenance practice.
- Catastrophes, acts of God, or external reasons.
- Nussbaum Lifts are warranted with the use of Nussbaum original or replacement parts. Use only replacement parts approved by the original equipment manufacturer or parts meeting original manufacturer specifications. Use of unauthorized parts may void the warranty. For parts, call Nussbaum at 1-704-864-2470.
- It should be recognized that any piece of equipment can be dangerous when operated improperly.

1.3 Owner/Employer responsibilities

Automotive lift institute safety requirements for operation, inspection and maintenance (ANSI/ALI ALOIM)

The Owner/Employer shall insure that lift operators are qualified and that they are trained in the safe use and operation of the lift: ALI SM10-1 safety manual; AL-ST-17; ANSI/ALOIM:2008 (R2013), American National Standard for Automotive Lifts-Safety Requirement for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts and SAE J2184, Vehicle Lifting Points for Service Garage Lifting.

The Owner/Employer shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ANSI/ALOIM:2008 (R2013), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall insure that the lift inspectors are qualified and that they are adequately trained in the inspection of the lift.

The Owner/Employer shall establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or ANSI/ALOIM:2008 (R2013), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall insure that the lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift.

The Owner/Employer shall maintain the periodic inspection and maintenance records recommended by the manufacturer or ANSI/ALOIM:2008 (R2013), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance.

The Owner/Employer shall display the lift manufacturer's operating instructions; ALI SM10-1 safety manual; AL-ST-17; ANSI/ALOIM:2008 (R2013), American National Standard for Automotive Lifts-Safety Requirement for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts; in a conspicuous location in the lift area convenient to the operator.

Additional owner/employer responsibilities

- Shall require that Personal Protective Equipment (PPE) be used according to the appropriate regulations.
- Shall display the "Safety Regulations" and adhere to them closely.
- Shall ensure that all safety- and danger signs on and around the Lift are observed and followed!
- Shall follow the specified time intervals between the recommended inspection and maintenance procedures and tests.

- Shall use only spare parts that comply with the technical requirements specified by the manufacturer.
- Shall ensure that loose screws, nuts, and bolts are firmly tightened after maintenance.
- Shall not modify the Lift without written consent of Nussbaum.
- Shall ensure that these instructions are maintained and available to all personnel that install, use or maintain the lift. This document contains important information about installation, operation, and maintenance of the automotive Lift. Any changes to the installation and or location of the automotive Lift must be documented.

1.4 Lift operator responsibilities

- Shall read and understand all safety and warning instructions in the manual or affixed to the lift.
- Shall be trained to operate and use the HF 3S 8000 Lift for its designed use.
- Shall be familiar with accident prevention and basic labor safety regulations.
- Shall not allow unauthorized personnel to operate the Lift.

Information of warning

Pay close attention to the danger and important information symbols shown below. Carefully read all marked passages throughout this manual.



Danger! This sign indicates danger to life. Improper handling of the described operation may cause serious injury or death.

- ! **Caution! This sign warns against possible damage to the automotive Lift or other material defects in case of improper handling.**

 *Attention! This sign indicates an important function or note.*

1.5 Safety regulations



The Safety Regulations must be observed and strictly adhered to while working with the automotive Lift. Read the safety regulations and the ANSI/ALI ALOIM manual included with the lift documentation carefully before working with the Lift!

Important safety instructions – read all instructions

- The total weight of the lifted vehicle must not exceed 8000 pounds.
- The automotive Lift must be in its lowest position, and the Lift Carry Arms must be swung out before a vehicle can be driven into the Lift area.
- Total load must be distributed evenly on all arms.
- The Lift must not be installed in a hazardous location or in washing bays.
- The Lift must be checked by a service technician after initial installation and after repairs or changes have been made to the Lift.
- The operating and maintenance instructions must be followed while working with the Lift.
- Pre-check low clearance or specially equipped vehicles for ample clearance to avoid damage to the vehicle and/or Lift.
- Only trained personnel are to operate the Lift.
- No one is to stand within the working area (danger area) during vehicle lifting and lowering operations.
- No one is to occupy a vehicle during any phase of Lift operation.
- No one is to climb onto the automotive Lift when in a raised position.
- For unusual vehicles you may choose to instruct the user to contact Nussbaum for lifting advice.
- The main electrical switch must be switched off and locked out or tagged out according to OSHA Regulations before maintenance or repair work is performed on the Lift.
- The operator must continue to observe the vehicle and Lift throughout the lifting or lowering operation.
- Check the center of gravity of the vehicle if heavy parts, such as the engine are removed.
- If heavy parts such as the engine must be removed, the center of gravity will change. Secure the vehicle before removing parts to avoid the possibility of the vehicle becoming insecure.
- **Read all instructions** before operating lift.
- Care must be taken as burns may occur from touching hot parts.
- Do not operate the Lift with a damaged cord or if the Lift has been damaged – until it has been examined by a qualified service person.
- To reduce the risk of fire, do not operate Lift in the vicinity of open containers of flammable liquids (gasoline).
- Adequate ventilation should be provided when working on operating internal combustion engines.
- Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- **Always wear safety glasses.** Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.
- The proper positioning of the carrier plate below the vehicle is to be checked again after the vehicle has been raised slightly.

- After each set down of the vehicle, check the lifting arm positions below the fixture points again and adjust as required.
- When disassembling heavy, consider any possible centre of mass shifts. The vehicle is to be appropriately secured using suitable materials (e.g. tensioning belts, beams, etc.) against falling.
- After design and maintenance on load bearing parts the lift must be inspected by a technical expert.
- Vehicles may only be attached at fixture points approved by the vehicle manufacturer.
- The entire lifting and lowering process is to be continuously observed.
- Initial access to the lift is only permitted after the main switch has been turned off and secured, and the operating lever is additionally secured against unauthorised use.

Save these instructions!

1.6 Safety devices

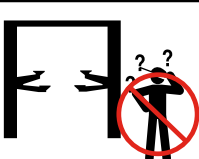

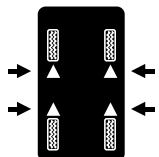
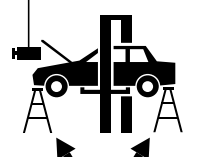
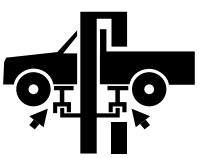
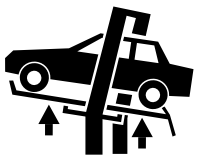
Nussbaum has designed several safety features into each Lift to ensure safe and efficient operations under a variety of conditions. Warranties will be voided and dangerous working conditions exist if any of the listed devices are altered or disabled.

- **Over-pressure valve**
Hydraulic system fuse against over-pressure.
- **Check valve**
Secure the vehicle against unauthorised lowering.
- **Main switch with curtain lock device**
Fuse to prevent unauthorised use.
- **Command / downstream system with latch**
Secure against unauthorised lowering of the lift.
- **Deadman controls**
Lift movement stops when the operating lever is released.
- **Lifting arm block**
Secures the lifting arm against horizontal movement in a lifted condition.

1.7 Safety labels affixed to lift

Warning Label pictographs used with permission of Automotive Lift Institute.

	
<p>NOTICE</p> <p>Read operating and safety manuals before using lift.</p>	<p>NOTICE</p> <p>Proper maintenance and inspection is necessary for safe operation.</p>
	<p>The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.</p> <p>Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85, Cortland, NY 13045. These labels are protected by copyright.</p>
<p>NOTICE</p> <p>Do not operate a damaged lift.</p>	<p>www.autolift.org © 2006-2017 ALI/WL101</p>

	
<p>CAUTION</p> <p>Lift to be used by trained operator only.</p>	<p>CAUTION</p> <p>Authorized personnel only in lift area.</p>
	
<p>CAUTION</p> <p>Use vehicle manufacturer's lift points.</p>	<p>CAUTION</p> <p>Always use safety stands when removing or installing heavy components.</p>
	
<p>CAUTION</p> <p>Use height extenders when necessary to ensure good contact.</p>	<p>CAUTION</p> <p>Auxiliary adapters may reduce load capacity.</p>
<p>The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.</p> <p>Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85, Cortland, NY 13045. These labels are protected by copyright.</p> <p>www.autolift.org © 2006-2017 ALI/WL101</p>	

	
<p>WARNING</p> <p>Clear area if vehicle is in danger of falling.</p>	<p>WARNING</p> <p>Position vehicle with center of gravity midway between adapters.</p>
	
<p>WARNING</p> <p>Remain clear of lift when raising or lowering vehicle.</p>	<p>WARNING</p> <p>Avoid excessive rocking of vehicle while on lift.</p>
	
<p>WARNING</p> <p>Do not override self-closing lift controls.</p>	<p>WARNING</p> <p>Keep feet clear of lift while lowering.</p>
<p>The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.</p> <p>Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85, Cortland, NY 13045. These labels are protected by copyright.</p> <p>www.autolift.org © 2006-2017 ALI/WL101</p>	

Read all labels and verify that all authorized users fully understand the meaning of each caution / warning / safety instruction. Do not remove or deface safety labels from the lift.

1.8 Protocols

Technical documentation contains important information for safe operation and for retaining functional safety of the lift.

- To verify lift set up, the assembly protocol form is to be completed, signed and sent to the manufacturer.
- Forms are available in this inspection book for use in verifying single, regular and extraordinary safety checks. Use the forms to document inspections and leave the completed forms in the inspection book.
- The lift master forms must record changes to the construction or changes to set up location.

1.9 Set up and test the lift

Safety relevant work on the lift and safety inspections may only be done by personnel specifically trained to carry it out. They are designated in general and in this documentation as technical experts and specialists (competent people).

- Technical experts are people (freelance expert engineers, TÜV specialists) that may inspect and assess due to their education and experience with lifts. They are knowledgeable in the appropriate work safety and accident prevention regulations.
- Specialists (competent people) are people who have sufficient knowledge and experience with lifts and have participated in a special factory training by the lifts manufacturer.

Transfer protocol

The lift with serial number _____ was set up on (date) _____
 at (company name) _____ in (town, city) _____
 checked for function and safety and put into operation.

The following listed people (operators) were trained to handle the lift after it was set up by a trained assembler of the manufacturer or a contract partner (specialist).

(Date, name, signature, empty lines must have a scored out)

<i>Date</i>	<i>Name</i>	<i>Signature</i>
-------------	-------------	------------------

<i>Date</i>	<i>Name</i>	<i>Signature</i>
-------------	-------------	------------------

<i>Date</i>	<i>Name</i>	<i>Signature</i>
-------------	-------------	------------------

<i>Date</i>	<i>Name</i>	<i>Signature</i>
-------------	-------------	------------------

<i>Date</i>	<i>Name</i>	<i>Signature</i>
-------------	-------------	------------------

<i>Date</i>	<i>Name, specialist</i>	<i>Signature of specialist</i>
-------------	-------------------------	--------------------------------

Service partner: _____
Stamp

2 System master sheet

2.1 Manufacturer

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

2.2 Purpose

The lift is a lifting tool for raising vehicles with a total weight of 8000 lbs (3500 kg) in normal workshop operation.

Set up of the standard lift in explosion endangered workshops and humid spaces (e.g. washing halls) is prohibited.

Lift operation is done directly on the operating column (see Data sheet).

After construction and maintenance changes on load carrying parts the lift must be inspected afterwards by a specialist who approves the changes. If the set up location is changed, the lift must be checked again by a specialist and changed approved.

Lifting arm variants **HF 3S 8000 OTTO**

Otto lifting arms	570–1160 mm 995–1823 mm
--------------------------	----------------------------

2.3 Changes to the design / construction

Inspections by a technical expert are required before recommissioning (date, type of change, technical expert signature).

Name, address of technical expert

Location, date

Technical expert signature

2.4 Changing the assembly location

Inspections by a technical expert are required before recommissioning (date, type of change, specialist signature).

Name, address of technical expert

Location, date

Signature of Technical Expert of Safety inspections

3 Technical information

3.1 Technical data

Load carrying capacity: HF 3S 8000=8000 lbs
(3500 kg)

Loading a lifting arm: A single load from only one lifting arm may not happen

HF 3S 8000: Lift/lowering time: approx. 20 s/seamless
0-max 14 s with 2.68 t

Standard operating voltage: 1 ~/N+PE, 230 V, 60 Hz

Motor capacity HF 3S 3000: 3 kW

Motor speed: 3450 rpm

Hydraulic pump: 1.5 GPM (≈ 5.6 l / min.)

Lifting / lowering pressure: 190 bar / 120 bar

Pressure relief valve: 250 bar

Oil volume: Approx. 10 litres (HLP32)

Noise level LpA: ≤70 dB

On-site connection: 1~/N+PE, 230 V, 60 Hz with 16 A fuses, slow, according to VDE regulations

3.2 Safety devices

- **Over-pressure valve**

Hydraulic system fuse against over-pressure.

- **Check valve**

Secure the vehicle against unauthorised lowering.

- **Main switch with curtain lock device**

Fuse to prevent unauthorised use.

- **Two independent cylinder systems (each with a command, follow system)**

Secure against unauthorized lowering of the lift.

- **Deadman controls**

Lift movement stops when the operating lever is released.

- **Foot bumpers on the lifting arms**

Secure against shear and crushing points in the foot area.

- **Lifting arm block**

Secures the lifting arm against horizontal movement in a lifted condition.

- **Operating lever with curtain lock device**

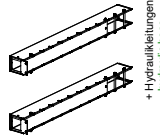
Fuse to prevent unauthorised use.

3.3 Data sheet

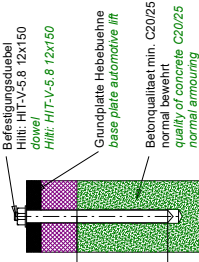
Wir weisen in unseren Plänen auf die Mindestanforderung des Bauherrn hin, die im Rahmen der Ausführung zu erfüllen ist. Die Ausführung ist die Verantwortung der Einbausituation muss vom planenden Architekten bzw. Statiker individuell spezifiziert werden.

We point out the minimum requirement of the foundation in our plans. The condition of the specific local situation (for example: ground under the foundation) does not have to be observed. The minimum requirement must be individually specified from the planning architect or structural engineer.

Optional Verlängerung 800mm
optional extension 800mm



+ Hydraulikleitungen hydraulic hoses



Die Mindestverankerungstiefe des Dübels beachten. Mit Estrichfließen sind längere Dübel einzusetzen. Die Montagehöhe des Dübels ist im Besonderen zu beachten. Die Mindestverankerungstiefe des Dübels beachten. Mit Estrichfließen sind längere Dübel einzusetzen. Die Montagehöhe des Dübels ist im Besonderen zu beachten.

Tragfähigkeit: 3628kg
capacity: 8000 lbs

HF 3S 8000 OTTO MM

Otto-Tragarme mit Mini-Max (MM)
Otto-arms with Mini-Max (MM)

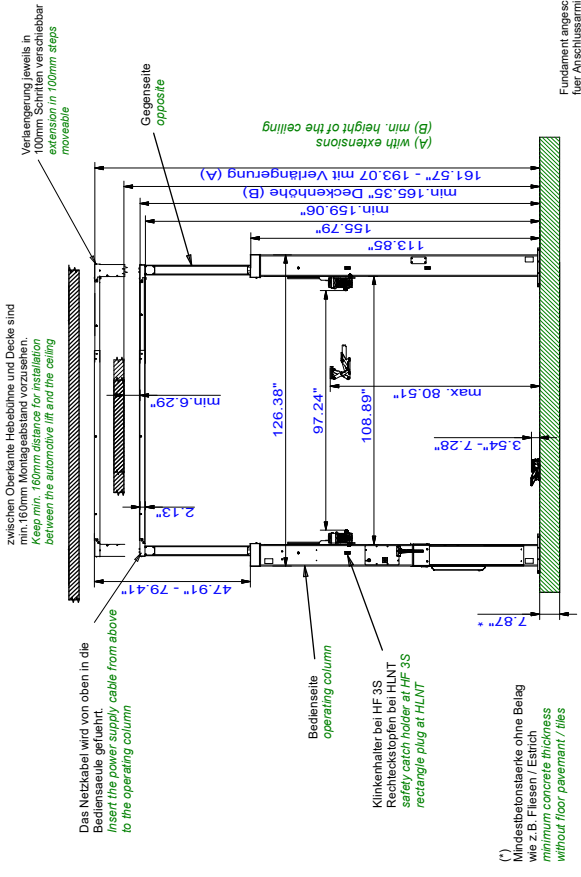
Zeichnungsnummer / drawing number
8906_NB

Alle Maße in Zoll / all dimensions in inch
Mess- und Konstruktionsänderungen vorbehalten / dimensions and design changes reserved!

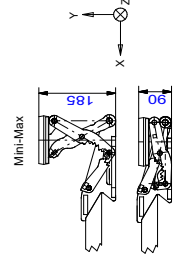
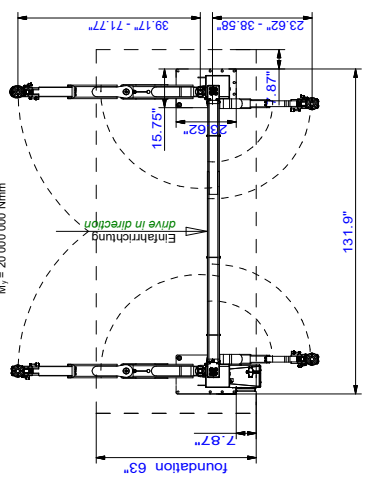
3D CAD-Modell		Rechtskennwerte 1 ISO 4462	
Ind.	Änder. / modification	Datum	Name
-	-	18.09.2019	MH
-	-		
-	-		
-	-		
-	-		
-	-		
-	-		
-	-		
-	-		



Körber Str. 24, 77694 Kehl
www.nussbaum-group.de



max. statische Kräfte + Momente je Säule
max. static forces + power moments per column
M_s = 23 000 000 Nmm
M_r = 20 000 000 Nmm

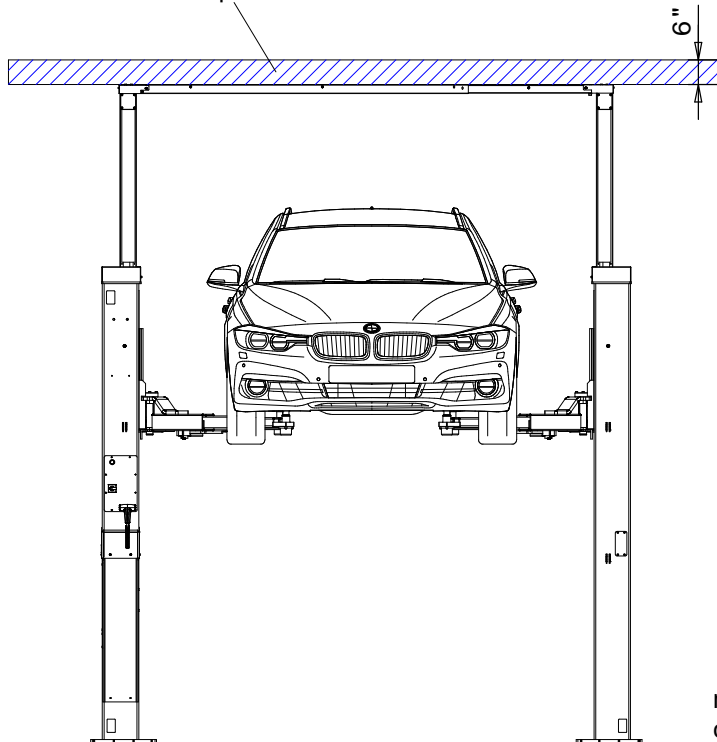


Tragfähigkeit der Bühne = 3500kg
(Bei Verwendung der Otto-Tragarme, ist der 4t. Stahlbau für die Bühne zu verwenden)

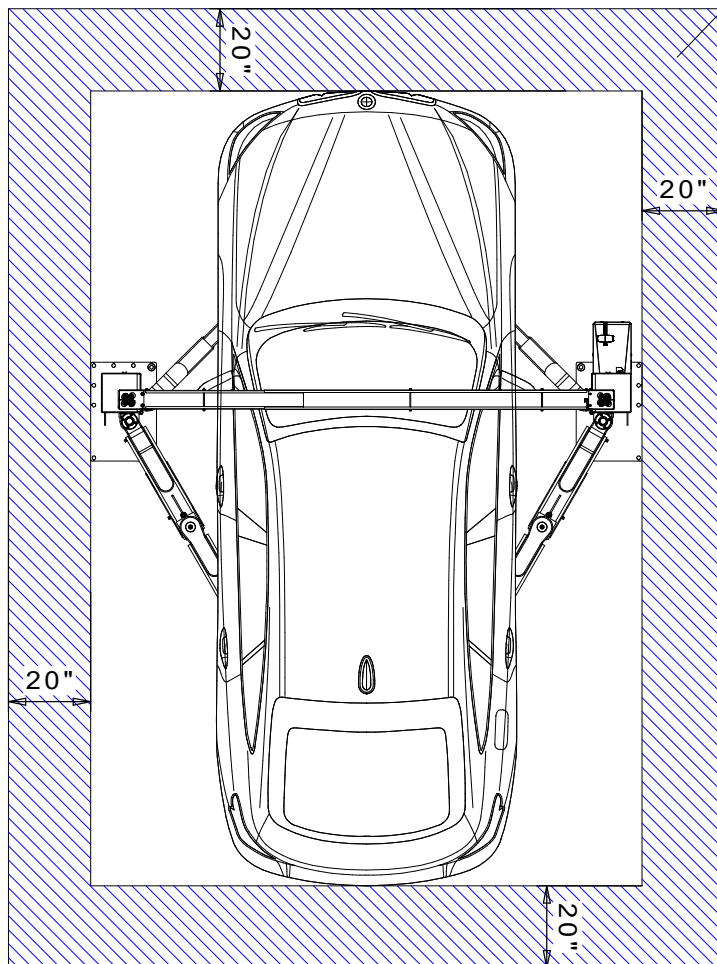
Bausatz an der Bediensäule bereitstellen:
Netzanschluss: 1PH, N+PE, 230V, 60Hz
Absicherung: 16 Ampere Leage
Kabellänge: ca. 2m, 5x2,5mm²
Druckluft für Energieset: lichte Weite 6mm, 6-10 bar
Power supply: 1PH, N+PE, 230V, 60Hz
fuse: 16 Ampere, time lag
cable: approx. 2m, 5x2,5mm²
air pressure: inner diameter 6mm, 6-10bar

Clearance around the lift

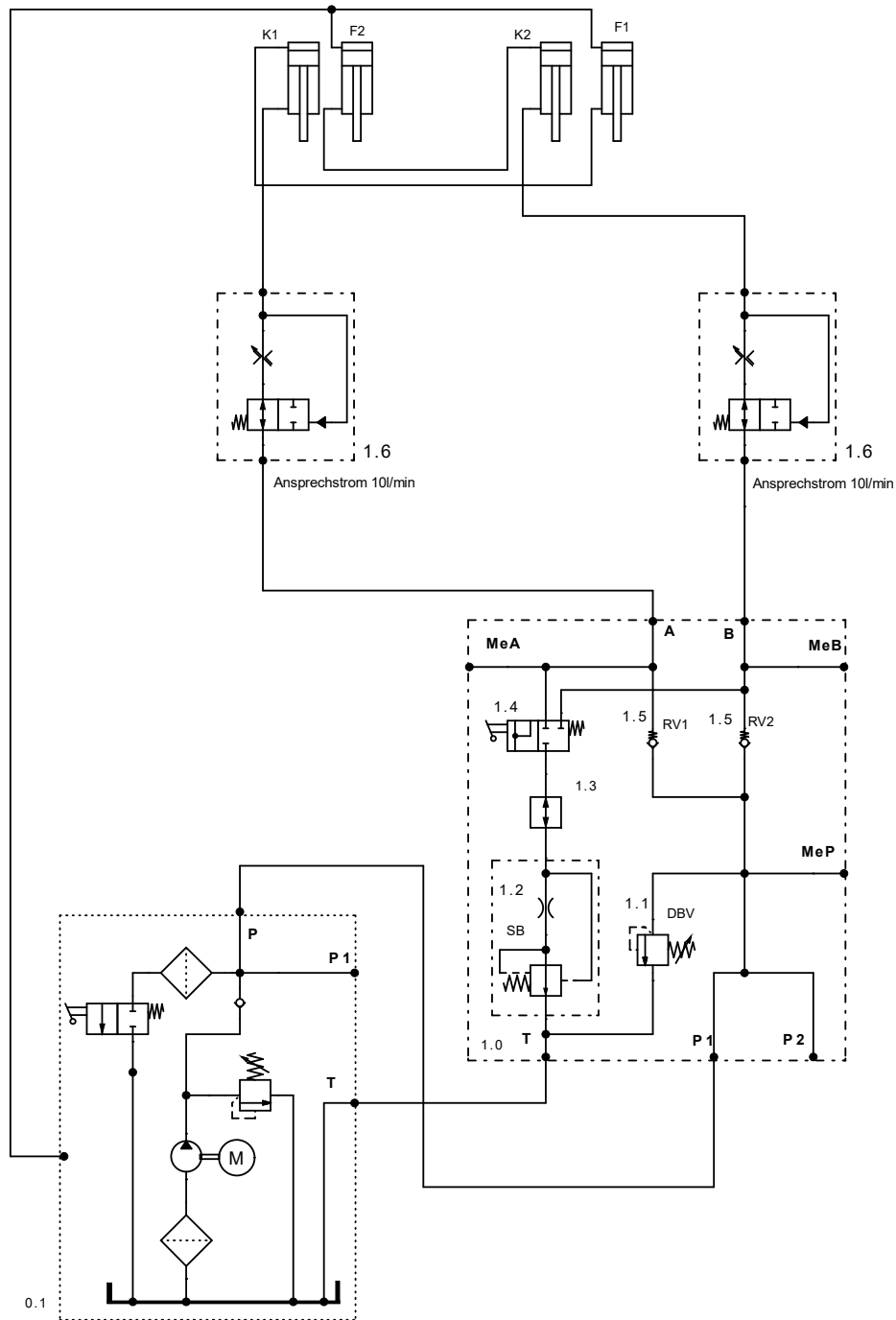
recommended clearance above the lift,
if there is no specification in the datasheet



recommended
clearance around the lift



3.4 Hydraulic plan



0.1	BOSCH-USA	AC UNIT	K1	230SLNT02840	CYLINDER, COMMAND SIDE OPERATING SIDE
1.0	000JL21150-SB15	JL NT BLOCK CPL.	K2	230SLNT02820	CYLINDER, COMMAND SIDE OPERATING SIDE
1.1	155211	PRESSURE RELIEF VALVE	F1	230SLNT02830	CYLINDER, DOWNSTREAM SIDE
1.2	982602	SB LOWERING BRAKE 10L/MIN 1/4"	F2	230SLNT02850	CYLINDER, DOWNSTREAM SIDE
1.3	117874	CLOSING SCREW			
1.4	974820	BALL VALVE			
1.5	983700	CHECK VALVE			
1.6		LINE-BREAK SAFETY DEVICE			

3.5 Electrical circuit diagram

Grounding according to local regulations

Before commissioning check whether the nominal motor current matches the motor protection relay. Check all terminal points for proper connection and that all contact screws are tight.

Before commissioning, check all wiring and controls for proper function. Do not permit commissioning from the unauthorised side.

These plans were generated on a CAD system. To keep plans to the current state, we ask that you request Nussbaum to make the changes.

These circuit diagrams are intellectual property. They may not be given to third parties or reproduced without our permission!

Rights to make changes are retained.

Circuit diagram and switch documents

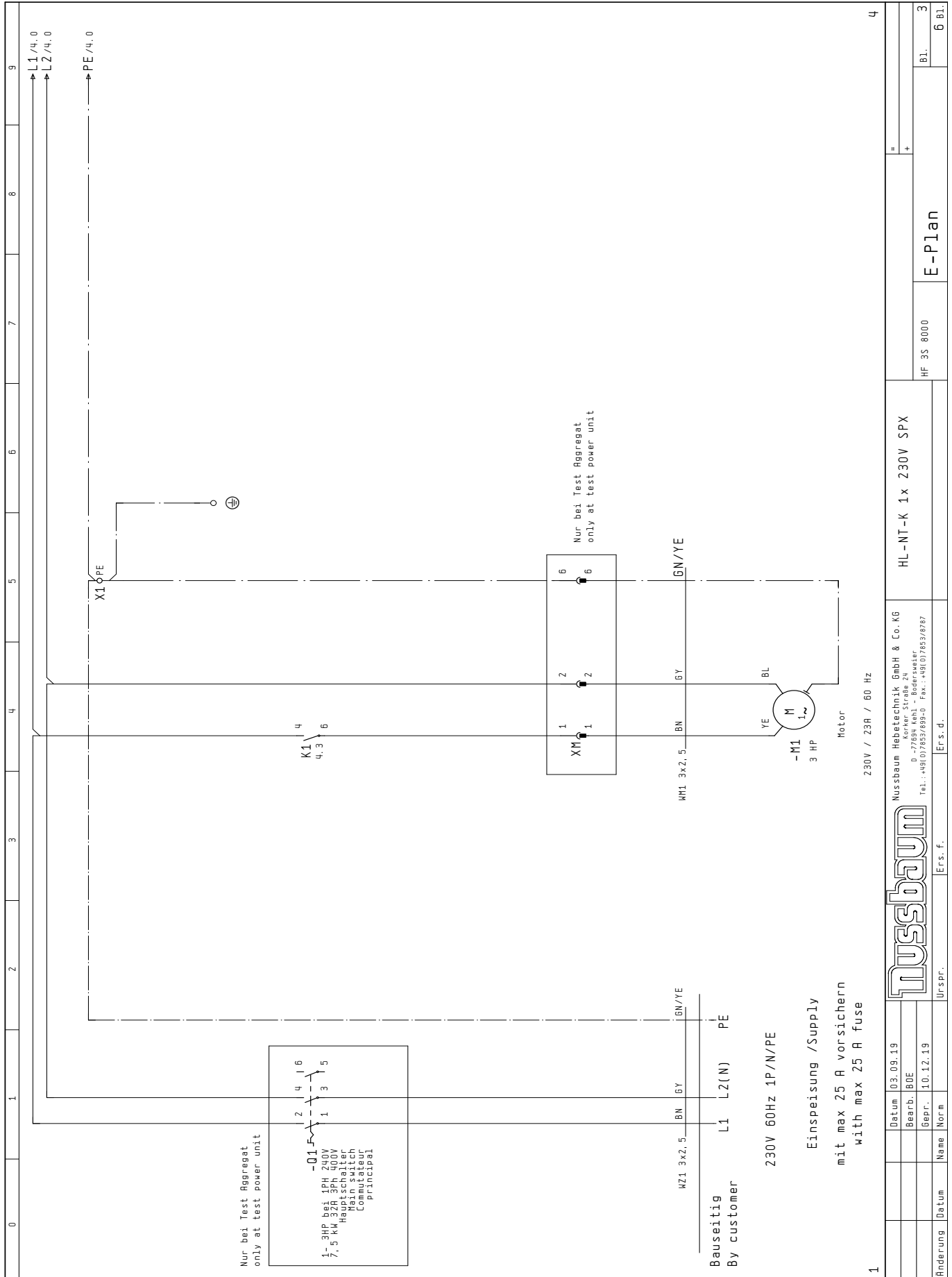
Circuit diagrams were made to the best of our knowledge.

No guarantee is made for the accuracy of enclosed circuit diagrams and switch plans contained in this document. This is particularly relevant for switches that were completed by us according to third party plans. This was done by us from purchaser provided manufacturer documentation.

Functional test of switch systems

Circuit diagrams are not standard documents. When checking the control cabinet at the factory, field devices such as sensors, thermostats and motors cannot be included. For this reason, even with careful inspection, functional and switch errors cannot always be prevented.

Deficiencies are removed within the scope of guarantee during commissioning. During commissioning, if our services are not used, then no deficiency liability is accepted. Rework, including informing of circuit diagrams of switch systems not commissioned by us are therefore only done to an invoice according to our service terms and conditions. Costs for rework by third parties cannot be honoured.



0	1	2	3	4	5	6	7	8	9		
<p>Option Hubhöhenbegrenzung Option Limiting height of lifting</p> <p>Option Oben-Rus Option Above-Off oder or Option Fotozelle Option Photocell</p>											
4									6		
				<p>Nussbaum Heberteknik GmbH & Co. KG Korfer Straße 24 D - 77694 Kehl - Badersweiler Tel.: +49(0)7852899-0 Fax.: +49(0)7852897</p>				<p>HL-NT-K 1x 230V SPX</p>			
				<p>Nussbaum</p>				<p>HF 3S 8000</p>			
				<p>Ers. f. _____ Ers. d. _____</p>				<p>E-Plan</p>			
				<p>Urspr. _____</p>				<p>BL. _____</p>			
				<p>Datum 03.09.19</p>				<p>6 Bl. _____</p>			
				<p>Bearb. UDB1</p>				<p>+</p>			
				<p>Gepr. 10.12.19</p>				<p>5</p>			
				<p>Name _____ Norm _____</p>				<p>6 Bl. _____</p>			

POS	BMK	QTY.	DESIGNATION 1	TYPE NUMBER	MANUFACTURER	ITEM NUMBER
1	J1	1	CIRCUIT BOARD HOLDING PANEL BL. 2X67.7X257 DX51 D+Z	000STA03564		000STA03564
2	J1	1	UNIVERSAL CONTROLS CIRCUIT BOARD V2	CIRCUIT BOARD FOR UNIVERSAL CONTROLS	NB_UNIVERSALCIRCUITBOARD	9000STA03566
3	J1	1	SAFETY HOOD FOR ELECTRICAL CONTROLS	SAFETY HOOD FOR ELECTRICAL CONTROLS	KERFT	9232SL03026
4	J1	2	PERFECT CABLE SCREW FITTING M16X1,5	CABLE SCREW FITTING M16X1,5	JACOB GMBH	9951969
5	J1	1	PERFECT CABLE SCREW FITTING M32X1,5	CABLE SCREW FITTING M32X1,5	JACOB GMBH	9951971
6	J1	1	SEAL FOR 6 LINES (6MM) FOR	MULTIPLE SEALS	JACOB GMBH	996875
7	-Q1	1	MAIN SW. EMERGENCY STOP 3P 32A 7.5KW	A151/6.1050	MERZ GMBH	991032
8	X1	1	GROUND WIRE CLAMP D 2,5/6.P.ADO FAST-FAST	D 2,5/8.P.ADO	ENTRELEC	990185
9	S1	1	MICRO DEVICE SWITCH O + S	11.150.101	MARQUARDT GMBH	990322
10	S2	1	MICRO DEVICE SWITCH O + S	11.150.101	MARQUARDT GMBH	990322
11	K1	1	RELAY SOCKET FOR POWER RELAY G7L	P7LF-06D	OMRON	995926
12	K1	1	POWER RELAY 24 VDC	G7L -1A -T 24VDC	OMRON	995927
13	S3	1	PUSH BUTTON (D22 MM) WITHOUT INSERT SIGN	LPXB0	LOVATO ELECTRIC	996883
14	S3	1	PUSH PLATE START (-) (22 MM)	LPXB103	LOVATO ELECTRIC	996886
15	S3	1	CONTACT ELEMENT 1Ö (22MM)	LPXC01	LOVATO ELECTRIC	996881
16	S3	1	CONTACT ELEMENT 1S (22MM)	LPXC10	LOVATO ELECTRIC	996885
17	S3	1	FASTENING BASE (D22 MM)	LPXAU120'	LOVATO ELECTRIC	996884
18	YK2.1	1	VALVE PLUG C182 9 N21 BLACK	DEVICE PLUG	SEEHAUSEN	118620
19	YK2.1	1	LATCH SOLENOID VALVE 24 VDC, 1.29 A : 100% ED	LIFTING MAGNET	NUSSBAUM	00MNG603160
20	YK1.1	1	VALVE PLUG C182 9 N21 BLACK	DEVICE PLUG	SEEHAUSEN	118620
21	YK1.1	1	LATCH SOLENOID VALVE 24 VDC, 1.29 A : 100% ED	LIFTING MAGNET	NUSSBAUM	00MNG603160
22	-S4	1	REFLECTION LIGHT CURTAIN WL280-S230	REFLECTION LIGHT CURTAIN WL280	SICK	992299
23	WZ1	6M	LAPP CABLE HALOGEN FREE, ÖLFLEX 150, 3G2.5	ÖLFLEX 150	LAPP	15403
24	WM1	1 M	LAPP CABLE HALOGEN FREE, ÖLFLEX 150, 3G2.5	ÖLFLEX 150	LAPP	15403
25	WYK1	1 M	CONTROL LINE WITH NUM. WIRES (2 X1,0MM ²)	PVC CONTROL LINE FLEX	KABEL WÄCHTER GMBH & CO.KG	995577
26	WYK2	10 M	CONTROL LINE WITH NUM. WIRES (2 X1,0MM ²)	PVC CONTROL LINE FLEX	KABEL WÄCHTER GMBH & CO.KG	995577

4 Installation

The installation of the Lift is performed by manufacturer trained technicians or by the manufacturer's distribution partner. The Lift owner may use their trained mechanics to install the Lift. The installation must be performed according to the following regulations:

- Use architectural plans, if available, to determine Lift location.
- Lift is intended for indoor installation only. Installation in an outdoor application is prohibited and will void the warranties of the product.
- Always consult a qualified person regarding local regulations for seismic requirements. The owner has

to consult a qualified person to address any local or state requirements (per the ALCTV standard: "a qualified person should be consulted to address any seismic loads and other local or state requirements")

- Do not install Lift in hazardous locations, pit or depression areas, or washing stalls.
- Concrete must have compression strength (see chapter 8).
- Mount on a foundation deeper than the local external frost line.
- Be sure to read the ANSI/ALI ALIS prior to installation.
- The installer has to return the instructional materials furnished with the lift back to the owner.

Shipping / parts list

POS	ITEM NAMES	ITEM CODES	QUANTITY	LOCATION
1	COLUMN MASTER WITH LIFTING CARRIAGE, CYLINDERS, POWER UNIT		1	BOX
2	COLUMN SLAVE WITH LIFTING CARRIAGE, CYLINDERS		1	BOX
3A	OTTO LIFTING ARM OPERATOR SIDE LONG	235HLNT08001	1	BOX
3B	OTTO LIFTING ARM OPPOSITE SIDE LONG	235HLNT08002	1	BOX
3C	LIFTING ARM OPERATOR SIDE SHORT	235SL08051	1	BOX
3D	LIFTING ARM OPPOSITE SIDE SHORT	235SL08052	1	BOX
4	SET OF CABLE TIES FOR FIXING THE HOSES		1	BOX
5	CROSS BEAM		1	BOX
6	COVER PANEL	240SL09008	2	BOX
7	COVER WITH INDICATION OF WEIGHT	230SLH09047	2	BOX
8	MANUAL	975537	1	PLASTIC BAG

5 Operating manual



When handling the lift, it must absolutely comply with safety regulations. Carefully read the safety regulations in Section 1.5 before first operation!

5.1 Positioning the vehicle

Drive the vehicle onto the lift according to the following images, until the lifting arm receives it (figure A and B).

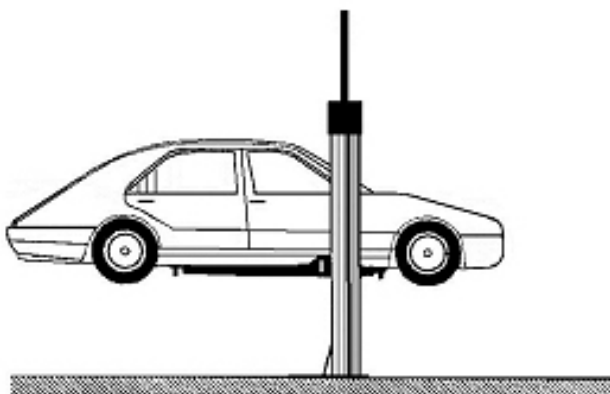


Figure. A) The lift column must be located between the steering wheel and the car door hinges!

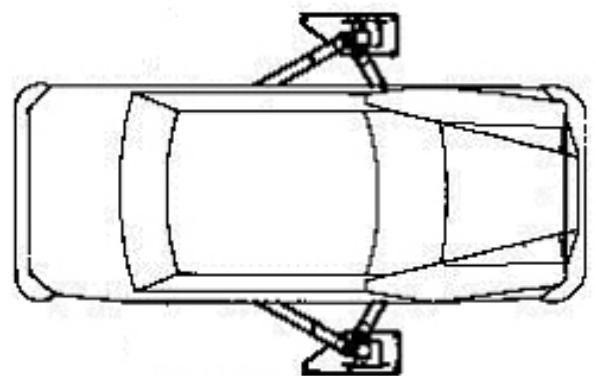


Figure. B) Drive in the middle of the lift.

Swivel in the lifting arms and extend out to the desired position. The adjustable receiving plates are to be placed at the pointed prescribed by the vehicle manufacturer.

Version with Mini-Max lifting arms



Figure 1: Position carrier plate below the fixture points approved by the vehicle manufacturer.



Figure 2: If required, place the carrier plate by pushing the lever at the fixture points.

! Ensure that the ratchet is securely locked into the intended position. Otherwise the „Mini-Max“ can sink to its lowest position.



Figure 3: To release the fixture plate, the rear lever must be pushed.

- The lifting arm block must be ratcheted in after the fixture point has been reached.
- After each set down of the vehicle, check the lifting arm positions below the fixture points again and adjust as required.
- Check that there are no people or objects in the hazardous area of the lift.

5.2 Lifting the vehicle

- Lift the vehicle until the wheels are off the ground. Push the operating lever forwards → "Lift" (see figure 4).
- If the wheels are not blocked, interrupt the lifting process and check for proper seating of the carrier plate. Similarly check whether the lifting arm blocks are ratcheted in. Otherwise, lower the lift and reposition the vehicle.
- After each set down of the vehicle, check the lifting arm positions below the fixture points again and adjust as required.
- Check that there are no people or objects in the hazardous area of the lift.
- Afterwards, lift the vehicle to the desired working height.



Ensure secure vehicle placement on the carrier plate, otherwise there is a danger of the vehicle dropping.

i See to it that the lifting arm blocks are ratcheted in after the vehicle has been accepted.



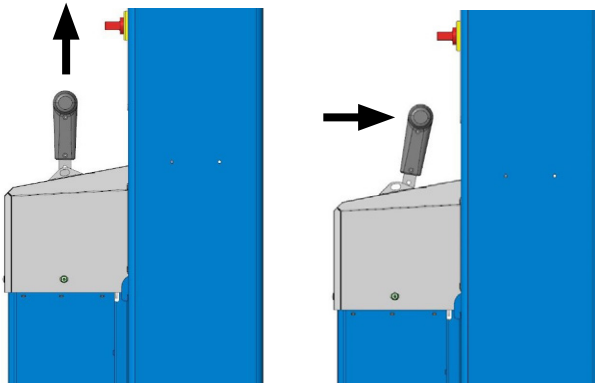
Main switch

Figure 4: Operating unit

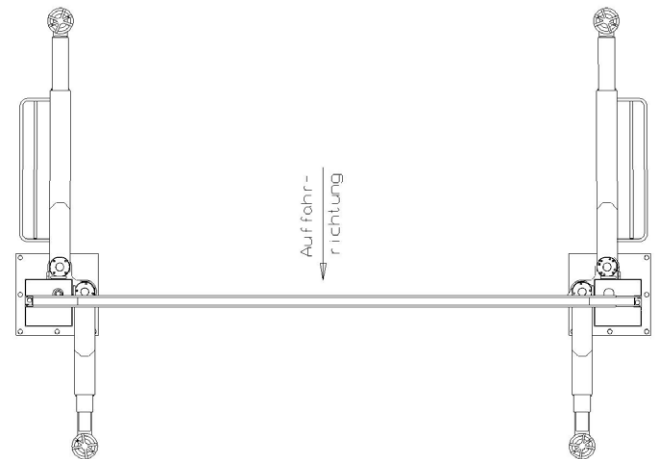
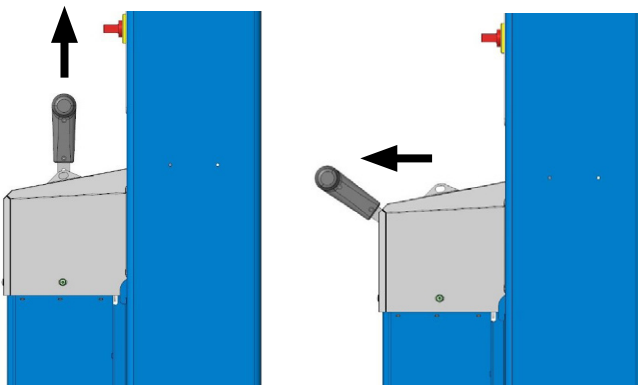


Operating lever
Fig. similar

Lift:



Lower:



Lifting arm start position

Once the lift is in the lowest position, swing out the lifting arms to the start position.

- Move the vehicle out of the lift.

6 Behaviour in cases of error

Defective operational readiness of the lift may be due to a simple error. Check the system for the listed sources of error.

If the error cannot be removed after an inspection to the named causes, then inform customer service or your dealer.



Independent repairs to the lift, especially on the safety devices, as well as inspections and repairs to electrical systems are prohibited. Work on electrical systems may only be done by electricians.

5.3 Lift synchronization

- Uneven running of the lift is not possible in proper operation.
- For this, raise the lift to its uppermost end position. Push the operating lever for 2 more seconds. During this procedure the lift rails are equalised to each other as hydraulic oil flows to the tank as an overflow from the command cylinder via the downstream cylinder to the tank.
- Release the operating lever. The lift rails then lower some millimetres and thereby block the overflow opening of the cylinder.
- Both lift rails are now at the same height.

5.4 Lowering the vehicle

- Check that there are no people or objects in the hazardous area of the lift.
- Lower the vehicle to the desired working height or to its lowest position; pull the operating lever slowly → "Lower".
- For heavier vehicles, lift it slightly before lowering to prevent an "sticking" and any corresponding jolt during lowering.
- The lowering speed can be varied seamlessly.
- Once the lift is in the lowest position, push the lifting arms to the start position.

Problem: The lift cannot be raised

Possible causes:	Remedy:
No power supply present	Check power supply
The main switch is not switched on, or is defective	Check main switch
Operating lever defective	Check function
Defective fuse	Check fuses
Power line interrupted	Check power lines

Motor has overheated	Let motor cool (cooling time dependent on ambient temperature)
Motor defective	Do an emergency discharge (see Section 6.1)
Only 2 phases active	Do an on-site check with a qualified electrician
Insufficient hydraulic oil available	Refill new hydraulic oil

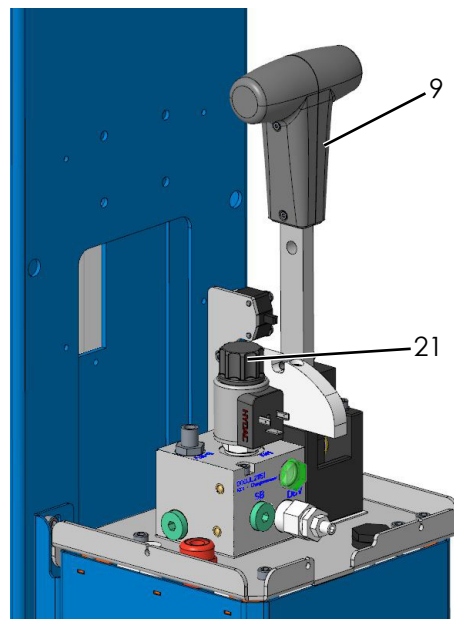
Problem: The lift cannot be lowered

Possible causes:	Remedy:
The lifting arm has moved onto an obstacle	Raise the lift and remove the obstacle.
Operating lever defective	Notify customer service Perform emergency discharge. Slowly pull lever

6.1 Emergency discharge

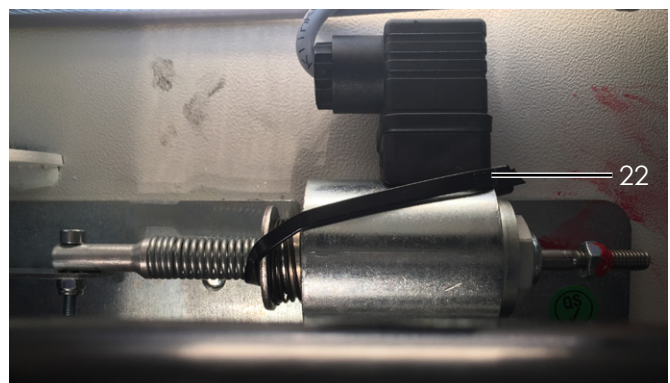


An emergency discharge is an access into the lift controls and may only be done by experienced specialists. The emergency discharge must be done in the following described sequence, otherwise it can lead to damage and hazard to life and limb. People may not stand in the hazardous area around the lift.



9 Operating lever
21 Emergency discharge valve

012



Preparation

- Loosen and remove the plastic part (T-piece) of the operating lever (9) at both screws on the side.
- Loosen and remove the stainless steel cover of the unit.
- After the lift has been set down into the latch then the lift must first be lifted (using a forklift, electrical pallet truck or similar) out of the latch so that it moves freely again. Then tie back the latch using, e.g. a cable tie.


Emergency discharge:

- Push on the black cap (21) of the valve and at the same time slowly pull the operating lever (9). The lowering procedure begins immediately. Lowering speed can be varied by the lever position.
- The lowering process must be continuously observed.
- Release the operating lever (9) to stop or if there is a danger.
- Lower the lift to the lowest position.
- Release the latch again (remove cable tie)
- Only operate the lift if it is in seamless condition from a safety point of view.
- If required, firstly inform customer service.

6.2 Moving onto an obstacle

If the lifting rails or lifting arms move onto an obstacle due to operator inattention, the lift stops in place. To remove the object, raise the lift to a height where the object can be removed.

7 Maintenance and care of the lift

 *Before maintenance, do all preparation work so there is no danger to life or limb or object damage during maintenance and repair work.*


Value is placed on long lifetimes and safety in the development and production of Nussbaum products. To guarantee the safety of the operator, product reliability, low running costs, keep the warranty and also the long-lifetime of the product, proper set up and operation is just as important as regular maintenance and sufficient care.








Our platforms fulfil or exceed all safety standards of the countries we supply to. For example, European regulations require a service by qualified experts every 12 months of work of the platform. To guarantee the largest possible availability and functional capacity of the lift system, ensure the list of any cleaning, care and maintenance work is done.


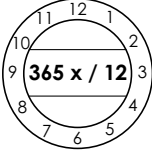

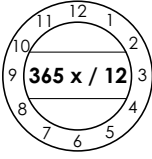

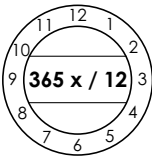

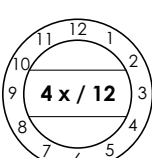

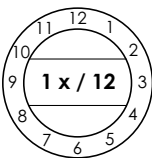

After first commissioning the lift is to be serviced at regular intervals of a maximum of one year by an authorized person according to the following plan. For intensive operation and higher degree of contamination shorten the service interval.

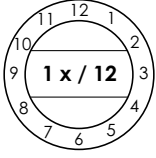
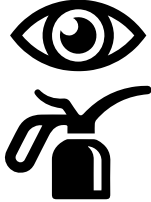
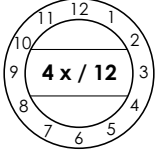
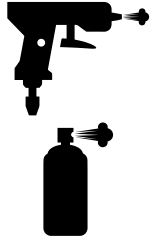
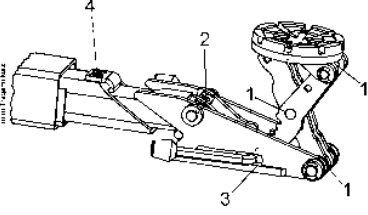
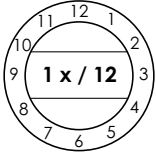

The complete function of the lift is to be observed during daily use. Customer service must be informed of any malfunctions.

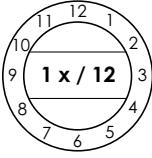

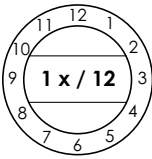

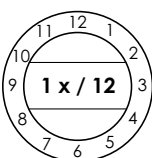

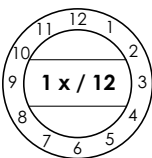

7.1 Maintenance plan

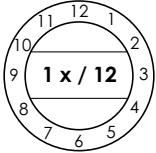

 Before beginning service, disconnect from power. The work area around the lift is to be secured against unauthorised use.

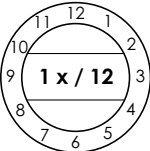

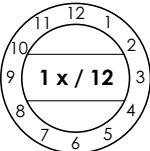

						
Visual inspection	Spray	Oil	Lubricate	Clean with compressed air	Clean	Inspect

Time frame		Position Type of maintenance	Person in charge	Maintenance plan
As required			Lift owner / employer	The lift cylinder can sweat and small oil droplets can form on the base plate, this is however, not a leak.
Daily			Lift owner / employer	Model and information signs, labels, brief operating instructions, safety stickers and warning information are to be cleaned and exchanged if damaged.
Daily			Lift owner / employer	Check the foot bumper for condition and function. Exchange if damaged.
Daily			Lift owner / employer	The rubber acceptance plate is to be checked for wear and replaced if necessary.
Every 3 months			Lift owner / employer	Check the tracks and the lift rail equalization parts for wear. After cleaning, grease with multi-purpose grease. We exclusively recommend that MO-2 high performance lubricating grease is used. (available for purchase directly from Oest).
Annually			Trained service personnel	Check the lifting arm block and gear for wear. Exchange if there is visible damage.

Time frame		Position Type of maintenance	Person in charge	Maintenance plan																																																														
Annually			Trained service personnel	Lifting arm booms, lifting arm bolts, carrier plate threaded bolts are to be checked for ease of running. If required, lightly grease with multi-purpose grease. Do not over-lubricate.																																																														
Every 3 months			Lift owner / employer	<p>Version with MINI-MAX lifting arm</p> <ol style="list-style-type: none"> 1. Blow out and spray bolts. Check the rollers for wear. 2. Check the locking screws (this is only screwed in lightly and is then glued (Loctite)). Screws may not be completely tightened otherwise the ease of running of the Mini-Max mechanism is no longer guaranteed. 3. Clean and spray this frictional surface. „Penetrating oil“ similar to Top 2000 from Autol. 4. Check the safety plate for damage and exchange if required. 																																																														
Annually			Trained service personnel	<p>Check all fastening screws and anchors with a torque wrench.</p> <p><i>Fastening class 8.8</i></p> <table border="1"> <thead> <tr> <th></th> <th>0.08*</th> <th>0.12**</th> <th>0.14***</th> </tr> </thead> <tbody> <tr> <td>M8</td> <td>17.9</td> <td>23.1</td> <td>25.3</td> </tr> <tr> <td>M10</td> <td>36</td> <td>46</td> <td>51</td> </tr> <tr> <td>M12</td> <td>61</td> <td>80</td> <td>87</td> </tr> <tr> <td>M16</td> <td>147</td> <td>194</td> <td>214</td> </tr> <tr> <td>M20</td> <td>297</td> <td>391</td> <td>430</td> </tr> <tr> <td>M24</td> <td>512</td> <td>675</td> <td>743</td> </tr> </tbody> </table> <p><i>Fastening class 10.9</i></p> <table border="1"> <thead> <tr> <th></th> <th>0.08*</th> <th>0.12**</th> <th>0.14***</th> </tr> </thead> <tbody> <tr> <td>M8</td> <td></td> <td>26.2</td> <td>34</td> <td>37.2</td> </tr> <tr> <td>M10</td> <td>53</td> <td>68</td> <td>75</td> <td></td> </tr> <tr> <td>M12</td> <td>90</td> <td>117</td> <td>128</td> <td></td> </tr> <tr> <td>M16</td> <td>216</td> <td>285</td> <td>314</td> <td></td> </tr> <tr> <td>M20</td> <td>423</td> <td>557</td> <td>615</td> <td></td> </tr> <tr> <td>M24</td> <td>730</td> <td>960</td> <td>1060</td> <td></td> </tr> </tbody> </table> <p>* Lubricated slide friction number 0.8 MoS2 ** Lightly oiled slide friction number 0.12 *** Ensured slide friction number 0.14 screw with micro-encapsulated plastic</p>		0.08*	0.12**	0.14***	M8	17.9	23.1	25.3	M10	36	46	51	M12	61	80	87	M16	147	194	214	M20	297	391	430	M24	512	675	743		0.08*	0.12**	0.14***	M8		26.2	34	37.2	M10	53	68	75		M12	90	117	128		M16	216	285	314		M20	423	557	615		M24	730	960	1060	
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M20	423	557	615																																																															
M24	730	960	1060																																																															

Time frame		Position Type of maintenance	Person in charge	Maintenance plan
Annually			Trained service personnel	All weld seams must have a visual inspection. Stop the system and contact the manufacturer if there are cracks or breaks in weld seams of the lift.
Annually			Trained service personnel	<p>Check electrical components for function and condition.</p> <ul style="list-style-type: none"> • Plug. • Operating lever with button switch. • During assembly and maintenance always check the condition of electrical lines. All cables and lines must be secured so they cannot be crushed, kinked or contact any moving assembly.
Annually			Trained service personnel	<p>Optional energy set:</p> <ul style="list-style-type: none"> • Electrical socket • Pneumatic connection <p>Check for condition and function.</p>
Annually			Trained service personnel	<p>Check the paint:</p> <ul style="list-style-type: none"> • Check the powder coating and improve if required. Damage by external influences is to be treated immediately after detection. If these points are not treated, infiltration of deposits of all kinds can cause wide-ranging and permanent damage. These points are to be lightly sanded (120 grit), cleaned and degreased. Afterwards, rework with a suitable touch up paint (note the RAL No.). • Check galvanised surfaces, touch up as needed. White rust is fostered by permanent humidity, poor ventilation. The affected areas can be treated by using a sanding cloth (A 280 grit). If required, the parts are to be treated with a suitable, resistant material (paint etc.). Check the RAL colour selection. • Rust is brought out by mechanical damage, wear, aggressive deposits (de-icing salt, leaking operating fluids) cleaning that is not done or incomplete. The affected areas can be treated by using a sanding cloth (A 280 grit). If required, post-treat the areas with a resistant material (paint etc.).

Time frame	Position Type of maintenance	Person in charge	Maintenance plan
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Annually</p> 		<p>Trained service personnel</p>	<p>According to manufacturer instructions, the hydraulic oil should be changed every two years in normal operations. Various environmental influences e.g. location, temperature swings, intensive operation etc, can have an influence on the quality of the hydraulic oil. For this reason, the oil must be checked during annual safety inspections and maintenance.</p> <p>The oil is used if it has a milky colour or if the hydraulic oil smells unpleasantly.</p> <p>To change oil, lower the lift is to its lowest position then suction the oil out of the oil container and replace the contents.</p> <p>The manufacturer recommends high-quality clean hydraulic oil. The required oil volume and type is to be taken from the technical data. After filling (18), the hydraulic oil must be between the upper and lower marking on the oil dipstick, or approx. 2 cm below the oil filling opening. Dispose of the old oil according to regulations to the intended location (district offices, environmental protection office or commercial regulatory office has the obligation to disclose about disposal points).</p>

Time frame	Position Type of maintenance	Person in charge	Maintenance plan
Annually		 Trained service personnel	<p>Hydraulic hose lines</p> <p>Storage and duration of use Excerpt from DIN20066:2002-10</p> <ul style="list-style-type: none"> • For permitted loading, hoses undergo a natural change. This limits the duration of use. • Improper storage, mechanical damage and unpermitted loads are the most frequent cause of breakdowns. • The duration of use of a hose line including any storage time should not exceed six years. <p>Hose lines are to be replaced if/when,</p> <ul style="list-style-type: none"> • Damage to the outer coating up to the insert (chafe marks, cuts, cracks). • The outer coating becomes brittle (crack formation). • Deformation from the natural shape in the depressurised and pressurised conditions. • Leakage. • Damage or deformation of the mounting fixture. • Meandering of the mounting fixture. • The lifetime has been exceeded. <p>Repair of the hose line using the implemented hose / mounting fixture is not permitted.</p> <p>Extending the replacement intervals given in the guideline is possible if the inspection for safe-work condition is done in adjusted, shortened time frames, if required and by competent personnel. If there is an extension of the replacement interval, no situation may occur which could result in injury of employees or other personnel.</p>
Annually		 Trained service personnel	<p>Excerpt from BGR237: Specifications for the hydraulic hose lines.</p> <p>Normal specification: Recommended exchange intervals: 6 years (operation duration including max. 2 years storage time).</p> <p>Increased demands e.g. by</p> <ul style="list-style-type: none"> • Increased usage times e.g. multi-shift, short cycle times and pressure impulses. • Increased exterior and interior (due to media) influences which significantly reduce the lifetime of the hose lines. <p>Recommended exchange intervals: 6 years (operation duration including max. 2 years storage time).</p>

7.2 Cleaning the lift

A regular and expert clean helps retain the value of the lift.

Additionally, it can also be a pre-requisite for the preservation of guarantee claims for any eventual corrosion damage.

The best protection for the lift is regular removal of contaminants of any kind.

This includes above all:

- De-icing salt
- Sand, pebbles, earth
- Industrial dust of all types
- Water, also in connection with other environmental influences
- Aggressive deposits of all types
- Permanent humidity due to insufficient ventilation

The frequency of lift cleaning depends, among other things on the frequency of use, of lift handling, of workshop cleanliness, and the location of the lift. Furthermore, the degree of contamination depends on the time of year, the weather conditions and workshop ventilation. Under adverse circumstances, weekly lift cleaning might be required, however a monthly cleaning may be sufficient.

Do not use and aggressive and abrasive materials for cleaning, rather use mild cleaners, e.g. a commercially available detergent and lukewarm water.

- For cleaning, do not use high pressure washers (e.g. steam cleaners).
- Carefully remove all contamination with a sponge, or if required with a brush.
- Make sure that there is no residue of the cleaner on the lift.
- Dry the lift with a cloth and spray it with a spray wax or oil.
- Moving parts (bolts, bearing zones) are to be lubricated or oiled according to instructions.
- When cleaning the workshop floor ensure that no aggressive cleaning materials come into contact with lift surfaces. Permanent contact with any kind of liquid is prohibited.

7.3 Checking the stability of the lift


Retighten nuts of the approved fastening anchors to the torques specified by the manufacturer using a pre-set torque wrench (Torque details are found on the data sheet of the corresponding anchor manufacturer).

8 Assembly and commissioning

8.1 Set up guidelines

- Lift set up is done by trained manufacturer personnel or a contract partner. Set up is to be done according to the assembly instructions.
- A standard lift may not be set up in explosion endangered spaces or wash halls.
- Before setting up, ensure or make a sufficient foundation.
- A level set up space is to be done in all cases, where open air and enclosed foundations where frost is expected, must have a frost-depth thickness.
- An on-site standard electrical connection of 1 ~/N + PE, 230 V, 60 Hz is to be provided. The supply is to be secured according to VDE0100 with 16 ampere fuses. The minimum line cross-section is 2.5 mm².
- The lines can be fed through the cross-beams. In all cases, prevent kinks or tensional loads on the lines.
- After successful lift installation and before first commissioning, the operating company must have the lift grounding conductors inspected on-site according to IEC regulation (60364-6-61). An insulation resistance test is also recommended.

8.1.1 Set up and anchoring the lift

 *On-site provision of suitable auxiliary materials (e.g. forklifts, crane, etc.) are to be made available for unloading the lift and for assembly.*

Before setting up the lift, the operating company must ensure or make a sufficient foundation. For this, a normal reinforced concrete floor with a value of a min. C20/25 is required. The minimum foundation thickness (without screed and tiles) is to be taken from the foundation plan in this document.

In our plans, we inform of the minimum specifications for the foundation, however local conditions (e.g. underground, floor quality, etc.) are outside of our responsibility. In special cases, the design of the installation location must be individually specified by planning architects and statics experts. Open air foundations must be made to frost depth.

The operating company of the lift is solely responsible for the set up location.

If the lift is to be assembled on an existing concrete floor, cement quality and strength are to be checked beforehand. In case of doubt, make a test bore and insert an anchor. Then, tighten the anchor to the manufacturer recommended torque. After inspection within the anchor zone of influence (200 mm diameter) (see technical data sheet of the anchor manufacturer), if there is visible

damage (hairline cracks, cracks or similar), or if the required torque cannot be applied then the set up location is unsuitable.



Figure 21: General assembly view without riser extension

- | | |
|--------------------|---------------------|
| 1 Cross-beam | 5 Riser |
| 2 Operating column | 6 Counter column |
| 3 Long lifting arm | 7 Short lifting arm |
| 4 Operating unit | |

A foundation must be made according to the „Foundation plan“ sheet regulations. Also a level, set up surface must be ensured for the lift so there is continuous contact between the lift and the concrete floor.

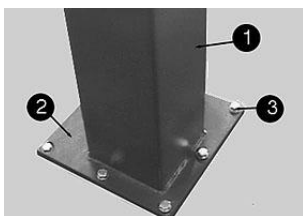


Figure 22: Anchoring

- | |
|-----------------|
| 1 Column |
| 2 Base plate |
| 3 Safety anchor |

- To reach a higher level of protection against humidity from the workshop floor, a thin PE foil should be put between the workshop floor and column

base plate before anchors are placed. Also, the gap between the base plate and workshop floor should be silicone sprayed after anchoring.

- Lift the cross-beam that is fastened to a column and fasten to the opposite side. Hydraulic lines are marked in colours thereby making them easy to connect.

- Holes for floor anchoring are to be placed through the holes in the base plates.

Clean the bore holes by blowing them out with air. Insert safety anchors into the holes.

The manufacturer recommends e.g. Hilt injection anchors or similar anchors from other manufacturers, with approval and in compliance with their specifications.

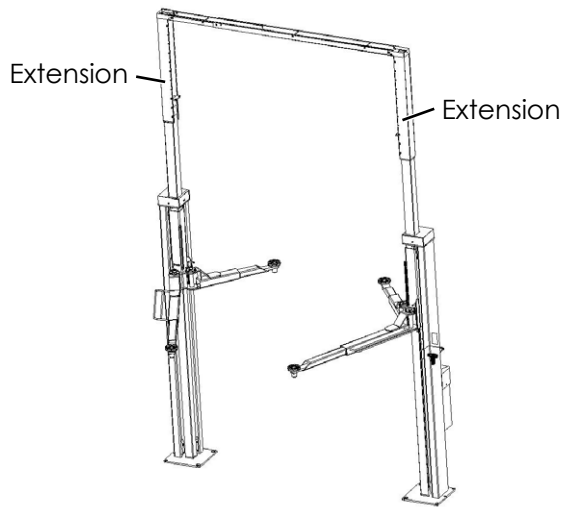
Before anchoring the lift, check whether the concrete is of quality C20/25 up to the finishing level of the completed floor. In this case, determine the anchor length from the "Selection of anchor length without floor covering (in appendix) data sheet. If there is a floor covering (tiles, screed) on the weight bearing concrete, the thickness of this covering must be determined. Afterwards, then determine the anchor length from the "Selection of anchor length without floor covering (in appendix) data sheet.

- Position and align the lift and lift columns using a bubble level.
- The base plates are also to be supported with suitable underlays (thin metal strips) to ensure precise vertical set up and contact between the base plate and the floor.
- Tighten the anchors using a torque wrench.

! Each anchor must be able to be tightened to the torque specified by the manufacturer. Safe operation of the lift is not guaranteed with a lower torque.

- If an anchor is tightened to the specified torque, then the domed washer lays flat on the base plate. Secure anchor connection is then guaranteed.

8.1.2 Lift assembly with riser extension



1. Riser extension is set on the existing riser. The open side faces inwards.



2. Set to the desired height (from 100 mm to 900 mm in 100 mm steps) depending on the ceiling height. Guide the 4 hydraulic lines (fastened to the operating column) upwards out of the riser.

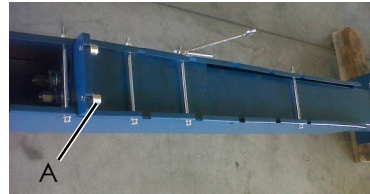


3. Fasten the cover.

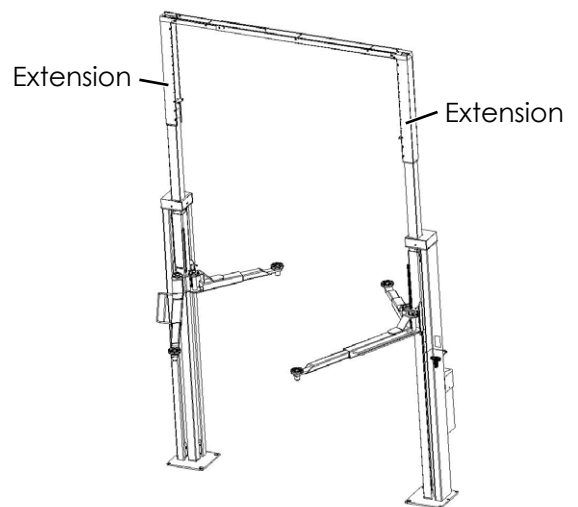


4. After setting up the lifting columns, lift the cross-connection fastened to the operating column upwards and fasten to the opposite side. The hydraulic lines are placed in the cross-connection.

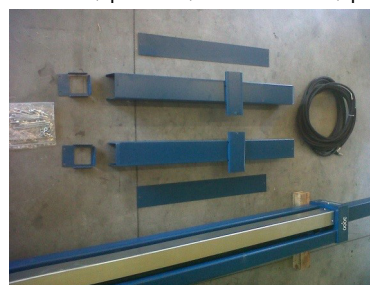
5. Guide the lines from above into the riser of the opposite side and connect to the colour marked positions.
6. Fasten the extension using the long screws after the tensioning plate (A) has been placed.



8.1.3 Retrofitting the riser extension



1. The optional riser extensions are delivered in a box. Have other supplied parts at hand: Hoses, covers, plates, extensions, press panels, screws.



2. Riser extension is set on the existing riser. The open side faces inwards.



- Set to the desired height (from 100 mm to 900 mm in 100 mm steps) depending on the ceiling height.



- Fasten the extension using the long screws after the tensioning plate (A) has been placed.



- Fasten the cover.



- Remove existing hydraulic lines. Do not remove colour markings.



- Loosen and turn the T-piece and bracket visible in the figure.



Exchange the supplied hydraulic hoses

- Place yellow and white on the top of the operating column.



- Attach red directly to the unit.



- Connect blue to K1 of the operating column.



- Cut the cover panel to length and mount.



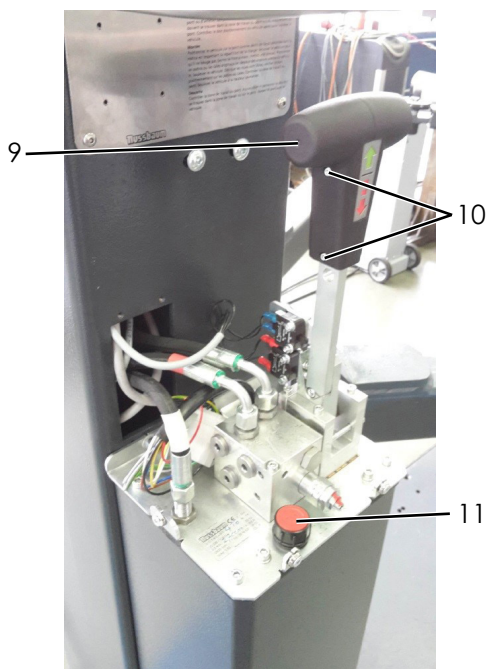
8.1.4 First filling with hydraulic oil

When filling the hydraulic system, identify already filled cylinders (with the sticker "first filling" on the system) and unfilled cylinders (no sticker on the system). Lifts with this sticker already have hydraulic oil in the hydraulic cylinders.



First filling with sticker

Required oil volume: 9 litres (HLP 32) for system. Lifts with this sticker already have hydraulic oil in the hydraulic cylinders and hoses. After setting up the electrical connection to the lift, the hydraulic system can be filled.



9 Operating lever
10 2x Allen key operating lever
11 Oil filling opening

- Loosen and remove the plastic part of the operating lever (9) of both Allen screws (10).
- Loosen and remove the unit cover.
- Unscrew the oil filling opening (11).
- Fill 9 litre hydraulic oil (HLP 32).
- Raise the lift approx. 1 m by pushing the operating lever (9). The lift rails can be lifted at different times!
- Hang in the lifting arms and secure them.

- Push the operating lever forwards and raise the lift to its uppermost end position.
- Push and hold the operating lever for another 60 seconds so air can escape from the system and the overflow procedure equalises the lift to each other.

! For first commissioning, it is normal to have a different start up and a large "shaking" in the uppermost position. Air trapped in the system must be completely removed first.

- Afterwards lower the lift to its lowest position. Pull the operating lever (9) and hold it until the lifting arm is completely lowered.

! The oil level should be approx. 30–40 mm below the oil fill opening. Do not fill the oil tank up to the upper edge, as otherwise during lowering the oil return line can pull oil out of the line and afterwards result in a very slow lifting at the upper range.

- After commissioning, the sticker (first filling) can be removed.

First filling without sticker.

Required oil volume: 13 litres (HLP 32) for system, hoses and cylinders.

- After setting up the electrical connection to the lift, the hydraulic system can be filled.
- Loosen and remove the plastic part of the operating lever (9) of both Allen screws (10).
- Loosen and remove the unit cover.
- Unscrew the oil filling opening (11).
- Fill hydraulic oil: 9 litre (HLP 32).
- Raise the lift approx. 1 m by pushing the operating lever (9). The lift rails can be lifted at different times!
- Hang in the lifting arms and provide with safety rings.
- Push the operating lever (9) forwards and raise the lift to its uppermost end position.


• Now fill the oil tank with hydraulic oil: 4 litre (HLP 32)!

- Afterwards hold the operating lever another 60 seconds so air can escape from the system and the lift rails can be equalised by the overflow procedure.

! For first commissioning, it is normal to have a different start up and a large "shaking" in the uppermost position. Air trapped in the system must be completely removed first.

- Afterwards lower the lift to its lowest position. Pull the operating lever (9) and hold it until the lifting

arm is completely lowered.

- 
The oil level should be approx. 30–40 mm below the oil fill opening. Do not fill the oil tank up to the upper edge, as otherwise during lowering the oil return line can pull oil out of the line and afterwards result in a very slow lifting at the upper range.

8.2 Lifting arm assembly

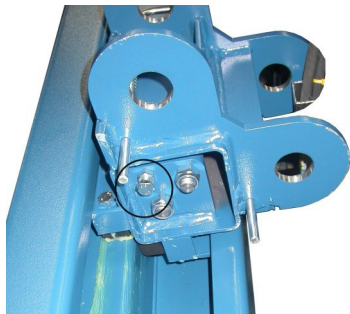
Hang in the standard lifting arm and then place an acid-free multi-purpose grease into the joint bolts in each case from above into the hole and then insert the enclosed locking ring.



The lifting arm bolts must be secured on both sides as otherwise a reliable connection is not given between the lift rails and lifting arm.

8.3 Lifting arm alignment

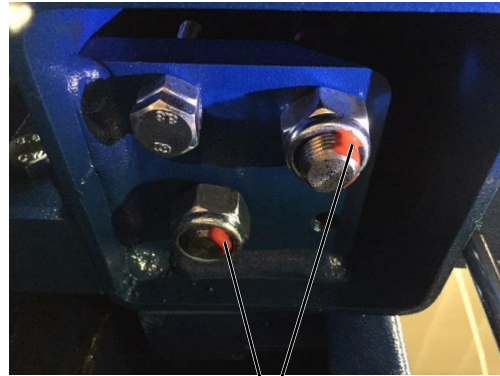
After assembly of the lift, the lifting arm may be placed at the lowest position and become difficult to move. There is the option of setting the set screw so that the lifting arms can be moved more easily.



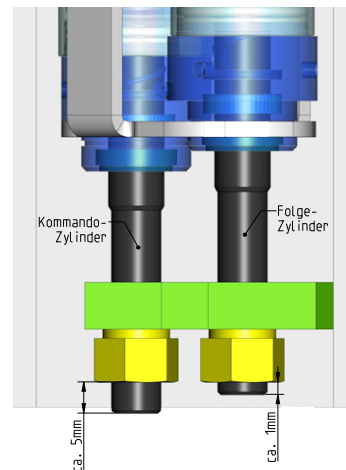
Position of the setting screws

8.3.1 Control of the self-locking nuts


After the assembly, the self-locking nuts have to be checked. The threads of the piston rod must protrude from the nuts (see drawing).



Self-locking nuts




8.4 Commissioning

- 
Before commissioning, a single safety inspection must be done (use the Single Safety Inspection form).

If the lift set up is done by a specialist (factory trained assembler) then he can also do the safety inspection. If the set up is done by the operating company then a specialist must be tasked with the safety inspection.

The specialist confirms seamless operation of the lift on the set up protocol for single safety inspection and releases the lift for use.

- 
After commissioning please complete the assembly protocol and send to the manufacturer immediately.

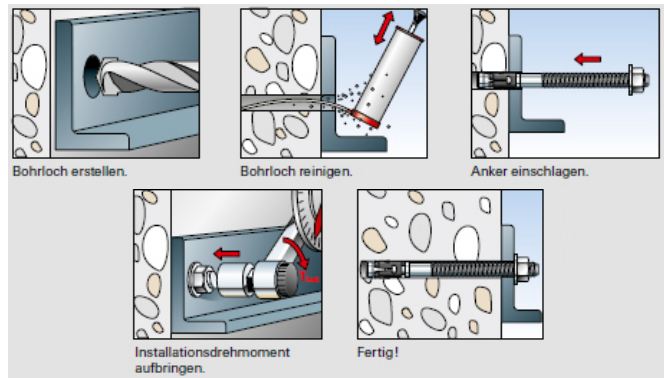
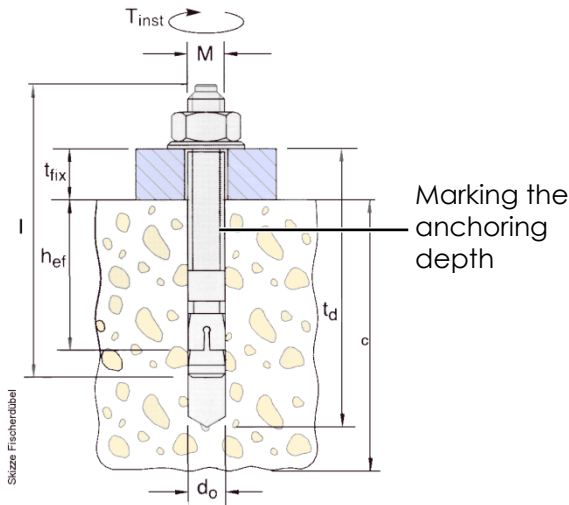
8.5 Changing the assembly location

To change the assembly location the pre-conditions must be met according to the assembly guidelines. The location change is to be done according to the following sequence:

- Move the lift rails to about half height.
- Remove the lifting arm (remove the safety ring of the lifting arm pin, pull out the lifting arm pin and remove the lifting arm).
- Disconnect electrical supply lines to the lift from mains power.
- Remove hydraulic lines above on the opposite side and seal them off with blind stoppers.
- Only loosen cross beams on one side and fold them under along with the hydraulic lines.
- Securely fix the beam to the columns.
- Suction off hydraulic oil.
- Loosen the anchor fastenings.
- Carefully transport the lift column using appropriate auxiliary means (e.g. crane, forklift, etc) to the new assembly location.
- Assemble the lift according to the procedure during assembly and anchoring before first commissioning.

! Use new anchors. The old anchors are no longer fit for purpose.

8.5.1 Fischer anchor



subject to alterations!

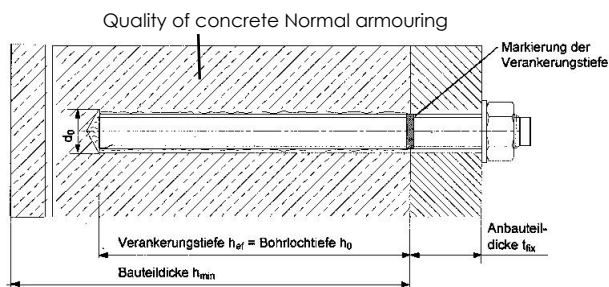
fischer anchor

POWER LIFT HF 3S 3000
POWER LIFT HF 3S 3500
POWER LIFT HF 3S 4000

typ of dowel		FH 18 x 100/100 B Order No. 972230
drilling depth (mm)	t_d	230
min.anchorage depth (mm)	h_{ef}	100
thickness of concrete (mm)	c	see current foundation-diagram drawing
diameter of bore (mm)	d_o	18
thickness of the lift-piece (mm)	t_{fix}	0–100
turning moment (Nm)	M_b	80
Total length (mm)	l	230
Thread	M	M12
piece number	a	4
	b	8
	c	10
	d	12
	e	16
	f	20
	g	14

It is possible to use equivalent safety-dowels (with license) of other manufacturer but observe their regulations.

8.5.2 Hilti injection anchor



subject to alterations!

Hilti injection anchor

POWER LIFT HF 3S 3000^d
POWER LIFT HF 3S 3500^d
POWER LIFT HF 3S 4000^e

concrete floor		without floor pavement (tiles)
type of dowel		HIT-V-5.8 M12x150 Art.Nr.387061
drilling depth (mm)	h_o	108
min.anchorage depth (mm)	h_{ef}	108
thickness of concrete (mm)	H_{min}	min.138
diameter of bore (mm)	d_o	14
thickness of the lift-piece (mm)	t_{fix}	max.19
turning moment (Nm)	T_{inst}	40
Total length (mm)	l	150
Thread	M	12
piece number	a	4
	b	8
	c	10
	d	12
	e	14
	f	16
	g	28


Observe necessarily the installation description of the dowel manufacturer. Use longer dowels with version with floor pavement and tiles.


It is possible to use equivalent injections dowels (with license) of other manufacturer but observe their regulations.

9 Safety inspection

The safety inspection is required to guarantee operational safety of the lift. It is to be done.

1. before first commissioning after setting up the lift
Use the "single safety inspection" form
2. After first commissioning, check regularly at least once per year.
Use the "regular safety inspection" form.
3. After changes to the lift construction.
Use the "extraordinary safety inspection" form.

 *Single and regular safety inspections must be done by a specialist. It is recommended to do maintenance at the same time.*

 *After a change in construction (for example changing the load carrying capacity or changing the lifting height) and after significant maintenance on load carrying parts (e.g. welding work), inspection by a technical expert is required (extraordinary safety inspection).*

This inspection book contains forms with a printed inspection plan for safety inspections. Please use the appropriate form, record the condition of the inspected lift and leave the completed form in this inspection book.

9.1 Single safety inspection before commissioning

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

- Result of inspection:
- Continued operation questionable, reinspection required
 - Continued operation possible, remove defects by _____
 - No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

9.2 Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection: Continued operation questionable, reinspection required
 Continued operation possible, removed defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection: Continued operation questionable, reinspection required
 Continued operation possible, remove defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection:

Continued operation questionable, reinspection required
 Continued operation possible, removed defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection: Continued operation questionable, reinspection required
 Continued operation possible, remove defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection:

Continued operation questionable, reinspection required
 Continued operation possible, removed defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

- Result of inspection:
- Continued operation questionable, reinspection required
 - Continued operation possible, remove defects by _____
 - No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance


 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection:

Continued operation questionable, reinspection required
 Continued operation possible, removed defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

- Result of inspection:
- Continued operation questionable, reinspection required
 - Continued operation possible, remove defects by _____
 - No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance


 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

Result of inspection:

Continued operation questionable, reinspection required
 Continued operation possible, removed defects by _____
 No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

Regular safety inspection and maintenance

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

- Result of inspection:
- Continued operation questionable, reinspection required
 - Continued operation possible, remove defects by _____
 - No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

Operating company signature

(Use a new form for reinspection!)

9.3 Exceptional safety inspection

 Copy, complete and leave in the inspection book Serial number: _____

Test step	OK	Defect missing	Reinspect	Remarks
Model plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Brief operating instructions on the column ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load capacity details on the lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Detailed operating manual.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function operating lever and button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Label "LIFT, LOWER"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, lockable main switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, rubber plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Securing the lifting arm bolts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Secure the receiving plate (not unscrewable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function carrier plate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function foot bumper (optional)..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function safety catch.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition sliding part lift rails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Paint condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Load bearing construction (deformations, cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening screw torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder mounting set correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Nuts Cylinder Mount: Check Sealing Wax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fastening anchor torque	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function lifting arm movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, safety plate on Mini-Max	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function of Mini-Max lifting arm ...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of cross-beam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cylinder condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition wiper cylinder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of covers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, function riser extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition of concrete floor (cracks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition electrical lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic lines + screw fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Condition, hydraulic unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test lift with vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Functional test "overflows"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Stability of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
General condition of lift	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

*) Place a checkmark in the relevant, if a retest is required then check it again!

Safety inspection done on: _____

Performed by company: _____

Name, address of specialist: _____

- Result of inspection:
- Continued operation questionable, reinspection required
 - Continued operation possible, removed defects by _____
 - No deficiencies, continue to operate

Signature of specialist

Operating company signature

If requested to take care of deficiencies

Deficiency removed on: _____

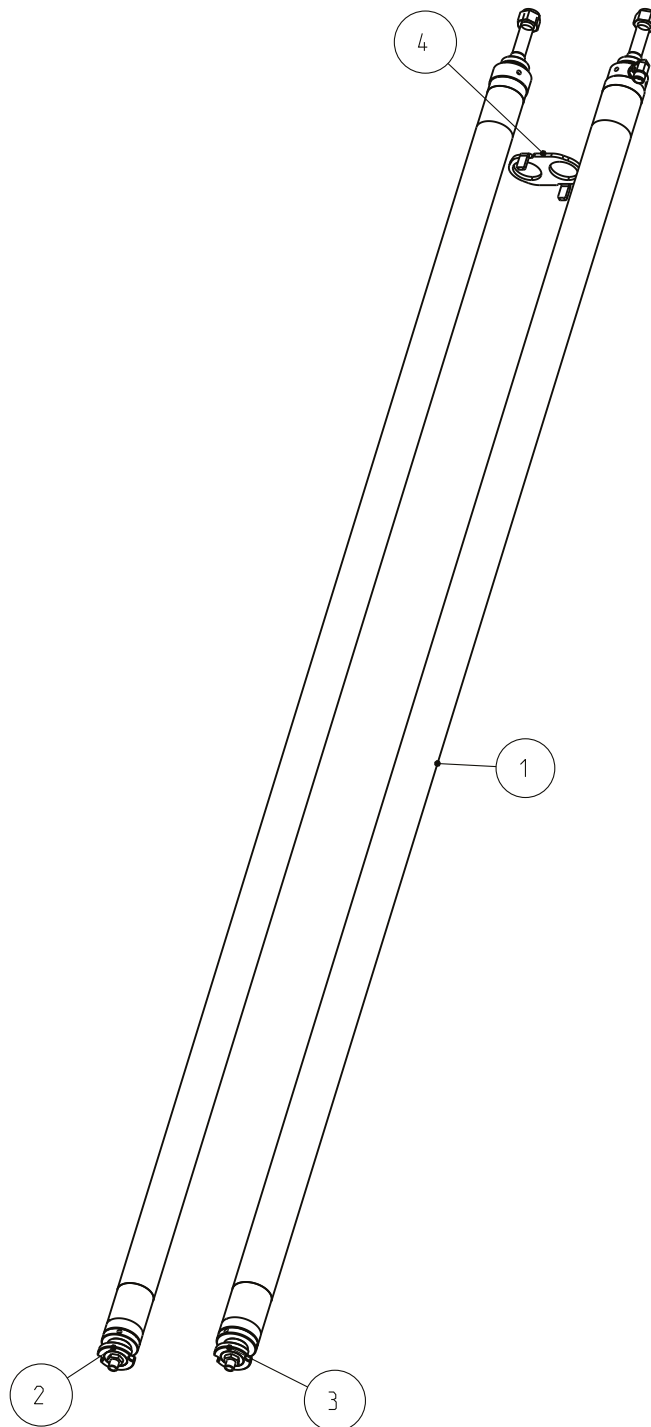
Operating company signature

(Use a new form for reinspection!)

Spare parts list

POWER LIFT HF 3S 8000

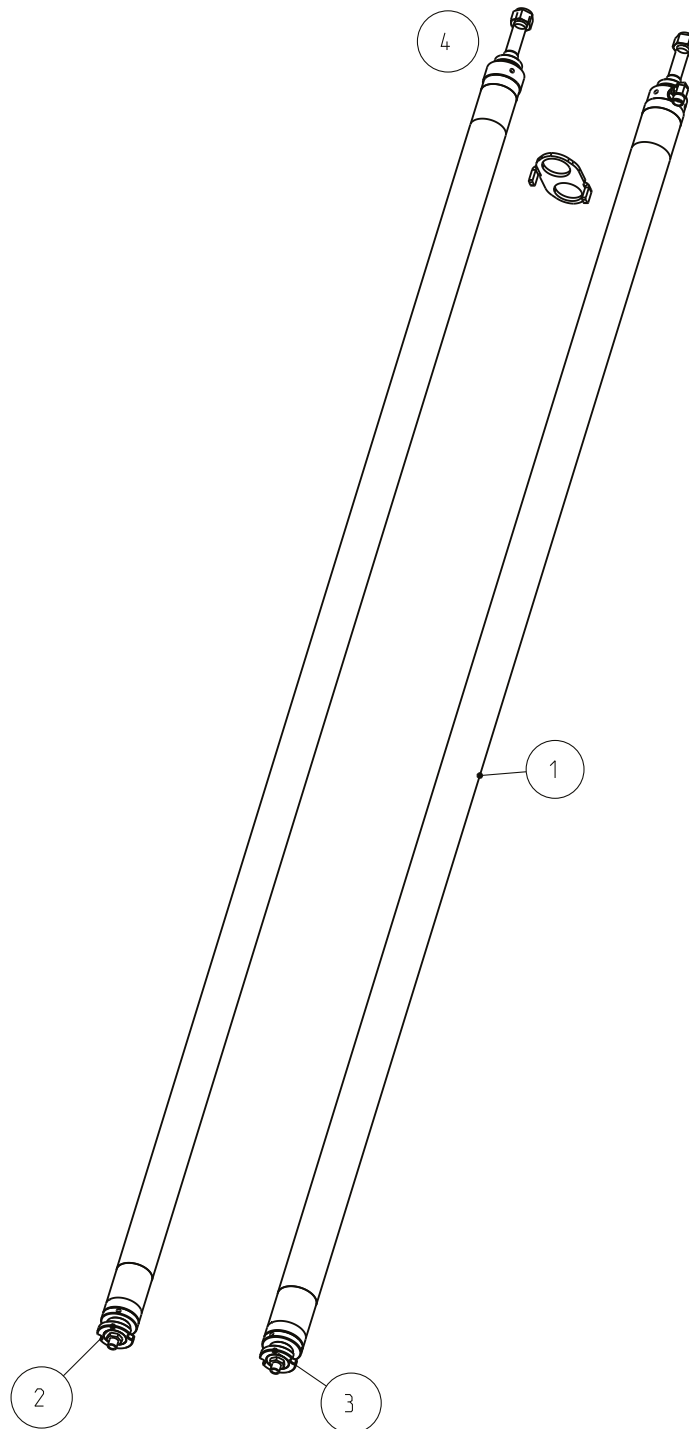
Cylinder operator side



1	240HLNT02550	CYLINDER FOLLOW. ASSY.
2	240HLNT02540	CYLINDER COM. ASSY.

3	230SLNT02819	GROOVE NUT
4	230SLNT22821	ANTI-TWIST SAFETY

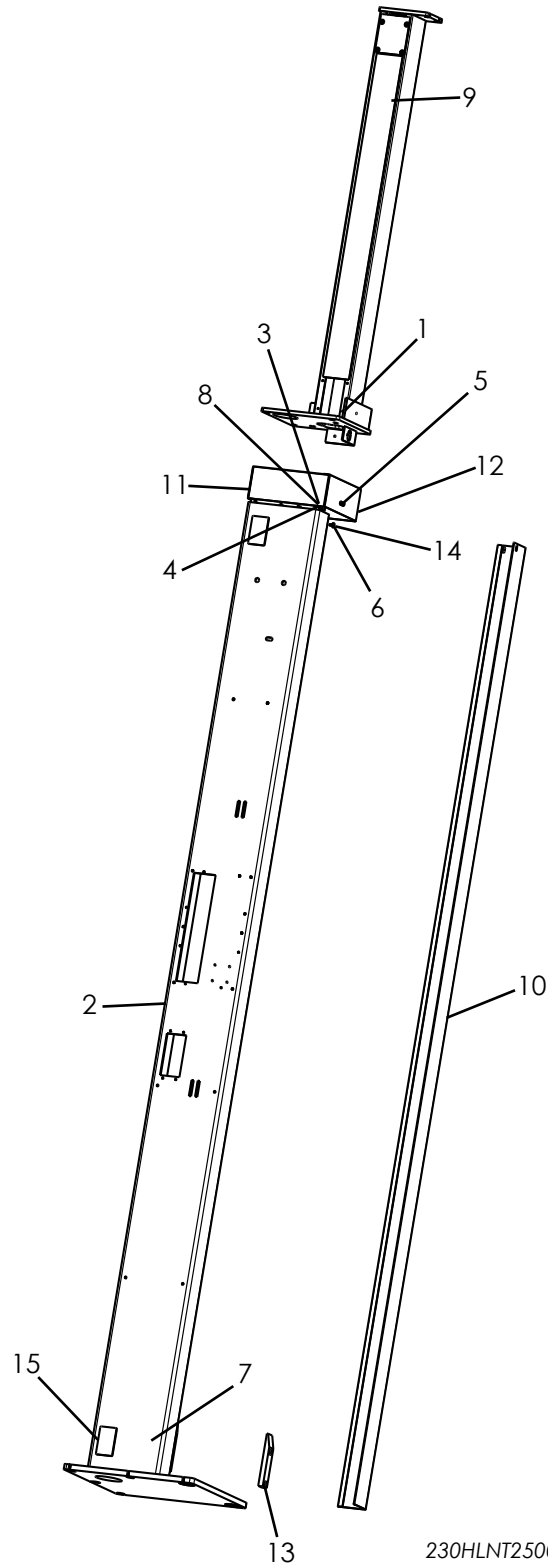
Opposite side cylinder



1 240HLNT02550 CYLINDER FOLLOW. ASSY.
 2 240HLNT02540 CYLINDER COM. ASSY.

3 230SLNT02819 GROOVE NUT
 4 230SLNT22818 ANTI-TWIST SAFETY

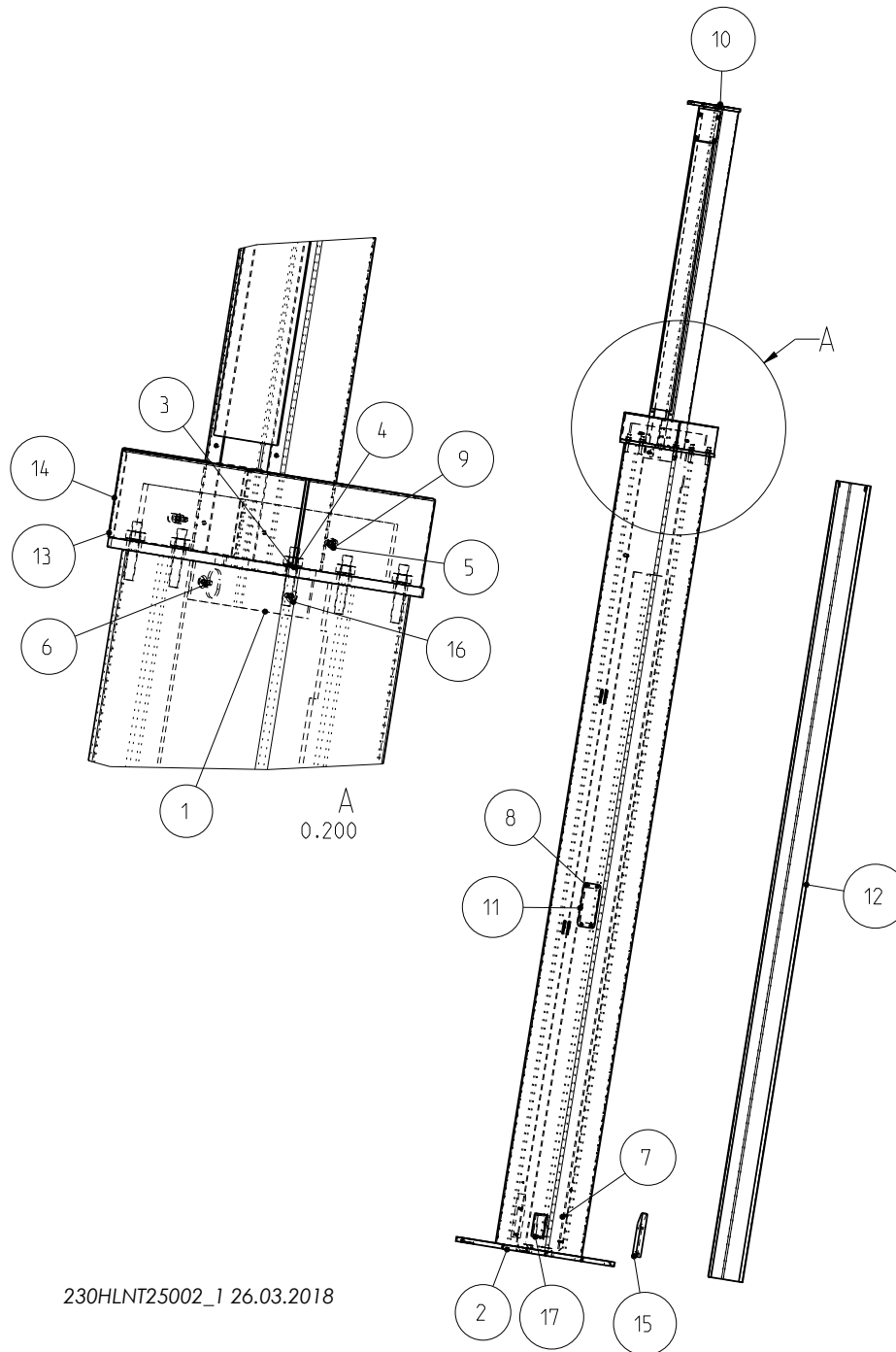
Operator side column complete



230HLNT25001_1 23.03.2018

1	230SLNT05560	HEAD PLATE OPERATOR SIDE COMPLETE	8	9912-M5X10	CYLINDER SCREW
2	230HLNT25013	OPERATOR SIDE COLUMN WELDED PART	9	9912-M6X10	CYLINDER SCREW
3	9934-M10	HEXAGONAL NUT	10	240SL09008	COVER PANEL
4	9125_1-A10_5	WASHER	11	230SLH09045	COVER HOOD
5	9125_1-A5_3	WASHER	12	230SLH09048	COVER HOOD
6	97991-M5X12	COUNTERSUNK SCREW	13	230SLNT05008	LIFT RAILS
7	97991-M5X16	COUNTERSUNK SCREW	14	970010	ROSETTE
			15	970721	CLOSING STOPPER

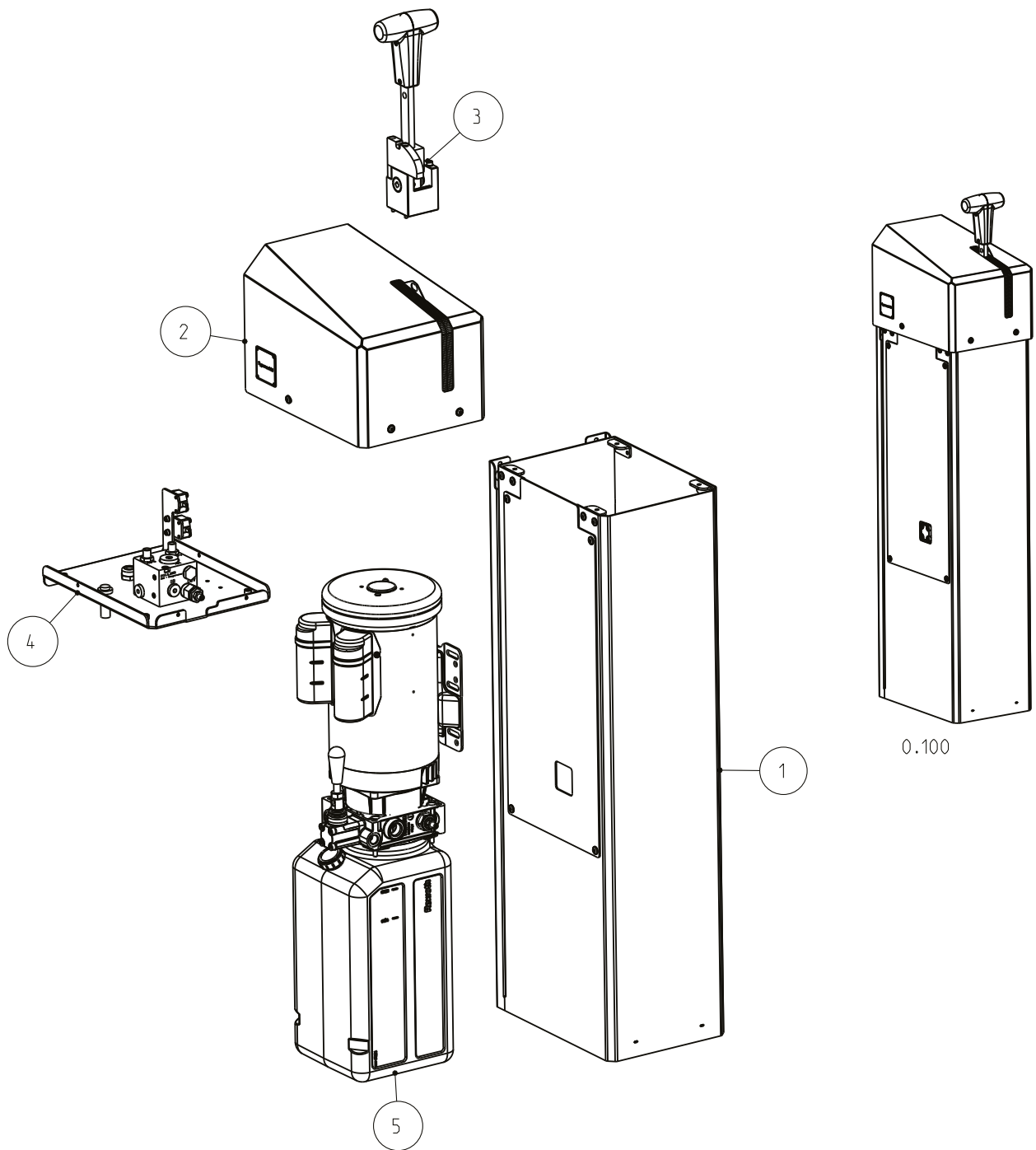
Opposite side column complete



230HLNT25002_1 26.03.2018

1	230SLNT05530 HEAD PLATE OPPOSITE SIDE COMPLETE	9	9912-M5X10 CYLINDER SCREW
2	230HLNT25023 OPPOSITE SIDE COLUMN WELDED PART.	10	9912-M6X10 CYLINDER SCREW
3	9934-M10 HEXAGONAL NUT	11	225SL09021 COVER PANEL FOR E-SET
4	9125_1-A10_5 WASHER	12	240SL09008 COVER PANEL
5	9125_1-A5_3 WASHER	13	230SLH09047 COVER HOOD
6	97991-M5X12 COUNTERSUNK SCREW	14	230SLH09048 COVER HOOD
7	97991-M5X16 COUNTERSUNK SCREW	15	230SLNT05008 LIFT RAILS
8	97991-M5X8 COUNTERSUNK SCREW	16	970010 ROSETTE
		17	970721 CLOSING STOPPER

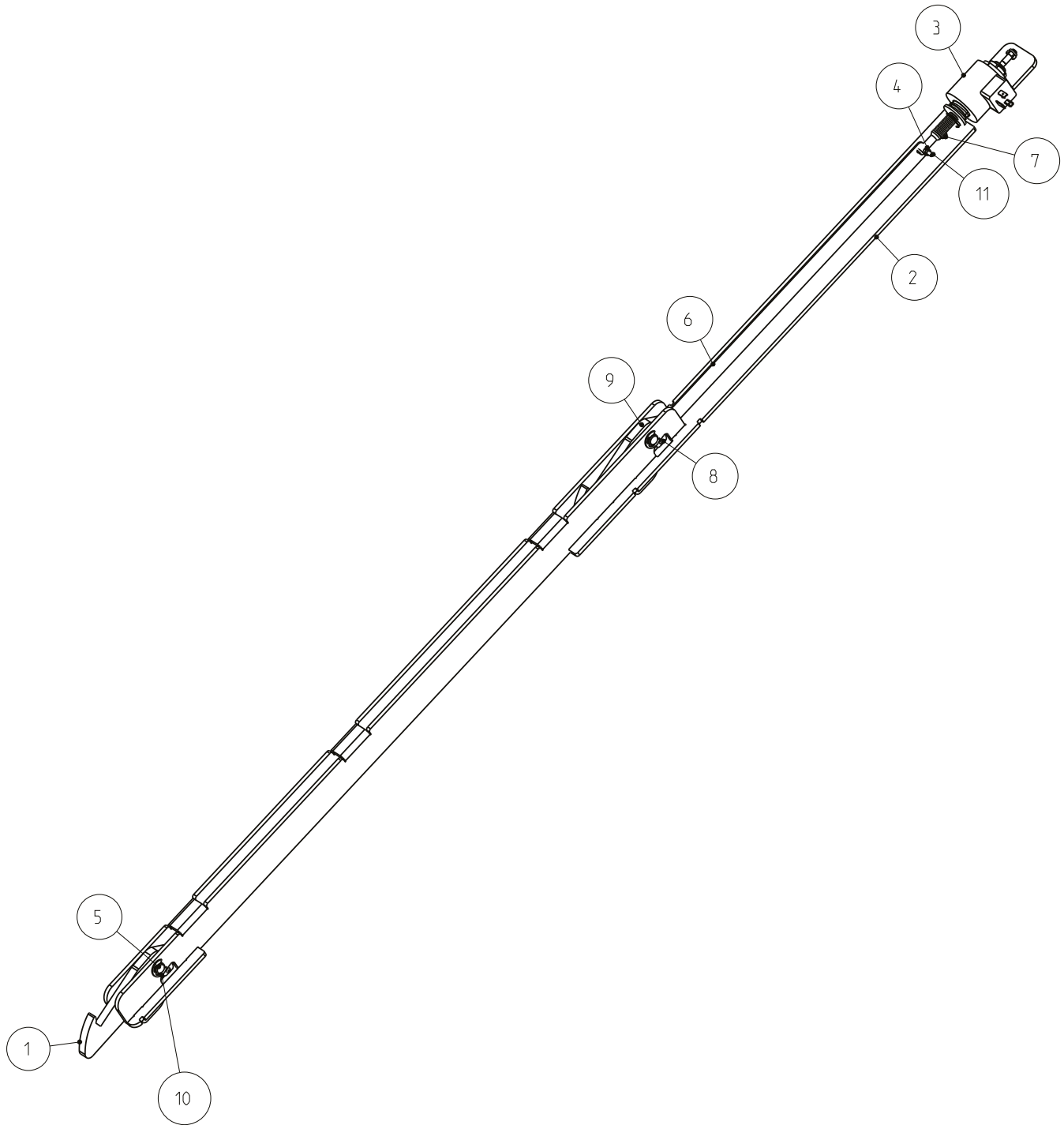
Universal unit



0.100

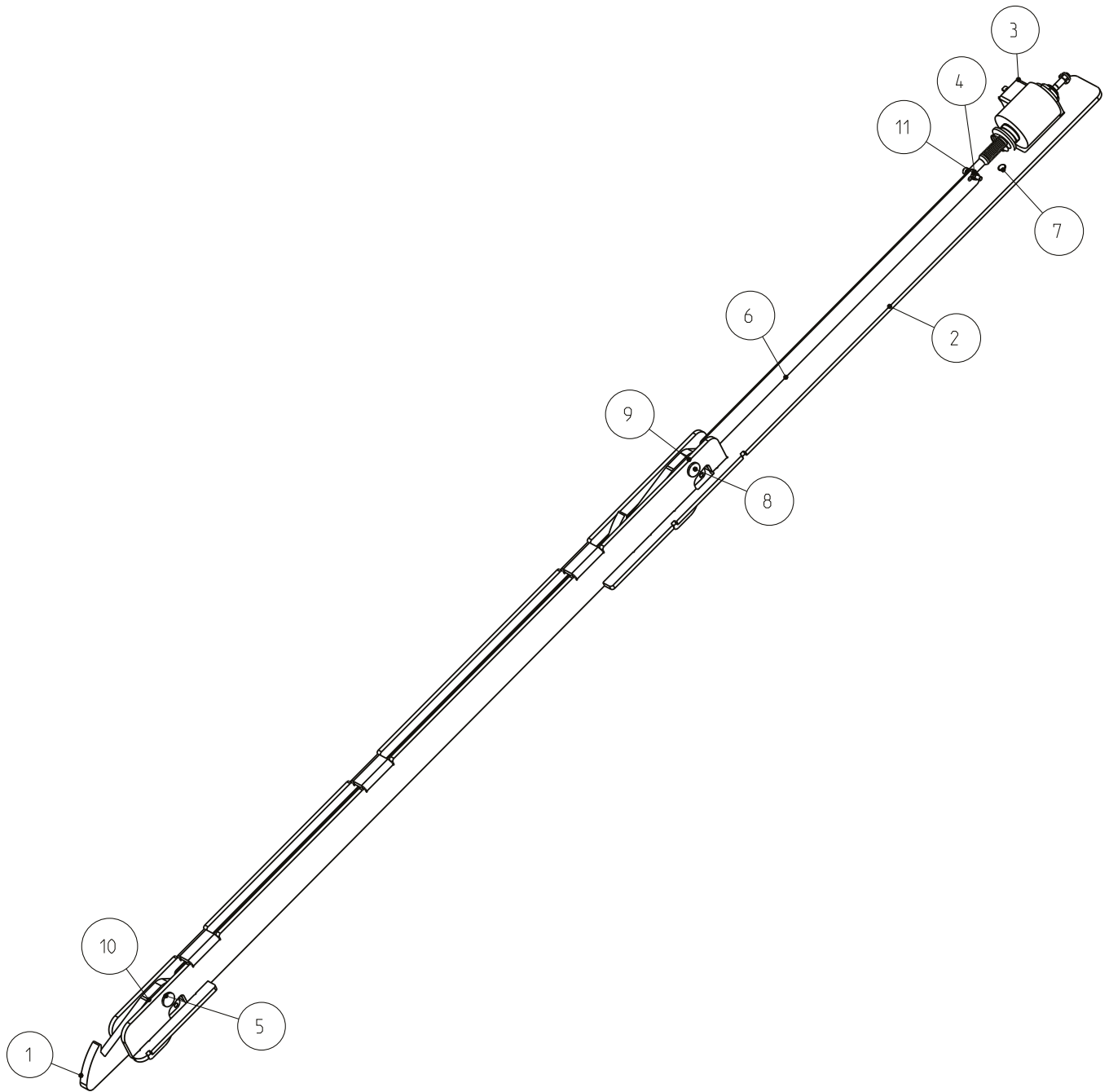
1	240HLNT21560 CASE ASSY.	4	240HLNT01580 HYDRAULIC PLUG-IN UNIT ASSY.
2	240 HLNT01582 HOOD USA ASSY.	5	240SLK01100 BOSCH UNIT USA (LEVER)
3	000STA11580 LEVER ASSY.		

Operating side latch holder



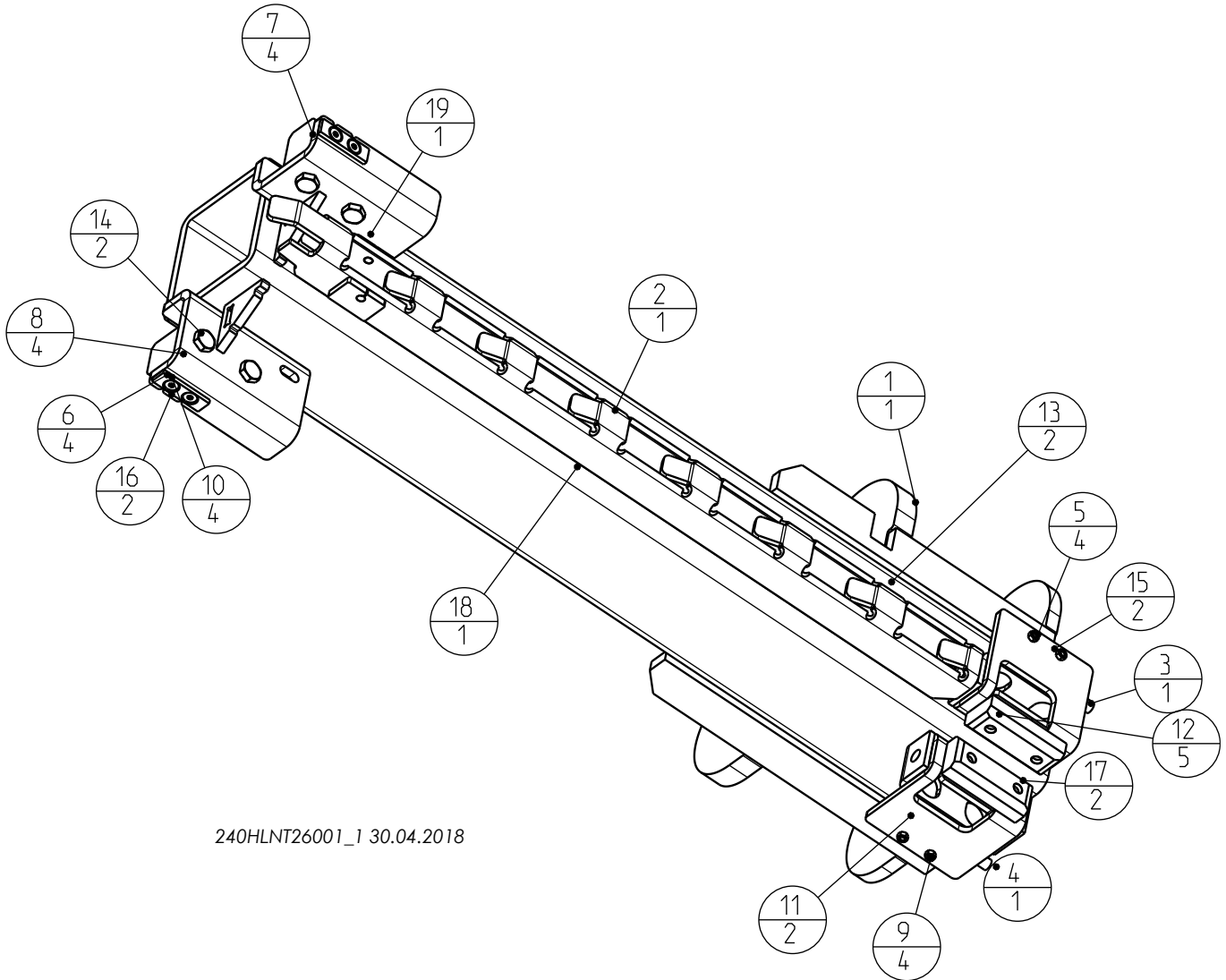
1	240HLNTK25420	LATCH MOUNTING ASSEMBLY	7	9SEM08X012ZN	FLANGED BUTTON HEAD SCREW
2	240HLNTK25403	OPERATING SIDE LATCH HOLDER WELDED PART	8	97380M03X06ZN	FILLISTER HEAD SCREW
3	00MNG603160	MAGNET NG6	9	9988D012X018X1PS	SHIM RING
4	9985-M4	HEXAGONAL NUT DIN985	10	96799_10ZN	LOCKING WASHER
5	240HLNTK05429	LATCH BOLT	11	9912M4X20ZN	CYLINDER SCREW
6	240HLNTK05425	RATCHET SLIDER			

Opposite side latch holder



1	240HLNTK05430	LATCH MOUNTING ASSEMBLY	7	9SEM08X012ZN	FLANGED BUTTON HEAD SCREW
2	240HLNTK25503	OPPOSITE SIDE LATCH HOLDER WELDED PART	8	97380M03X06ZN	FILLISTER HEAD SCREW
3	00MNG603160	MAGNET NG6	9	9988D012X018X1PS	SHIM RING
4	9985-M4	HEXAGONAL NUT DIN985	10	96799_10ZN	LOCKING WASHER
5	240HLNTK05429	LATCH BOLT	11	9912M4X20ZN	CYLINDER SCREW
6	240HLNTK05425	RATCHET SLIDER			

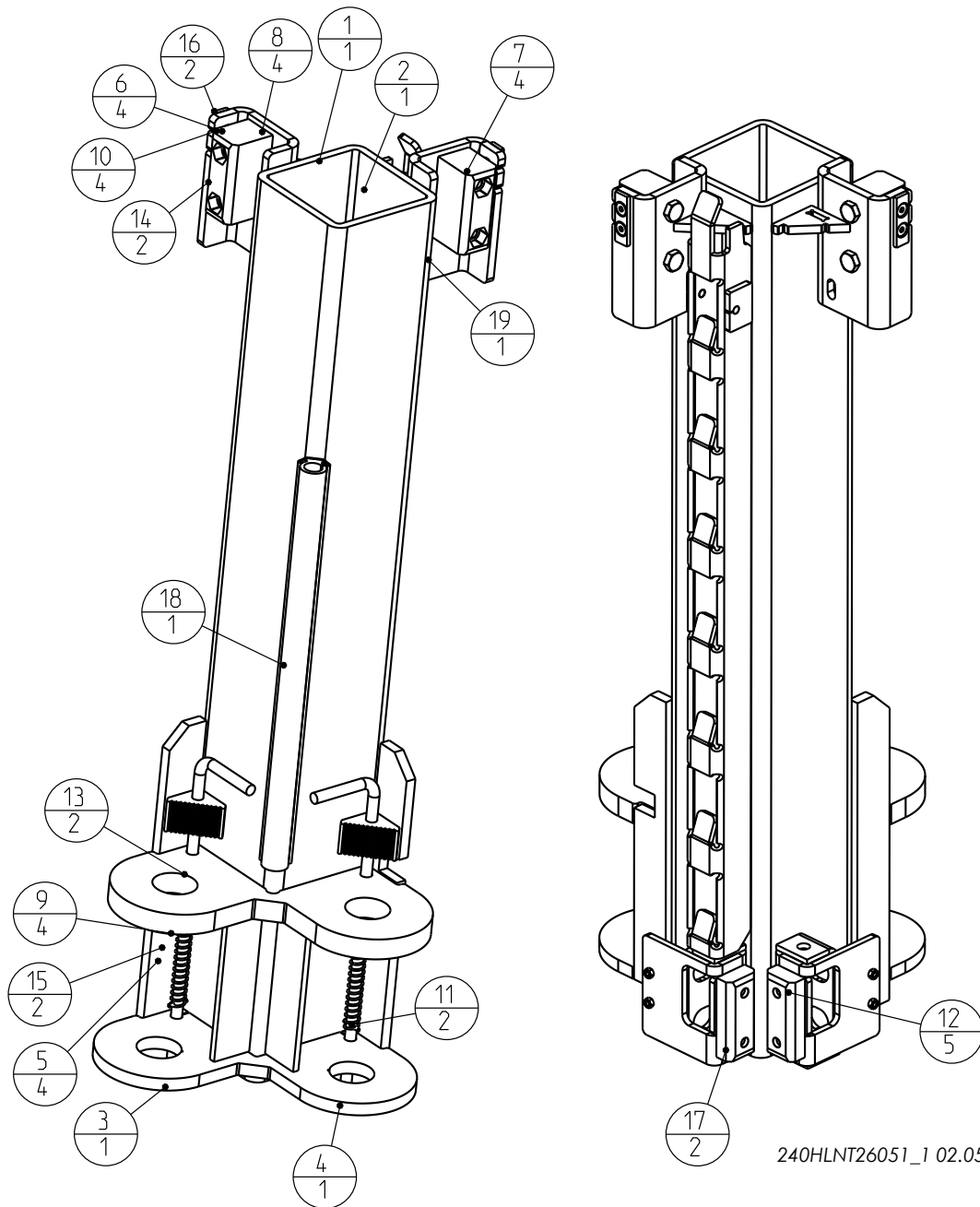
Lift rails operator side complete



240HLNT26001_1 30.04.2018

1	240HLNT26003	LIFT RAILS WELDED PARTS OPERATOR SIDE	11	97346-3X20	FRICTION BOLT
2	240HLNT06083	LATCH WELDED PART	12	97984-M10X20	CYLINDER SCREW
3	245SPL28095	DRAWBAR WELDED PART	13	DFD-222SL01ZN	PRESSURE SPRING 155MM
4	245SPL28096	DRAWBAR WELDED PART	14	225SL06033	SLIDING PIECE
5	ET 9934-M5	HEXAGONAL NUT	15	225SL06036	SLIDING PIECE
6	9934-M6	HEXAGONAL NUT	16	225SL06038	SLIDING PIECE
7	9982-M10	HEXAGONAL NUT	17	230SLH06033	SLIDING PIECE
8	9931_1-M10X45	HEXAGONAL SCREW	18	225SL06103S1	RUBBER PROFILE 400MM (970194)
9	97991-M5X16	COUNTERSUNK SCREW	19	9SEM08X020ZN	LINSENFLANSCHSCHRAUBE
10	97991-M6X16	COUNTERSUNK SCREW			

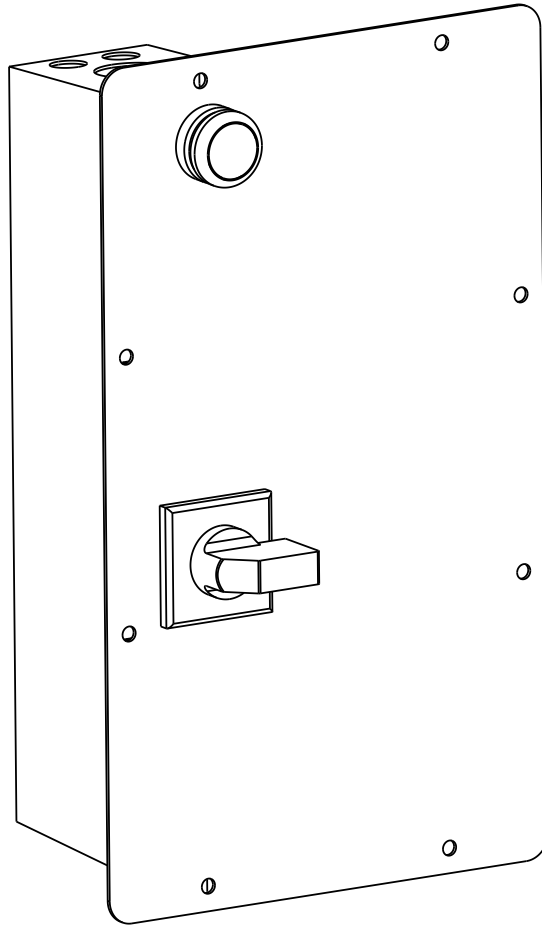
Lift rails opposite side complete



240HLNT26051_1 02.05.2018

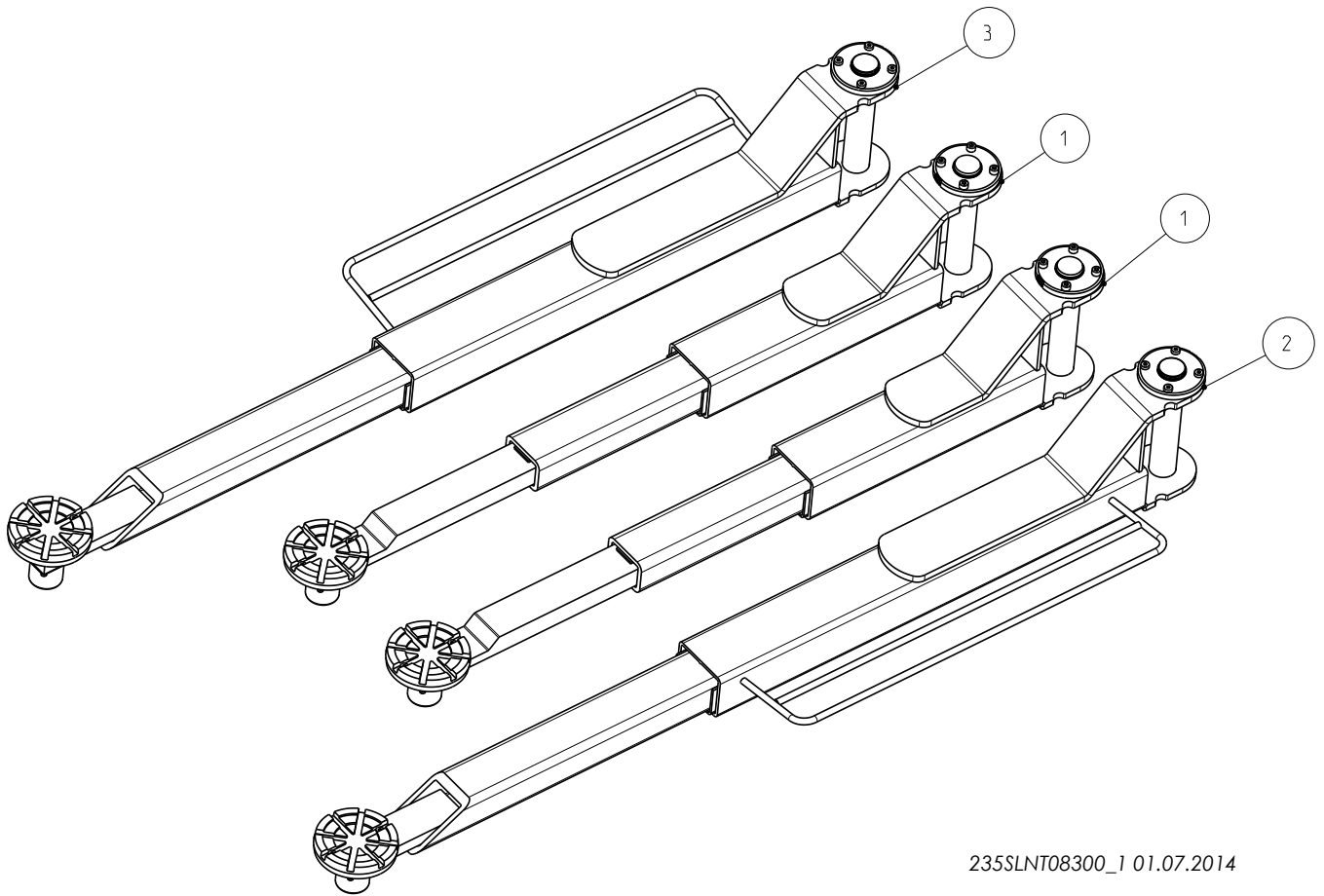
1	240HLNT26053 LIFT RAILS WELDED PARTS OPPOSITE PARTS	11	97346-3X20 FRICTION BOLT
2	240HLNT06083 LATCH WELDED PART	12	97984-M10X20 CYLINDER SCREW
3	245SPL28095 DRAWBAR WELDED PART	13	DFD-222SL01ZN PRESSURE SPRING 155MM
4	245SPL28096 DRAWBAR WELDED PART	14	225SL06033 SLIDING PIECE
5	9934-M5 HEXAGONAL NUT	15	225SL06036 SLIDING PIECE
6	9934-M6 HEXAGONAL NUT	16	225SL06038 SLIDING PIECE
7	9982-M10 HEXAGONAL NUT	17	230SLH06033 SLIDING PIECE
8	9931_1-M10X45 HEXAGONAL SCREW	18	225SL06103S1 RUBBER PROFILE 400MM (970194)
9	97991-M5X16 COUNTERSUNK SCREW	19	9SEM08X020ZN LINSENFLANSCHSCHRAUBE
10	97991-M6X16 COUNTERSUNK SCREW		

Universal control with circuit board



000STA03600_1 29.05.2018

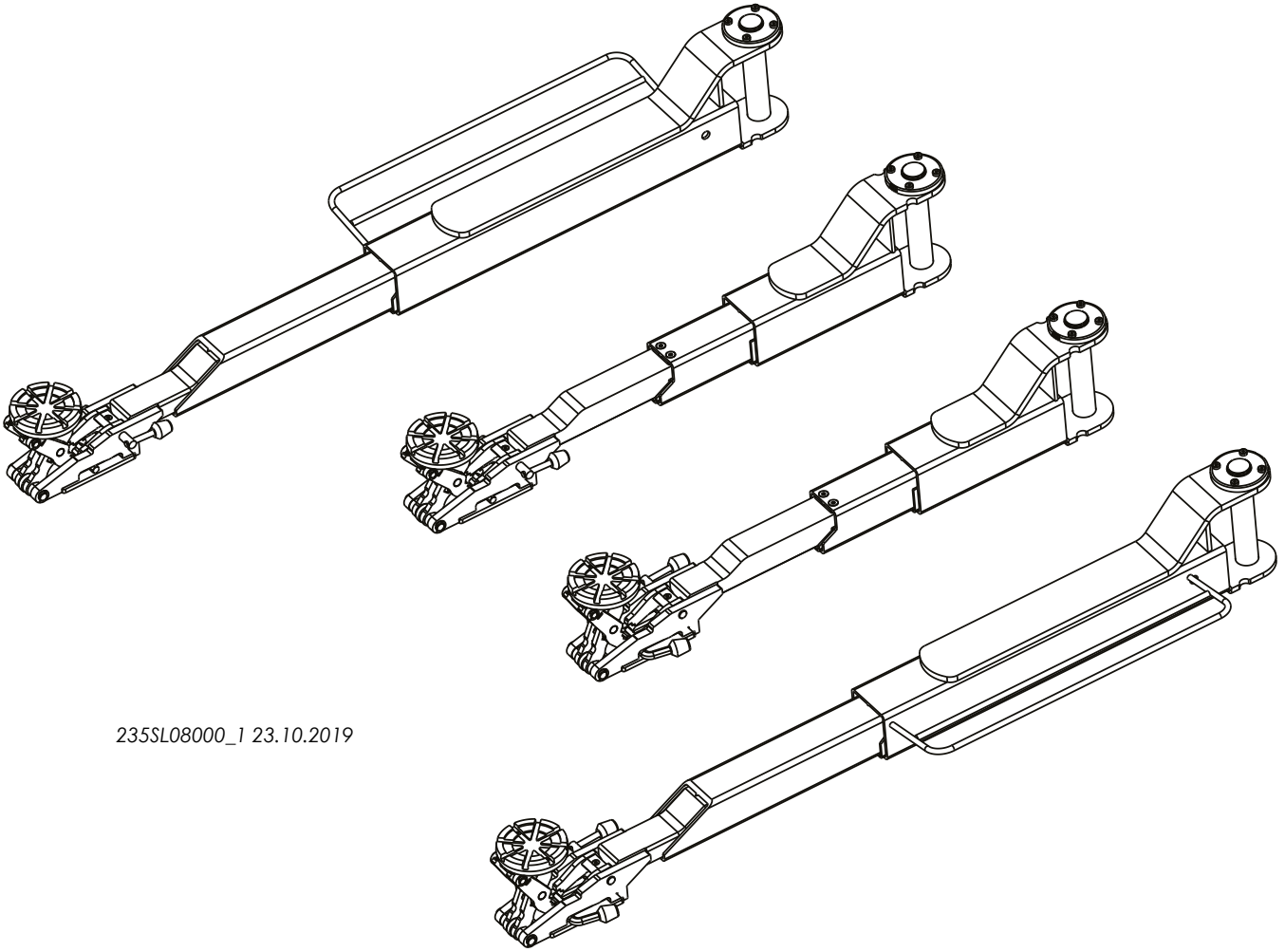
Lifting arms



235SLNT08300_1 01.07.2014

1	232SL08210 T4 ARM SHORT	3	235SLNT08010 LONG LIFTING ARM
2	235SLNT08001 LONG LIFTING ARM		

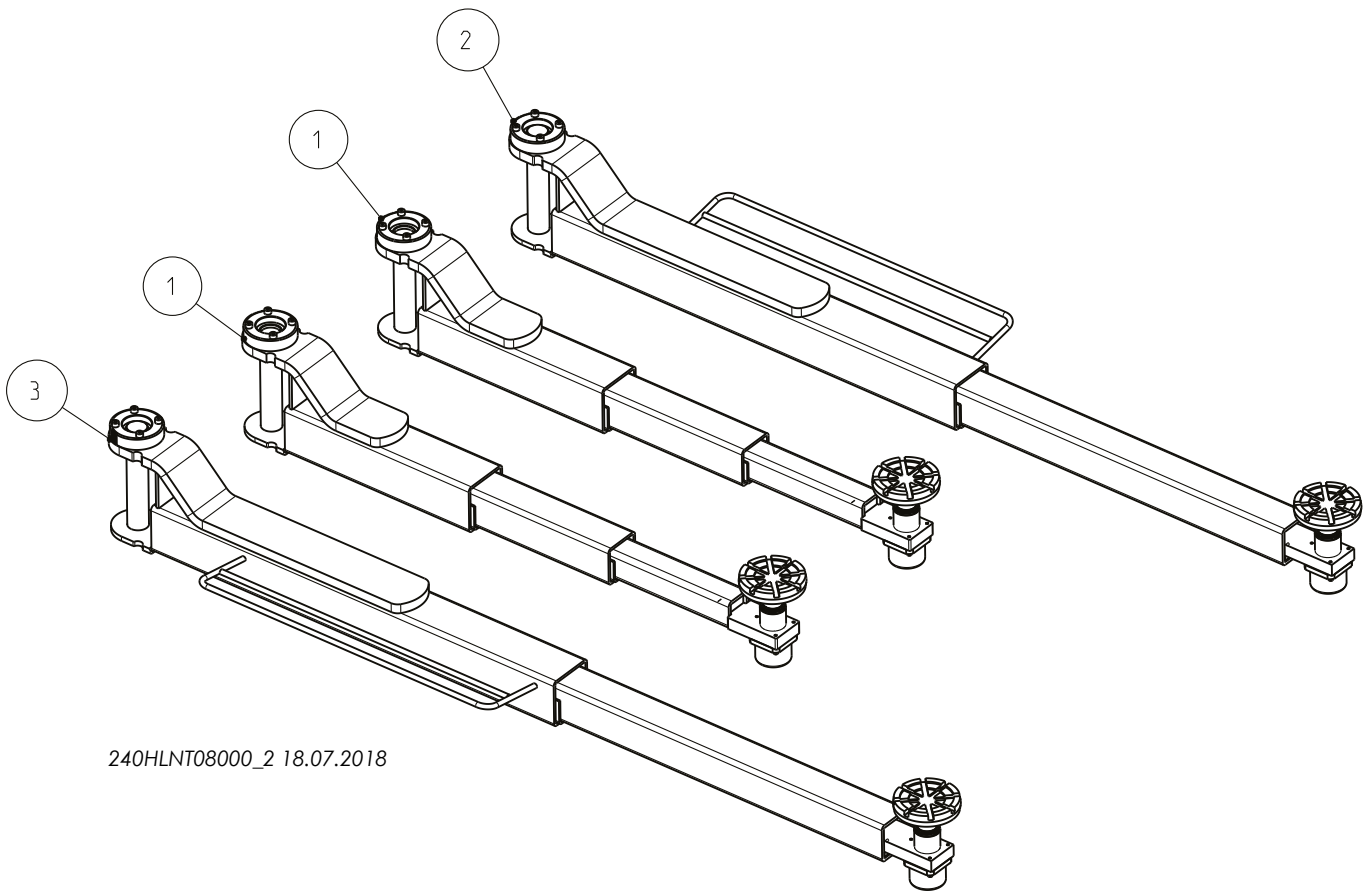
Lifting arms



235SL08000_1 23.10.2019

1	235SL08051	OPERATING SIDE LIFTING ARM SHORT	3	235SL08002	OPERATING SIDE LIFTING ARM LONG
2	235SL08052	OPPOSITE SIDE LIFTING ARM SHORT	4	235SL08001	OPPOSITE SIDE LIFTING ARM LONG

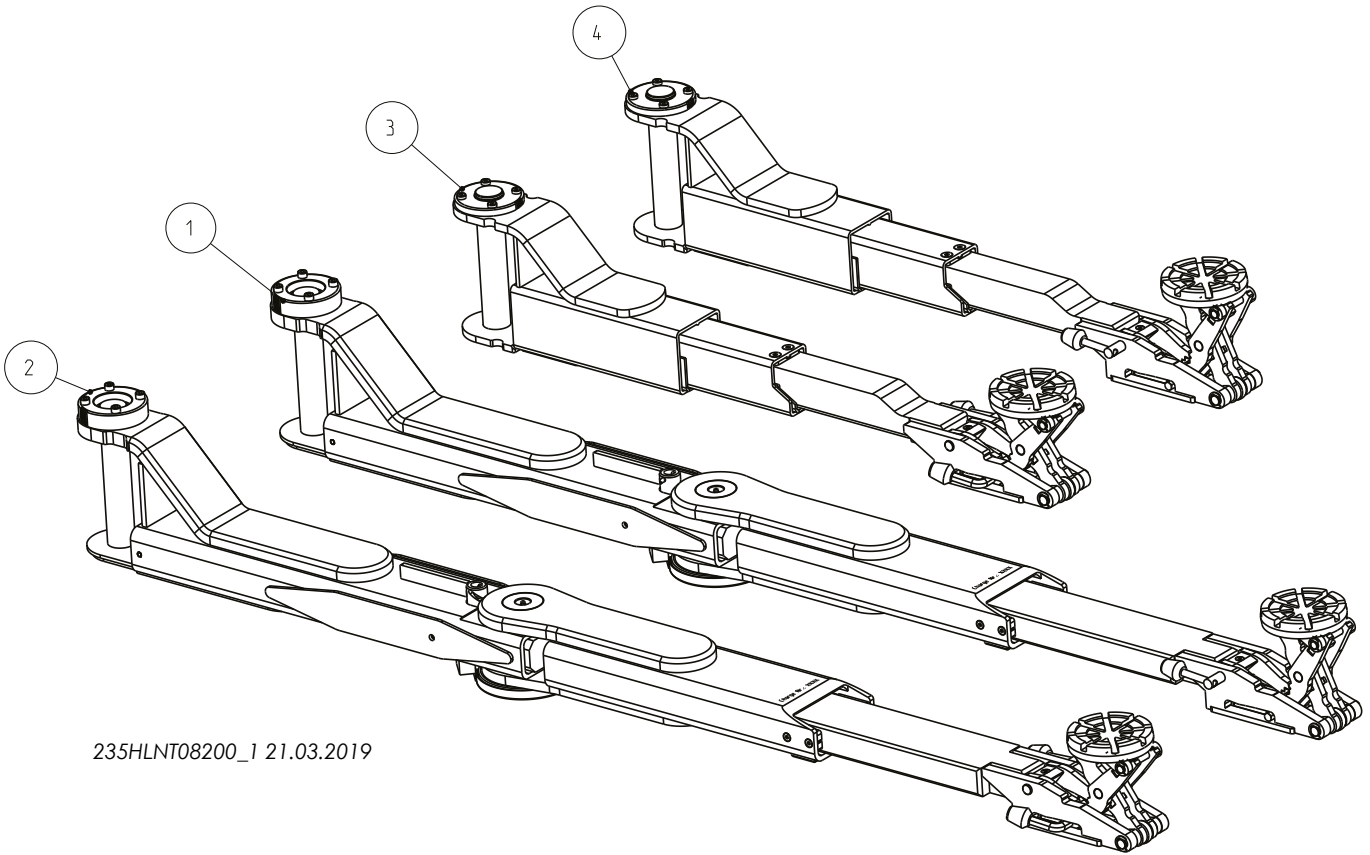
Lifting arms



240HLNT08000_2 18.07.2018

1	232NSTL28038 T4 ARM SHORT	3	240SPL08002 OPPOSITE SIDE LONG LIFTING ARM
2	240SPL08001 OPERATING SIDE LONG LIFTING ARM		

Lifting arms



235HLNT08200_1 21.03.2019

1	235HLNT08001 OPERATING SIDE LIFTING ARM DG-MM (FLAT VERSION)	3	235SL08051 OPERATING SIDE LIFTING ARM SHORT
2	235HLNT08002 OPPOSITE SIDE LIFTING ARM DG-MM (FLAT VERSION)	4	235SL08052 OPPOSITE SIDE LIFTING ARM SHORT

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