



2-POST-LIFT
TW 250 HEAVY-Line
(Lifting capacity: 5000 kg)

TW250

INSTALLATION, OPERATION AND MAINTENANCE MANUAL



Always read these operating instructions carefully before operating the lift. Follow the instructions carefully.

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Further attachment:

- **EU Declaration of Conformity**

Important Information:

ASSEMBLY



You can find the assembly video for this lift on YouTube:
www.youtube.com/watch?v=F6oG124oaaQ&t
or scan the QR code.



TW 250 & TW 260
2 post lift
www.twinbusch.co.uk / .com



PRODUCT PRESENTATION



You can find the product presentation video for this lift on YouTube:
www.youtube.com/watch?v=J4veEM4PD8A
or scan the QR code.



TW 250 & TW 260
2 post lift
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TIPS & TRICKS



In the "Tips & Tricks" section, we show you simple solutions in videos to work even more efficiently with your TWIN BUSCH® products. Our technical specialist explains the exact steps to take.

www.twinbusch.co.uk/2-post-lifts/2-post-lifts-5-0-t-electromagnetic-HEAVY-LINE::8.html#horizontalTab4

24/7 Service Center:



Our **24/7 Self-Service Centre** is a mobile website for self-diagnosis of problems with your Twin Busch lift, tyre changer or balancer. Here we offer you an extensive collection of videos covering a wide range of topics relevant to your Twin Busch product, from fine adjustment to maintenance and component replacement.

The **24/7 Self-Service Centre** is a versatile tool that helps you learn how to service and repair your Twin Busch lift, tyre changer or balancer yourself.

To open the page on your mobile device, please visit twinbusch.com/qr or scan the QR code opposite.

For Twin Busch lifts delivered from mid-2020, you will also find the QR code on a sticker on the control box.

1. General

The Heavy-Line model series is probably the most comprehensive lifting platform series on the market. With their high lifting capacity of 5000 kg and the very large swivelling range of the support arms, the model variants enable problem-free lifting of small cars, SUVs, large saloons and sports cars as well as maxi vans with short, medium and long wheelbases. Thanks to its wide clearance widths, it is also perfect for lifting wide vehicles with bodies, such as motorhomes and caravans, vehicles with sales bodies or ambulances. We recommend the TW 250 for lifting and working on very high vehicles, such as motorhomes with alcove. The Profi-Line model series meets the high performance requirements of a professional workshop and has a very comprehensive range of standard equipment, such as turntable with double thread, flat drive-over plate (if not barrier-free), pillar protection cover, motor cover, 230 V socket directly on the control box and the plug-in adapter extensions included in the scope of delivery as well as matching practical plug-in adapter brackets.

OPTIONALLY AVAILABLE EXTRAS

We recommend the following **extras** for this lifting platform, such as special adapters in our shop.

<https://www.twinbusch.co.uk/2-post-lifts/2-post-lifts-5-0-t-electromagnetic-HEAVY-LINE::8.html#horizontalTab6>



2. Identification of the instructions for use

Operating instructions **TW 250**

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Status: -02, 04.06.2024

File: TW250_Manual_of_2-post_lift_uk_02_20240604.pdf

3. Technical data

Power supply (3-phase)	400 V / 50 Hz
Protection	C 16A (slow)
Load capacity	5,000 kg
Degree of protection	IP 54
Lifting time	approx. 45 sec
Lowering time	approx. 30 sec
Net weight	970 kg
Noise level	< 70 db
Working environment	Working temperature: -15°C to +40°C
	rel. Humidity: 30 % to 85 %

4. Modification of the product

Improper use, modifications, conversions and attachments to the lift and all its components that have not been agreed with the manufacturer are not permitted. The manufacturer accepts no liability for improper installation, operation or overloading. Improper use also invalidates the CE certification and the validity of the certificate. If you wish to make any changes, please contact your dealer or the expert staff at Twin Busch GmbH beforehand (see: 2. **Identification of the instructions for use**)

5. Safety-related information

Read the operating instructions carefully before operating the lift. Keep the instructions in a safe place for future reference. Follow the instructions carefully to achieve the best performance from the machine and to avoid damage due to personal negligence.

Unpack all parts and use the packing list to check that all components are present.

Check all connections and components thoroughly for damage. The lift may only be put into operation if it is in a safe operating condition.

5.1 Safety instructions

- Do not install the lift on an asphalt surface.
- Read and understand the safety instructions before operating the lift.
- Do not leave the control unit under any circumstances when the lift is in motion.
- Keep hands and feet away from moving parts. When lowering, pay particular attention to your feet.
- The lifting platform may only be operated by trained personnel.
- Bystanders are not permitted in the vicinity of the lifting platform
- Wear suitable clothing.
- The area around the lifting platform should always be kept free of obstructions.
- The lift is designed for lifting the entire vehicle, which does not exceed the maximum authorised weight.
- Always ensure that all safety precautions have been taken before working near or under the vehicle.
- **Never remove safety-relevant components from the lift. Do not use the lift if safety-relevant components are missing or damaged.**

- Do not under any circumstances move the vehicle or remove heavy objects from the vehicle that could cause significant weight differences while the vehicle is on the lift.
- Always check the manoeuvrability of the lift to guarantee its performance. Ensure regular maintenance. If an irregularity occurs, stop the work with the lift immediately and contact your dealer.
- Lower the lift completely when it is not in use. Do not forget to disconnect the power supply.
- If you do not use the lift for a longer period of time:
 - a.) Disconnect the lift from the power source.
 - b.) Empty the oil tank.
 - c.) Lubricate the moving parts with hydraulic oil.

Caution: To protect the environment, dispose of the unused oil in an appropriate manner.

5.2 Safety equipment

The lift is equipped with the following safety devices to ensure safe operation *):

- Safety catches
- Throttle valve in hydraulic line
- Limit switch
- Support arm lock
- Devices to prevent jamming and crushing (shaft protection, foot guard)
- Synchronisation cables

*) depending on the design and type of lift

5.3 Monitoring and testing the safety equipment

- | | |
|--------------------------|--|
| · Safety catches | Function test, when lowering the lift, safety catches must engage and stop the downward movement. |
| · Throttle valve | Fixed throttle, cannot be checked by the user. |
| · Limit switch | If the limit switch is pressed, the motor stops or cannot start. |
| · Support arm lock | When the support arms are raised, the support arm lock must engage and remain securely locked in place under lateral load. |
| · Equipment clamps etc. | The equipment must be in place, functional and not deformed. |
| · Synchronisation cables | Check condition. |

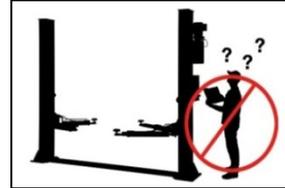
5.4 Warnings and symbols

All warnings are clearly visible on the lift to ensure that the user operates the device in a safe and appropriate manner.

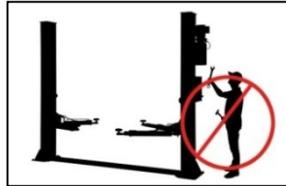
The warning signs must be kept clean and replaced if they are damaged or missing. Read instructions and safety instructions carefully before use!



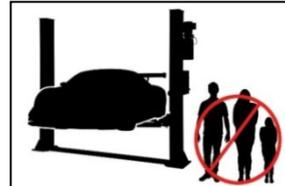
Read Instructions and safety instructions carefully before use!



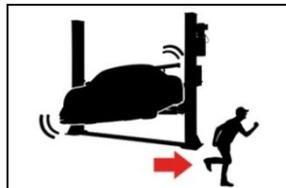
The lift may only be operated by qualified personnel!



Repairs and maintenance only by qualified personnel, never disable safety devices!



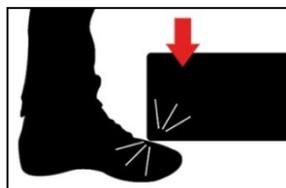
Specialist staff only permitted in the vicinity of the lifting platform!



Always keep escape routes clear!



It is forbidden for persons to stand under the lift (when lifting or lowering)!



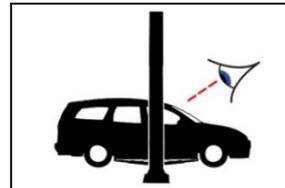
Pay attention to the lifting arms and don't lower on to our feet! Crushing hazard!



It is forbidden for persons to climb up onto the lift.



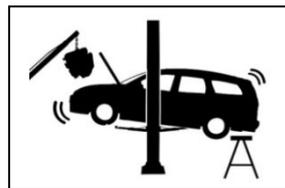
Observe the vehicle manufacturer's mounting points!



After briefly lifting the vehicle a few inches, check that it is securely seated!



Do not exceed the specified load capacity!



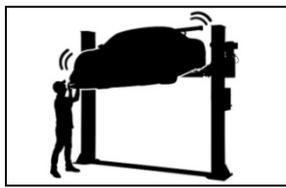
Take care when installing or removing heavy parts as this car tip the vehicle over!



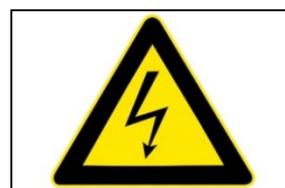
Never attempt to load only one side of the lift!



Protect the lift from moisture! Electrical connections must be dry!

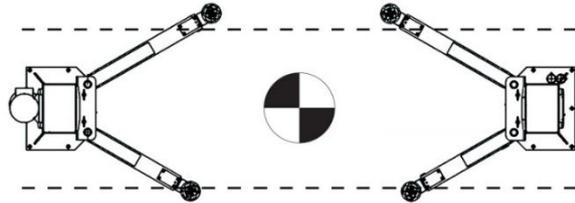
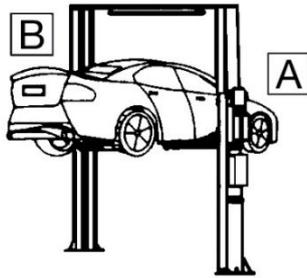


Strong shaking Avoid shaking to the vehicle.



CAUTION! Electrical voltage!

5.5 Load distribution



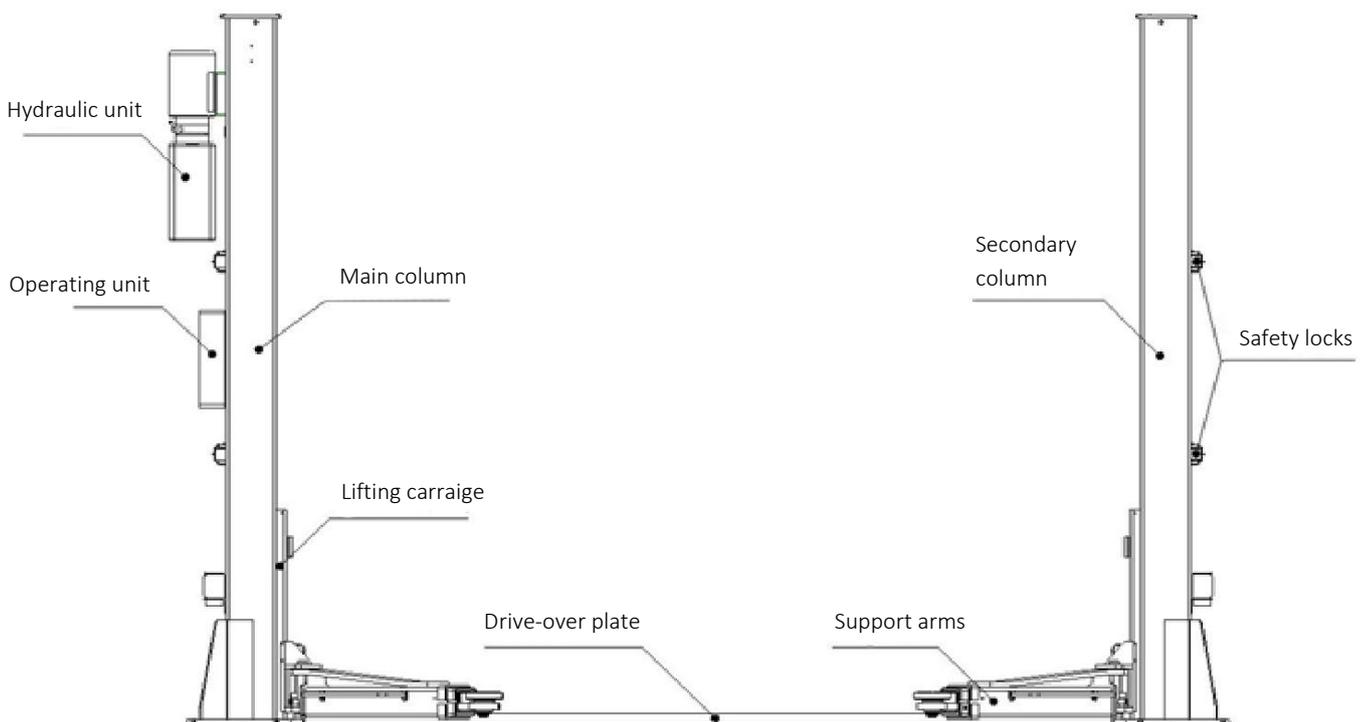
Lifting Capacity	Load distribution	
	B	A
3.6 T	1.5 T	2.1 T
4.2 T	1.9 T	2.3 T
5.0 T	2.5 T	2.5 T
6.0 T	3.0 T	3.0 T

6. Conformity with the product

The TW 250 2-post lift is CE-certified and complies with the Machinery Directive 2006/42/EC, the standard for low voltage 2014/35/EU and fulfils the standards Lifting platforms EN 1493:2022, Safety of machinery EN 60204-1:2018 (see under: EU Declaration of Conformity, at the end of the instructions for use).

7. Technical specification

7.1 Machine description



8. Assembly of the lifting platform

8.1 Before installation

8.1.1 Tools and equipment required

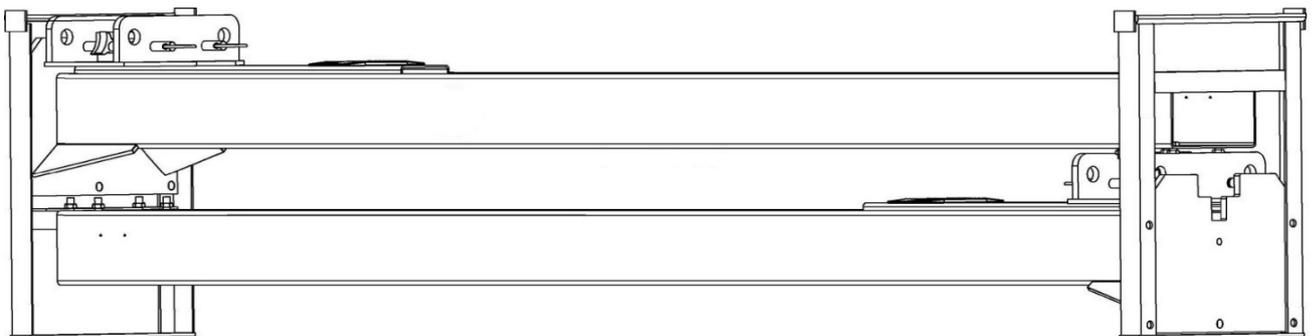
- Suitable lifting tool for bulky and heavy components
- Hammer, pliers
- Phillips and slotted screwdriver
- Set of Allen keys
- Spanner attachments and open-end spanners
- Impact drill
- Hydraulic oil HLP 32

8.2 Soil conditions

The lifting platform must be installed on a solid foundation with a compressive strength of more than 3 kg/mm², a flatness of less than 5 mm and a minimum thickness of 200 mm. Detailed information can also be found in the corresponding foundation plan on our homepage at www.twinbusch.co.uk.

Note: If a new concrete floor is to be poured, it must cure for at least 28 days before a lifting platform can be installed.

8.3 Assembly instructions



- 1) Remove the packaging and take out the box containing the accessories and cover plates. Read and understand the operating instructions before proceeding.
- 2) Firstly, you need to place a support between the two columns or lift one of the two columns using a crane. Then remove the bolts from the frame.

Caution: Please take particular care to ensure that the column cannot fall down. The accessories could be damaged or people could be injured.

- 3) After you have removed the first column, place a support under the other column. Then remove the bolts from the transport rack.
- 4) Set up both columns. Align the main and secondary pillars with each other (outer edge of base plate to outer edge of base plate approx. 3436 mm).
 - a) After unpacking, you must decide where you want to place the column with the power supply and the control unit.
 - b) Set up a pillar, place the drive-over plate on this pillar and determine the exact distance by erecting the second pillar and placing it on the second side of the drive-over plate.
- 5) First attach the main pillar, then the secondary pillar.
 - a) Drill the holes in the foundation for each ground anchor using a percussion drill. Drill perpendicular to the floor level.
 - b) Remove dirt and dust carefully after drilling (vacuum and blow out if necessary).

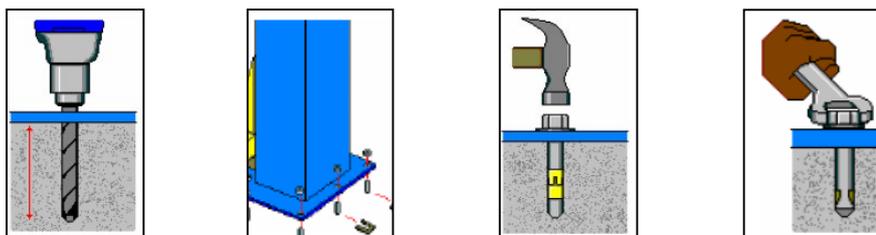
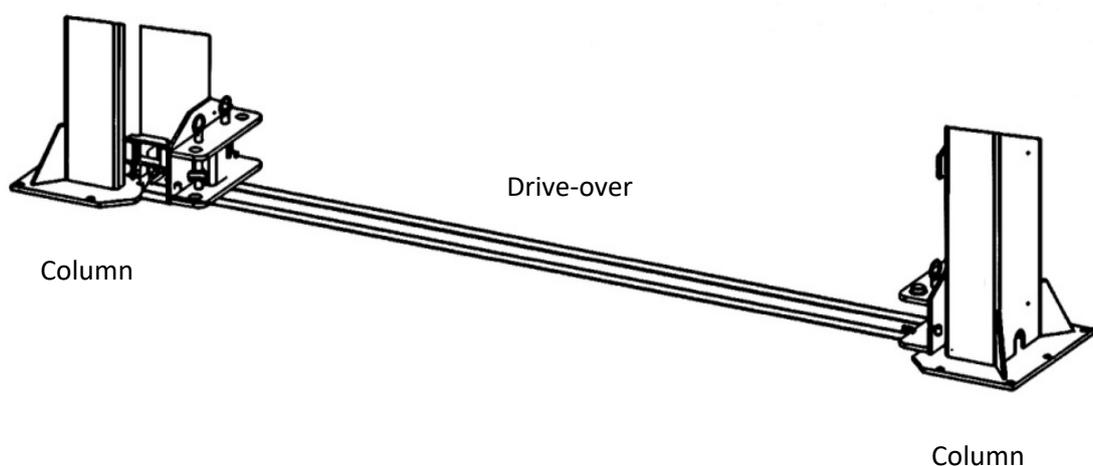
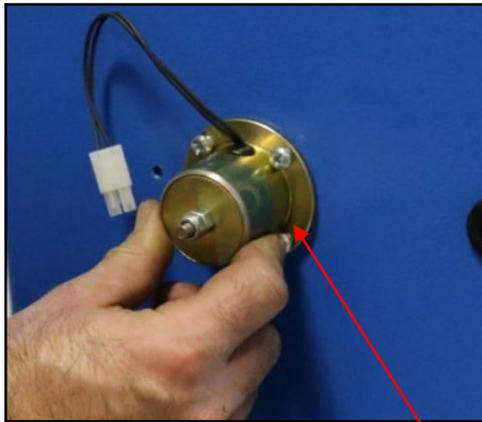


Figure: Work steps for fixing the pillars

- 6) Attach the ramp plate

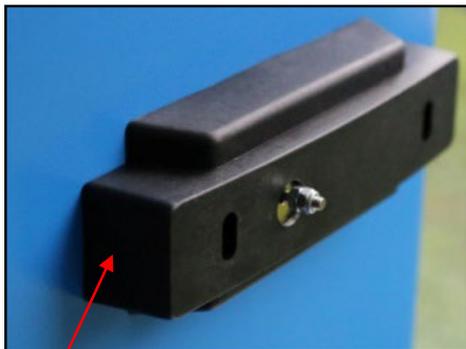


7) Fit the safety catches, the four electromagnets and the corresponding covers.



Electromagnet on the outer surface of the column

Safety catches



Cover



Fit the control unit or control box to the main pillar.

8) Fit the safety catches, the four electromagnets and the corresponding covers.

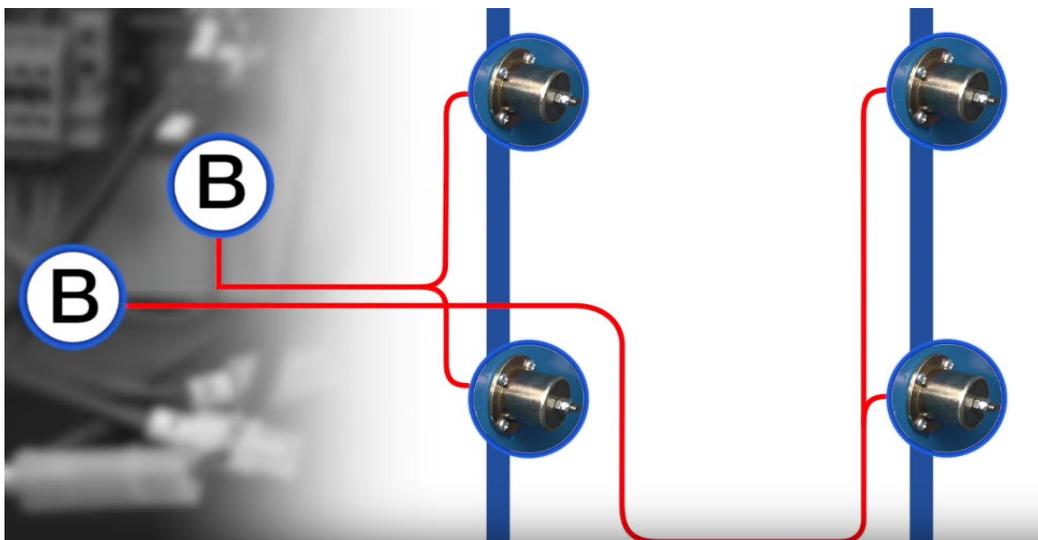
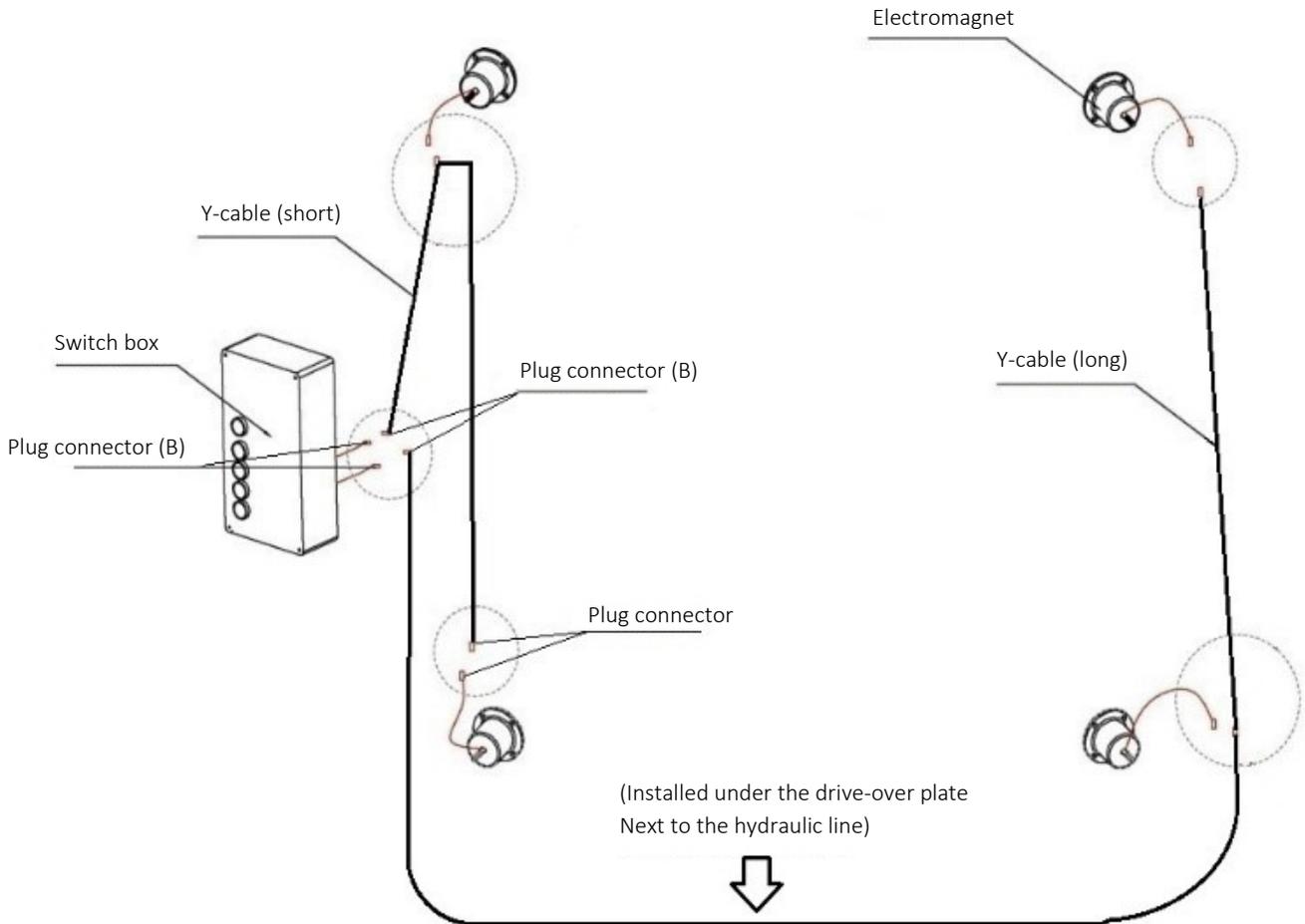


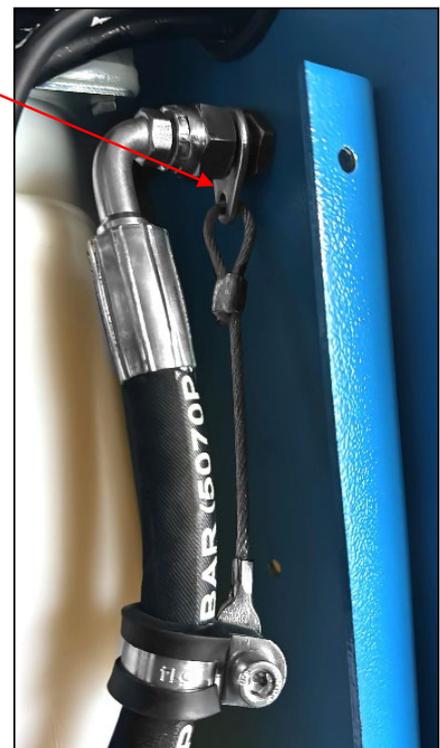
Figure: Electromagnet release connections

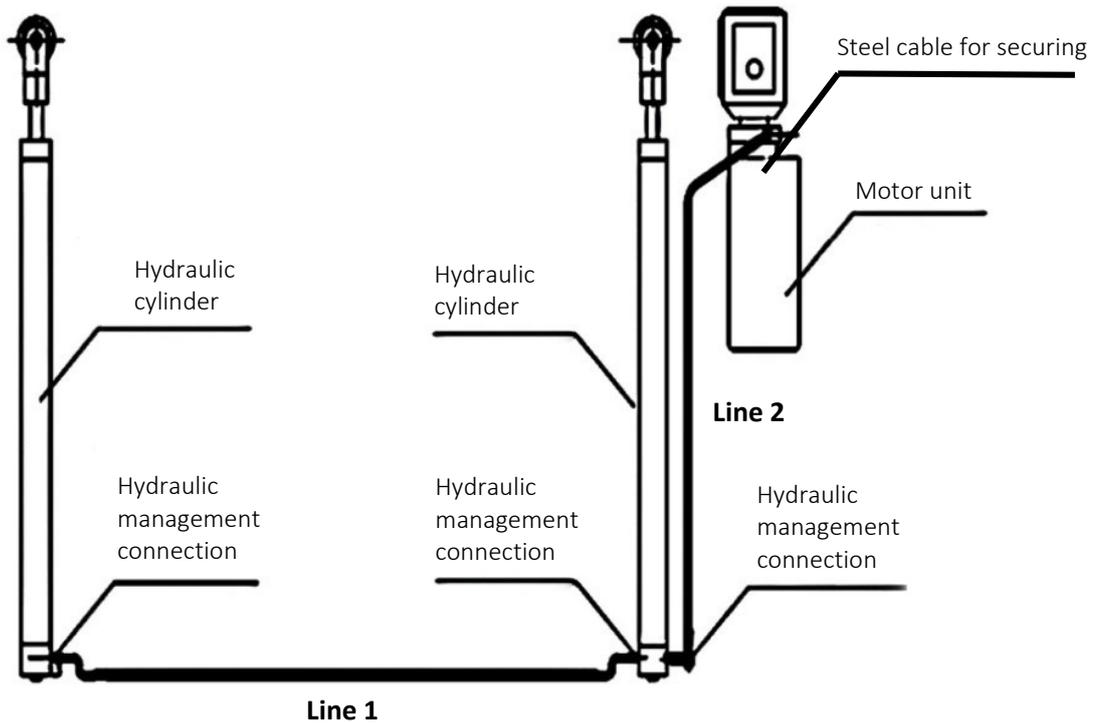
9) Mounting the motor unit



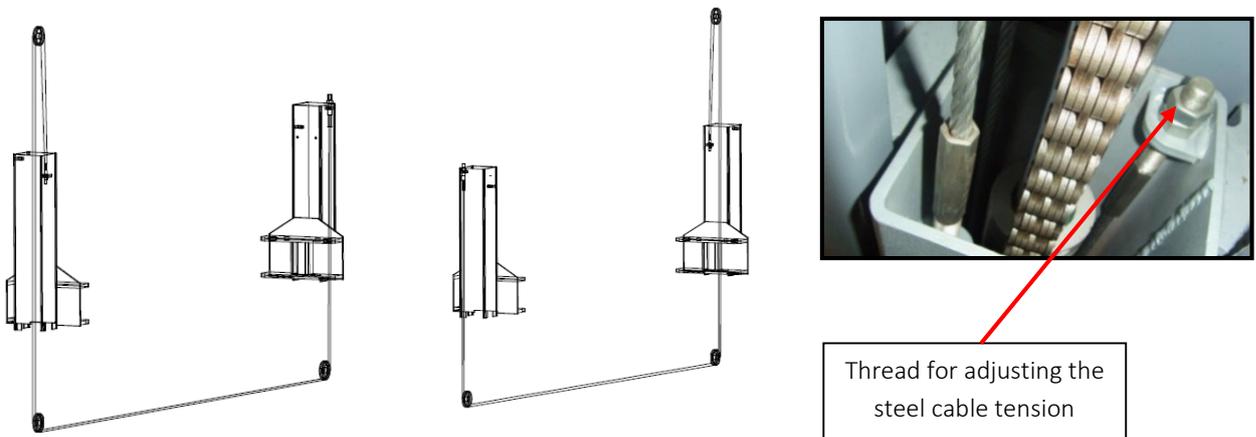
- a) Make sure that all hose ends are clean and free of dirt.
- b) Connect the hydraulic lines as shown in the following illustration or in the hydraulic circuit diagram.
- c) Fit the steel cable to secure the pressurised hydraulic hose so that it is not thrown around uncontrollably.

Steel cable for securing





- 10) After installing the safety catches, connect the carriages to the steel cables.
- Align the slides on both sides of the column approx. 800 mm above floor level.
 - Ensure that the safety catches on both sides of the column are engaged before starting to install the steel cables.
 - The slides must be at the same height from the ground before you continue.**
 - Pull in the steel cables as shown in the following illustration.
 - The steel cables must be set "tight" on both sides of the pillar. When doing this, make sure that you can hear the safety latches engage synchronously on both sides during the subsequent test run. If this is not the case, the steel cables or a steel cable must be retensioned.
 - The ropes must always be secured against unintentional loosening (locked off) and oiled to ensure a long service life.



Caution: After adjusting the steel cable tension, the adjusting nuts on both sides of the column must be locked with another nut!

11) After installing the safety catches, connect the slides to the steel cable.



Figure: Connecting the power supply to the control unit

12) Fit the limit switch at the top end of the main column as shown in the following illustration.

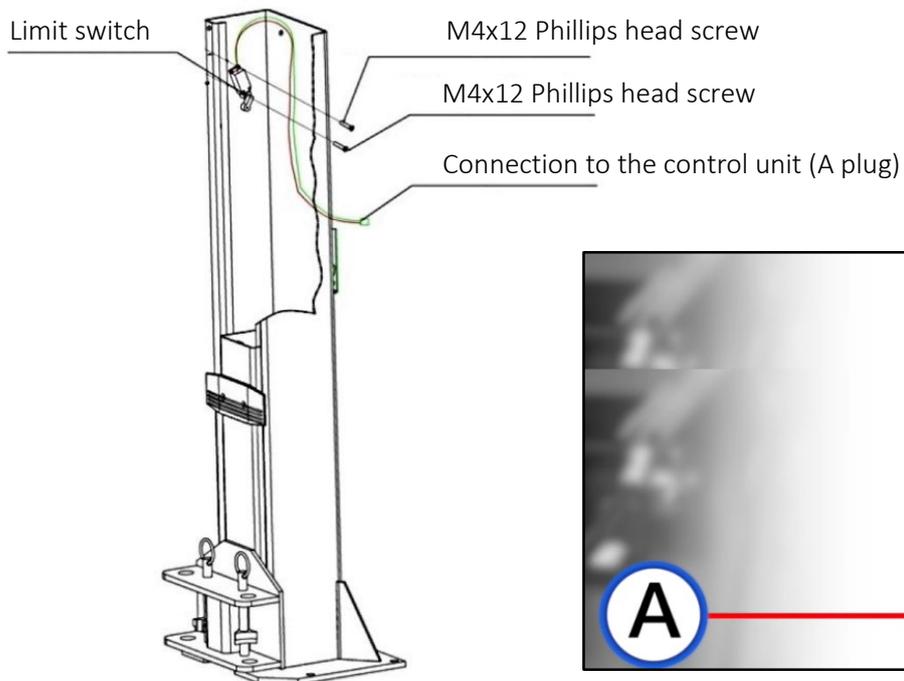
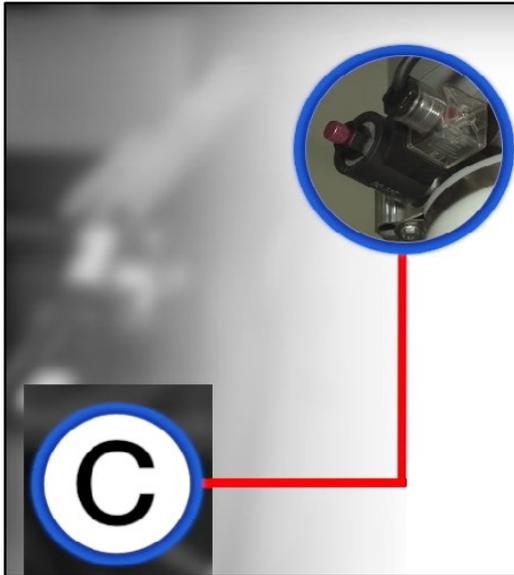


Figure: Mounting the limit switch

- 13) Fit the drain coil and connect the plug connection C (plug) in the switch box.



- 14) Fit the protective covers for the hydraulic lines from bottom to top. It is important to ensure that the narrow opening points upwards.

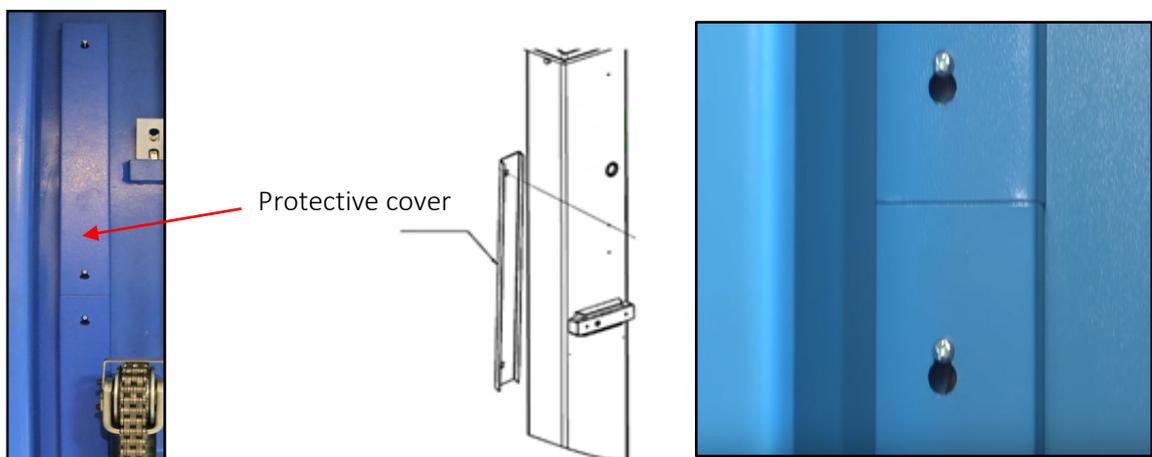


Figure: Attaching the protective covers

15) Fitting the support arms

- a) Insert the support arms into the lifting carriages, pay attention to the interlocking of the anti-rotation blocks. If necessary back off the bolts holding the half moons in place and then re-tighten.
- b) Place the support arm bolts in the holes provided, as shown in the following figure.

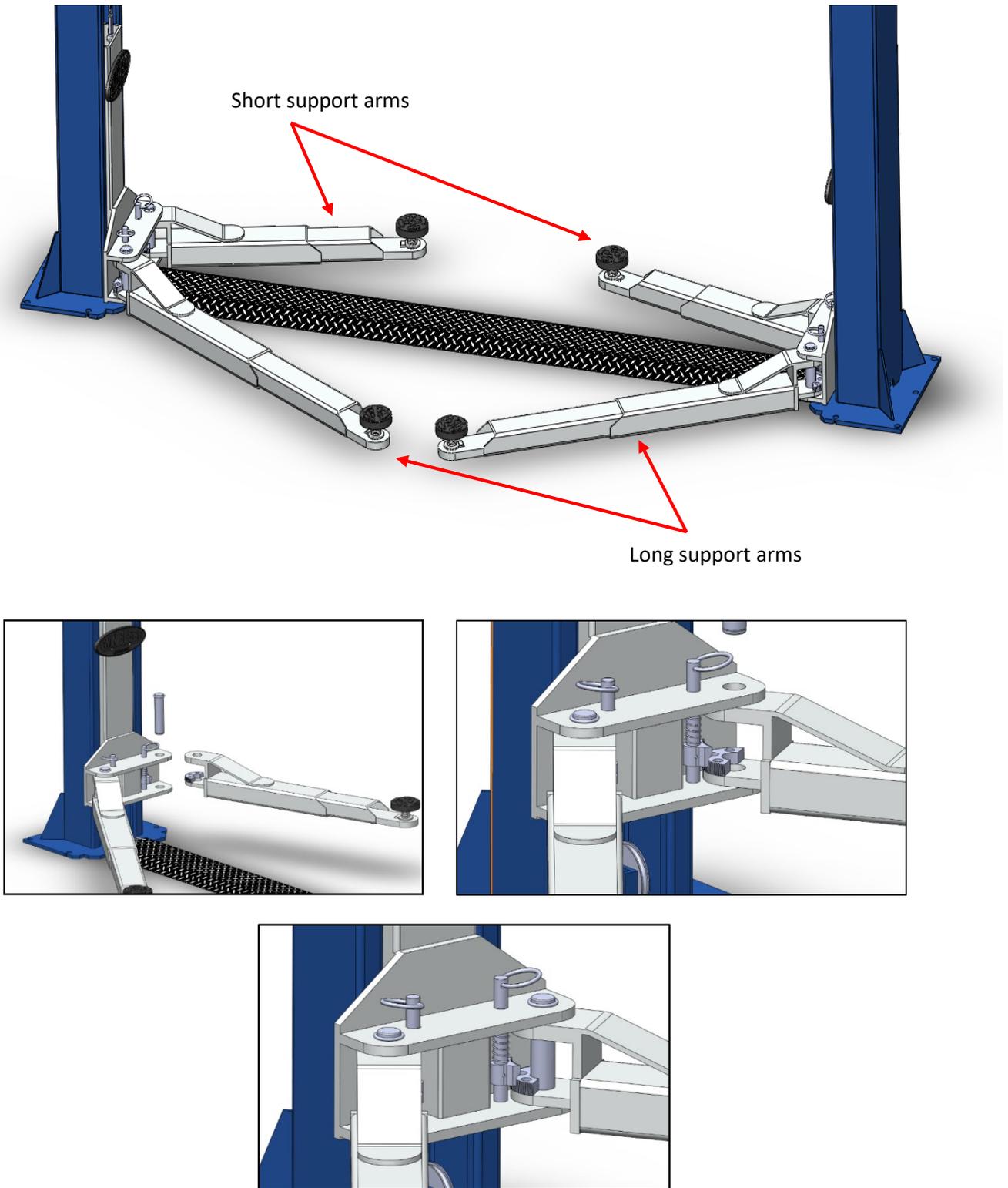


Figure: Mounting the support arms on the lifting carriage

16) Filling the hydraulic system

The hydraulic oil tank has a capacity of approx. 10 litres. To ensure that the lift functions correctly, you should fill the oil tank to 80 % with hydraulic oil type: **HLP 32**.

17) Test run

a) Follow the procedure in the 9. operating instructions and make absolutely sure that **NO** vehicle is on the lift during a test run.

b) Before the test run, check all hydraulic lines and connections for correct functioning (strength).

18) Fitting the chain and door stop protection.



Chain guard (optional)



Door stop protection

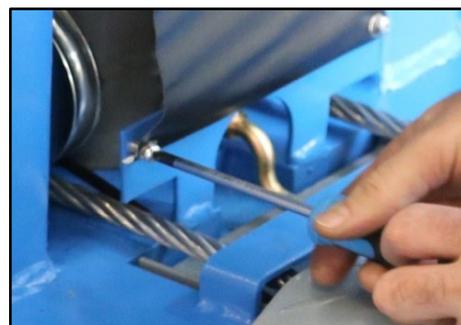
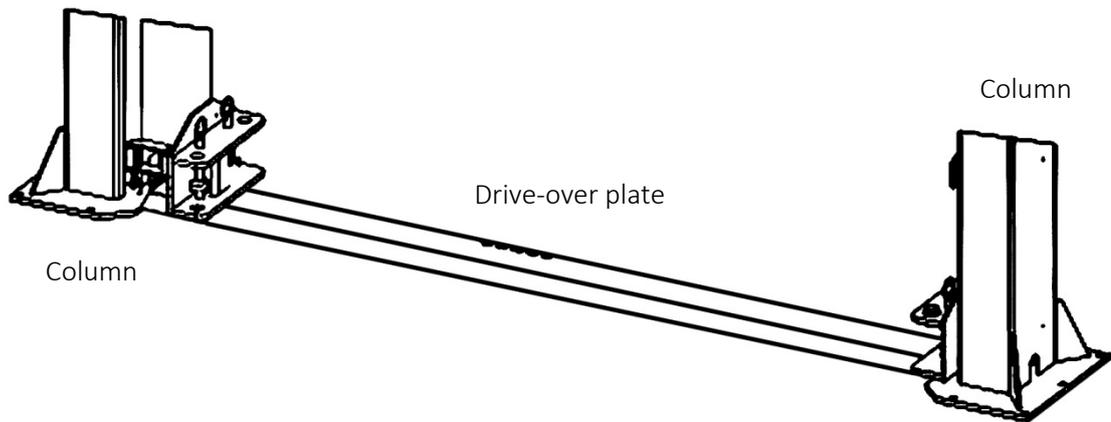


Figure: Fitting the chain and door stop guard

19) Fitting the drive-over plate



20) Fit the motor cover



21) Checkpoints according to the structure

S/N	Check	Yes	No
1	Are the columns vertical to the floor? (90°)		
2	Are the two columns parallel to each other?		
3	Is the oil hose connected correctly?		
4	Is the steel cable correctly and firmly connected?		
5	Are all support arms correctly and firmly fitted?		
6	Are the electrical connections correct?		
7	Are the joints all screwed tight?		
8	Have all parts that need to be greased been greased?		
9	Check that the hydraulic cylinders are sitting correctly in the lug holes in the base plates		

9. Operating instructions

9.1 Safety precautions

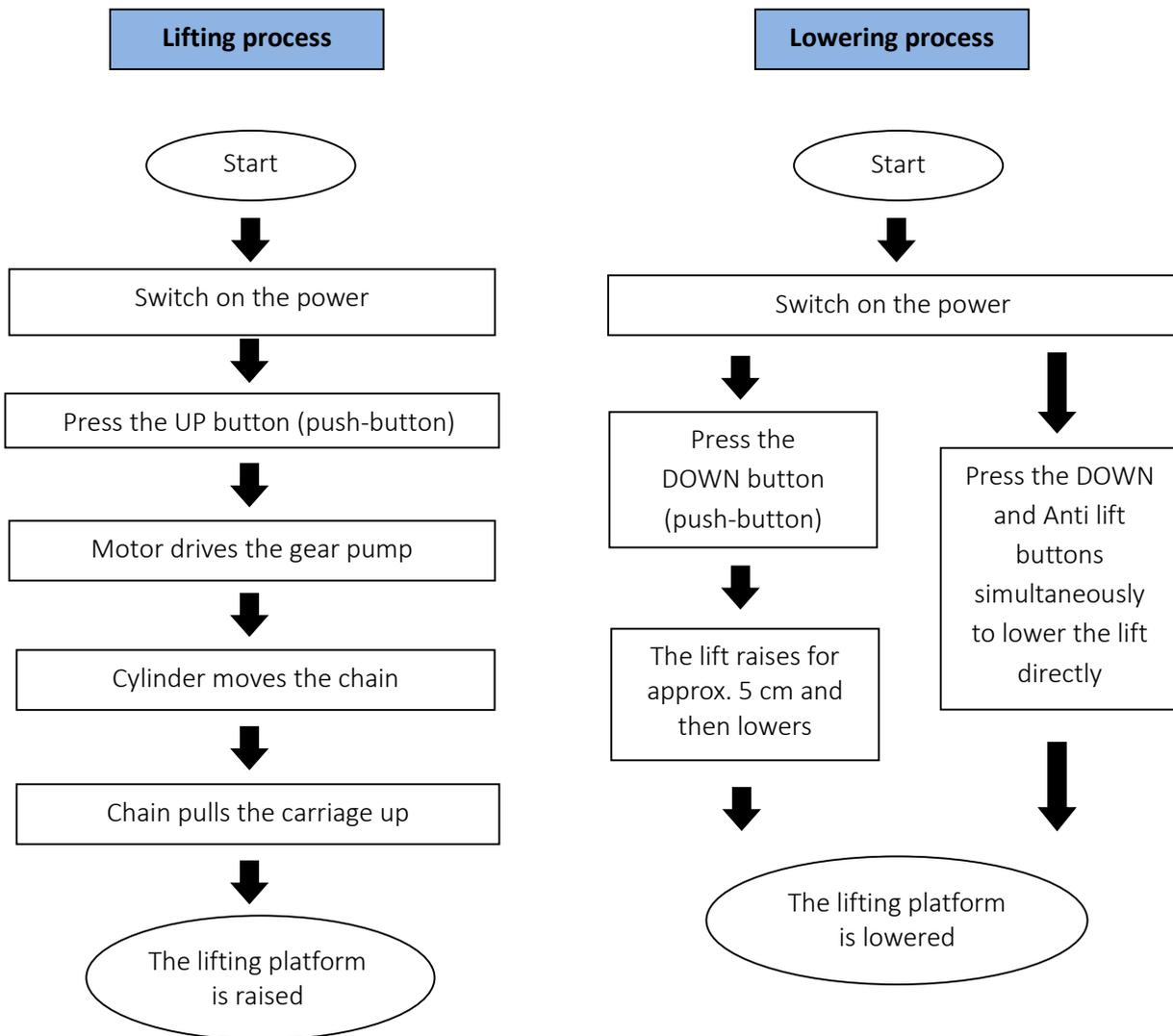
- If the safety devices are defective or show abnormalities, the lift must not be put into operation under any circumstances!
- Check that all connections of the hydraulic lines are tight and functional. If there are no leaks, the lifting process can be started.
- Only the operator should be in the vicinity of the lifting platform during a lifting or lowering operation. Always ensure that there are no persons in the danger zone.
- Vehicles should always be aligned so that the vehicle's centre of gravity is in the middle between the lift columns. If this is not the case, the lift should not be used. Otherwise, neither we nor the dealer, if any, will accept responsibility for any problems or damage caused.
- When the desired lifting height is reached and the safety catches are engaged, switch off the power supply to the lift before starting work in order to avoid incidents caused by unintentional operation by other persons.
- Ensure that the safety catches are engaged before starting work on or under a vehicle. No persons may be in the working area of the lifting platform during the lifting and lowering process.

9.2 Description of the control unit (control box)



Description	Function
Main switch	Switch on or off
Operating light	Indicates whether there is a power supply
UP button (push-button)	Raising the lifting platform
Safety catches	Lowering into the safety catches
Anti-Lift Button	Lowering the lift without lifting
DOWN button (push-button)	Lowering the lifting platform
230 V socket outlet	Connect consumer
Emergency stop switch	Switches the system off in an emergency

9.3 Flow chart of the control unit (control box)



9.4 Lifting and lowering process

Lifting process:

1. **Read and understand the operating instructions before starting work.**
2. Connect the power supply and switch the main switch to ON.
3. Park the vehicle with its centre of gravity in the middle between the two pillars.
4. Align the support arms of the lifting platform so that the pick-up points are in line with the lifting platform. Make sure that the vehicle is positioned correctly.
5. Switch on the lift and press the UP button on the control unit until the support arms touch the vehicle at the pick-up points specified by the vehicle manufacturer and the vehicle has been lifted approx. 10-15 cm. Stop the lifting process and make sure that the vehicle has been picked up correctly and safely.
6. After final alignment and checking, press the UP button again and hold it down until the desired lifting height is reached.
7. Press the lock button to lower the lift carriages into the safety catches.
8. Set the main switch to OFF and start working on or under the vehicle.

Lowering process:

1. Connect the power supply and switch the main switch to ON
2. Press the DOWN button on the control unit. The lifting carriages of the lifting platform will now raise by about 5 cm to release the locking mechanism of the safety catches. The electromagnetic release valve then opens and the lifting carriages lower.
3. As soon as the lifting carriages have reached the lowest position, the support arms can be swivelled out from under the vehicle.
4. The vehicle can now be removed.

9.5 Emergency drain in the event of a power failure

1. When the lifting carriage is **NOT** engaged.

- a) Pull all electromagnets simultaneously to the outside of the two columns to open the safety catches.

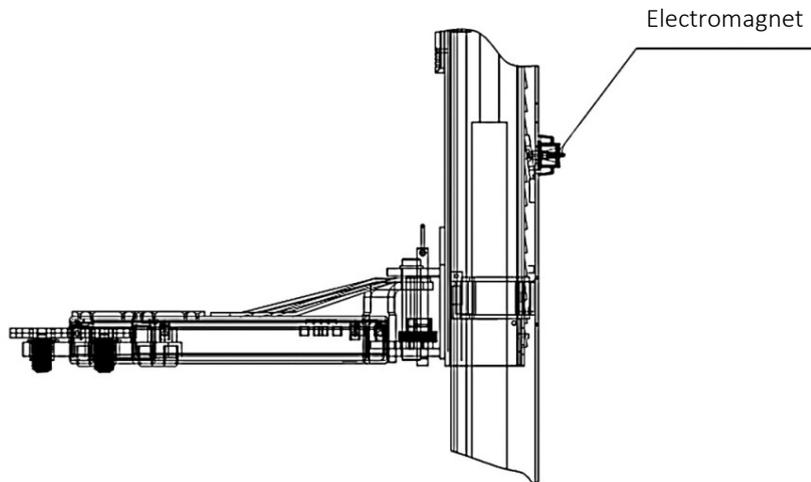


Figure: Unlocking all electromagnets

- b) Actuate the manual drain (bayonet catch or twist lock)
(Push in the knurled screw and turn -> anti-clockwise: "Open", -> clockwise: "Close")

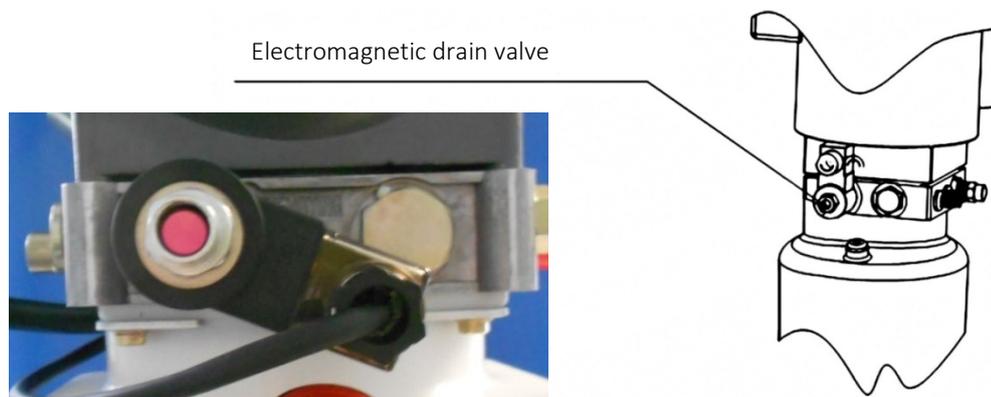


Figure: Drain valve

2. With the lifting carriage engaged

- a) Unscrew the sealing plug to be able to connect the manual hydraulic pump (not included in the scope of delivery).

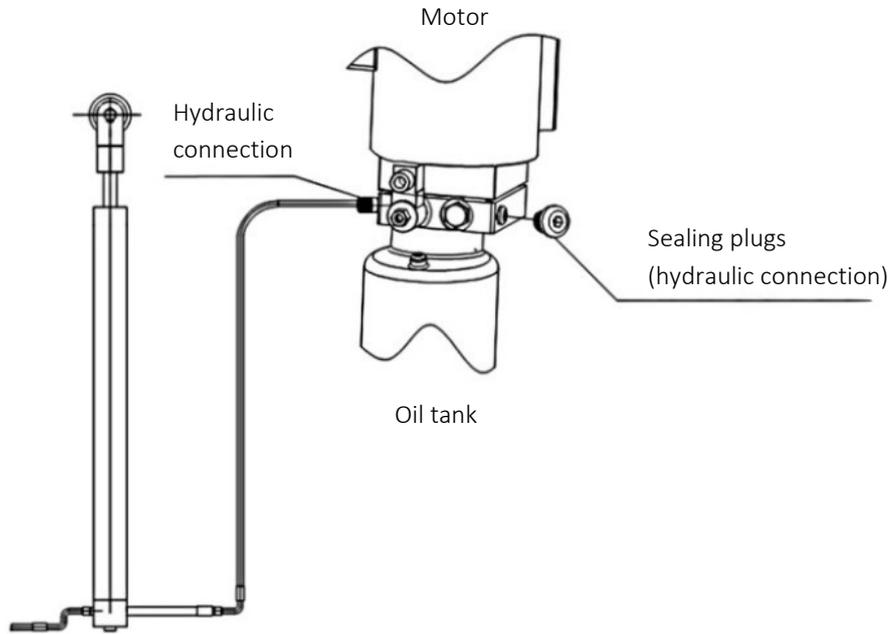


Figure: Sealing plug

- b) Actuate the hand lever of the hydraulic pump to supply the cylinder with oil and release the lock.

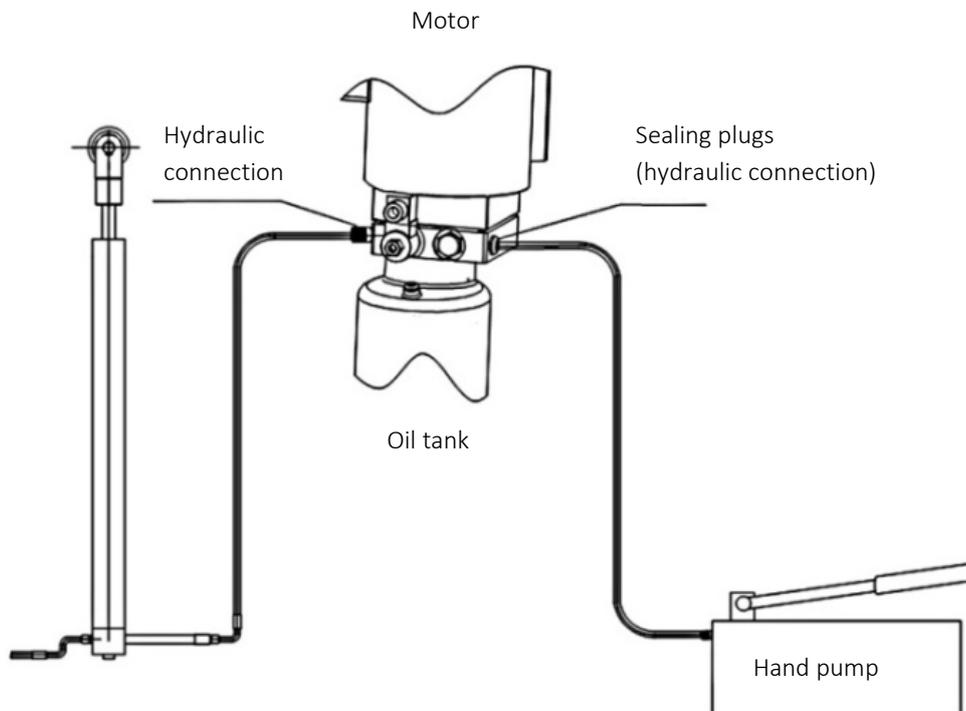


Figure: Hand pump connections

10. Troubleshooting and rectification

Please note: Do not hesitate to contact the expert staff at Twin Busch GmbH if you are unable to rectify a fault yourself. We will be happy to help you solve the problem. In this case, please document the fault and send us pictures and a precise description of the fault so that we can identify and rectify the cause as quickly as possible.

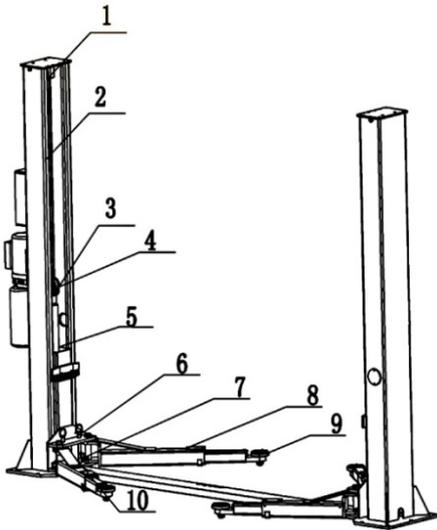
The following table lists possible errors, their cause and the associated troubleshooting for quicker identification and self-remedy.

Problems	Cause	Solution
Unusual noise.	Wear on the inside of the pillars.	Grease the inside of the pillars.
	Contamination in the columns.	Remove the dirt.
The motor cannot be started, nor does the lift move up.	The cable connections are loose.	Check the cables and reconnect them.
	The motor is defective.	Replace it.
	The limit switch is defective/damaged or the cable connection is loose.	Reconnect the cables or replace the limit switch.
Motor runs, but does not raise the lift.	The motor is running backwards/in the wrong direction of rotation.	Check the cable connection.
	The pressure relief valve is loose or dirty.	Clean or screw it tight.
	The gear pump is defective.	Replace them.
	The oil level is too low.	Top up with oil.
	The oil hose has come loose or is torn off.	Fasten or replace it.
The beams lower slowly after they have been raised.	The damping valve is loose or jammed/blocked.	Clean or fasten it.
	The oil hose is leaking.	Check or replace it.
	The oil cylinder/piston is leaking.	Replace the seal.
	The directional valve is leaking.	Clean or replace it.
	The pressure relief valve is leaking.	Clean or replace it.
Lifting too slowly.	Manual or electric drain valve is leaking/dirty.	Clean or replace it.
	The oil filter is dirty or jammed.	Clean or replace it.
	Oil level is too low.	Top up with oil.
	The pressure relief valve is installed incorrectly.	Mount it correctly.
	The hydraulic oil is too hot. (over 45°C)	Change the oil.
Lowering too slowly.	The cylinder seal is worn.	Replace the seal.
	The throttle valve is jammed/dirty.	Clean or replace it.
	The hydraulic oil is contaminated.	Change the oil.
	The drain valve is blocked.	Clean it.
The steel cable is worn.	The oil hose is damaged/kinked.	Replace it.
	Not greased during installation or it is worn.	Replace it.

11. Maintenance

Regular maintenance of your lift will ensure a long and safe service life. Suggestions for maintenance intervals and the activities to be carried out are listed below. How often you service your lift depends on the ambient conditions, the degree of soiling and, of course, the stress and load on the lift.

The following points must be lubricated:



S/N	Description
1	Upper pulley
2	Steel cable
3	Sprocket wheel
4	Chain
5	Sledge
6	Bolt
7	Safety block
8	Support arm
9	Recording
10	Lower pulley

11.1 Daily inspection of parts before operation

A daily check of the safety-relevant components must be carried out before each start-up! This can save you a lot of time due to failure, major damage or even injury.

- Check that all connections and screw connections are tight.
- Check the hydraulic system for leaks and functionality.
- Check that the support arm locks are functioning correctly.
- Perform a test run (without the vehicle) to check whether the safety catches are functioning correctly.
- Clean heavily soiled lifting platform elements.
- Lubricate all lifting platform elements that are not well lubricated.

11.2 Weekly inspection of the parts

- Check the mobility of all adjustable and flexible lifting platform elements.
- Check the condition and correct functioning of all safety-relevant lifting platform elements.
- Check the fill level of the hydraulic oil. (lowered lifting carriage - high fill level, max. raised lifting carriage - low fill level).

11.3 Monthly inspection of the parts

- Check that all screw connections and joints are tight.
- Check the lifting carriage, the support arm bolts, the support arms and all other moving lift elements for wear and lubricate them.
- Check the condition of the steel cable for signs of wear and oil the steel cable with low-viscosity lubricating oil.

11.4 Annual inspection of the parts

- Empty and clean the hydraulic oil tank and replace the hydraulic oil.
- Replace the oil filter.

If you follow the above maintenance intervals and maintenance activities, your lift will remain in good condition and damage and accidents will continue to be avoided.

12. Behaviour in the event of an incident

If the lift malfunctions, simple faults may be the cause. Use the following list for troubleshooting *).

If the cause of the fault is not listed or cannot be found, please contact the expert Twin Busch GmbH team.

Never attempt to carry out repairs yourself, especially on safety equipment or electrical system components.

*) Points depending on the design and type of lift.



Work on electrical systems only by qualified electricians!

Problem: Lift can neither be raised nor lowered.

Possible causes

- No power supply available.
- Power supply interrupted.
- Main switch not switched on or defective.
- Emergency stop pressed or defective.
- Fuse in the power connection has tripped or is defective.
- Fuse in the switch box has tripped or is defective.

Remedy

- Check power supply.
- Check power supply line.
- Check main switch. 
- Unlock emergency stop, check. 
- Check fuse.
- Check fuse.

Problem: Lifting platform cannot be raised.

Possible causes

- With three-phase current: one phase missing.
- With three-phase current: Direction of rotation of motor reversed.
- Oil pump defective.
- Emergency release open.
- Motor is defective.
- Overload.

Remedy

- Check power supply. 
- Check direction of rotation, swap phase if necessary. 
- Notify Twin Busch Service.
- Close emergency release valve.
- Notify Twin Busch Service.
- Overload valve has opened, reduce load.

Problem: Lift cannot be lowered.

Possible causes

- Lifting platform sits in safety catches.
- Lift has run into limit switch.

- Motor is defective.

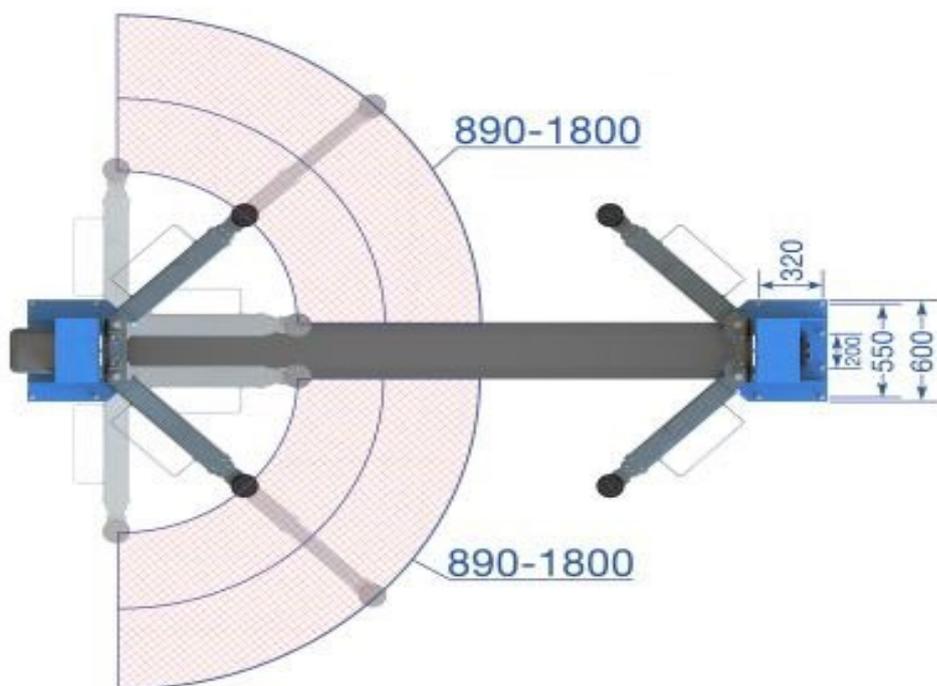
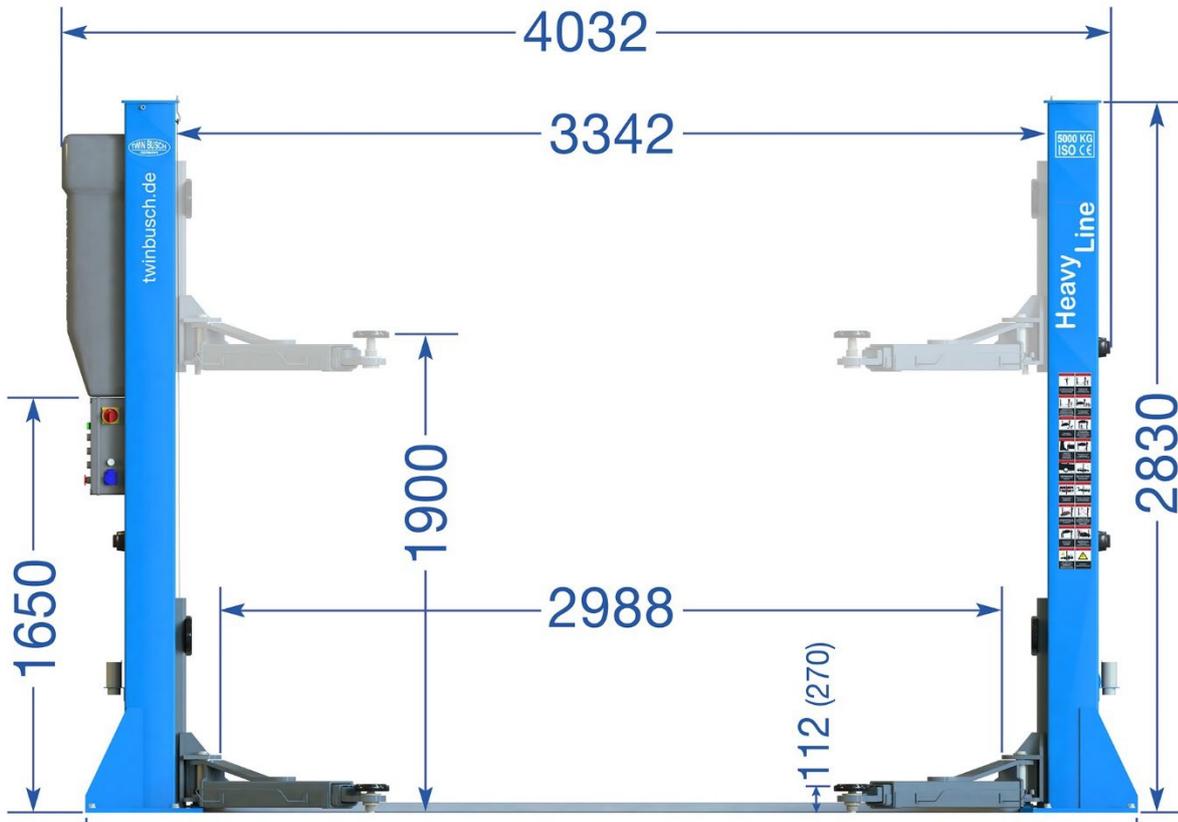
- Lift has been blocked during lowering.

Remedy

- Raise platform slightly, pull detents, lower.
- If necessary, release limit switch, raise 1 cm and lower.
- Open the safety latch and raise the lift lower emergency lowering.
- Raise the lift again slightly and remove the obstacle.

13. Appendix

13.1 Dimensions of the lift



13.2 Requirements of the foundation

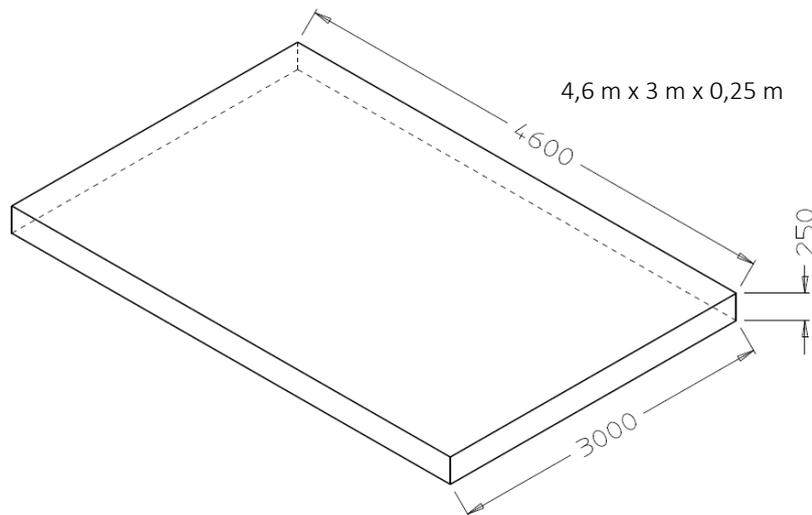
Requirements for the concrete:

- Concrete C20/25 according to DIN 1045-2 (previous designation: DIN 1045 concrete B25).
- Floor must be level and have a flatness of less than 5 mm/m.
- Newly poured concrete must cure for at least 28 days.

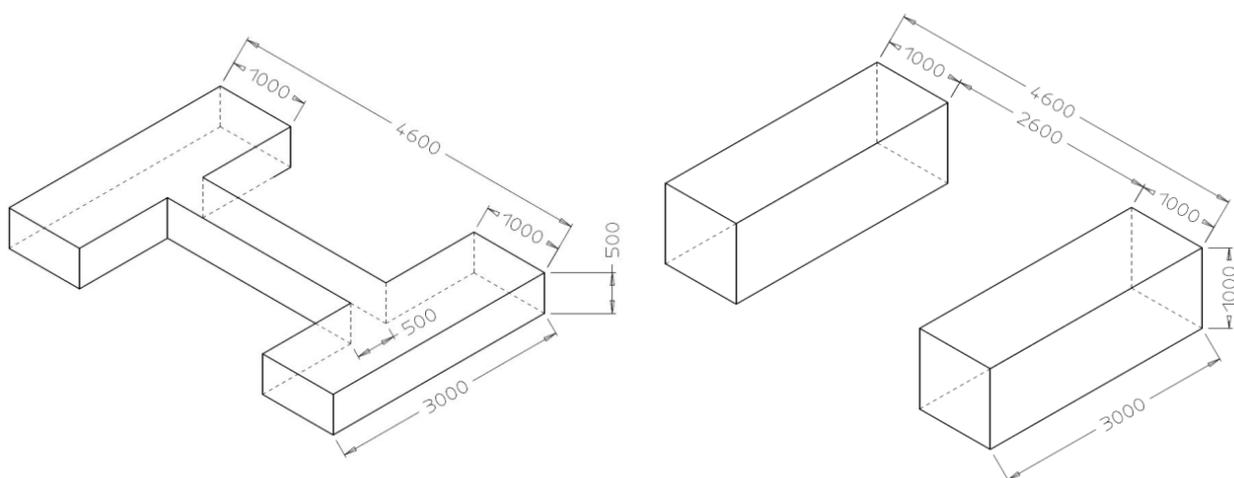
Foundation dimensions:

- Ideally, the entire hall floor should be made of C20/25 concrete with a thickness of at least 250 mm.

Minimum dimensions of the foundation slab (lifting platform placed in the centre)



Alternatively, in H-shape or two blocks:



Other requirements:

- The surrounding soil must be suitable for the load, e.g. no sandy soils, etc.
- Reinforcements in the concrete are not mandatory for proper use of the lift, but are recommended.
- If in doubt, the foundation should be determined and checked by a structural engineer

The following must be observed for soil exposed to frost:

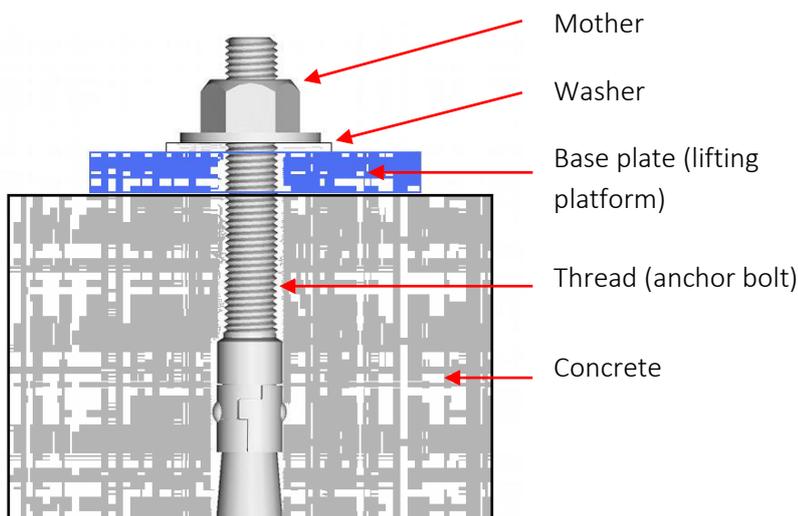
In the case of frost exposure, the concrete must correspond to exposure class XF4, as dripping de-icing agent cannot be ruled out.

This results in the following minimum requirements for concrete under frost stress:

Exposure class:	XF4
Maximum w/c:	0,45
Minimum compressive strength:	C30/37 (instead of C20/25)
Minimum cement content:	340 kg/m ³
Minimum air void content:	4.0 %

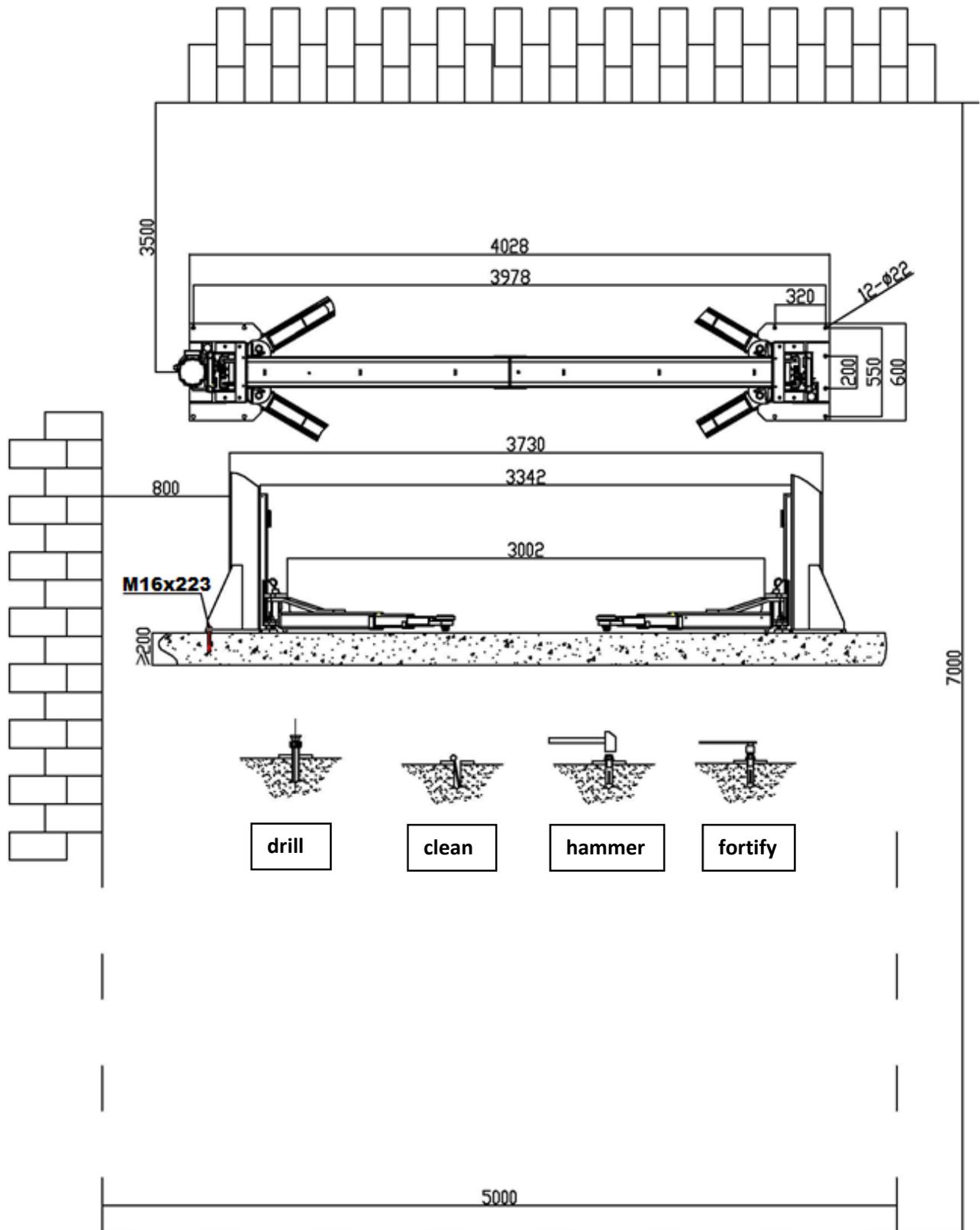
However, it must be noted that the lifts are not designed for outdoor use. Although the control box complies with IP54, the rest of the electrics, motors and limit switches have a maximum IP44 rating.

Anchor bolt fastening:

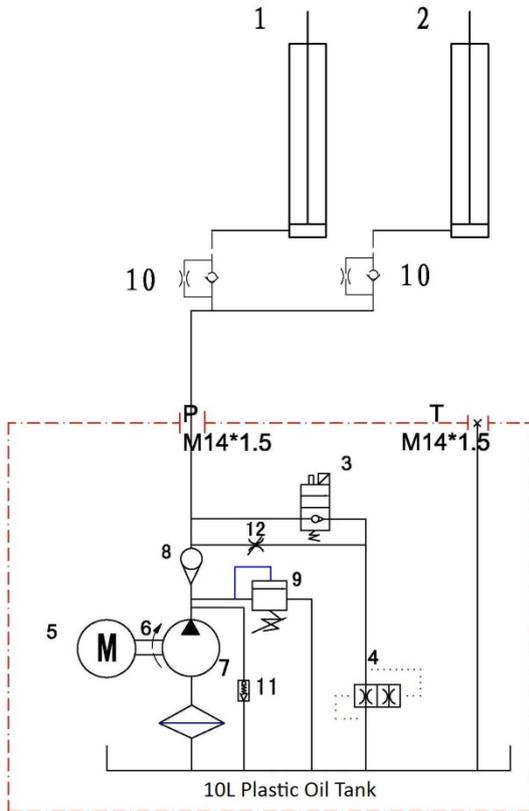


**Tightening torque of the anchor bolts
is: 110 Nm**

13.3 Diagram for floor fastening / foundation plan

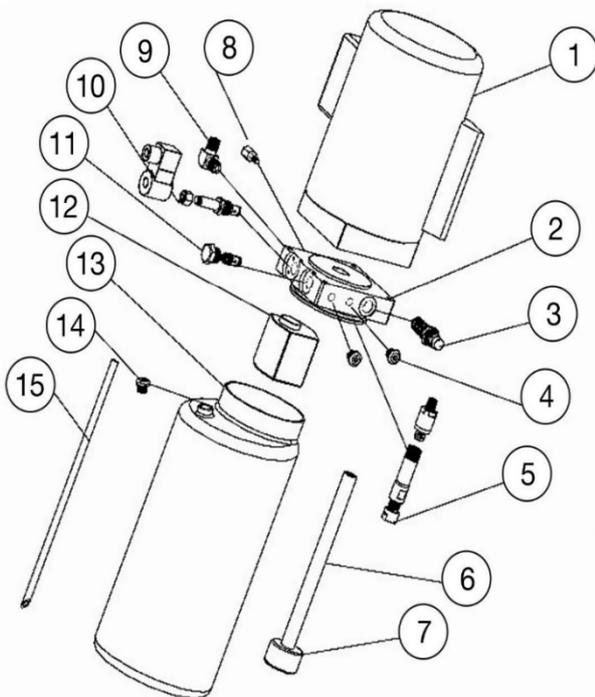


13.4 Hydraulic system



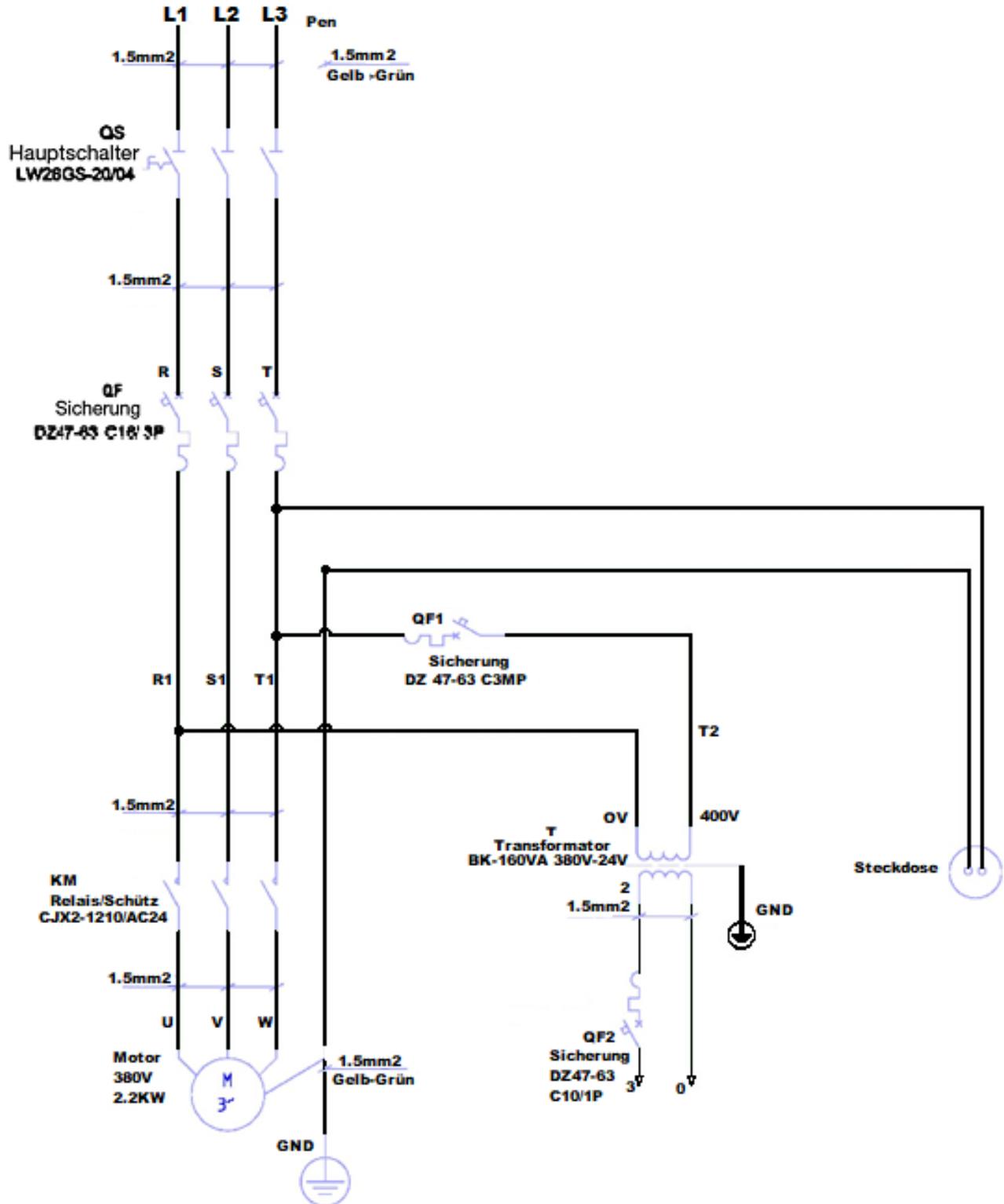
1. Master cylinder
2. Secondary cylinder
3. Electromagnetic drain valve
4. Throttle valve
5. Motor
6. Clutch
7. Gear pump
8. Non-return valve (one-way valve)
9. Pressure relief valve (max.: 19.4 Mpa)
10. Throttle check valve
11. Pressure control valve
12. Relief valve

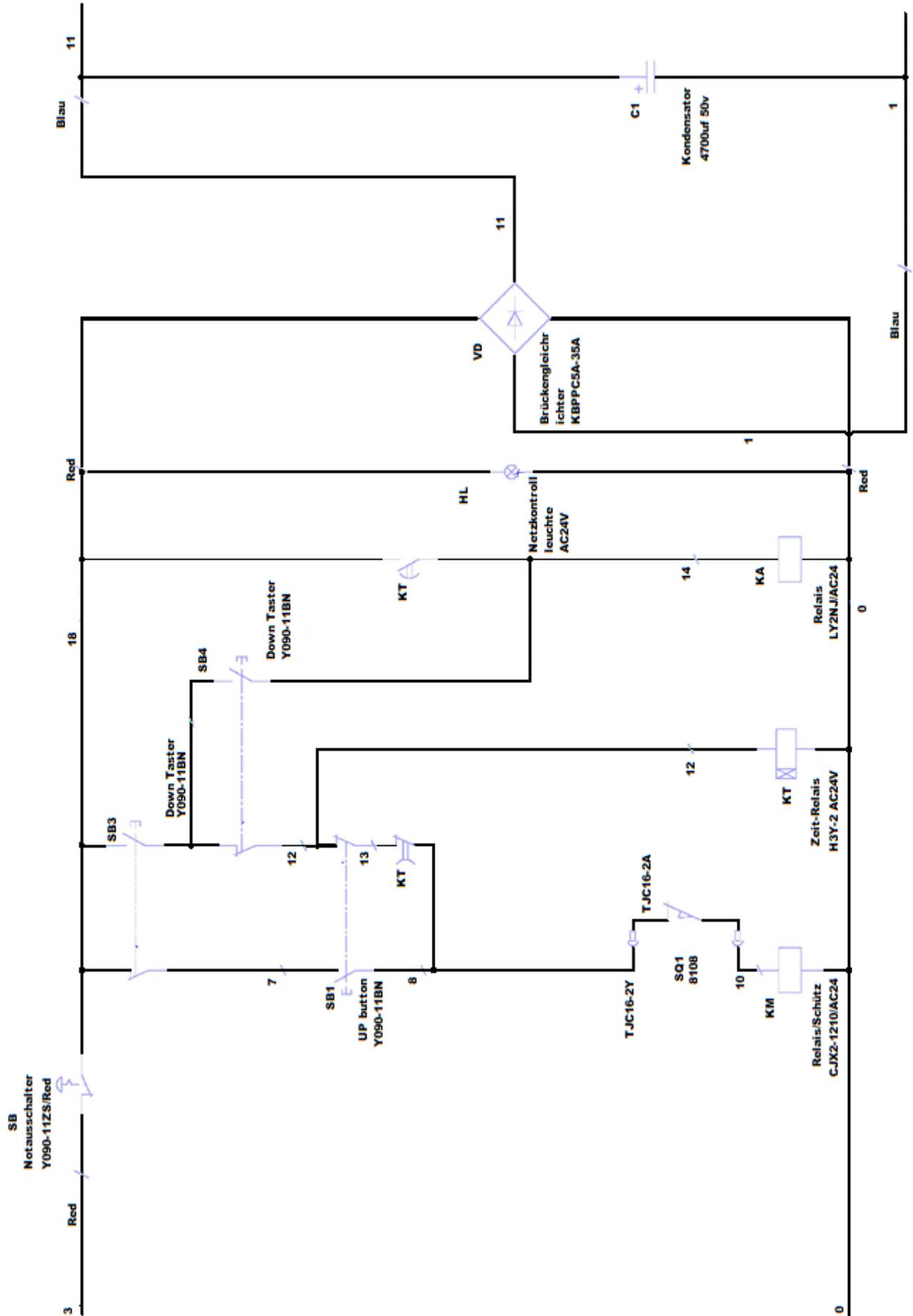
10 litre oil tank

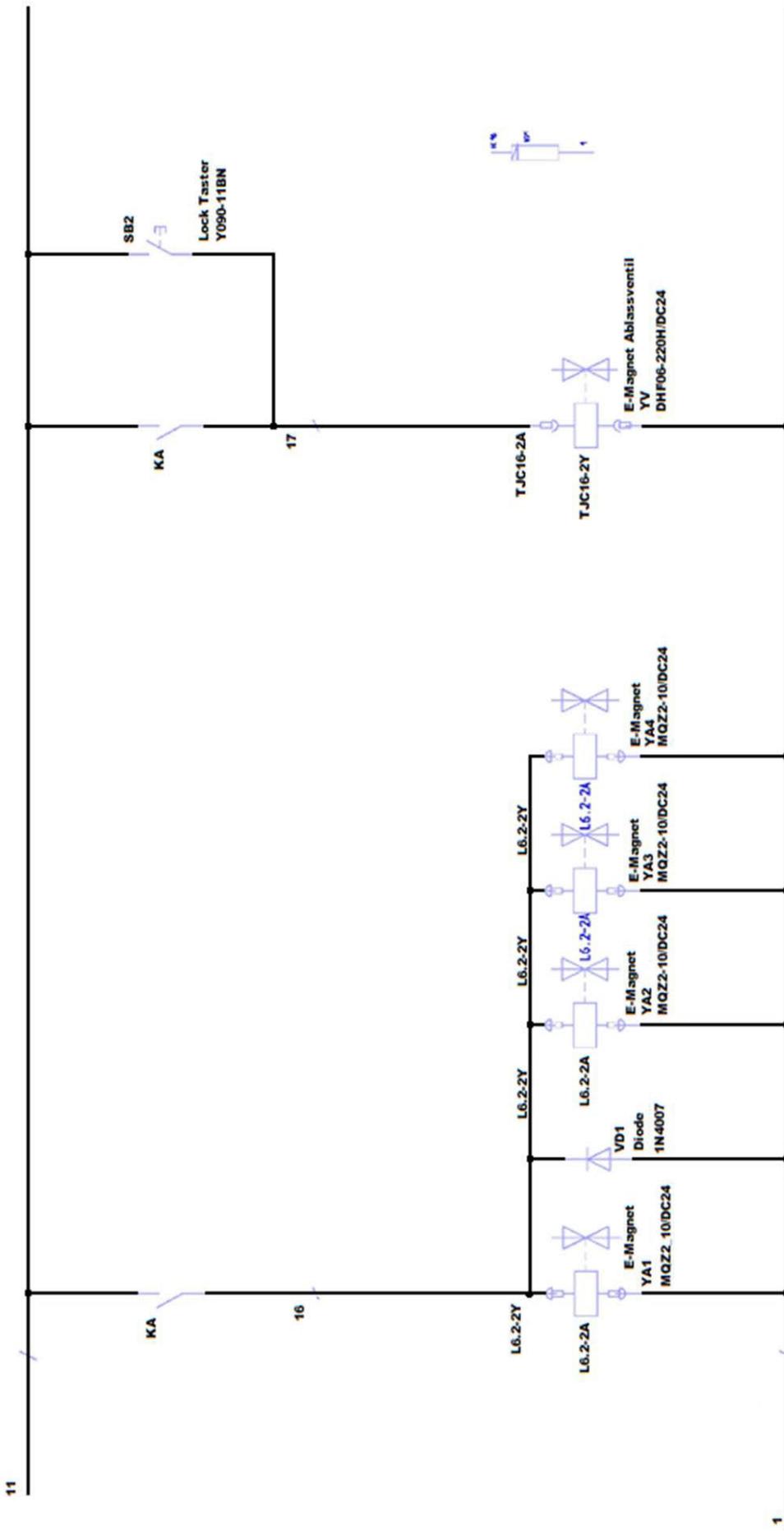


S/N	Name	Qty.
1	Motor	1
2	Hydraulic block	1
3	Pressure relief valve	1
4	Screw plug	2
5	Pressure control valve	1
6	Oil intake pipe	1
7	Oil filter	1
8	Throttle valve	1
9	Connection link	1
10	Electromagnetic drain valve	1
11	Directional valve	1
12	Gear pump	1
13	Plastic oil tank	1
14	Oil tank plug	1
15	Oil return line	1

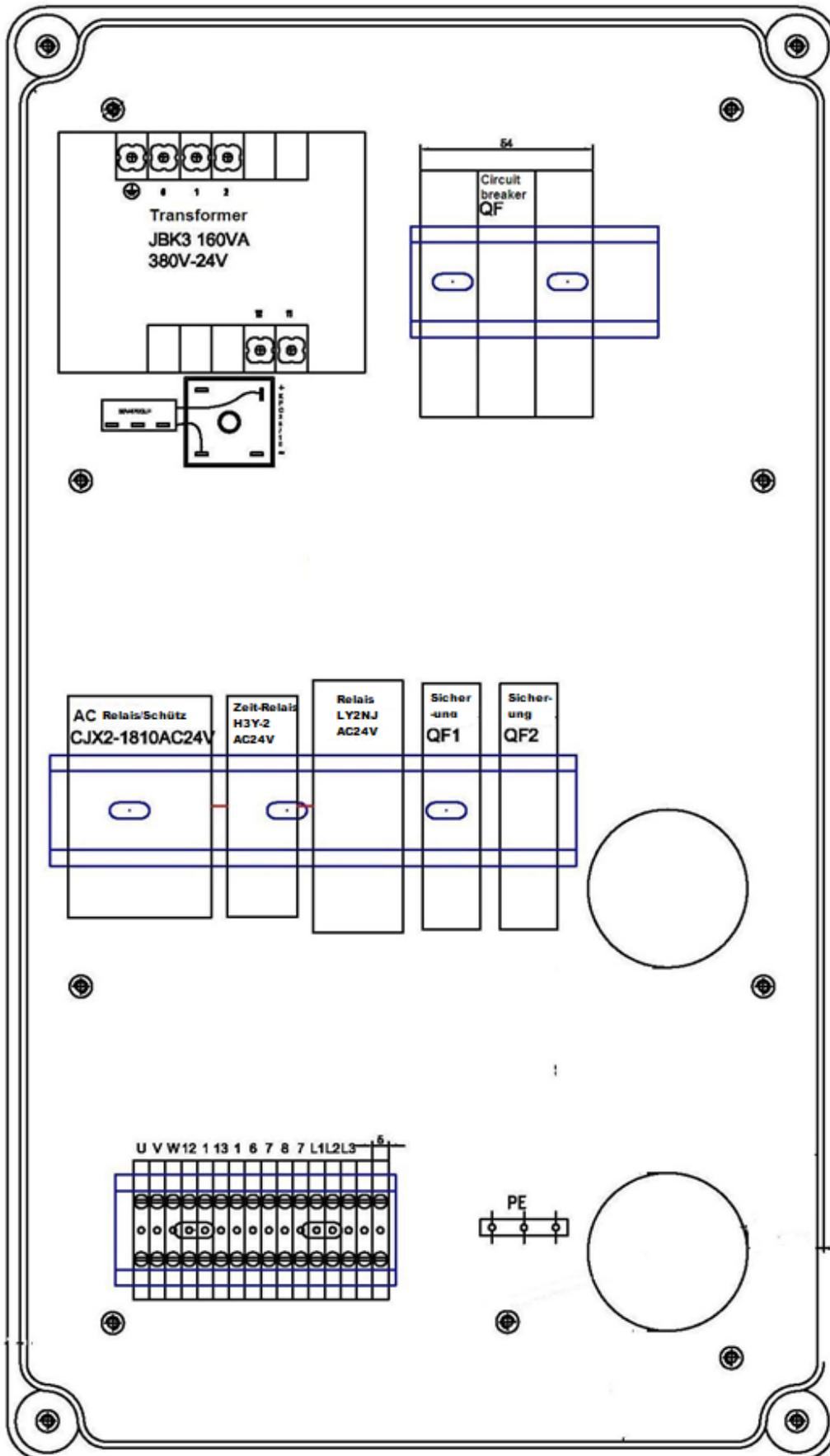
13.5 Circuit diagrams



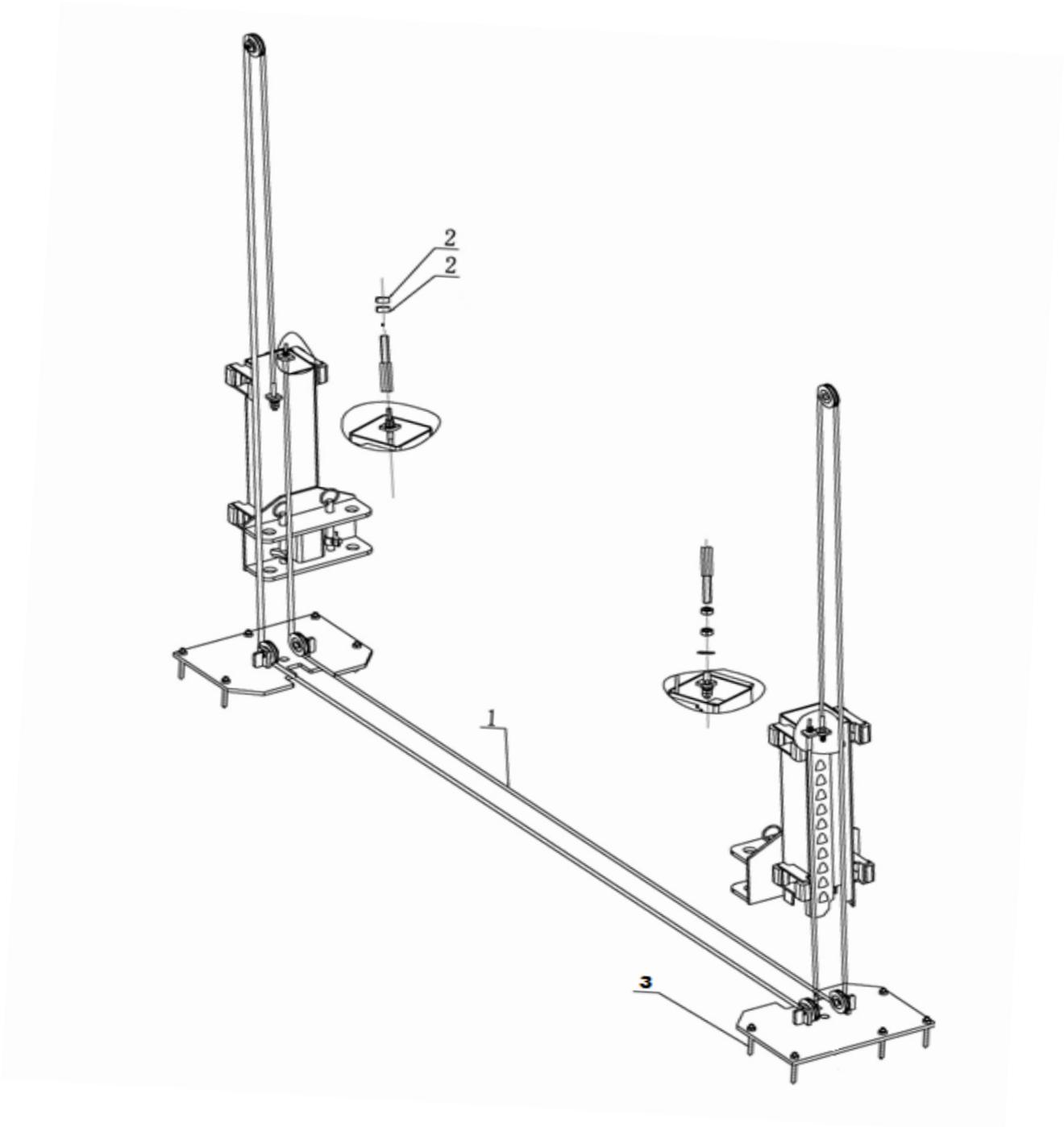




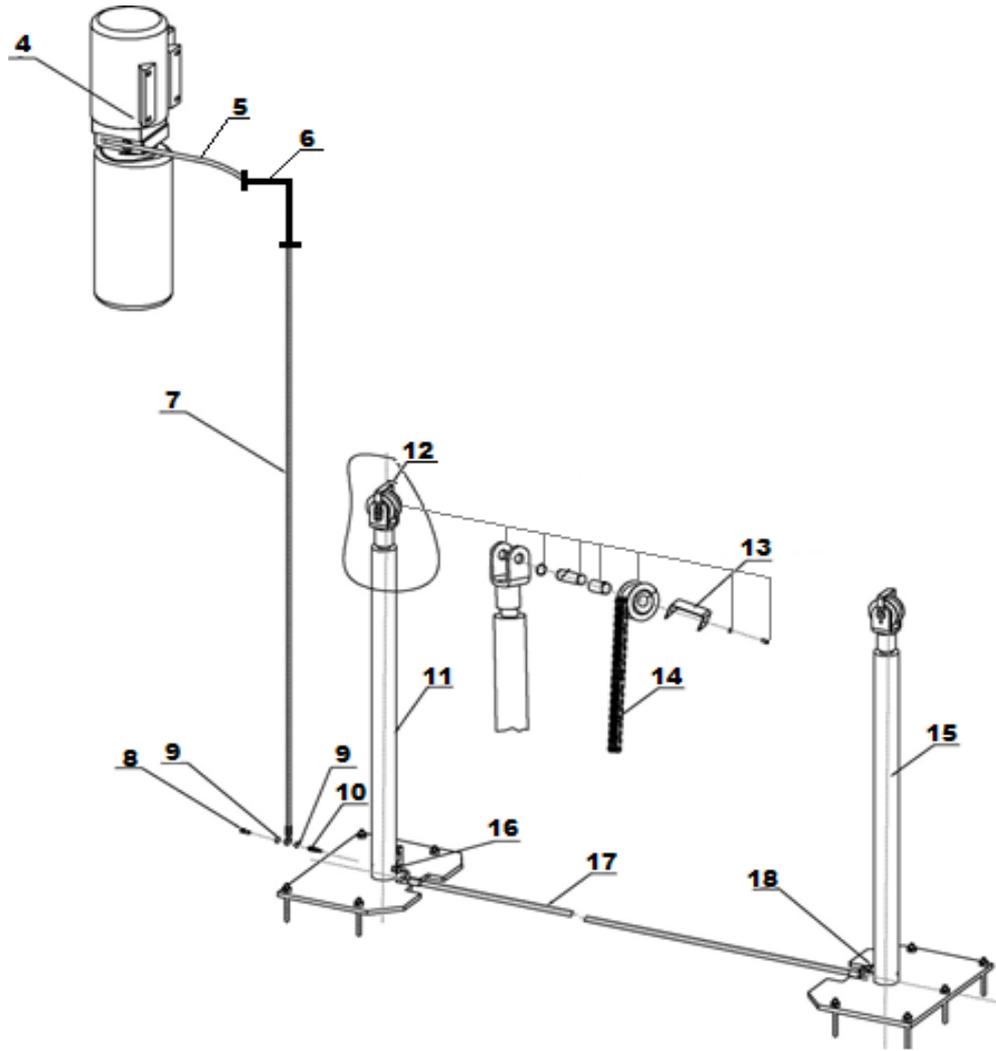
13.6 Switch box



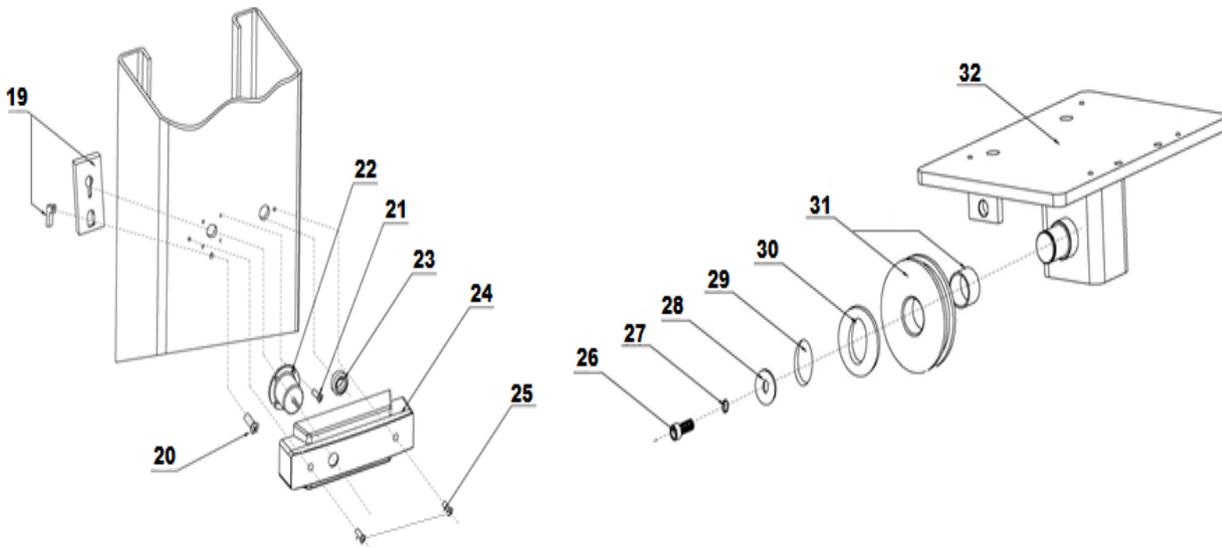
13.7 Detailed drawing and parts description of the lift



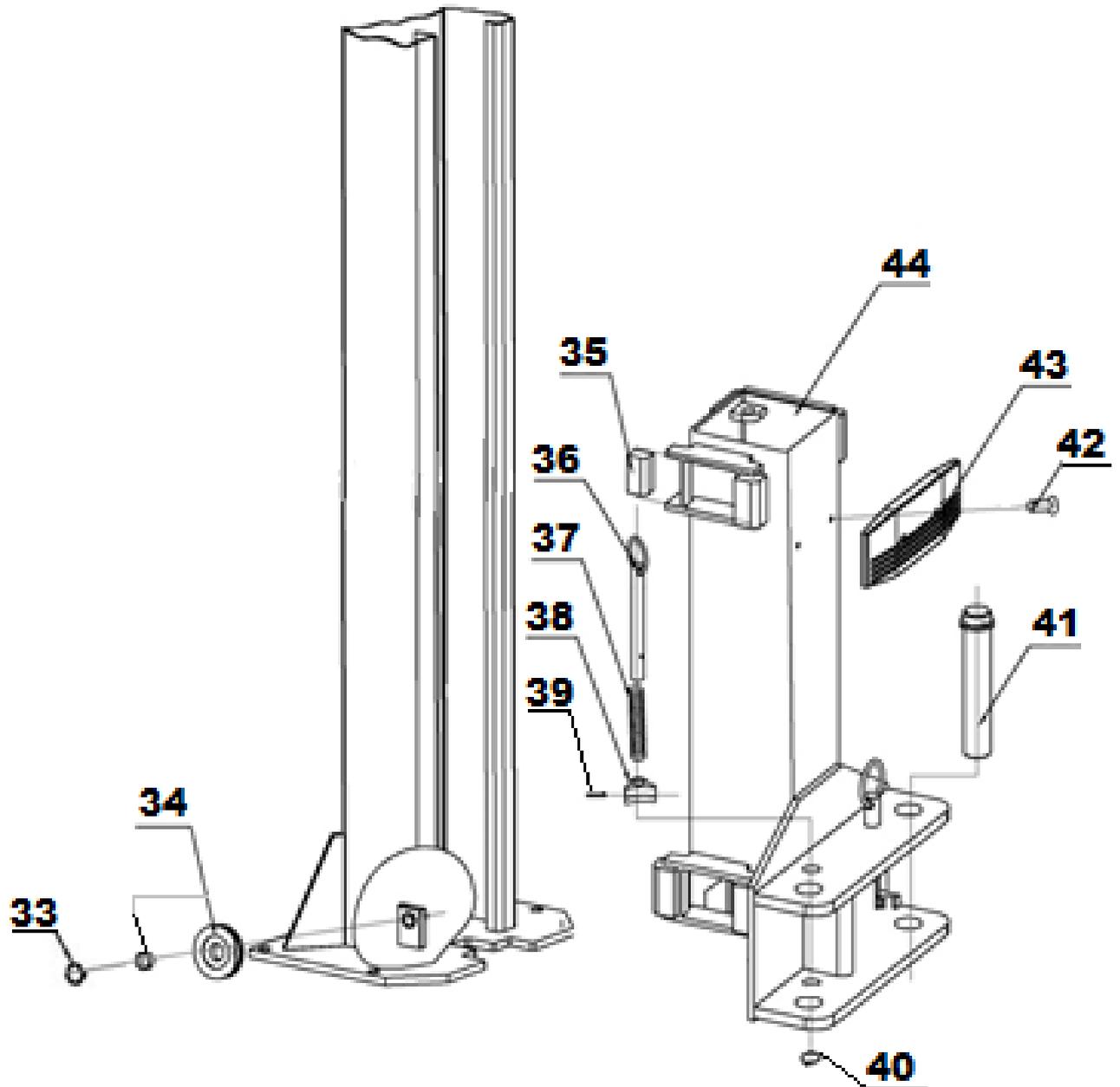
S/N	E-HEB No.	Name	Specification	Qty.	Feature
1	E-HEB0020	Steel cable L=9330mm		2	Assembly
2		M16 hexagon nut		8	Standard
3	E-HEB0516	M16*223 Anchor bolt	***	12	Standard

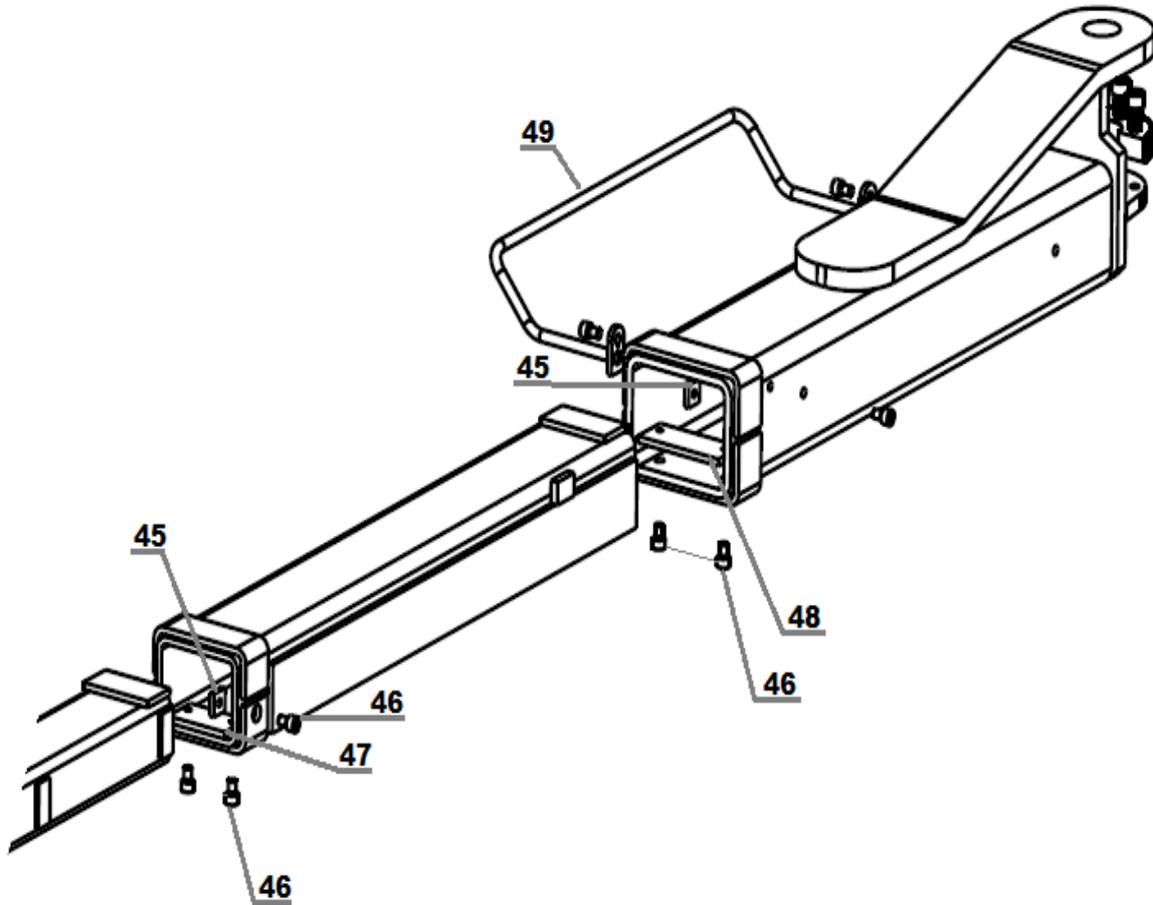


S/N	E-HEB No.	Name	Specification	Qty.	Feature
4	E-HEB0172	Motor/hydraulic unit		1	Assembly
5	E-HEB0099	Oil line L=500mm		1	Assembly
6	E-HEB0064	Hydraulic contra-angle		1	Assembly
7	E-HEB0100	Oil line L=2250mm		1	Assembly
8	E-HEB0066	Cylinder connection (banjo)		1	Assembly
9	E-HEB0066	Sealing ring		2	Standard
10	E-HEB0066	Cylinder connection (banjo)		1	Assembly
11	E-HEB0120	Hydraulic cylinder (2-hole)	TW6255E-A7-B1	1	Assembly
12	E-HEB0088-1	Chain roller	TW6255E-A7-B1	2	Welded
13	E-HEB0088-1	Bracket chain roller	FL-8224-A4-B12	2	Galvanised
14	E-HEB0462	Chain to lifting carriage	LH1244	2	Standard
15	E-HEB0119	Hydraulic cylinder (1 hole)	TW6255E-A7-B2	1	Assembly
16	E-HEB0165	Screw-in nozzle	FL-8224-A4-B4	1	Q235A
17	E-HEB0103	Oil line L=3400mm	TW6255E-A7-B4	1	Assembly
18	E-HEB0166	Screw-in nozzle	FL-8224-A4-B5	1	Q235A

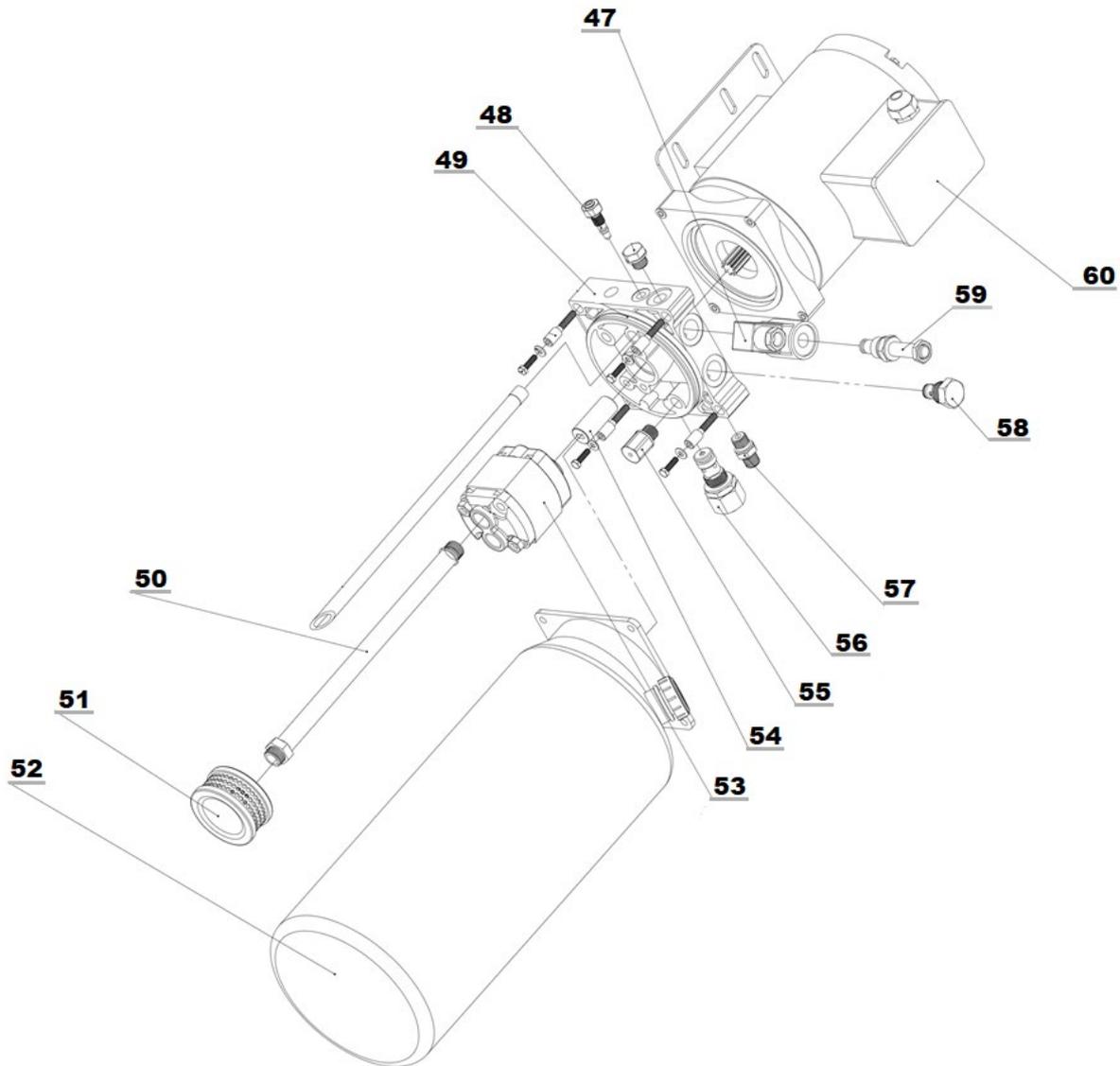


S/N	E-HEB No.	Name	Specification	Qty.	Feature
19	E-HEB0013	Safety catch	8224E-A1-B2	4	Galvanised
20	E-HEB0013-3	Screw to holder M6*16	GB/T818-2000	4	Standard
21		M6*10 (cross recess)	GB/T818-2000	24	Standard
22	E-HEB0014	Electromagnet MQZ2-10	8224E-A1-B4	4	Assembly
23		Ø20 Cable entry ring	8224E-A1-B6	4	Rubber
24	E-HEB0034	Electromagnet cover	8224E-A1-B5	4	Plastic
25		M5*10	GB/T818-2000	8	Standard
26		M8*20 (hexagon socket	GB/T70.2-2000	2	Standard
27		M8 (spring washer)	GB/T93-1987	2	Standard
28		Retaining ring	8224-A1-B3-C2	2	galvanised
29		Type B Circlip 25	GB/T894.2-1986	2	Standard
30		Washer	8224-A1-B3-C2	2	galvanised
31	E-HEB0380	Idler pulley (top)		2	galvanised
32	Enquiry	Column cover	8225E-A1-B3-C1	2	Welded

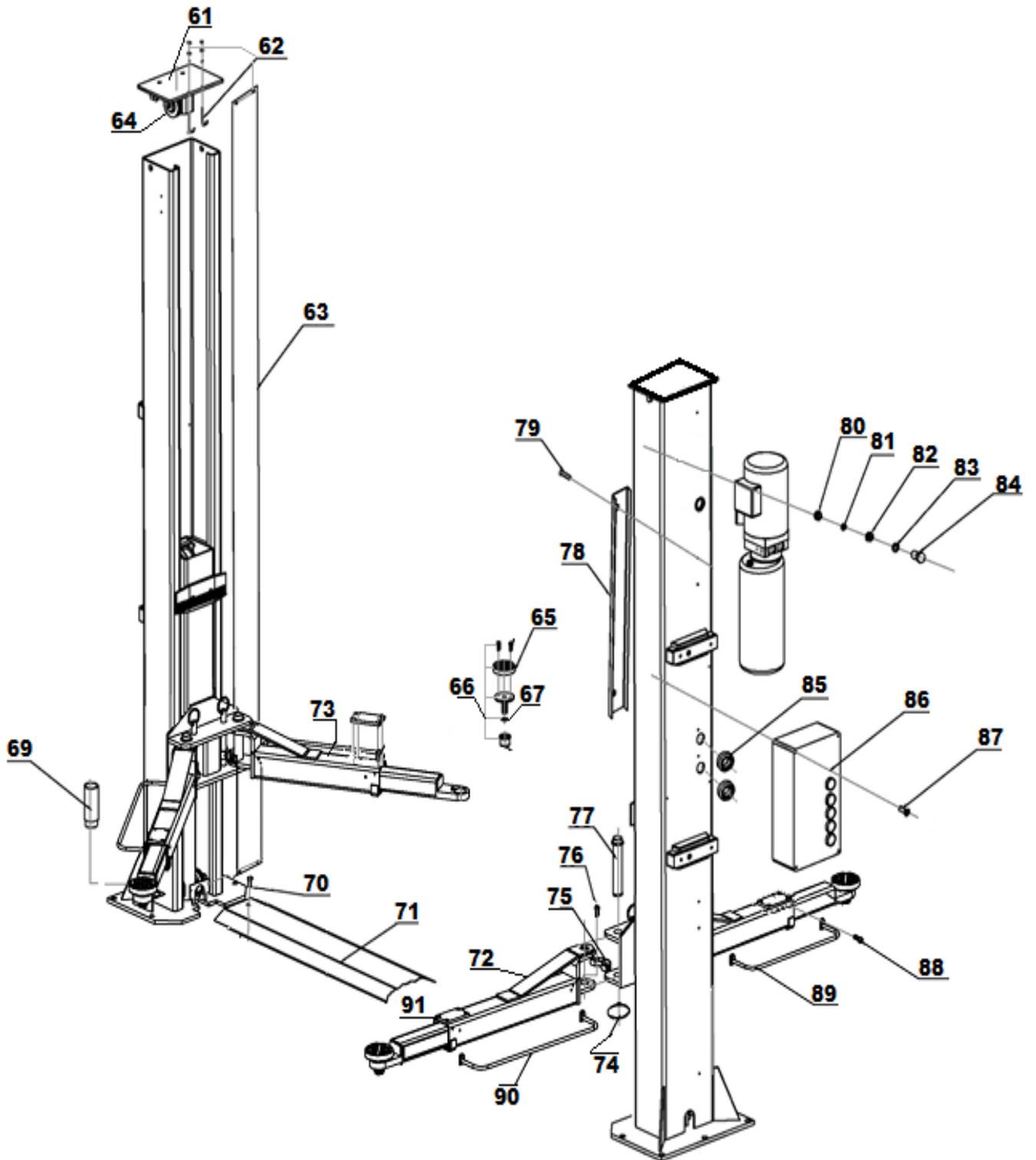


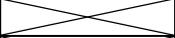


S/N	E-HEB No.	Name	Specification	Qty.	Feature
33	 	Snap ring		4	Standard
34	E-HEB0380	Idler pulley (bottom)		4	galvanised
35	E-HEB0080	Lifting carriage guide	FL-8224-A3-B6	16	Nylon
36	E-HEB0538	Unlocking rod Tooth piece		4	galvanised
37	E-HEB0539	Pressure spring unlocking rod	FL-8224-A3-B5	4	galvanised
38	E-HEB0057	Tooth piece support arm locking	FL-8224-A3-B6	4	galvanised
39	Enquiry	Parallel key pin 5*65	GB/T879.1-2000	4	Standard
40	Enquiry	Type B Circlip 22	GB/T894.2-1986	4	Standard
41	E-HEB0074	Support arm bolts	FL-8224E-A12	4	galvanised
42	 	M8*16 countersunk head screw Phillips head	GB/T819.1-2000	4	Standard
43	E-HEB0030	Door stop protection	FL-8224-A3-B7	2	Rubber
44	Enquiry	Lifting carriage	FL-8224-A3-B1	2	Welded
45	E-HEB0327	Pull-out limiter plate	FL-8224-A7-B8	8	Standard
46	E-HEB0442	Screw for pull-out limiter plate Pull-out limiter plate	GB/T70.3-2000	24	Standard
47	E-HEB0440	Levelling plate small	FL-8226E-A5-B5	4	Standard
48	E-HEB0441	Levelling plate large	FL-8226E-A5-B4	4	Standard
49	E-HEB0169	Foot protection bar 45 cm	FL-8224-A8-B3	4	Welded



S/N	E-HEB No.	Name	Specification	Qty.	Feature
47	E-HEB0008	Solenoid coil for drain valve DC/24V		1	Standard
48	E-HEB0326	Lowering speed valve		1	Standard
49	E-HEB0090	Hydraulic pump block		1	Standard
50	E-HEB0134-2	Oil suction pipe		1	Plastic
51	E-HEB0012	Oil filter		1	Standard
52	E-HEB0149	Oil tank (round)		1	Plastic
53	E-HEB0127-3	Oil pump type 225		1	Assembly
54	E-HEB0082	Clutch shaft		1	galvanised
55	E-HEB0487	Soft start valve		1	Standard
56	E-HEB0054	Pump pressure control valve		1	Assembly
57	E-HEB0067	Screw-in nozzle		1	Standard
58	E-HEB0068	Directional valve		1	Standard
59	E-HEB0016	Drain valve		1	Standard
60	E-HEB0094	Electric motor 400V		1	Assembly



S/N	E-HEB No.	Name	Specification	Qty.	Feature
61	Enquiry	Cover plate	6255E-A1-B3-C1	2	Assembly
62	TW SAK (screws)	Threaded hooks/nuts (set)	8224-A13	1	Standard
63	E-HEB0038	Column protection cover	(2700x180)	2	Fabric
64	E-HEB0380	Idler pulley (top)		4	galvanised
65	E-HEB0052	Mounting rubber D14cm		4	Rubber
66	E-HEB0040	Turntable with double thread		4	Assembly
67	TW250AD1	Plug-in adapter extensions (set of 4)		4	galvanised
68	Enquiry	M12*16 countersunk head screw (hexagon socket)	GB/T70.3-2000	4	Standard
69	E-HEB0534	Drive-over plate (set)		2	Welded
70	TW250-	Support arm		4	Welded
71	Enquiry	Circlip 38	GB/T894.2-1986	4	Standard
72	E-HEB0060	Semicircular tooth piece		4	Standard
73	Enquiry	M10*35 hexagon socket screw	GB/T70.1-2000	12	Standard
74	E-HEB0074	Support arm bolts	8224-A12	4	galvanised
75	E-HEB0290	Cover plate	8224E-A1-B8	6	Q235A
76	Enquiry	M6*25 Phillips head screw	GB/T818-2000	12	Standard
77	Enquiry	Column cover (lid)		2	Plastic
78		M10 nut	GB/T6170-2000	4	Standard
79		M10 spring washer	GB/T93-1987	4	Standard
80		Washer	8224-A14	4	Rubber
81		M10 washer	GB/T95-1985	4	Standard
82		M10*35 hexagon head screw	GB/T5781-2000	4	Standard
83	Enquiry	Ø 40 Cable bushing	FL-8224-A1-B7	2	Rubber
84	E-HEB0098-	Switch box complete (400V)		1	Assembly
85	E-HEB0027	M6 switch box screw		4	Plastic

13.8 Spare parts list

S/N	E-HEB No.	Name	Specification	Qty.	Picture
1	E-HEB0002	Main switch	LW26GS-20/04	1	
2	E-HEB0071-1	Pushbutton UP	Y090-11BN	1	
3	E-HEB0071-3	Pushbutton Lock	Y090-11BN	1	
4	E-HEB0071-1	Pushbutton Down	Y090-11BN	1	
5	E-HEB0071-1	Pushbutton Antilift	Y090-11BN	1	
6	E-HEB0011	Mains indicator light	AD17-22G-AC24	1	
7	E-HEB0073-4	Transformer	BK-160VA / Voltage: 380V -24V	1	
8	E-HEB0003	Motor contactor CJX2-1210/AC24	CJX2-1210/AC24	1	
9	E-HEB0077-C16	Automatic circuit breaker 3-fold C16	DZ47-63 C16/3P	1	
10	E-HEB0075-C03	Automatic fuse 1-fold C3	DZ47-63 C3/1P	1	
11	E-HEB0075-C010	Automatic fuse 1-fold C10	DZ47-63 C10/1P	1	
12	E-HEB0010	Limit switch	TZ8108	1	
13	E-HEB0001	Emergency off switch	Y090-11ZS/RED	1	

S/N	E-HEB No.	Name	Specification	Qty.	Picture
14	E-HEB0043	Bridge rectifier with capacitor	KBPC5A-35A 4700UF/50A	1	
15	E-HEB0004-AC8	Switching relay LY2NJ/AC24, red LED, 8-pin	LY2NJ/AC24V	1	
16	E-HEB0005-8	Relay base for switching relay	PTF-08A	1	
17	E-HEB0006	Time relay	ST6PA- 5S/AC24V	1	
18	E-HEB0006a	Socket for timing relay	PYF-08AE	1	
19	E-HEB0044	Built-in socket outlet 220V IP44		1	
20	E-HEB0097-3	Empty switch box		1	
21	E-HEB0346	Switch box sticker		1	
22	E-HEB0147	Piston seal hydraulic cylinder	70-60-8	2	



The company

Twin Busch GmbH | Amperestr. 1 | D-64625 Bensheim

hereby declares that the **2-post vehicle lift**

**TW236PE-400, TW236PE-230, TW236PEB3.9-400, TW236PEB3.9-230,
TW242PE-400, TW242PE-230, TW242PEB4.3-400, TW242PEB4.3-230
TW250-400, TW250-230, TW250B4.5-400, TW250B4.5-230 | 3,6 t, 4,2 t, 5,0 t**

Serial number:

in these configurations we have placed on the marked complies with the relevant essential health and safety requirements of the following EC-directive(s) in its/their current version(s).

EC-directive(s)

2006/42/EC

Machinery

2014/35/EU

Low Voltage

Applied harmonized standards and regulations

EN 1493:2022

Vehicle Lifts

EN 60204-1:2018

Safety of Machinery – Electrical Equipment of Machines

CE Certificate

M6A 087411 0081 Rev. 00

date of issue: 17.08.2023

N8MA 087411 0080 Rev. 00

place of issue: München

technical file no.: 646642303601

Certification body

TÜV SÜD Product Service GmbH,

Ridlerstraße 65,

D-80339 München

Notified Body Appointment No.: 0123

In the case of improper use, as well as in the case of assembling, modification or changes which are not agreed with us, this declaration will lose its validity.

Authorized person to compile technical documentation is: Michael Glade (address as below)



TWIN BUSCH GmbH

Amperestr. 1 · 64625 Bensheim
Tel. 06251 / 70585-0 · Fax: 70585-29

Authorized signatory: Michael Glade
Bensheim, 07.11.2023 Qualitätsmanagement

Twin Busch GmbH | Amperestr. 1 | D-64625 Bensheim

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Web: www.twinbusch.co.uk

The technical specifications and illustrations provided in the user manual are not binding. Our products are subject to technical changes, so the delivered condition may vary.