2-POST-LIFT
TW242M-230-FZ
(Lifting capacity: 4200 kg)

TW242M-FZ

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:

TIPS & TRICKS

In the "Tips & Tricks" section we show you simple solutions to work even more efficiently with your TWIN BUSCH® products.

https://www.twinbusch.co.uk/2-post-lifts/2-post-lift-3-6-t-Profi-Line::4.html#horizontalTab4

24/7 Service Center:

Our 24/7 Self-Service Center is a mobile website designed for selfdiagnosis of issues with your TWIN BUSCH® lift. Here, we provide an extensive video collection covering a wide range of relevant topics for your TWIN BUSCH® lift, from fine-tuning and maintenance to component replacement.

With the 24/7 Self-Service Center, you have a versatile tool at your disposal to learn how to independently maintain and repair your TWIN BUSCH® lift.

To access the site on your mobile device, please visit twinbusch.com/qr or scan the QR code provided alongside.

For TWIN BUSCH® lifts shipped from mid-2020 onwards, you'll also find the QR code on a sticker attached to the control box.

1. General

The TW242M-FZ 2-post lift is specially designed for outdoor use. It is fully galvanised and therefore optimally protected against corrosion. The control unit can be disconnected from the lift via a quick-release coupling, meaning that it can be protected from the weather indoors when not in use. The wire ropes of the synchronisation control are made of stainless steel. The TW242M-FZ has height-adjustable turntables and a flat drive-over plate (only 35 mm). The TW242M-FZ can be used to lift everything from Smart cars to vans.

Special features of the product:

- 1A Quality built with CE-Certificate
- Manufactured in accordance to ISO 9001
- Manual release on one side only / single lock / one-hand release
- High quality special profile supporting posts
- 2 Hydraulic cylinders for powerful lifting and lowering
- Automatic arm-locking system
- Steel cable synchronization
- Dual manual unlocking
- Telescopic lifting arms

2. Identification of the instructions for use

Instruction manual TW 242M-FZ

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Status: -02, 05.06.2025

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3. Technical data

Power supply	230 V
Fuse protection	16 A / type C
Load capacity CE	4,200 kg
Max lifting height	1900 mm/Ad 2050
Low lifting point	96 mm
Degree of protection	IP 54
Lifting, lowering time (approx.)	45/30 sec.
Motor power	2,2 kW
Net weight	600 kg
Noise level	< 75 db
Lifting height (Lifting pad screwed in)	1900 mm
Lifting height (Lifting pad screwed out)	1940 mm
Lifting height (Lifting pad+adapter screwed out)	2040 mm
Overall width / bottom plate (without motor)	3436 mm
Post hight	2824 mm
Required concrete depth (Special solution)	200 mm
Lifting arm length / short	740-1150 mm
Lifting arm length / long	890-1390 mm
Width between posts	2850 mm
Max. width	2574 mm
Working environment	Working temperature: -10°C to +45°C
	Rel. Humidity: 30 % to 85 %

4. Modification of the product

Improper use, as well as modifications, conversions and attachments of the lift and all its components not agreed with the manufacturer are not permitted. The manufacturer will not accept any liability in the event of improper installation, operation or overloading. Likewise, improper use will invalidate the CE certification and the validity of the expert opinion.
If there are any modification requests, please contact your dealer or the expert personnel of the TWIN BUSCH® GmbH beforehand.

5. Safety-related information

Read the instruction manual carefully before operating the lift. Keep the instructions for reference. Follow the instructions carefully to obtain the best performance from the machine and to avoid damage due to personal fault.

Unpack all parts and check with the help of the packing list whether all components are present. Check all connections and components thoroughly for damage. The lifting platform may only be put into operation if it is in a safe operating condition.

5.1 Safety instructions

- Do not install the post lift on an asphalt surface.
- Read and understand the safety instructions before operating the post lift.
- Under no circumstances leave the control unit when the post lift is in motion.
- Keep your hands and feet away from moving parts. Pay particular attention to your feet when lowering the lift.
- The post lift may only be operated by trained personnel.
- Unauthorised persons are not permitted in the vicinity of the post lift.
- Wear suitable work clothing.
- The area around the post lift should always be kept free of obstructions.
- The post lift is designed for lifting/hoisting motor vehicles that do not exceed the permissible maximum weight.
- Before entering a raised vehicle or using the post lift for the HU (PTI), a special risk assessment must be carried out. Special equipment must be used to access the raised vehicle.
- Always ensure that all safety precautions have been taken before working near or under the vehicle.
- Never remove safety-related components from the post lift.
- Do not use the post lift if safety-related components are missing or damaged.
- Under no circumstances move the vehicle or remove heavy objects from the vehicle that could cause significant weight differences while the vehicle is on the post lift.
- Always check the mobility of the post lift to ensure its performance. Ensure regular maintenance. If any irregularities occur, stop working with the post lift immediately and contact your dealer.
- Lower the post lift completely when it is not in use. Do not forget to disconnect the power supply.
- If you are not going to use the post lift for a longer period of time, then:
  a. Disconnect the post lift from the power source
  b. Empty the oil tank
  c. Lubricate the moving parts with lubricating oil/grease

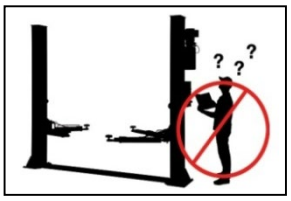
Caution: To protect the environment, dispose of the oil that is no longer used in the prescribed manner.

For safe lifting of transporters, it is essential to use the optional special lifting adapters.
You can find these at: www.twinbusch.co.uk

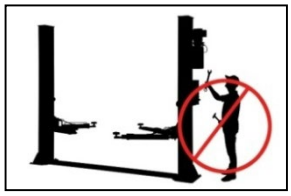
5.2 Warnings and symbols

All warning labels are clearly visible on the lift to ensure that the user uses the equipment in a safe and appropriate manner.
The warning signs must be kept clean and replaced if they are damaged or missing. Please read the signs carefully and memorise their meaning for future operations.

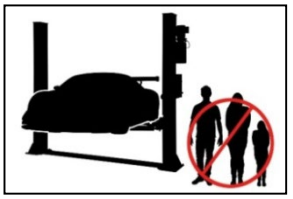
Read Instructions
and safety instructions
carefully before use!



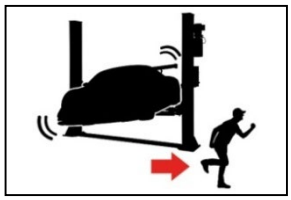
Operation of the lifting platform only by qualified personnel!



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

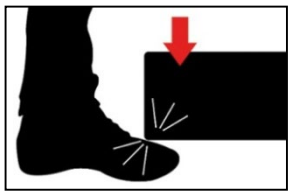


Only qualified personnel allowed in the vicinity of the lifting platform!



Always keep escape routes clear!

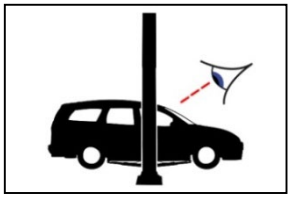
It is forbidden for persons to stand under the lift (when lifting or lowering)!



Watch your feet when lowering!
Danger of crushing!

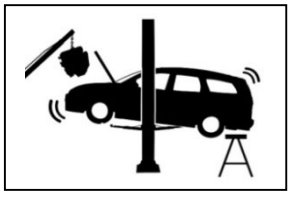
It is forbidden for persons to climb up onto the lift.

Observe the vehicle manufacturer's mounting points!

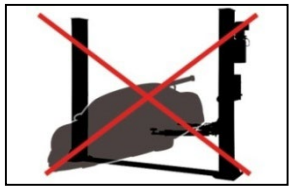


After briefly lifting the vehicle a few inches, check that it is securely seated!

Do not exceed the specified load capacity!

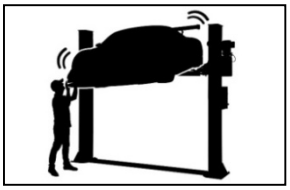


When installing and removing heavy parts the vehicle can tip over!



Never try to load only one side of the lifting platform!

Protect the lifting platform from moisture!
Electrical connections must be dry!



Avoid strong shaking. Avoid shaking the vehicle.

CAUTION!
Electrical voltage!

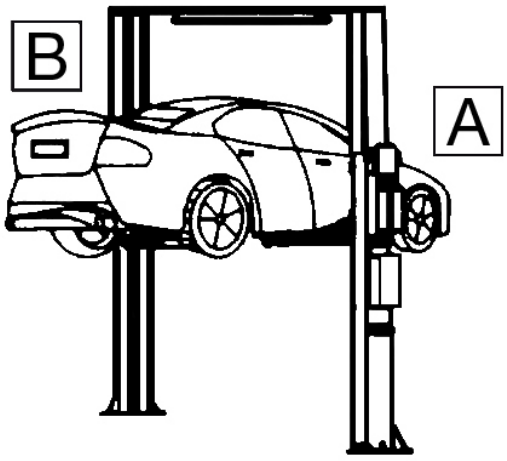
5.3 Safety equipment

For safe operation of the lifting platform, it is equipped with the following safety devices *):

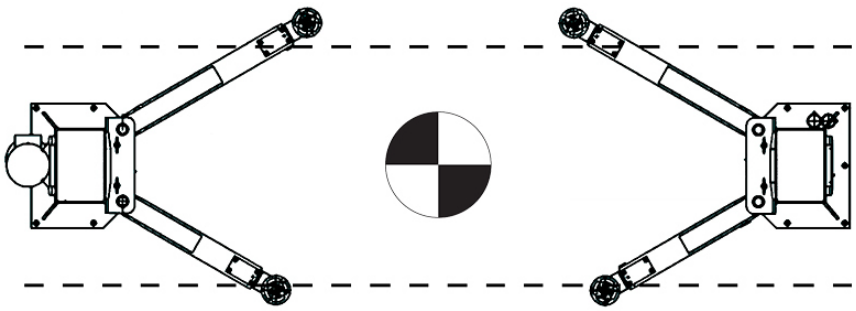
- Safety detents
- Throttle valve in hydraulic line
- Limit switch
- Carrying arm locking device
- Devices against jamming and crushing (shaft protection, foot deflector)
- Synchronisation cables

**) depending on the design and type of the lifting platform*

5.4 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



Position of the vehicle's centre of gravity

5.5 Monitoring and testing the safety equipment

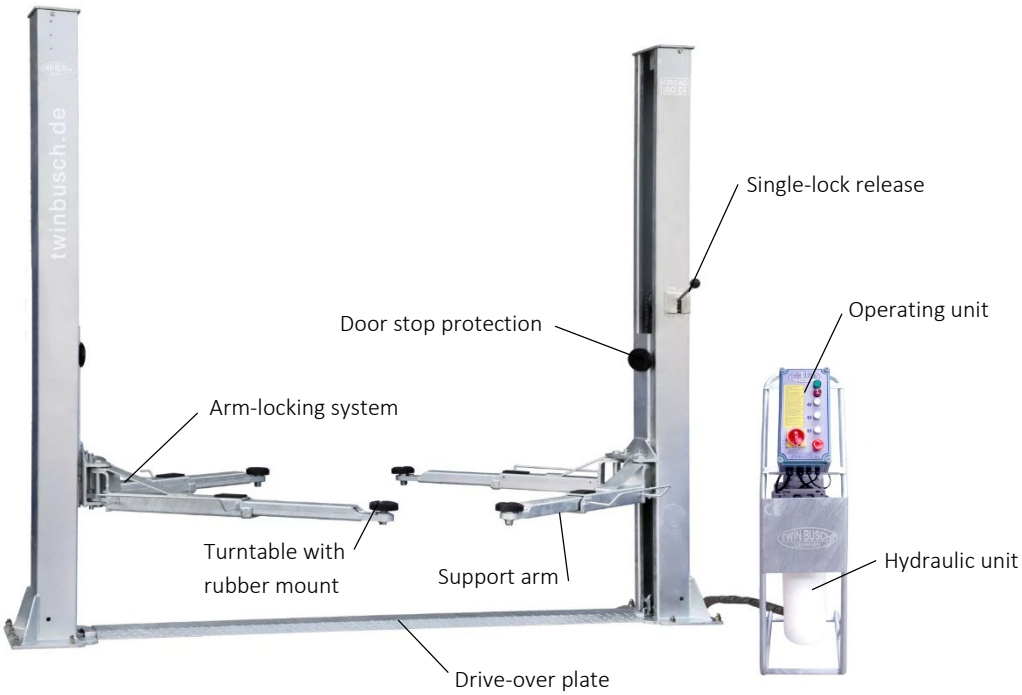
- Safety catches	Function test, when lowering the lift, safety catches must engage simultaneously and stop the downward movement.
- Throttle valve	Fixed throttle, cannot be checked by the user.
- Limit switch	If the limit switch is pressed, the motor stops or cannot start.
- Support arm lock	When the 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 attached, ready for use and must not be deformed or damaged.
- Synchronisation ropes	Check condition.

6. Conformity with the product

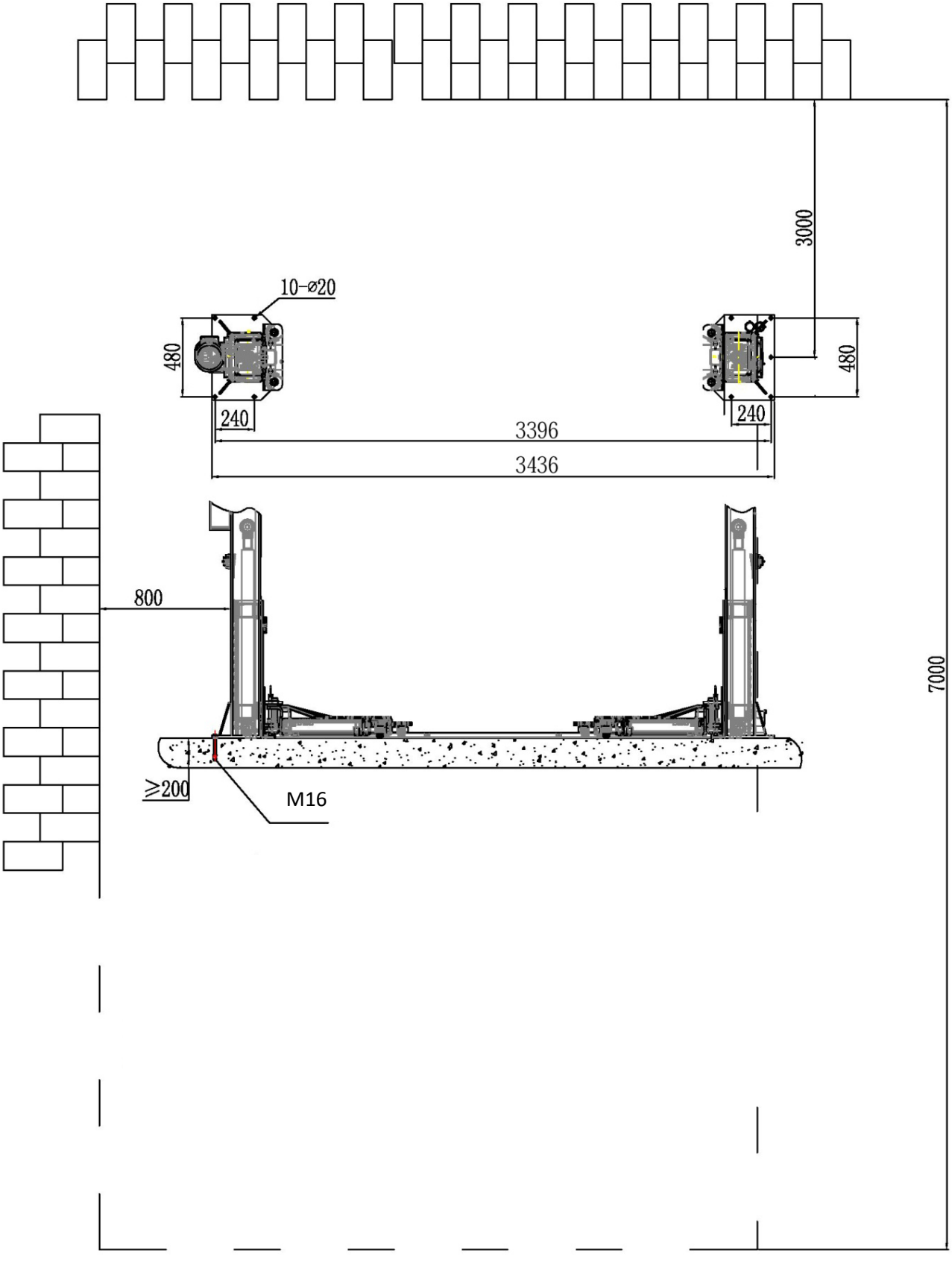
The TW242M-FZ 2-post lift is CE-certified and is compliant with the Machinery Directive 2006/42/EC, fulfilling the standards EN 1493:2022, EN 60204-1:2018 (look at: EU Declaration of Conformity, at the end of the user manual).

7. Technical specification

7.1 Machine description



7.2 Overview of the workspace



8. Structure of lifting platform

8.1 Before installation

Tools and equipment required:

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

8.1.1 Completeness of all components

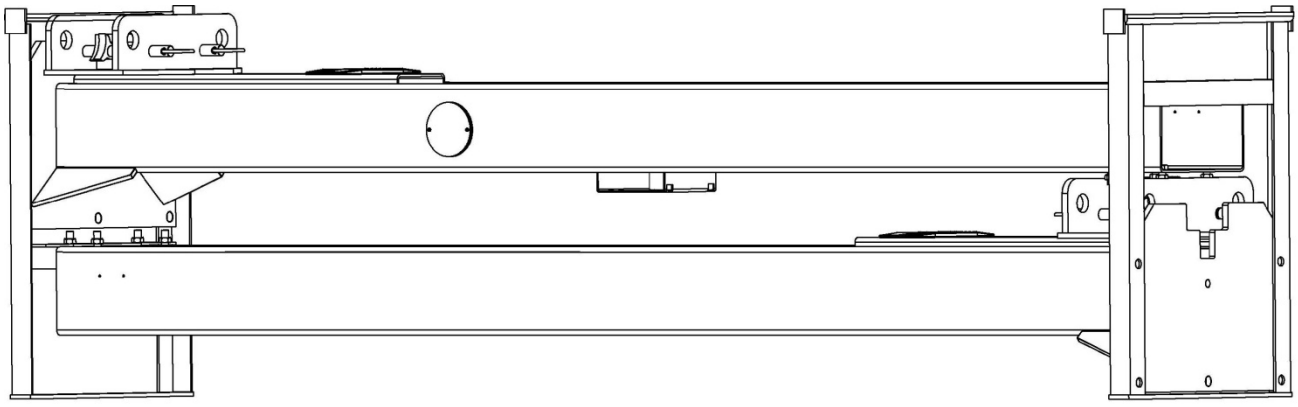
Unpack all components of the lifting platform and check the completeness of all components with the help of the packing list (see appendix: Packing list).

8.2 Ground 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 until 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) Remove the packaging from the second package. First remove the transition plate and set it aside. Remove the box containing the small parts located between the columns and the support arms.

3) First, place a support between the two columns or lift one of the columns using a lifting tool. Then remove the screws from the transport frame.
Caution: Please take special care to ensure that the column cannot fall. The accessories could be damaged or people could be injured.

4) Erect the columns one after the other and bring them into position.
Note: Ensure that the columns cannot tip over until they are finally fixed in place.

5) Place the drive-over plate between the columns. To do this, lift the lifting carriage to the first locking position to better access the recesses.
Note: The drive-over plate should still have a little play so that it can still be easily removed after the columns have been anchored.

6) Anchor the columns in the ground.

a) Drill the holes in the foundation for each anchoring bolt using a hammer drill. Drill perpendicular to the ground level.
b) Carefully remove any dirt and dust after drilling (by vacuuming and blowing out if necessary).
c) Carefully hammer in the anchor bolts straight using a sledgehammer.
d) Tighten the nuts. **Tightening torque: 100 - 110 Nm.**

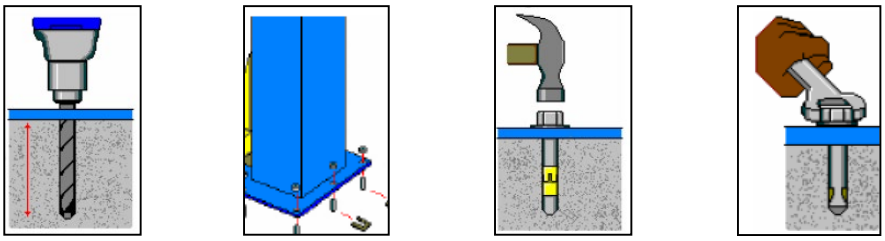
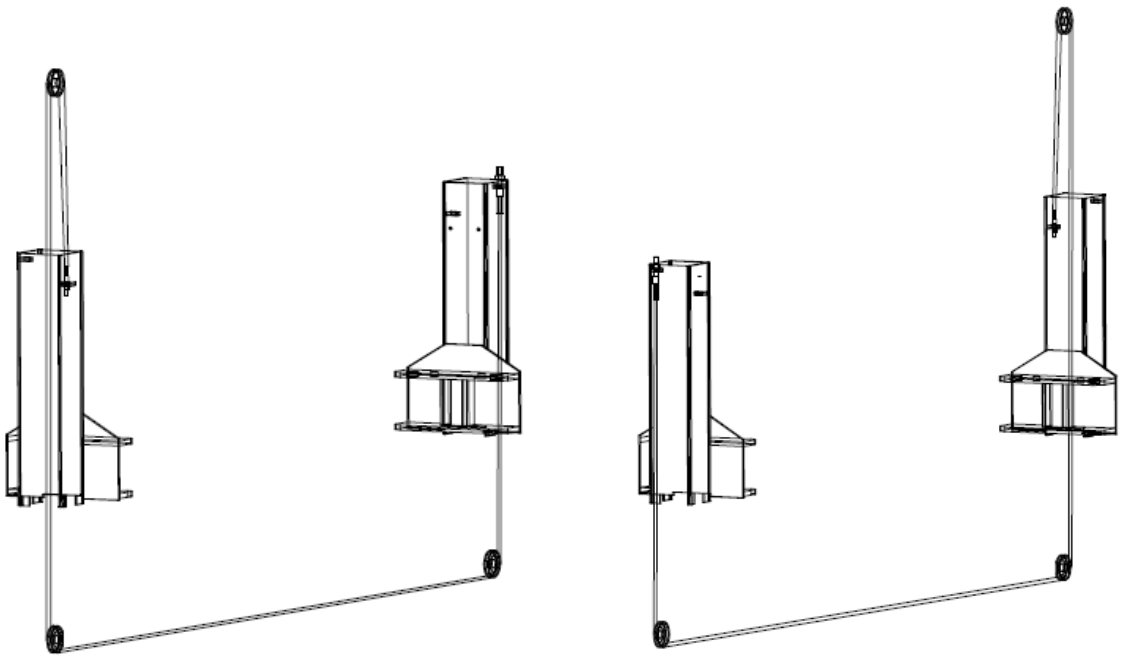


Illustration: Steps for securing the columns

7) Connect the carraiges to the steel cables.

a) Align the carraiges on both sides of the column approx. 800 mm above floor level.
b) Make sure that the safety catches on both sides of the column are engaged before you start installing the steel cables.
Note: The carriages must be level with the ground before you proceeding.
c) Pull in the steel cables as shown in the following illustration.
The steel cables must be set "tight" on both sides of the column. Make sure that during a later test run the safety catches on both sides can be heard synchronously. If this is not the case, the steel cables or a steel cable must be retightened.
The ropes must always be secured against unintentional loosening (locked off) and oiled with WD40 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!**

8) Place the long hydraulic hose between the two columns and screw it in place. Note: Ensure that the screw connection is secure and tight.

Note:	**The control unit can be disconnected from the lift using a quick-release coupling, this means that it can be protected from the weather indoors when not in use be connected. When connecting, make sure that there is no dirt or moisture in the connector.**

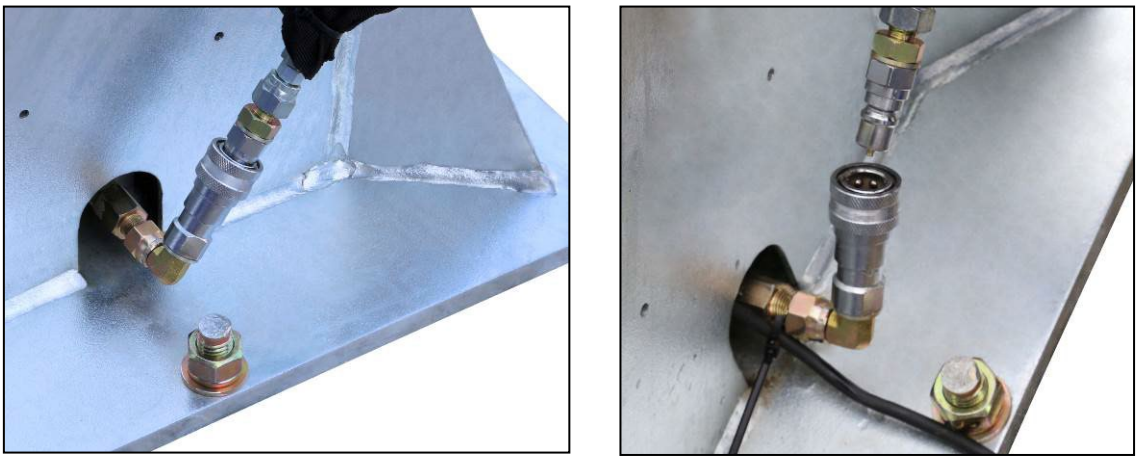


Illustration: Quick coupling

9) Place the long hydraulic hose between the two columns and screw it on.
Note: Ensure that the screw connection is secure and tight.

10) Assembling the release lever

a) First screw the lever bracket to the column.
Note: Ensure that all screws are tightened securely.

b) Now attach the lever roller with a screw, washer and nut.
Note: The lever roller must be installed so that the pocket for the end of the rope is at the bottom.

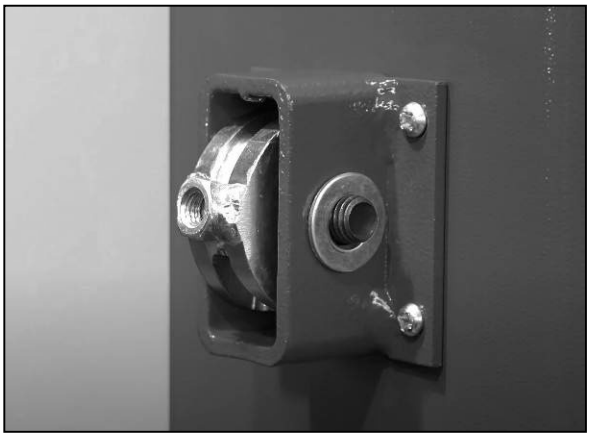



Illustration: Lever roller

c) Now thread the release rope from the inside to the outside onto the lever roller. Form a small loop and secure it with a press sleeve. Then screw the rope to the lever roller.

d) Once you have secured the release rope, you can screw the cover back on.

e) Finally, screw the release lever onto the lever roller.

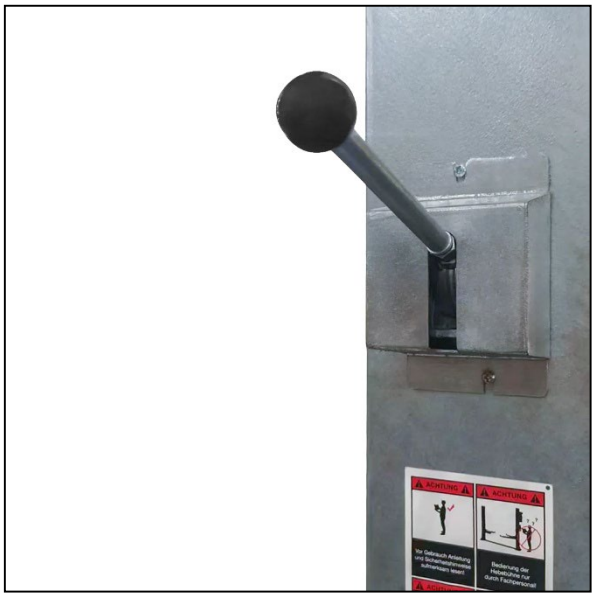
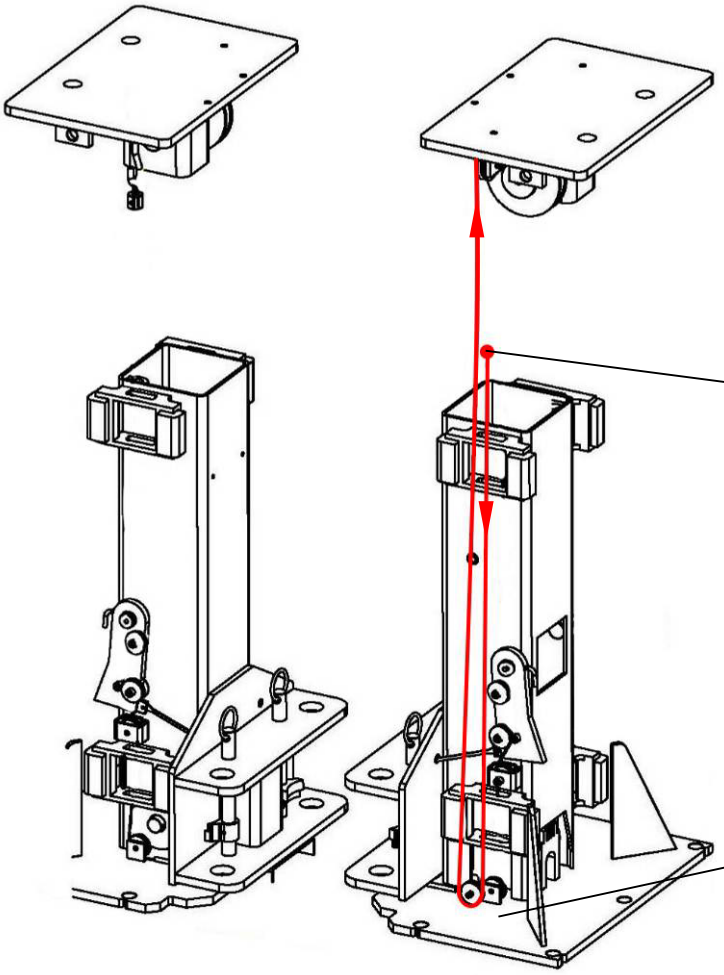
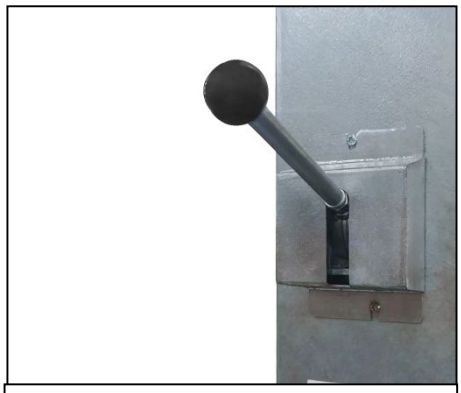


Illustration: Release lever

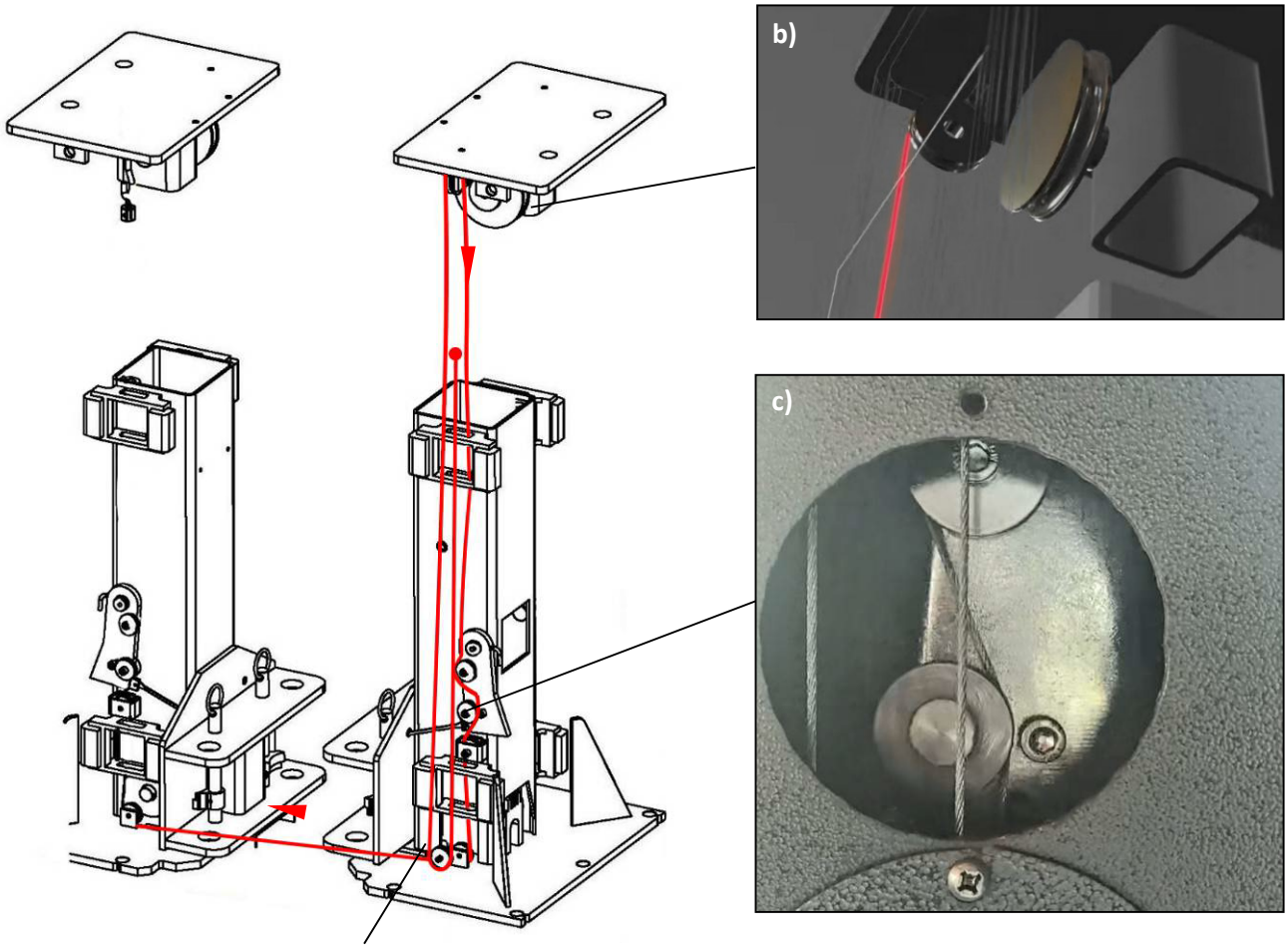
11) Open the maintenance opening to lay the release rope.



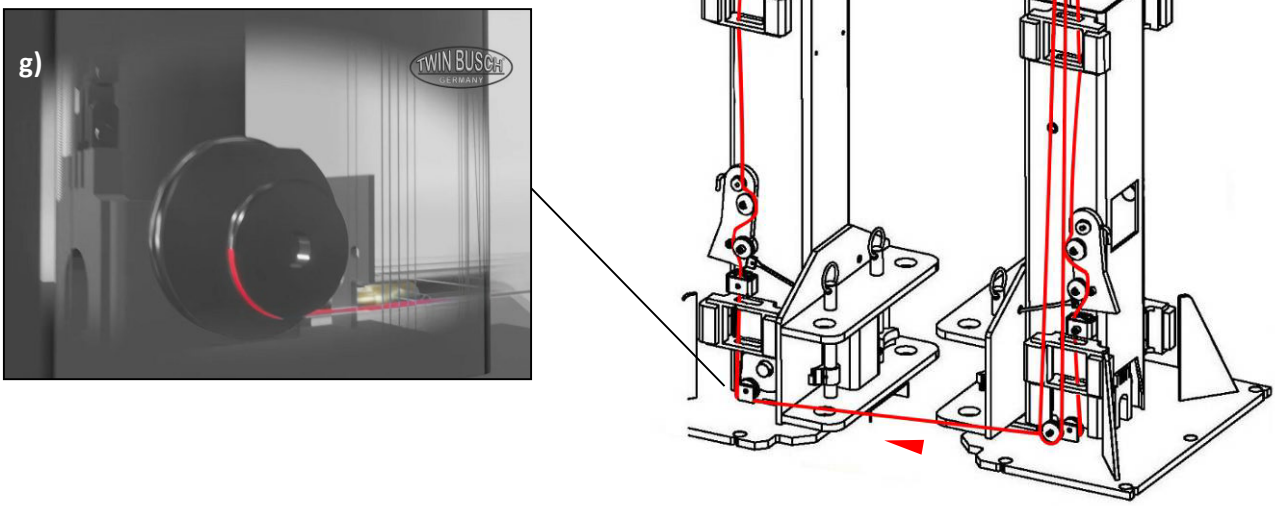


Starting point for laying the release cable

a) Guide the rope downwards from the attachment point on the release lever, past the lifting carriage and through the deflection pulley.
Guide the rope back upwards from the deflection pulley, past the lifting carriage again, to the top of the column.
Note: Attach your rope to a folding rule, for example, to make it easier to guide it upwards.



b) Once at the top, the release rope is then deflected via a pulley. Feed it back down through the opening to the maintenance opening.
c) Thread the cable on the left side of the deflection roller below the locking unit. To do this, lift the lifting carriage to the next higher locking position to reach the lower level. Then lower the lifting carriage again.
d) Route the release cable on the right-hand side of the lower deflection roller of the locking unit. Then place the cable on the left-hand side of the upper deflection roller of the locking unit.
e) Guide the cable down to the floor to deflect it to the other side of the column.
Note: To protect the release cable, thread the cable through the plastic tube provided.



f) Reinsert the rope on the assistance side into the floor, over a roller, and guide it back up through the lifting carriage. To do this, open the maintenance opening on the assistance side and insert the rope into the carriage.
Note: It is best to lift the lifting carriage to the next higher locking position.

g) Thread the release rope on the right-hand side of the deflection roller below the locking unit. Lay the release rope on the left-hand side of the lower deflection roller of the locking unit. Then place the rope on the right-hand side of the upper deflection roller of the locking unit.

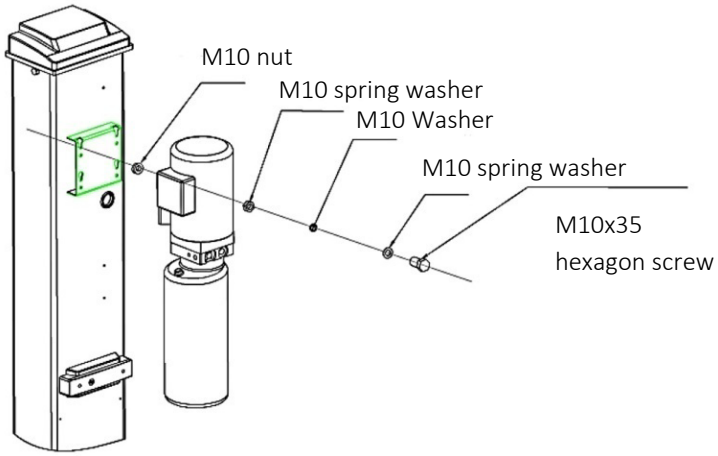
h) Once at the top, attach the release rope to the tip of the assistance side.

i) Fit the hook supplied and form a loop with the rope that you can hook in. Note: In this step, the appropriate length is set using the connecting element of the release rope. Correct adjustment ensures that the locking unit functions properly.

j) Close the maintenance openings.

12) Install the motor unit.

Attach a screw with a washer, spacer, snap ring and nut to each side at the bottom of the motor unit. Hook the motor block onto the column and then screw it in completely.



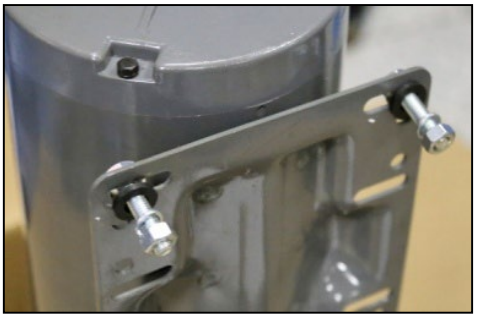
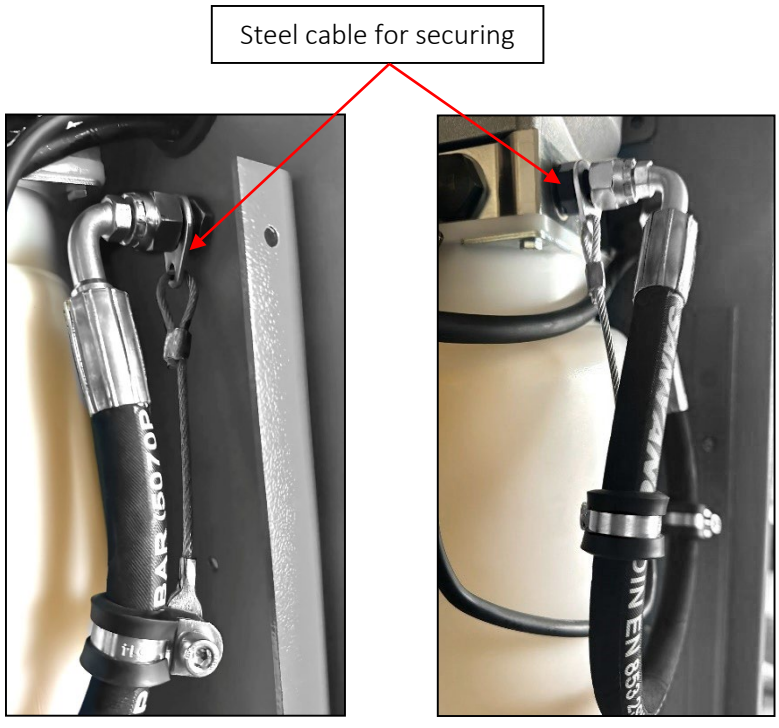
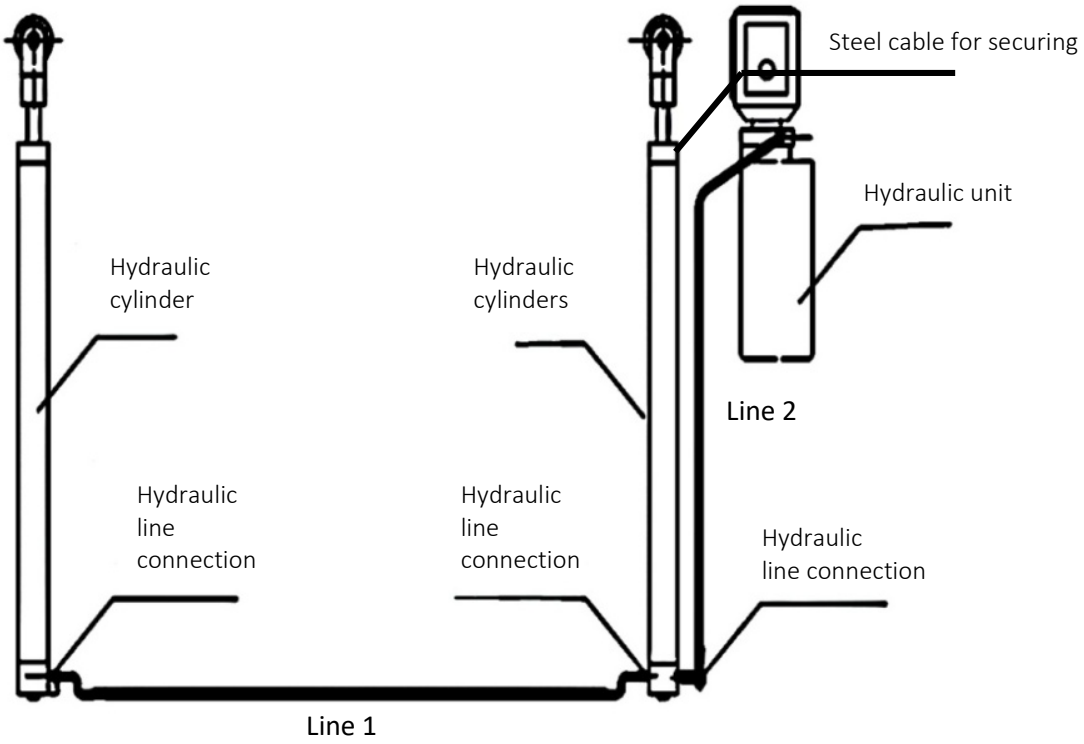


Illustration: Motor unit

13) Install the hydraulic system.

a) Check that all hose ends are clean and free of dirt.
b) Connect the hydraulic lines as shown in the illustration or the hydraulic circuit diagram.
c) Attach the two steel cables to secure the pressurised hydraulic hose so that it does not fly around uncontrollably in the event of a defect.



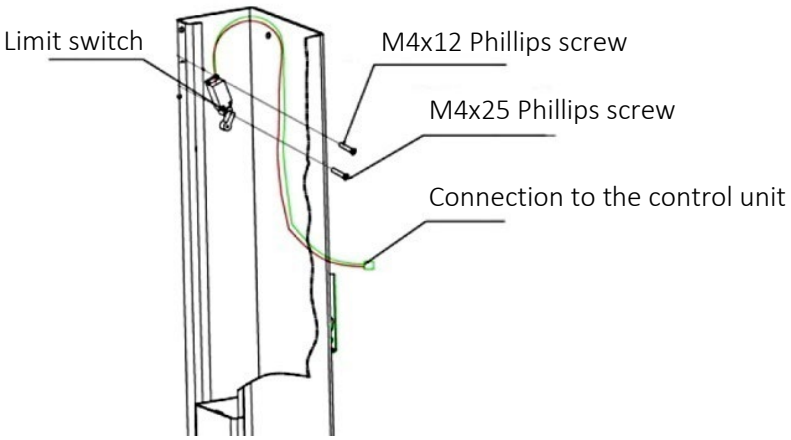


d) Secure the hydraulic hose to the column using the cover provided.

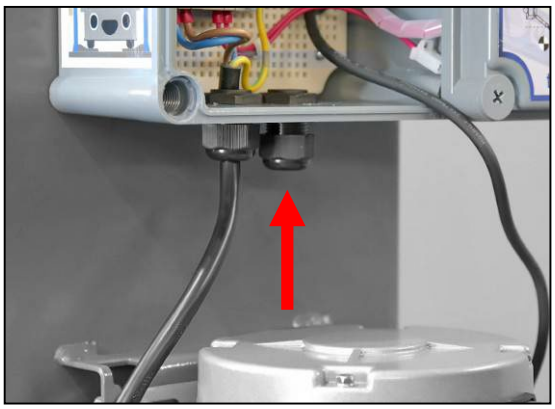
14) Open the switch box and remove the supplied limit switch and the corresponding screws.

15) Installing the limit switch

a) Feed the limit switch cable through the cable duct provided.
b) Mount the limit switch on the main column. Secure it with 2 screws.
c) Feed the cable through the opening in the column at the end.



16) Screw the switch box tightly in place.
Lay the motor cable from below into the switch box and connect it to the appropriate plugs (see **appendix circuit diagrams**). Also connect the cable of the limit switch.



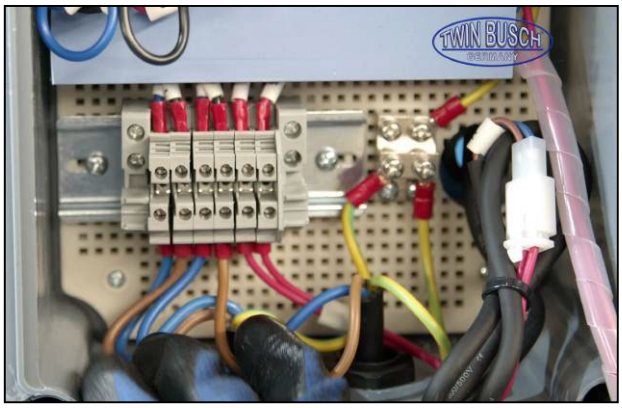


Illustration: Connecting the motor cable

Caution: When connecting the limit switch cable, make sure that the pins inside the plug are not bent or pushed out. This can easily happen!

Illustration: Pins inside the plugs

Once you have connected all the cables, close the switch box.

17) Filling the hydraulic system

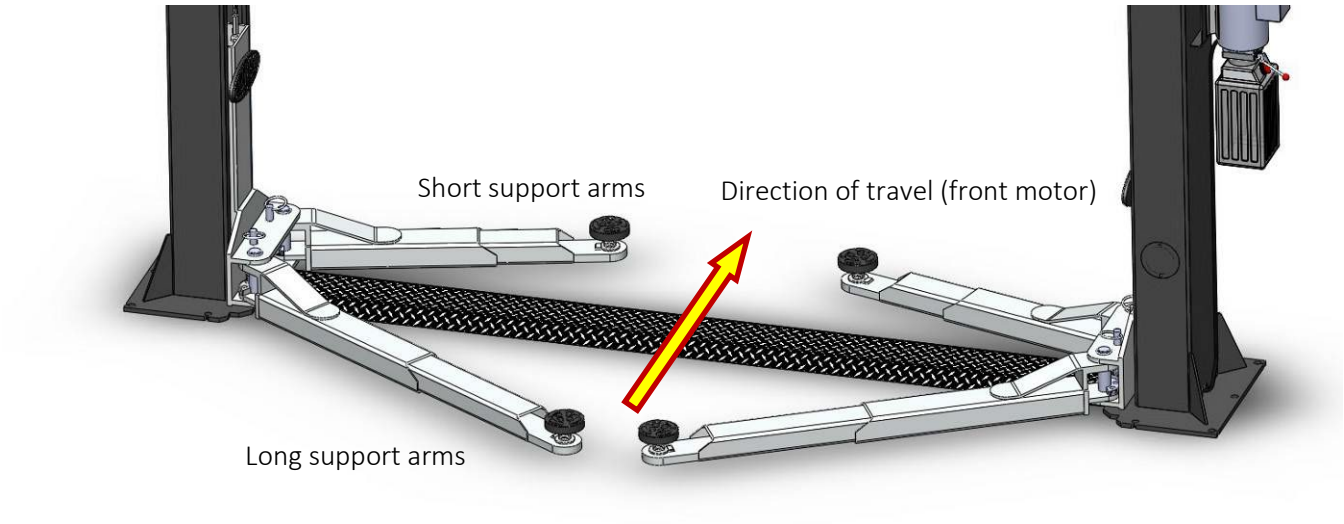
The hydraulic oil tank has a capacity of approx. 10 litres. To ensure proper operation of the post lift, you should fill the oil tank to 80% capacity with hydraulic oil. Hydraulic oil type: HLP 32.

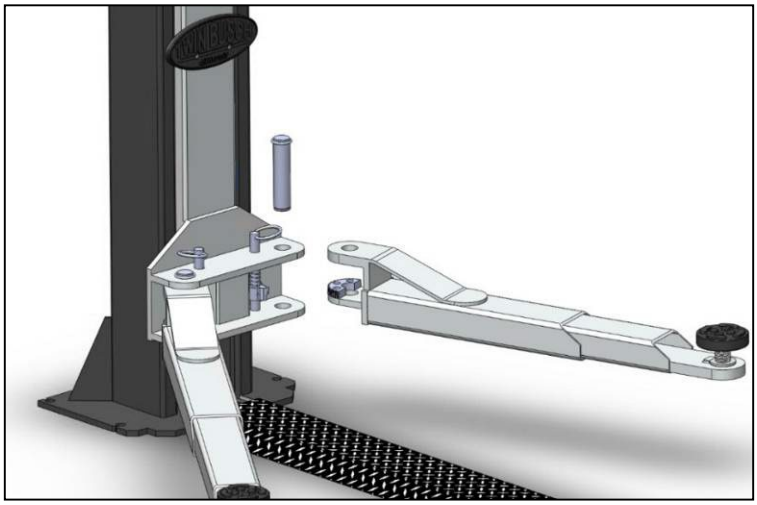
Illustration: Filling with HLP 32

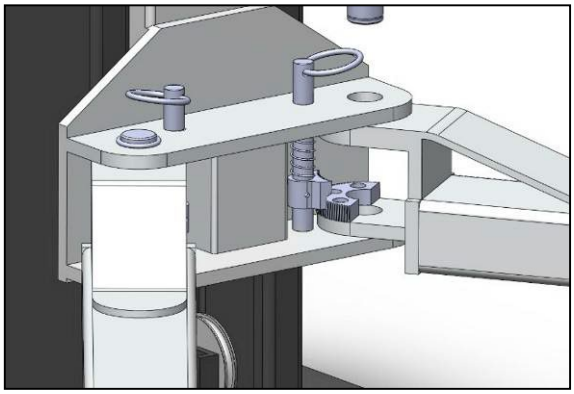
18) Fit the support arms.

a) Insert the support arms into the lifting carriages. Pay attention to the interlocking of the anti-rotation blocks.

b) Insert the support arm bolts into the holes provided, as shown in the following illustration. Secure them with a retaining ring.







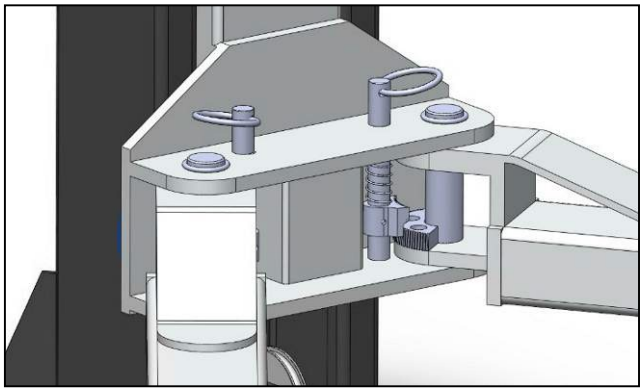


Illustration: Mounting the support arms

c) Also mount the brackets on the support arms. Ensure that the brackets are mounted so that the screws are at the top.

19) Fit the door stop protection, the guard plate and the food guard.
Note: Ensure that the hydraulic hoses are not pinched by the drive-over plate!

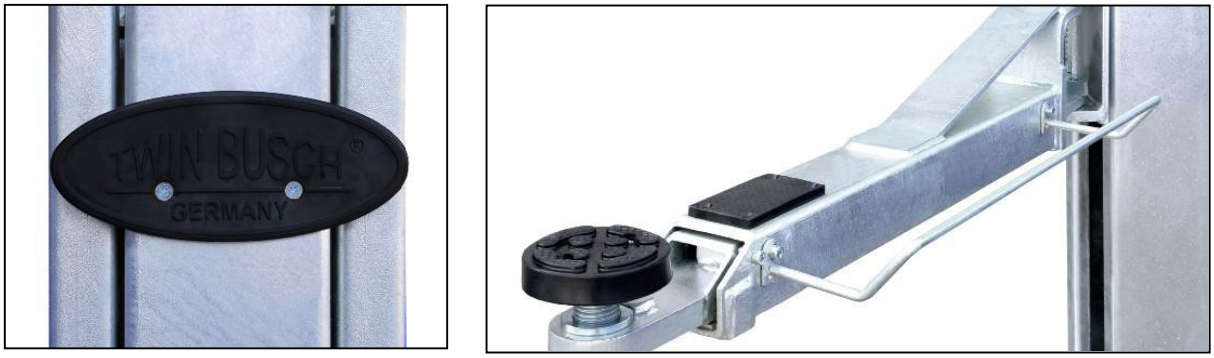
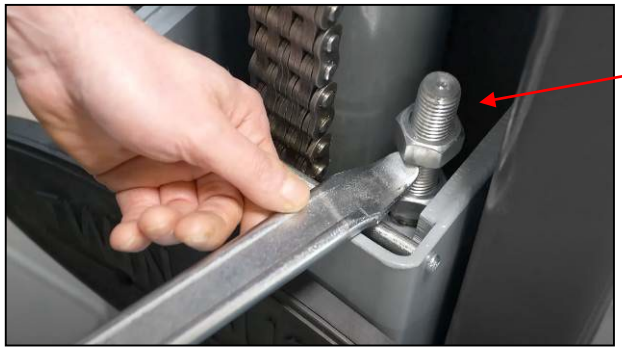


Illustration: Door stop protection and food guard

20) Adjusting the cable tension

a) Loosen the lock nut slightly on both sides.



Here you will find the thread and lock nut for adjusting the steel cable tension

Illustration: Cable tension

b) Use a tyre lever to retighten the cables. Move the post lift to the "Lock" position. Start tightening at the point where you first heard a clicking sound when raising the lift.

c) As the cables are connected to each other, tensioning one side will automatically tension the other side.
Now move the post lift upwards and listen for the safety catches to click. When the catches click simultaneously, the optimum cable tension has been achieved.

d) Finally, tighten the nuts on both sides again.

Note: We recommend lightly oiling or greasing the cables after adjustment to ensure smooth running over the cable rollers.

21) Test run

a) Connect the wiring to the post lift and switch on the main switch on the control box.
b) Follow the procedure in **section 9 Commissioning** and make absolutely sure that there are NO vehicles on the post lift during a test run.
c) Before the test run, check all connections and couplings to ensure they are functioning correctly.
d) Raise and lower the post lift several times for the first time to vent the hydraulic pistons.
e) Fill the tank with the remaining 20 % of hydraulic oil.

8.4 Test points after assembly

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 mounted?		
6	Are the electrical connections correct?		
7	Are the joints all screwed tight?		
8	Are all parts that need greasing greased?		
9	Is the steel cable lubricated?		

9. Commissioning

9.1 Safety precautions

a) If the safety devices are defective or show abnormalities, the lift must not be put into operation under any circumstances!

b) Check that all connections of the hydraulic lines are tight and functional. If there are no leaks, the lifting process can be started.

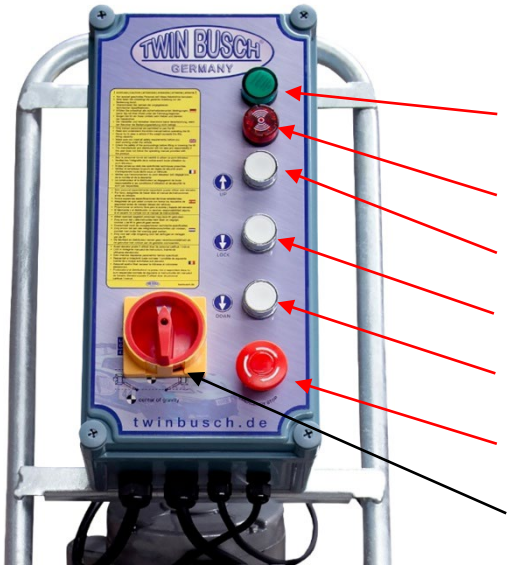
c) Only the operator should be in the vicinity of the lifting platform during a lifting or lowering operation. Always ensure that there are no persons in the danger zone.

d) 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.

e) 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.

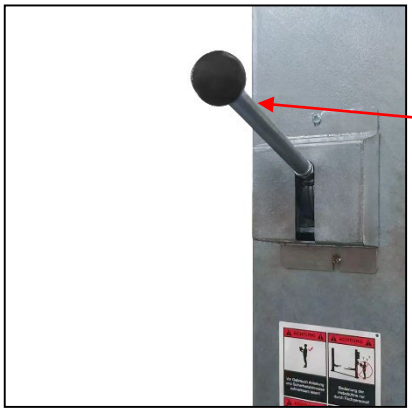
f) Ensure that the safety catches are engaged before starting work on or under a vehicle. No persons may be in the working area of the lift during the lifting and lowering process.

9.2 Description of the control unit (control box)



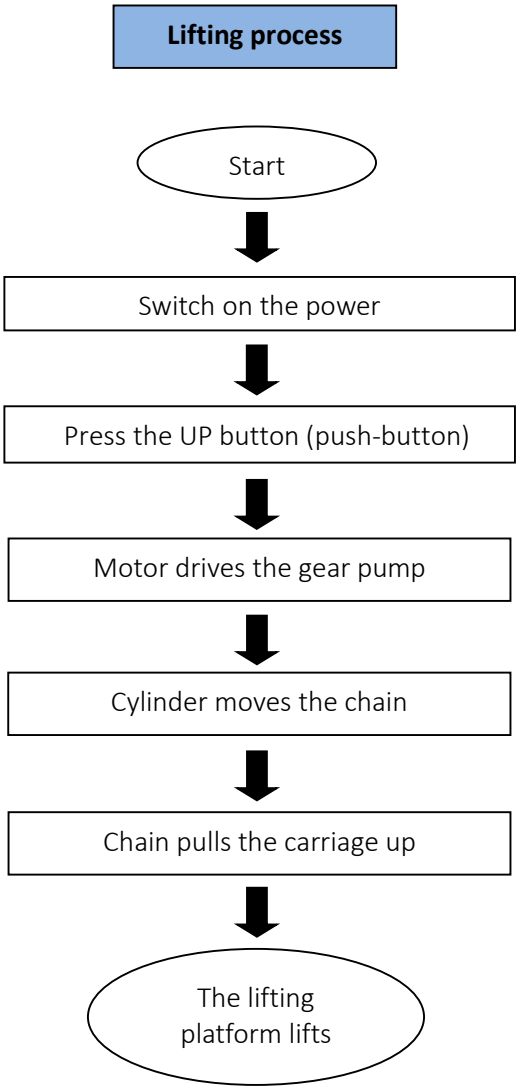
Description	Function
Operating light	Indicates whether there is a power supply.
Alarm buzzer	Flashes and beeps when lowering.
UP button (push-button)	Raising the lifting platform.
Safety catches	Lowering into the safety catches.
Down button (push-button)	Lowering the lifting platform.
Emergency stop switch	Switches the system off in an emergency.
Main switch	Switching on or off.

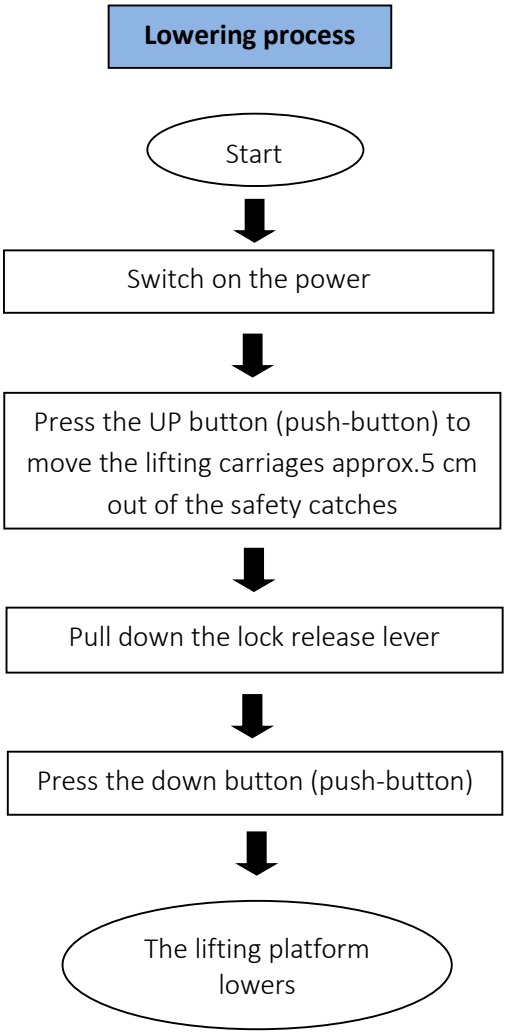
The control unit can be detached from the post lift using a quick-release coupling, allowing it to be stored indoors and protected from the weather when not in use.



Description	Function
Single-lock release (one-handed release)	Manually unlock the safety catches by pulling the release lever.

9.3 Lifting and lowering process flow chart





9.4 Operating instructions

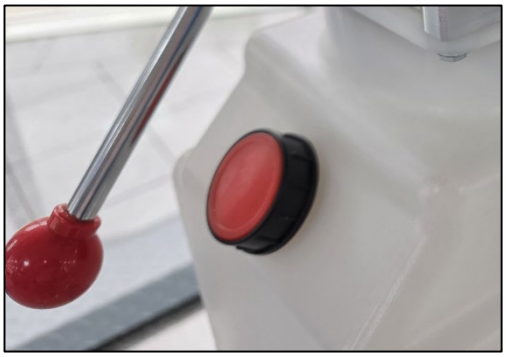
9.4.1 Lifting process

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 lift so that the vehicle's mounting points match the lift mounts. 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 carraiges into the safety catches.
8. Set the main switch to OFF and start working on or under the vehicle.

9.4.2 Lowering process

1. Connect the power supply and switch the main switch to ON.
2. Press the UP button (push-button) to move the lifting carriages approx. 5 cm out of the safety catches.
3. Pull the unlocking steel loops on both sides to unlock the safety catches.
4. Press the DOWN button (push-button). The lifting carriage now lowers evenly.
5. As soon as the lifting carriages have reached the lowest position, the support arms can be swivelled out from under the vehicle.
6. Now the vehicle can now be removed.

9.5 Emptying the hydraulic oil reservoir



1. Carefully remove the filler cap from the hydraulic oil reservoir.
2. Use a suitable oil extraction device (e.g. model TW20810) to completely extract the oil from the reservoir.

   Caution: The oil that has been removed or used oil must be disposed of properly and in an environmentally friendly manner. Please observe the applicable regulations for the disposal of used oil.

9.6 Adjusting the lowering speed

1. Remove the protective cap from the throttle valve for adjusting the lowering speed.
2. Set the desired lowering speed using an Allen key.

   Turning clockwise reduces the lowering speed.

   Turning it anticlockwise increases the lowering speed.

Caution: After adjustment, be sure to replace the protective cap properly to protect the valve from contamination and damage.

10. Troubleshooting

Attention: Do not hesitate to contact the expert staff of TWIN BUSCH® GmbH if you are unable to rectify an error yourself. We will be happy to assist you in rectifying the problem. In this case, document the error and send us pictures and a precise description of the error so that we can identify and remedy the cause as quickly as possible.

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

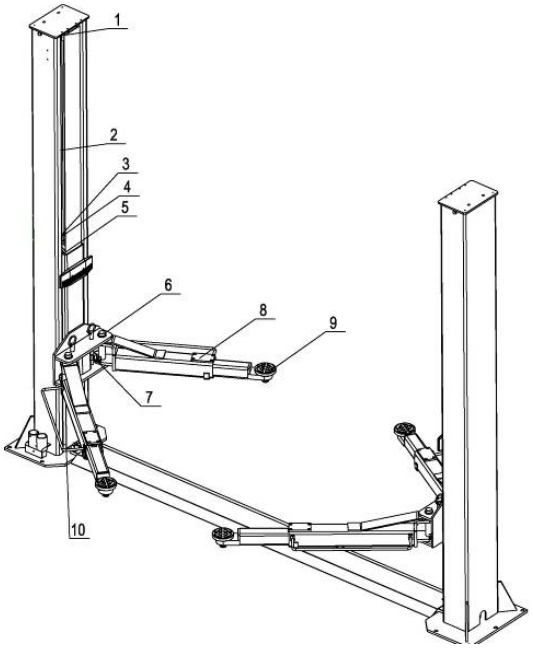
PROBLEM	CAUSE	SOLUTION
Unusual noise.	Wear on the inside of the pillars.	Grease the inside of the pillars.
	Contamination in the columns.	Remove the dirt.
The motor cannot be started, nor does the lift move up.	The cable connections are loose.	Check the cables and reconnect them.
	The motor is defective.	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 damping valve is loose or jammed/blocked.	Clean or fasten it.
The beams lower slowly after they have been raised.	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.
	Manual or electric drain valve is leaking/dirty.	Clean or replace it.
Lifting too slowly.	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.
	The cylinder seal is worn.	Replace the seal.
Lowering too slowly.	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 oil hose is damaged/kinked.	Replace it.
The steel cable is worn.	Not greased during installation or it is worn.	Replace it.

11. Maintenance

Regular maintenance of your lift will ensure a long and safe use of the lift. The following are suggestions for the maintenance intervals and the activities to be carried out. How often you service your lift depends on the environmental conditions, the degree of contamination and, of course, the stress and load on the lift.

The following points must be lubricated:

S/N	Description
1	Top return pulley
2	Steel cable
3	Sprocket wheel
4	Chain
5	Sliding blocks
6	Bolt
7	Support arm lock
8	Support arm Sliding surfaces
9	Turntable
10	Bottom return pulley



11.1 Daily inspection and maintenance of the lifting platform elements before use

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 working correctly.
- Perform a test run (without the vehicle) to check whether the safety catches are working properly.
- Clean heavily soiled lifting platform elements.
- Lubricate all lifting platform elements that are not well lubricated.

11.2 Weekly inspection and maintenance of the lifting platform elements

- 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 and maintenance of the lifting platform

- 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 wear and corrosion.
- Remove any residue and dirt from the steel cable and clean it.
- Dry and then lubricate the steel cable with a penetrating lubricant.

11.4 Annual inspection and maintenance of the lifting platform elements

- 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 post lift will remain in good condition and damage and accidents will continue to be avoided.

Note: After ten years of operation at the latest, a general assessment of the remaining service life must be carried out by a qualified technician – preferably by a specialist authorised by the manufacturer.

12. Behavior 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 error 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 devices or electrical system parts.

*) Points depending on the design and type of the lifting platform

 Work on electrical systems only by qualified electricians!

Problem: Lifting platform can neither be raised nor lowered.

Possible causes	Remedy
No power supply available.	Check power supply.
Power supply interrupted.	Check power supply line.
Main switch not switched on or defective.	Check main switch.
Emergency stop pressed or defective.	Unlock emergency stop, check.
Fuse in power connection has blown or is defective.	Check fuse.
Fuse in the switch box has blown or is defective.	Check fuse.

Problem: Lifting platform cannot be raised.

Possible causes	Remedy
With three-phase current: one phase is missing.	Check power supply.
With three-phase current: Direction of rotation of motor reversed.	Check direction of rotation, change phase if necessary.
Oil pump defective.	Notify TWIN BUSCH® Service.
Emergency drain open.	Close emergency release valve.
Motor is defective.	Notify TWIN BUSCH® Service.
Overload.	Overload valve has opened, reduce load.

Problem: Lift cannot be lowered.

Possible causes	Remedy
Lifting platform sits in safety catches.	Raise platform a little, pull detents, lower.
Lifting platform has moved into limit switch.	If necessary, loosen limit switch, raise 1 cm and lower.
Motor is defective.	Open safety latch and lift over. Lower emergency drain.
Lifting platform has been blocked during lowering.	Raise the lifting platform slightly again and remove the obstacle.

13. Disassembly

The post lift may only be dismantled by qualified personnel. In particular, work on electrical components may only be carried out by qualified electricians in order to avoid the risk of electric shock or malfunction. Similarly, work on hydraulic or pneumatic systems may only be carried out by trained personnel with specific expertise in hydraulics or pneumatics. Compliance with these specifications ensures safe and proper decommissioning of the system.

1) Switch off the system at the main switch (OFF position) before carrying out any dismantling work.

2) Attach a warning sign to prevent the system from being switched back on.

3) Disconnect the power supply.

Caution: Improper dismantling of hydraulic components poses a risk of fatal injury. These components are under pressure (up to 200 bar).
Under no circumstances should you dismantle the hydraulic components (lift cylinders)!
These must always be uninstalled as complete components.
Post lift cylinders should only be disposed of properly by a certified company.

4) Empty the hydraulic oil tank and drain the oil from the hydraulic hoses. Dispose of the hydraulic oil (see 14 Disposal).

5) Remove lubricants and other chemical substances. Dispose of these (see 14 Disposal).

6) Dismantle the supports, crossbars and crossbeams of the post lift.

14. Disposal

In order to inform users how to dispose of the product properly (as required by Article 26, paragraph 1 of Legislative Decree 49/2014), the following is communicated:

The meaning of the crossed-out wheelie bin symbol on the device indicates that the product must not be disposed of with residual waste (i.e. together with "mixed municipal waste"). Instead, it must be disposed of separately so that waste electrical and electronic equipment can be sent for appropriate reuse or treatment. This allows environmentally hazardous substances to be safely removed and disposed of, and reusable raw materials to be recovered and recycled.

14.1 Ecological disposal methods

- Prevent environmental pollution.
- Avoid contact with or inhalation of toxic substances such as hydraulic fluid.
- Oils and lubricants are water pollutants according to the WGH Water Protection Act. Always dispose of them in an environmentally friendly manner and in accordance with the regulations of your country.
- Mineral oil-based hydraulic oils are water pollutants and flammable. Refer to the relevant safety data sheet for disposal.
- Provide suitable oil drain pans and oil binders for draining the oil.
- Ensure that no hydraulic oils, lubricants or cleaning agents contaminate the soil or enter the drainage system.

14.2 Packaging material

Do not dispose of in household waste!
The packaging material contains some recyclable materials that must not be disposed of in household waste. Dispose of the packaging material in accordance with the regulations applicable in your country.

14.3 Oils, grease and other chemical substances

- When working with oil, lubricants and other chemical substances, comply with the environmental regulations that apply to the product in question.
- Dispose of oil, lubricants and other chemical substances in accordance with the environmental regulations applicable in your country.

14.4 Metals/electrical waste

Metals/electrical waste should only be disposed of properly by a certified company.

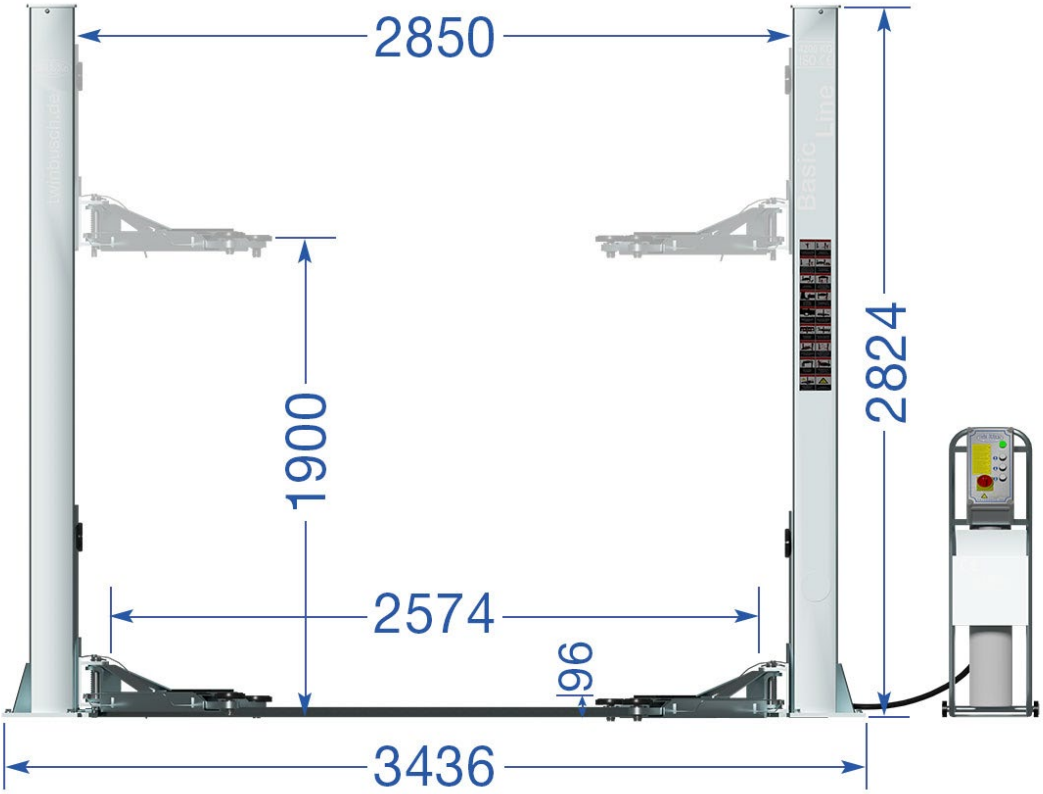
Dispose of used electrical and electronic equipment, including cables, accessories and batteries, separately from household waste.

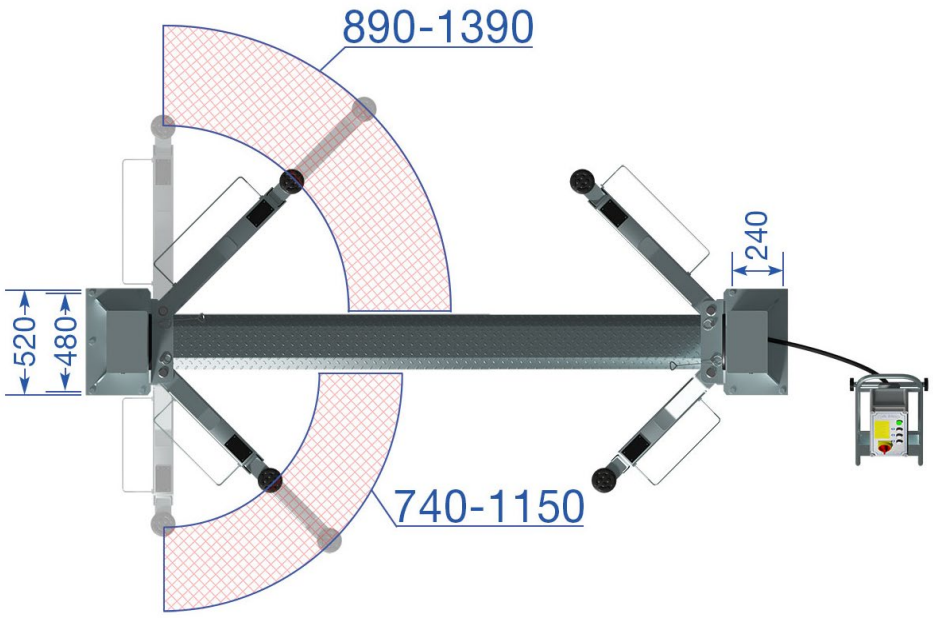
15. Appendix

15.1 Packing list

S/N	Name	Quantity
1	Drive-side column	1
2	Column	1
3	Carriage	2
4	Long arm	2
5	Short arm	2
6	Oil cylinder	1
7	Drive oil cylinder	1
8	Drive unit	1
9	Base plate cover	1
10	Slotted base plate	1
12	Control box	1
13	Steel cable	2
14	Drive unit package	1
15	Operating instructions	1
The box contains the following parts:		
16	Rubber protective padding	2
17	Rubber oil hose	1
18	Rubber oil hose	1
19	Chain guard cloth rod	4
20	Lifting shell	4
21	Protective plate for long arm	2
22	Protective plate for short arm	2
23	Height adapter	4
24	Shaft	4
25	Chain guard cloth 2700	2
26	Bracket for adapter	
27	Oil line cover	
28	Hexagon screw with full thread	4
29	Hexagon screw with hexagon socket	8
30	Hexagon screw with hexagon socket	
31	Phillips flat head screw	4
32	Phillips flat head screw	4
33	Class C washer	8
34	Hexagon screw with full thread	
35	Class C washer	4
36	Spring washer	4
37	Hexagon nut	4
38	Hexagon nut	8
39	Retaining ring	4

15.2 Lifting platform dimensions





15.3 Foundation requirements and working area

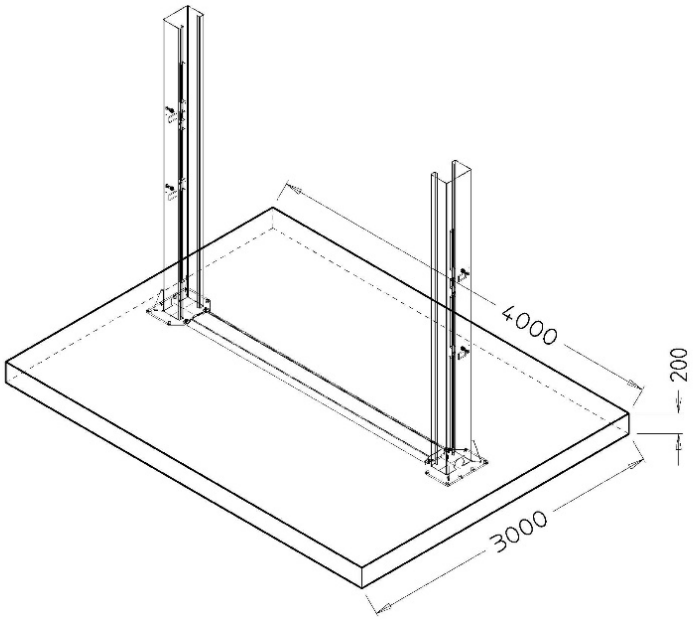
Requirements for the concrete:

- Concrete C20/25 according to DIN 1045-2 (Previous designation: DIN 1045 Concrete B25).
- The floor must be horizontal and have a flatness of ≤ 5 mm/m.
- Newly poured concrete must cure for at least 28 days.

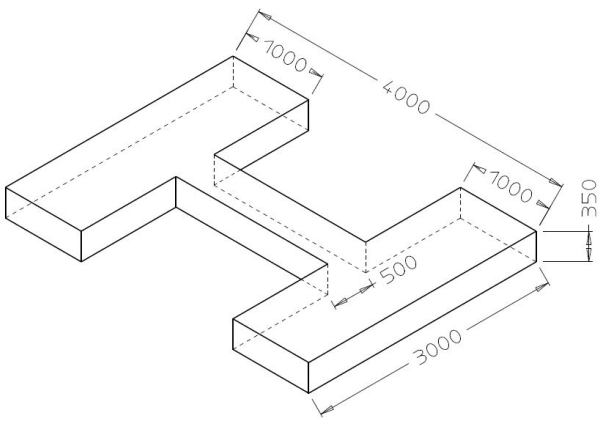
Foundation dimensions:

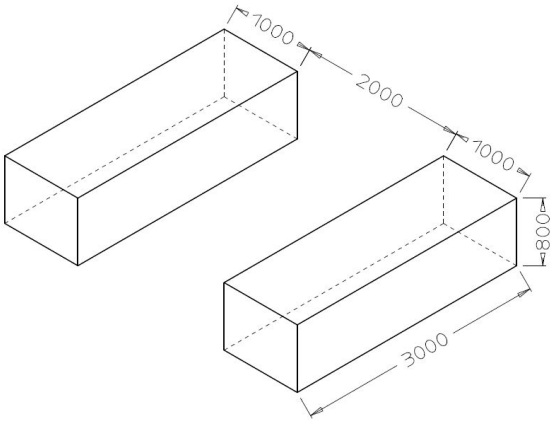
- Ideally, the entire hall floor should be made of concrete C20/25 with a thickness of at least 200 mm.

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



Alternatively in H-shape or two blocks:





Other requirements:

- The surrounding ground must be suitable for the load, e.g. no sandy soil, etc.
- Reinforcement in the concrete is not mandatory for the proper use of the lifting platform, but is recommended.
- The lifting platform must NOT be installed on ceilings or floors with basements without authorisation. In case of doubt, the foundation should always be designed by a structural engineer; this is mandatory for ceilings or floors with basements.
- If tiles, screed, insulation and underfloor heating are used, please consult our technical department.

For soil exposed to frost, note the following:

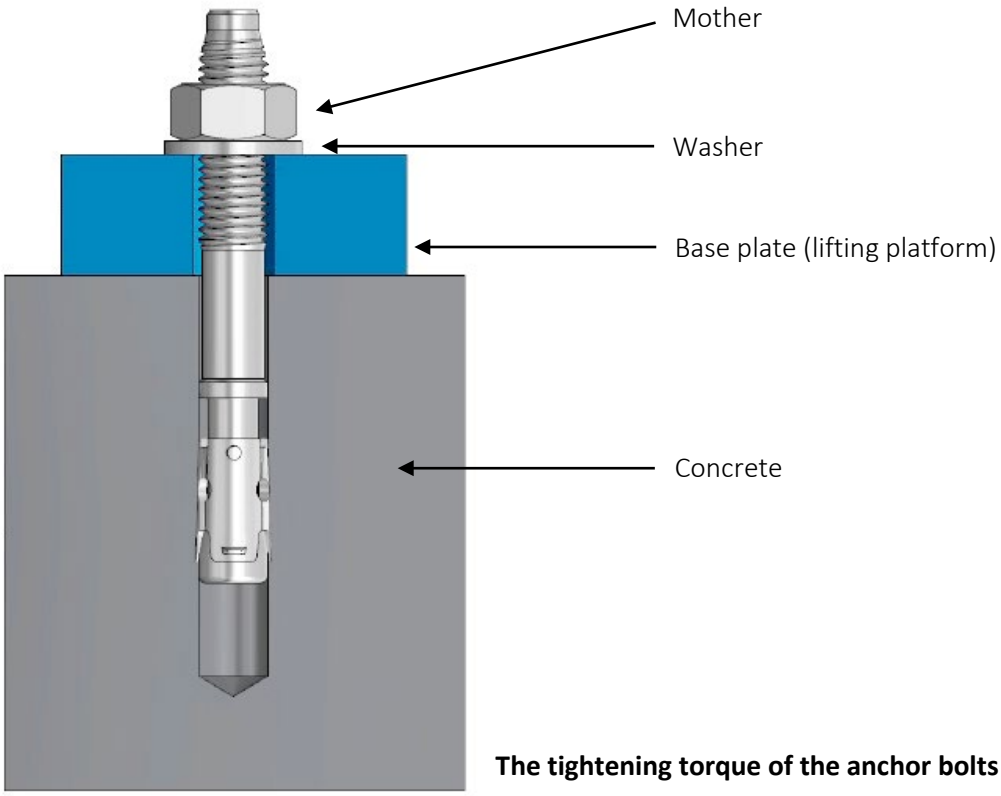
For frost exposure, the concrete must comply with exposure class XF4, as dripping de-icing agent cannot be ruled out.

This results in the following minimum requirements for the concrete when exposed to frost:

Exposure class:	XF4
Maximum w/c:	0,45
Minimum compressive strength:	C30/37 (instead of C20/25)
Minimum cement content:	340 kg/m³
Minimum air void content:	4.0 %
Total foundation depth:	≤ 80 cm (due to frost resistance)
Remainder filled with gravel:	0/32

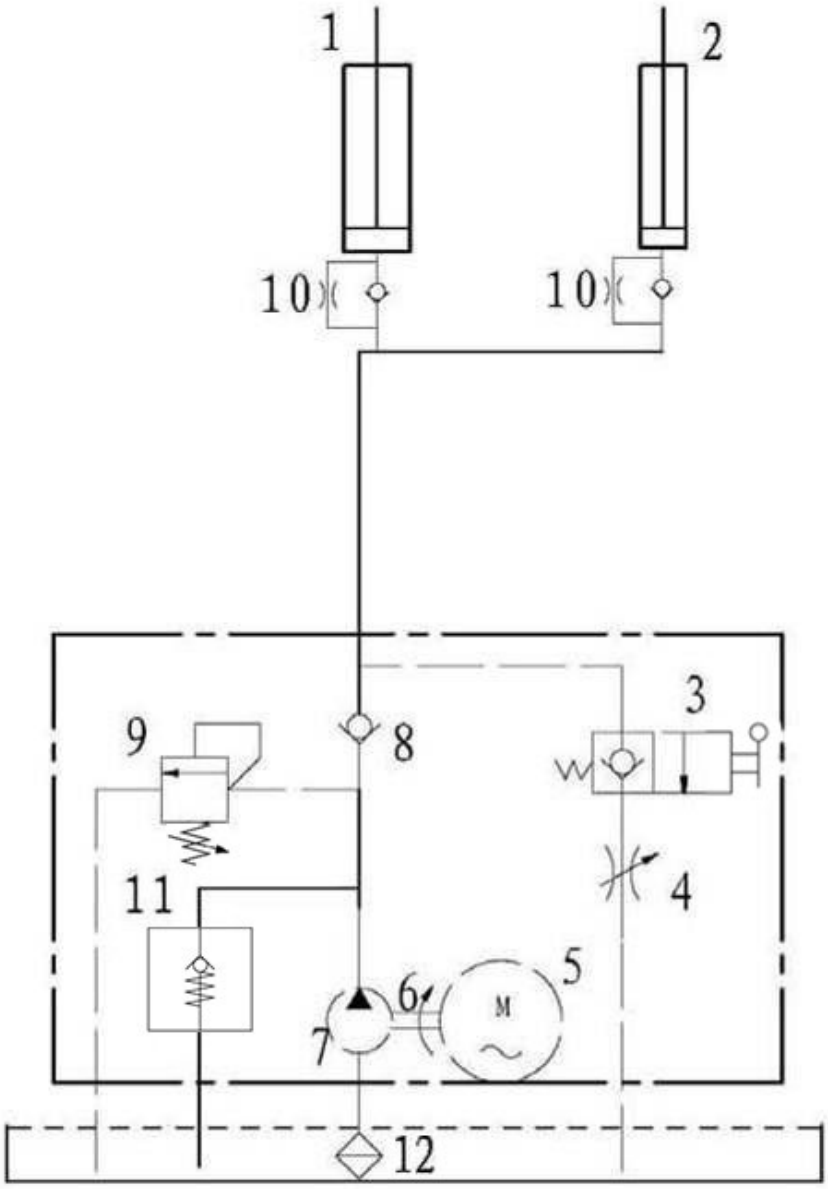
It must be noted, however, that the lifts are not designed for outdoor use (except for galvanised models). The control box is IP54, but the rest of the electrics, motors and limit switches are IP44 at most.

Anchor bolt fastening



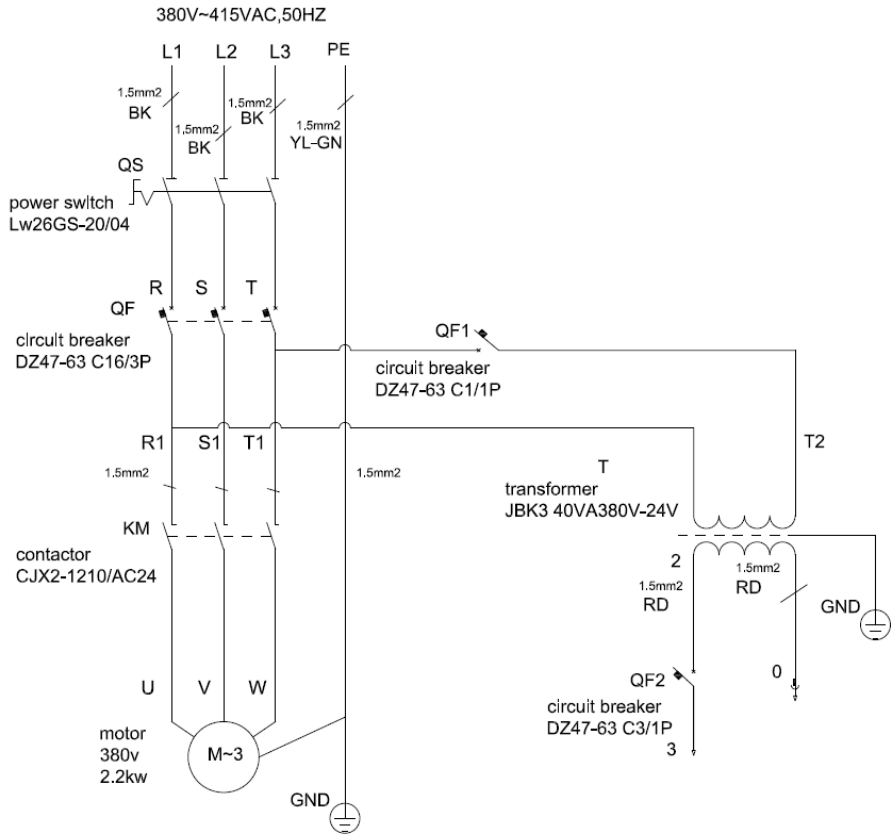
The tightening torque of the anchor bolts (M16) is: 100-110 Nm.

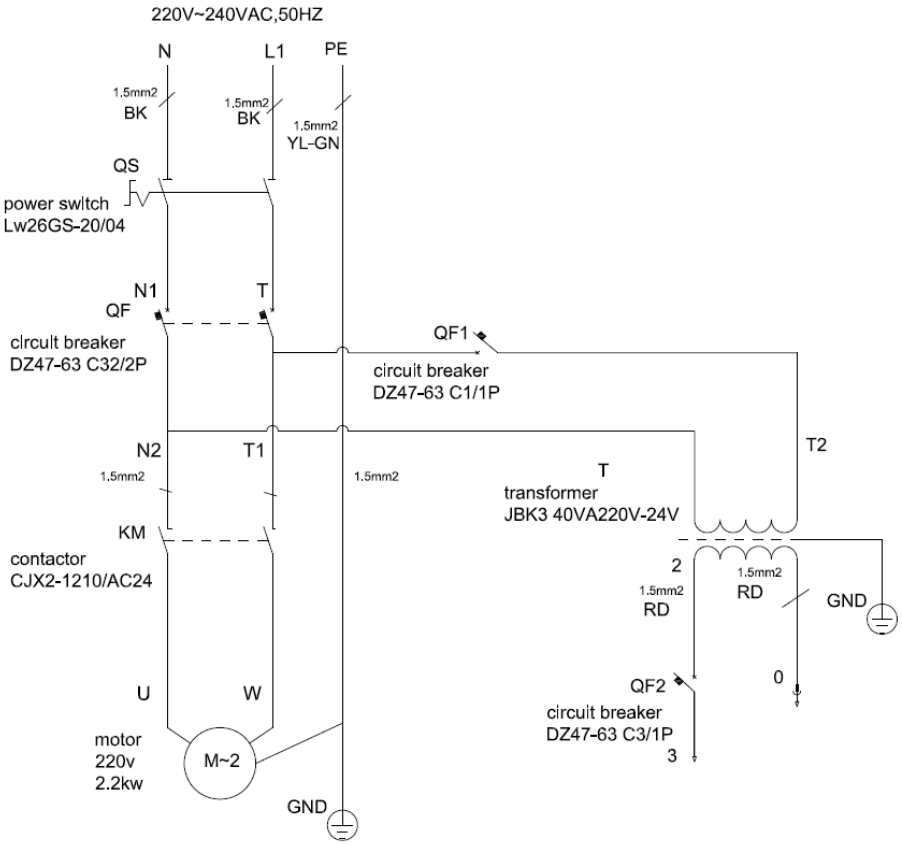
15.4 Hydraulic system

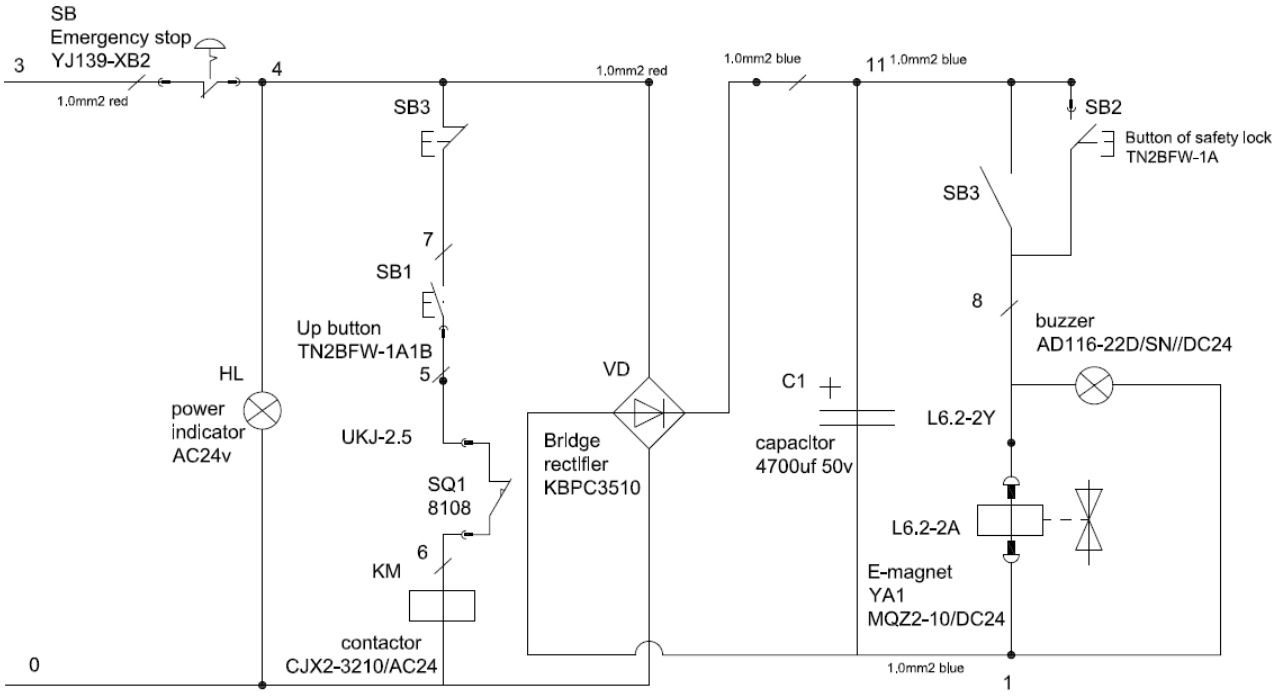


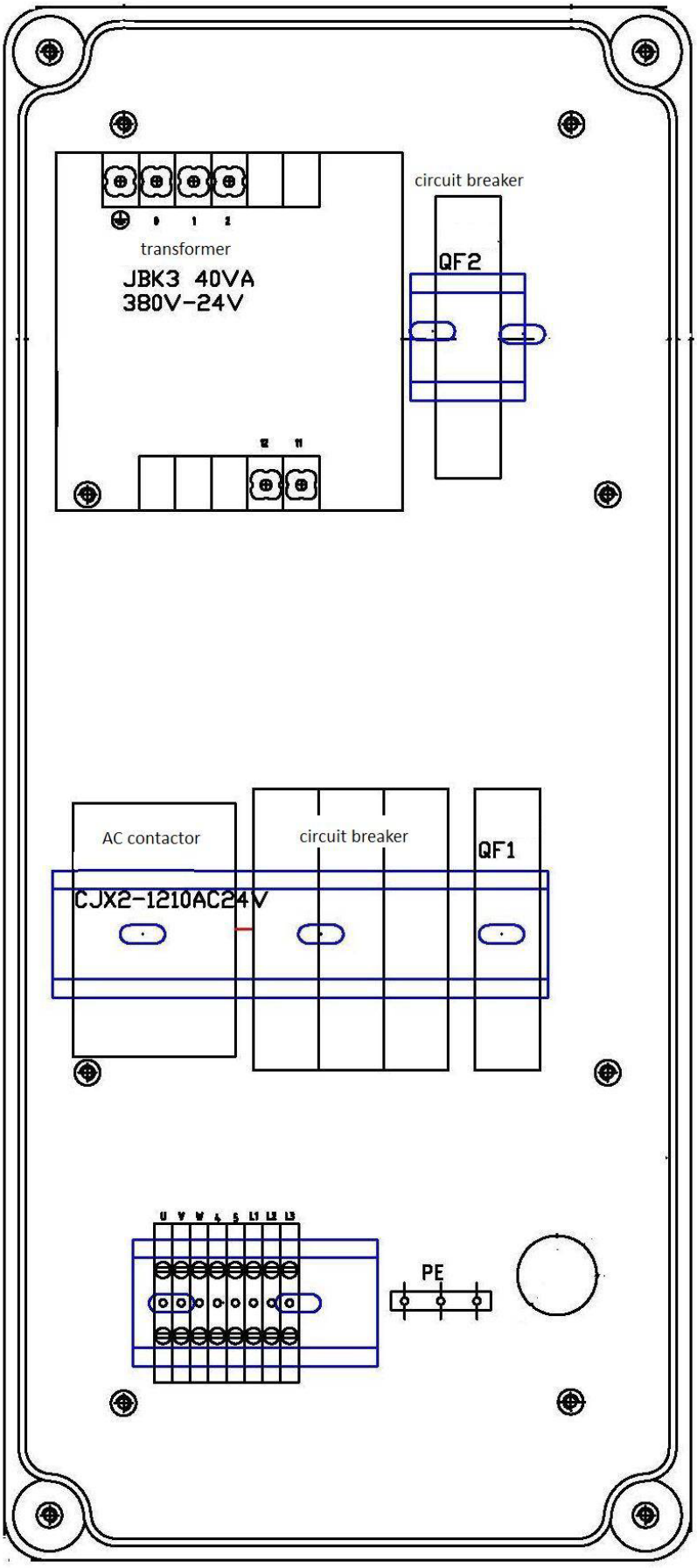
1. Main cylinder
2. Auxiliary cylinder
3. Manual drain valve
4. Throttle valve
5. Motor
6. Clutch
7. Gear pump
8. Check valve (one-way valve)
9. Pressure relief valve (max.: 19.4 MPa)
10. Throttle check valve
11. Shut-off valve
12. Oil filter

15.5 Circuit diagrams

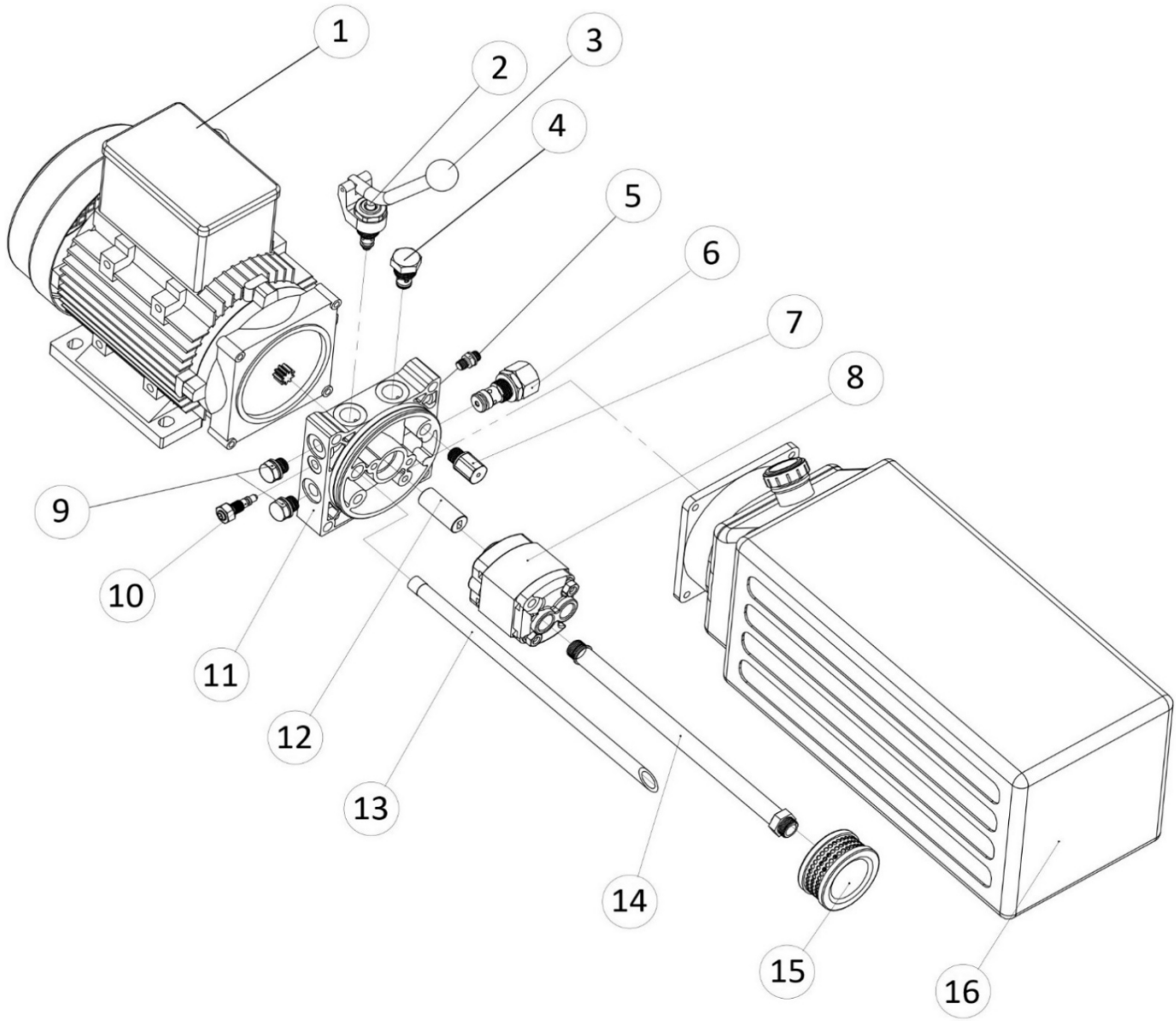




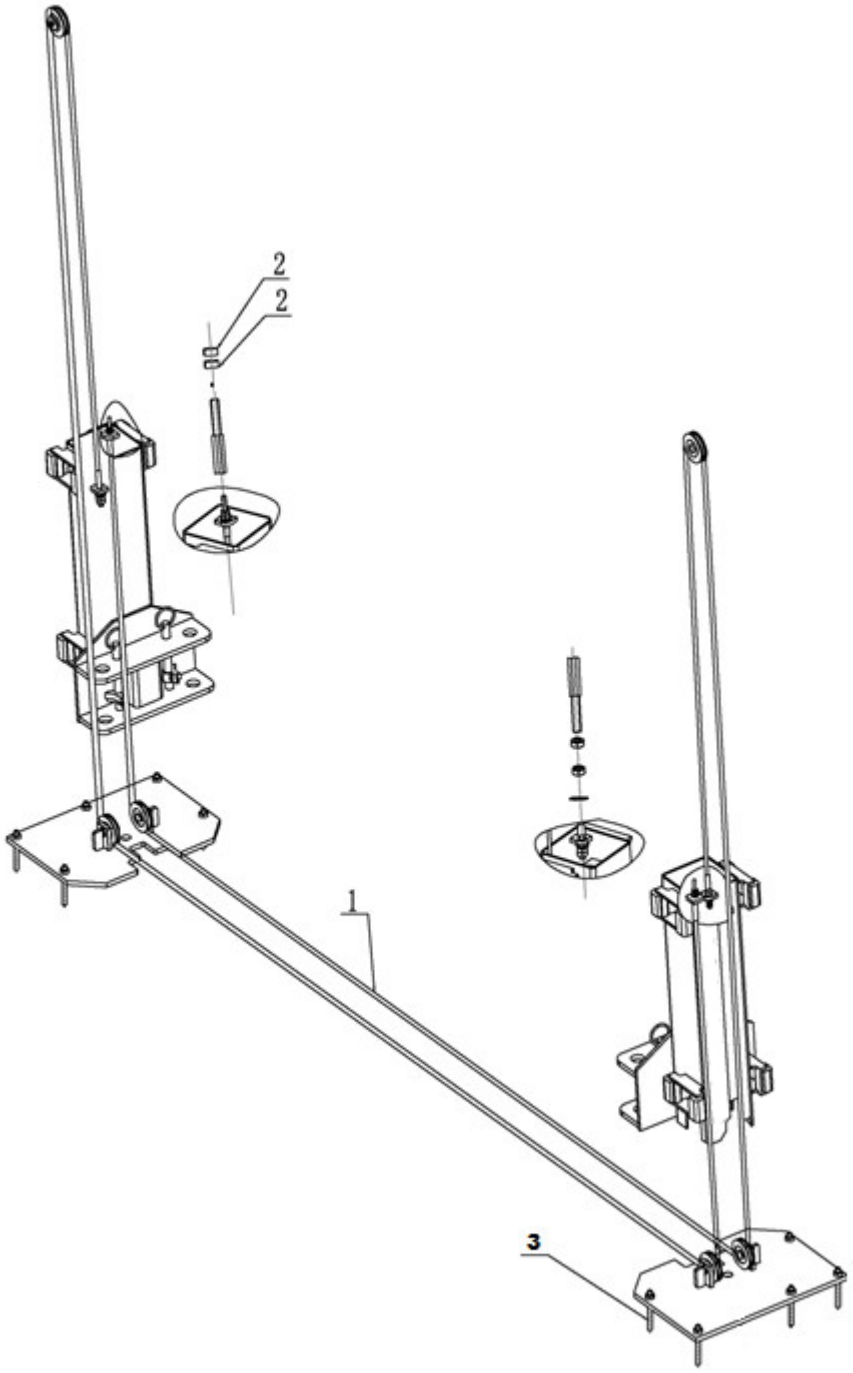

SB
Emergency stop
YJ139-XB2
3
4
1.0mm2 red
1.0mm2 red
SB3
7
SB1
Up button
TN2BFW-1A1B
5
HL
power
indicator
AC24v
UKJ-2.5
SQ1
8108
6
KM
contactor
CJX2-3210/AC24
0
VD
Bridge
rectifier
KBPC3510
1.0mm2 blue
11
1.0mm2 blue
C1
capacitor
4700uf 50v
SB2
Button of safety lock
TN2BFW-1A
SB3
8
buzzer
AD116-22D/SN//DC24
L6.2-2Y
L6.2-2A
E-magnet
YA1
MQZ2-10/DC24
1.0mm2 blue
1


circuit breaker
transformer
JBK3 40VA
380V-24V
QF2
AC contactor
circuit breaker
QF1
CJX2-1210AC24V
PE

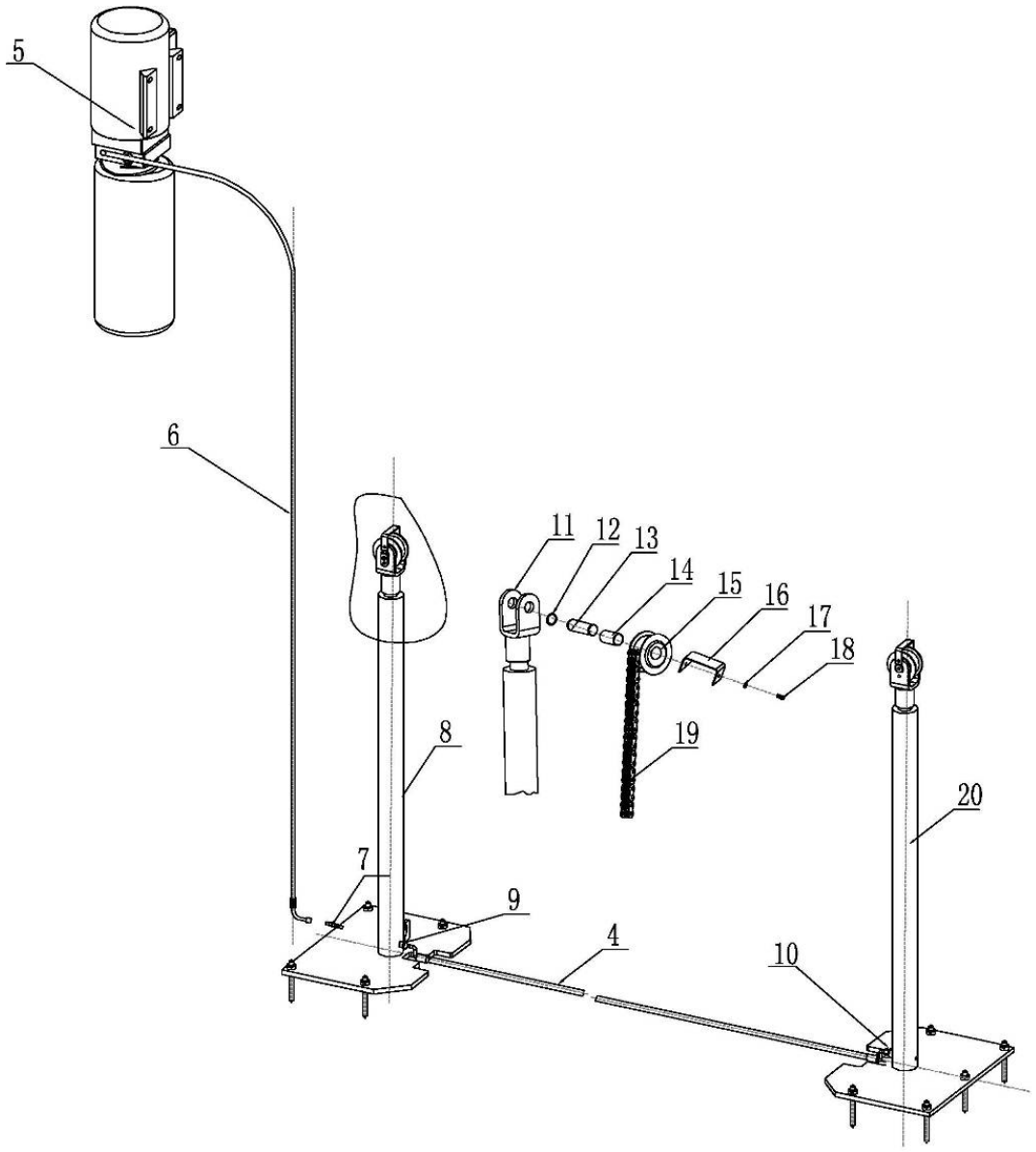
15.6 Detailed drawing and parts description of the lifting platform



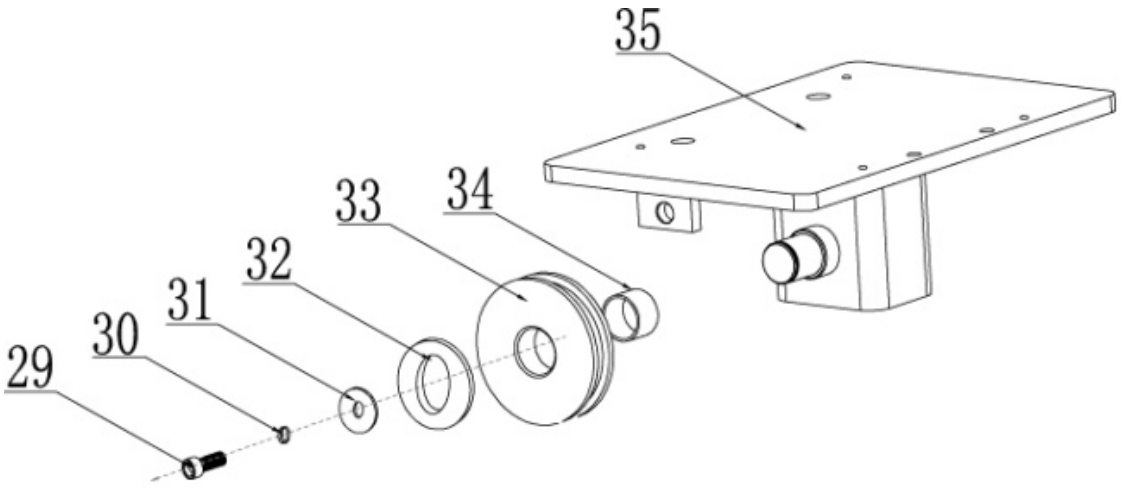
S/N	Spare part number	Name	Quantity	Property
1	E-HEB0095	Electric motor 230V	1	Component
2	E-HEB0024	Manual drain valve for TW242M	1	Standard
3	E-HEB0161	Drain lever TW242M	1	Galvanised
4	E-HEB0068	Directional valve	1	Standard
5	E-HEB0067	Screw-in connection Pump block	1	Standard
6	E-HEB0054	Pump pressure control valve	1	Component
7	E-HEB0487	Soft start valve	1	Standard
8	E-HEB0127-2	Oil pump type 220	1	Component
9	Request	Blanking plug screw	2	Standard
10	E-HEB0326	Lowering speed valve	1	Standard
11	E-HEB0739	Hydraulic pump block (including all valves)	1	Component
12	E-HEB0082	Coupling shaft	1	Galvanised
13	Request	Oil return pipe	1	Standard
14	E-HEB0134-3	Oil suction pipe TW242M	1	Standard
15	E-HEB0012	Oil filter	1	Standard
16	E-HEB0148	Oil tank	1	Standard



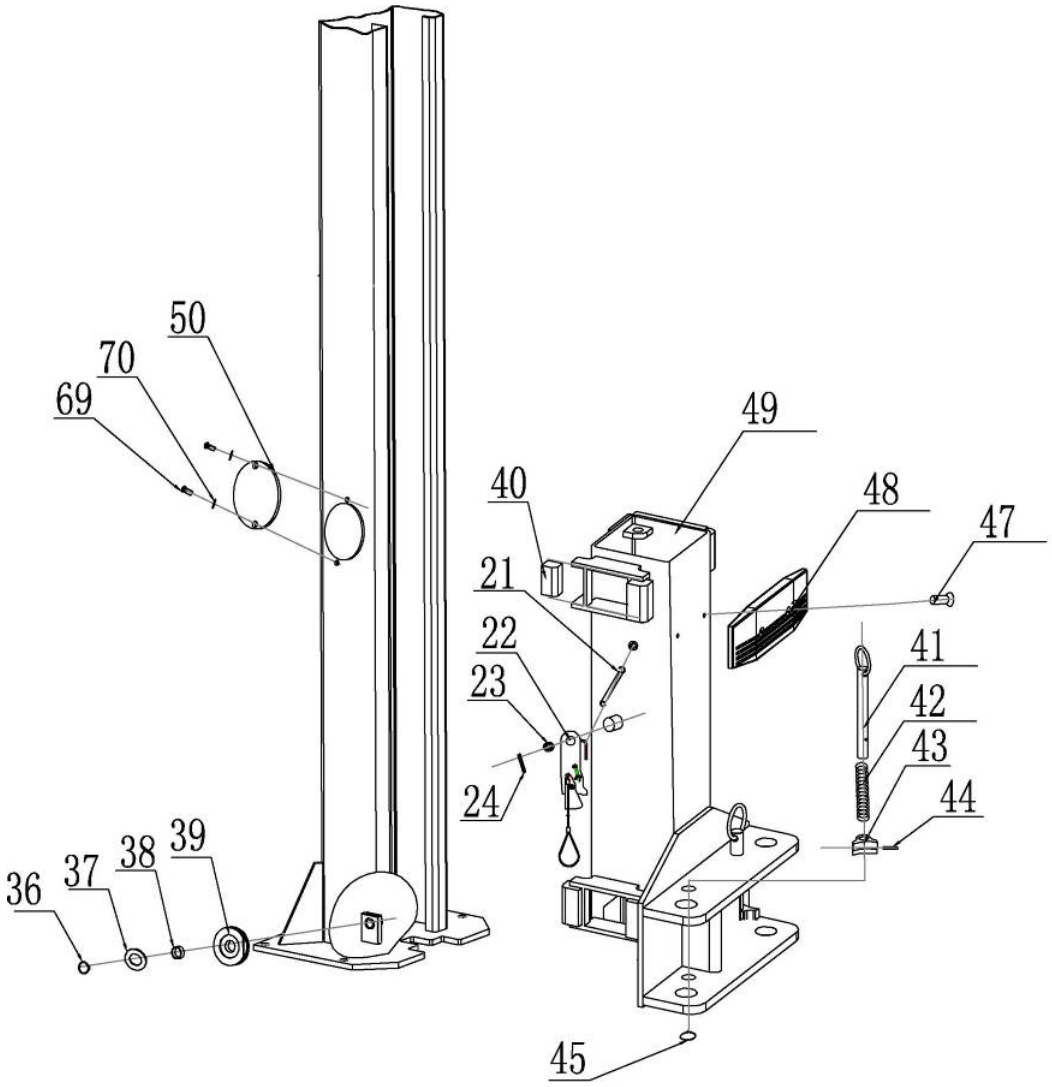
S/N	Spare part number	Name	Quantity	Property
1	E-HEB0018	Steel cable length 8820 mm	2	Standard
2	Request	Hexagon nut M16	8	Standard
3	E-HEB0515	Heavy-duty anchor M16x173mm	10	Standard



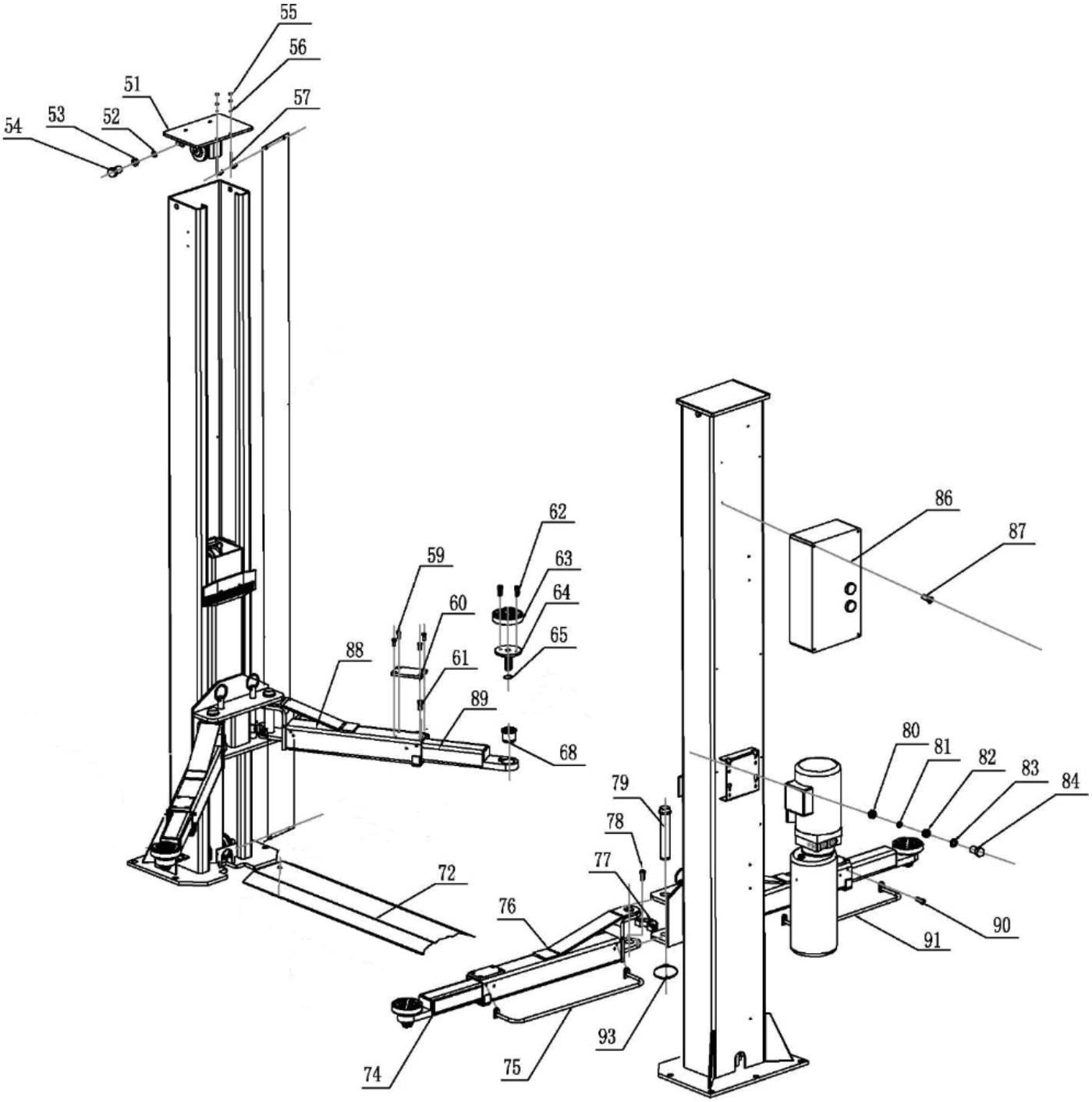
S/N	Name	Quantity	Property
4	Rubber oil hose L=2900	1	Assembly
5	Power unit	1	Assembly
6	Rubber oil hose L=700	1	Assembly
7	Long connector	2	Assembly
8	Drive oil cylinder	1	Assembly
9	Main connector	1	Zinc plating
10	Short connector	1	Zinc plating
11	Chain wheel bracket	2	Zinc plating
12	Type B circlip 25	4	Standard
13	Chain wheel shaft	2	Zinc plating
14	Bearing 2548	2	Standard
15	Chain wheel	2	Zinc plating
16	Retaining plate	2	Zinc plating
17	Spring washer M6	4	Standard
18	Hex socket cylinder head screw M6*10	4	Standard
19	Chain	2	Standard
20	Oil cylinder	1	Assembly



S/N	Name	Quantity	Property
29	Hex socket button head screw M8*20	2	Standard
30	Spring washer M8	2	Standard
31	Retaining ring	2	Zinc plating
32	Washer	2	Zinc plating
33	UP pulley	2	Zinc plating
34	Bearing 2518	2	Standard
35	Top cover	2	Welded



S/N	Name	Quantity	Property
21	Tension spring	2	65Mn
22	Safety lock assembly	2	Assembly
23	Sheath		Q235A
24	Cotter pin 3*45	2	Standard
36	Type B circlip 25	4	Standard
37	Washer		Q235A
38	Bearing 2512	4	Standard
39	Down pulley	4	Q235A
40	Slider	16	Nylon 1010
41	Pulling rod	4	Welded
42	Pressure spring	4	Zinc plating
43	Teeth block	4	Q235A
44	Elastic cylindrical pin 5*35	4	Standard
45	Type B circlip 25	2	Standard
47	Cross socket sunken head screw M8*16	4	Standard
48	Protection rubber pad	2	Rubber
49	Carriage	2	Assembly
50	Cover plate	2	Q235A
69	Cross socket cap head screw M6*8	4	Standard
70	Class C flat washer M6	4	Standard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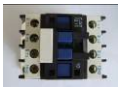
S/N	Name	Quantity	Property
51	Top plate	2	Assembly
52	Class C flat washer M12	4	Standard
53	Spring washer M12	4	Standard
54	Hex head full swivel screw M12*20	4	Standard
55	Hex nut M6	8	Standard
56	Class C flat washer M6	4	Standard
57	Rod of chain protection cloth	4	Standard
58	Chain protection	2	Cloth
59	Cross socket flat head screw M5*10	16	Standard
60	Square lifting pad	4	Rubber
61	Cross socket flat head screw M8*10	4	Standard
62	Hex socket flat head screw M8*20	8	Standard
63	Round lifting pad	4	Rubber
64	Lifting tray	4	Welded
65	Type B circlip 22	4	Standard
66	Swivel sheath	4	Q235A
67	Circlip 38*2.5	8	Standard
68	Inside swivel sheath	4	Q235A
69	Cross socket cap head screw M6*8	4	Standard
70	Class C flat washer M6	4	Standard
71	Hex socket flat head screw M12*20	2	Standard
72	Base cover plate	1	Q235A
73	Slot base plate	1	Welded
74	Long tensile arm	2	Welded
75	Long fender	2	Welded
76	Long arm	2	Welded
77	Teeth block	4	Q235A
78	Hex socket cylinder head screwM10*20	12	Standard
79	Pin	4	Welded
80	Hex nut M10	4	Standard
81	Spring washer M10	4	Standard
82	Anti-shock pad	4	Rubber
83	Class C flat washer M10	4	Standard
84	Hex head full swivel screw M10*35	4	Standard
86	Control box	1	Assembly
87	Cross socket cap head screw M5*10	4	Standard
88	Short arm	2	Welded
89	Short tensile arm	2	Welded
90	Hex socket button head screw M8*12	8	Standard
91	Short fender	2	Welded
92	Height adapter	4	Welded

15.7 Spare parts list

S/N	Name	Quantity	Picture
1	Power switch	1	
2	Button	3	
3	Power indicator	1	
4	Transformer	1	Same as item 7
5	Transformer	1	Same as item 7
6	Transformer	1	Same as item 7
7	Transformer	1	
8	Transformer	1	Same as item 7
9	Transformer	1	Same as item 7
10	AC contactor	1	
11	Circuit breaker	1	
12	Circuit breaker	1	
13	Circuit breaker	1	
14	Circuit breaker	1	Same as item 13
15	Limit switch	1	
16	Control box	1	

We have made every effort to provide you with complete and detailed information to ensure that installation and operation run smoothly. However, if you encounter any problems during the installation and operation of your post lift or have any questions about individual parts, please contact the expert staff at TWIN BUSCH® GmbH.

EC-declaration of conformity

The company

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

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

TW236M-400, TW236M-230, TW236M-400-FZ, TW236M-230-FZ,
TW242M-400, TW242M-230, TW242M-400-FZ, TW242M-230-FZ,
TW242GM-400, TW242GM-230 | 3.600 kg, 4.200 kg

Serial number:

in thes 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 0079 Rev. 00
N8MA 087411 0078 Rev. 00

date of issue: 09.08.2023
place of issue: München
technical file no.: 646642303401

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 (adress as below)

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Amperestr. 1 · 64625 Bensheim
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Authorized signatory: Michael Glade
Bensheim, 07.11.2023 Qualitätsmanagement

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