



SCISSOR-LIFT
TWS35-10E / TWS35-10E-G
(Lifting capacity: 3500 kg)

TWS35-10E & TWS35-10E-G

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: https://youtu.be/S2NHx_7K1ao or scan the QR code.



PRODUCT PRESENTATION



You can find the product presentation video for this lift on YouTube: <https://youtu.be/HstcPUeKI9s> or scan the QR code.





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/Tips-Tricks: :74.html>

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](https://www.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 TW S35-10E / TWS35-10E-G tyre service scissor lift has a lifting height of 1 m and a permissible load capacity of 3,500 kg and is CE-certified by an approved certification body. It is ideal for tyre services, bodywork and vehicle preparation. The scissor lift can be moved using the mobile kit (available as an option) and can therefore be used as an additional workstation on any sufficiently firm surface, such as asphalt, paving or concrete. No compressed air connection is required for the TW S35-10E. The scissor lift is equipped with an electromagnetic release mechanism. The drive-on ramps of the scissor lift can be fixed horizontally and are fully loadable, which increases the actual pick-up length.

Special features of the product:

- **Top built quality with CE-certificate**
- Manufactured according to **ISO 9001**
- Low drive-over height
- Mechanical synchronisation control of both tracks for perfect synchronisation
- FAILSAFE safety latch system (monitoring of the latching position)
- Double line system for symmetrical distribution of the system pressure
- Direct response behaviour thanks to two powerful hydraulic cylinders
- Tilt lever system
- Emergency lowering function in the event of a power failure
- High-quality and solid construction
- Automatic safety locking and unlocking
- Acoustic warning signal (foot protection)
- Foot protection
- High-quality powder coating

2. Identification of the instructions for use

Instruction manual **TWS35-10E & TWS35-10E-G**

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File: TWS35-10E_TWS35-10E-G_ScissorLift_Manual_uk_00_20260408.pdf

3. Technical data

Power supply	230 V / 400 V
Fusing	C 16A (slow)
Lifting capacity CE	3,500 kg
Lifting height max.	1000 mm
Drive on height	110 mm
Lifting time approx.	20/20 sec.
Motor power	2.2 kW
Weight (approx.)	550 kg

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 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.
- Under no circumstances leave the control unit when the lift is in motion.
- Keep your hands and feet away from moving parts. Pay particular attention to your feet when lowering the lift.
- The lift may only be operated by trained personnel.
- Unauthorised persons are not permitted in the vicinity of the lift.
- Wear suitable work clothing.
- The area around the lift should always be kept free of obstructions.
- The lift is designed for lifting/hoisting motor vehicles that do not exceed the permissible maximum weight.
- Before entering a raised vehicle or using the 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 lift.**
- **Do not use the 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 lift.
- Always check the mobility of the lift to ensure its performance. Ensure regular maintenance. If any irregularities occur, stop working 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 are not going to use the lift for a longer period of time, then:
 - a. Disconnect the 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

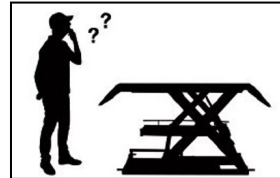
All warnings are clearly visible on the lift to ensure that the user uses the device in a safe and appropriate manner.

The warning labels must be kept clean and replaced if they are damaged or missing.

Please read the symbols carefully and memorise their meaning for future use.



Read instructions and safety instructions carefully before use!



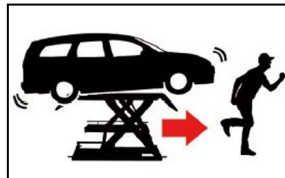
Operation of the lifting platform only by qualified personnel!



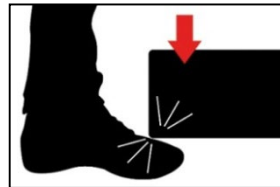
Repairs and maintenance only by qualified personnel, never put safety devices out of operation!



Risk of crushing when lifting or lowering!



Always keep escape routes clear!



Pay attention to the lifting platforms and don't lower on to your feet! Crushing hazard!



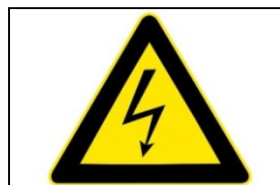
Avoid shaking the vehicle.



Never attempt to load only one side of the lift!



Do not exceed the specified load capacity! Distribute the vehicle weight over both platforms!



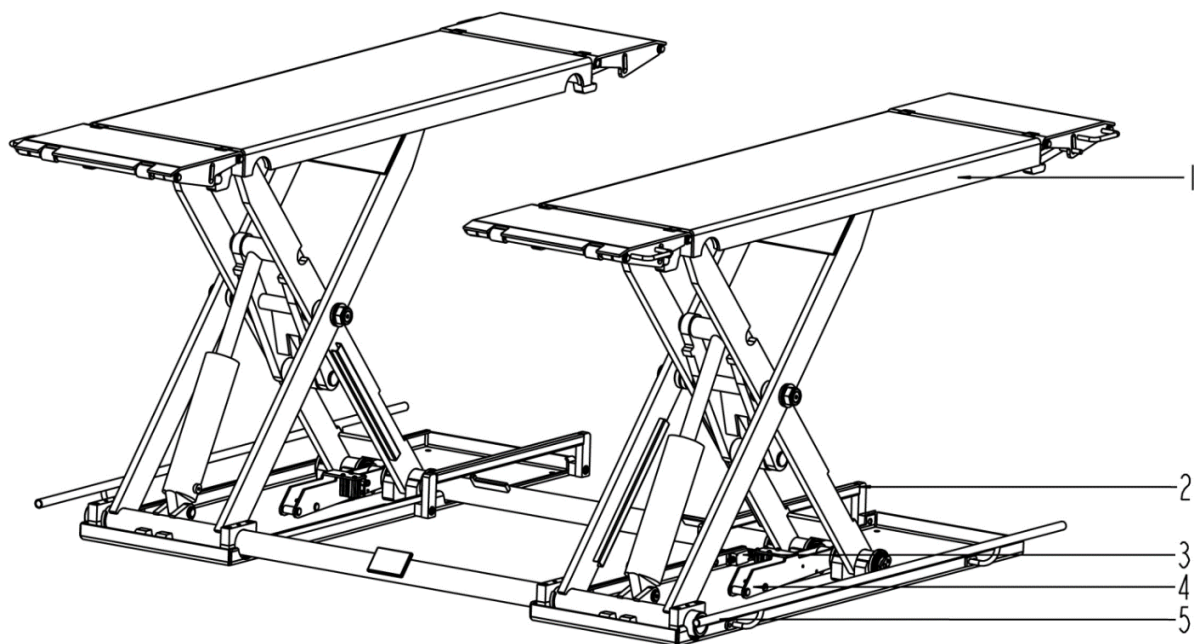
CAUTION!
Electrical voltage!

5.3 Safety devices

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

- Anti-tip protection
- Anti-tip device
- Limit switch
- Foot guard
- Mechanical safety catches

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



5.4 Monitoring and testing the safety equipment

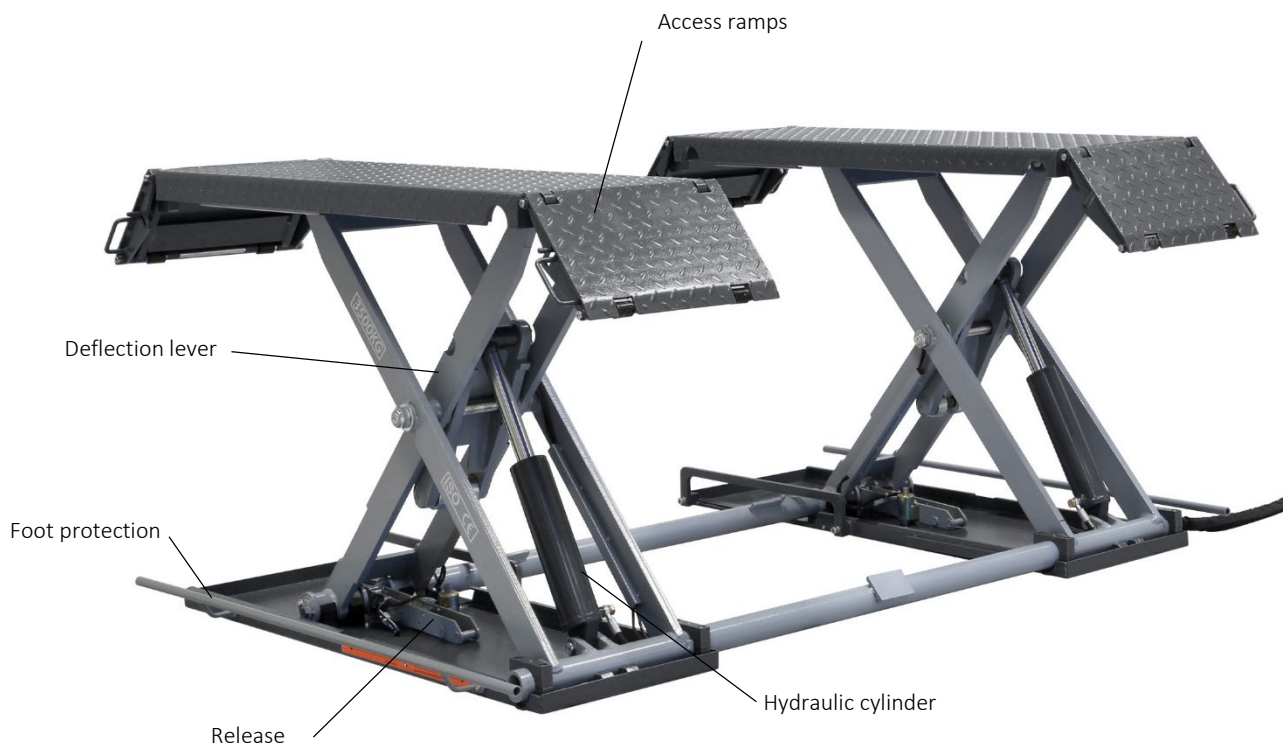
- | | |
|------------------------------|--|
| 1) Anti-tip protection | Prevents tilting in the event of one-sided loading. |
| 2) Anti-tip device | Prevents tilting in the event of one-sided loading. |
| 3) Limit switch | Limits the stroke. |
| 4) Mechanical safety catches | Lift is mechanically supported in the event of a hydraulic leak. |
| 5) Foot guard | Protection against pinching and crushing. |

6. Conformity with the product

The TWS35-10E / TWS35-10E-G scissor lift is CE-certified and complies with the Machinery Directive 2006/42/EC and fulfils the standards EN 1493:2022, 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

Tools and equipment required:

- Electric drill (only required for permanent installation)
- Spanner
- Phillips screwdriver
- Socket spanner
- Lifting application (e.g. forklift truck)
- Hydraulic oil HLP 32

8.2 Completeness of all components

Unpack all components of the post lift and check that all parts are present using the packing list (see **Appendix: Packing list**).

8.3 Work area

There must be a distance of at least 1 metre between the lifting platform and the permanently installed elements and walls in all lifting positions. There must be sufficient space at the ends of the lifting platform to allow vehicles to enter and exit.

To prevent vehicles from colliding with the ceiling, it is advisable to install a ceiling light barrier in buildings with low ceilings.

8.4 Soil conditions

Only use this lift on a surface that is stable, level, dry, non-slippery and capable of bearing the load. This lift must be installed on a solid concrete floor with a slope of no more than 0.3 %. Failure to do so may result in injury or even death.

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 rest for at least 28 days before a lifting platform can be installed.

8.5 Assembly instructions

- 1) Place the platform in the desired installation location. Remove the packaging film in which the platform is wrapped. Look out for loosely packed parts. Read and understand the operating instructions before proceeding.
- 2) Firmly connect the oil hose connection and its attachment to the hydraulic block (see **hydraulic circuit diagram**). Fit the steel cable to secure the pressurised hydraulic hose so that it is not thrown around uncontrollably.

Caution: Do not contaminate the hydraulic components during connection.

- 3) Connect the electrical system. **Note: This work must be carried out by an electrical engineer!** Read the motor rating plate and understand the wiring diagram before connecting the power supply unit. Open the control box and connect the electrical cables to the terminals provided. Pay attention to the numbered tubes attached to each wire. Wires and terminals with the same number labelling are connected to each other (see appendix **electrical circuit diagram**).

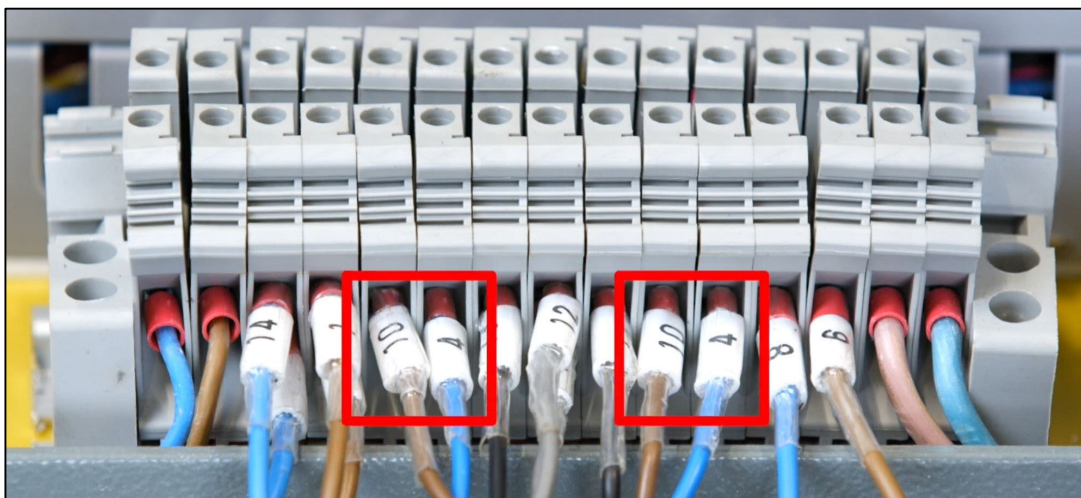
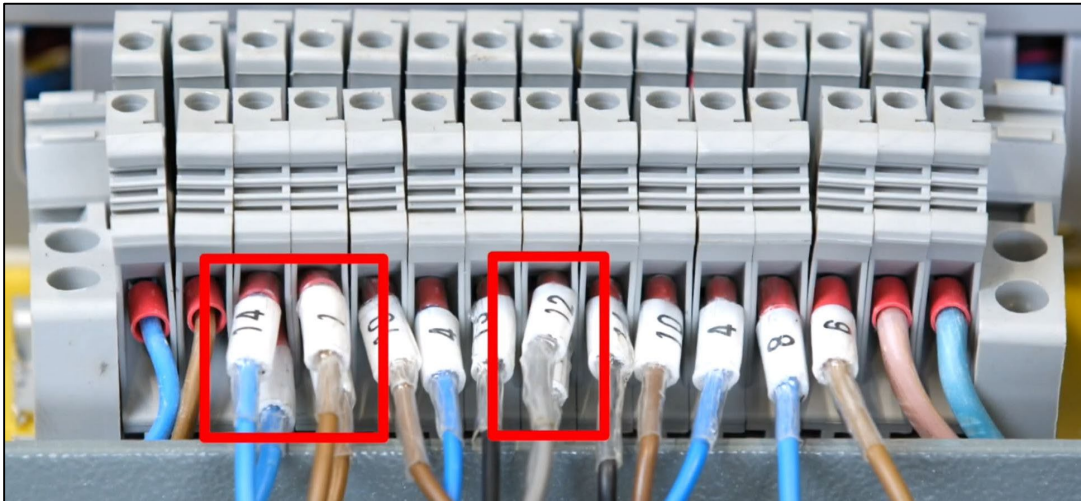


Illustration: Control box

4) Filling the hydraulic system

The hydraulic oil tank has a capacity of approx. 5 litres. To ensure the lift operates correctly, you should fill the oil tank to 80 % of its capacity with hydraulic oil.

Hydraulic oil type: HLP 32.



Illustration: Filling with HLP 32

Please note: The dipstick does not provide a reliable indication of the hydraulic oil level in the Multitank.

- 5) Run the lift for approx. 5–6 cycles without a load. Top up the remaining 20 % of hydraulic oil.
Note: If the lift does not raise when connected to a three-phase power supply and the motor appears to be rotating in the wrong direction, swap the U and V wires in the control cabinet.
- 6) Attach the protective brackets.

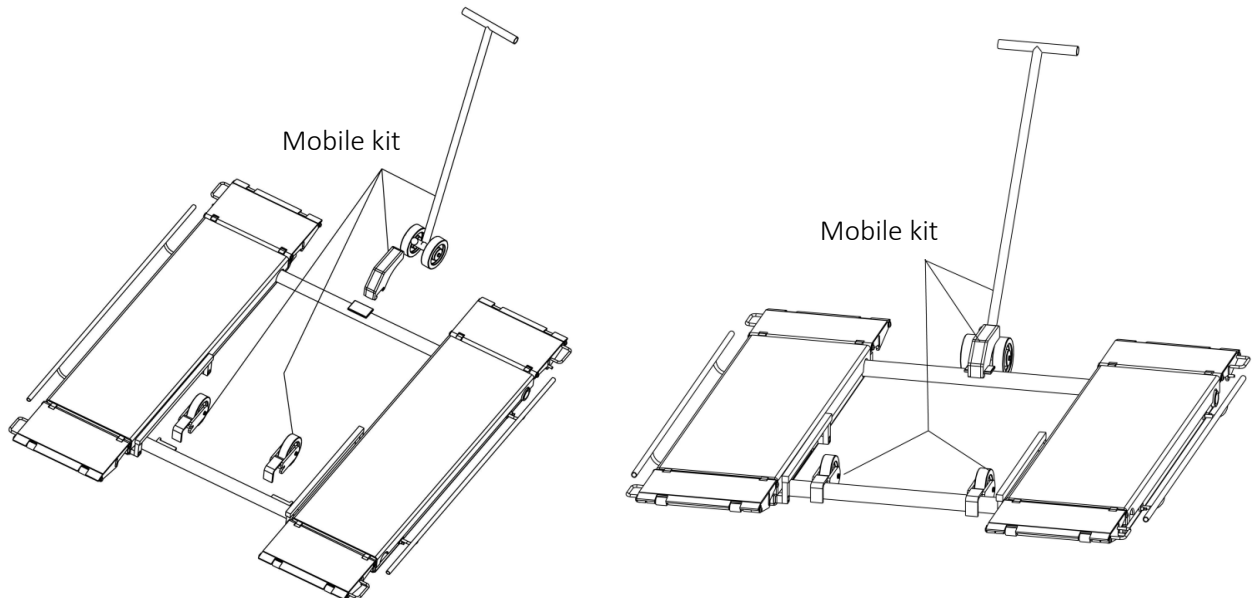
8.6 Test points after assembly

S/N	Check	YES	NO
1	Do the mechanical safety catches engage synchronously?		
2	The function switches only work when pressed and held?		
3	Is the earthing cable connected correctly?		
4	The lift raises and lowers smoothly?		
5	There are no unusual noises when operating under nominal load?		
6	There is no oil leakage under nominal load?		
7	Are the joints all screwed tight?		
8	Have all parts that need to be greased been greased?		
9	Earth resistance not greater than 4 Ω ?		
10	There are no unusual noises when operating under nominal load?		

8.7 The optional mobile kit

The TWS3-10-A mobile kit is designed to make it easy to move the lift and is the perfect addition to the TWS35-10E / TWS35-10E-G.

1. Raise the platform of your lift by approx. 500 mm and attach the mobile kit.



2. Move the lift to the desired working area.

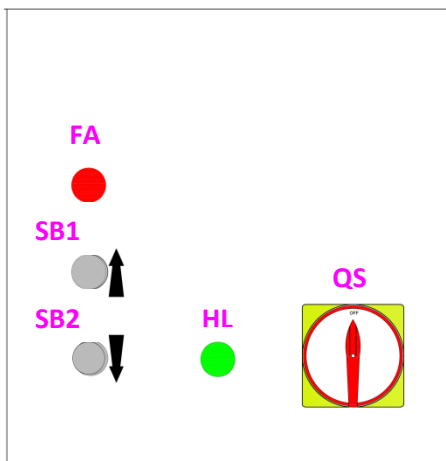
Note: DO NOT attempt to move the lift whilst it is loaded or raised. Always remove the mobile kit before using the lift.

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) Check the stable support at low lifting height to ensure that the vehicle is correctly and safely positioned. 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) Do not attempt to lift vehicles with excessive length or width.

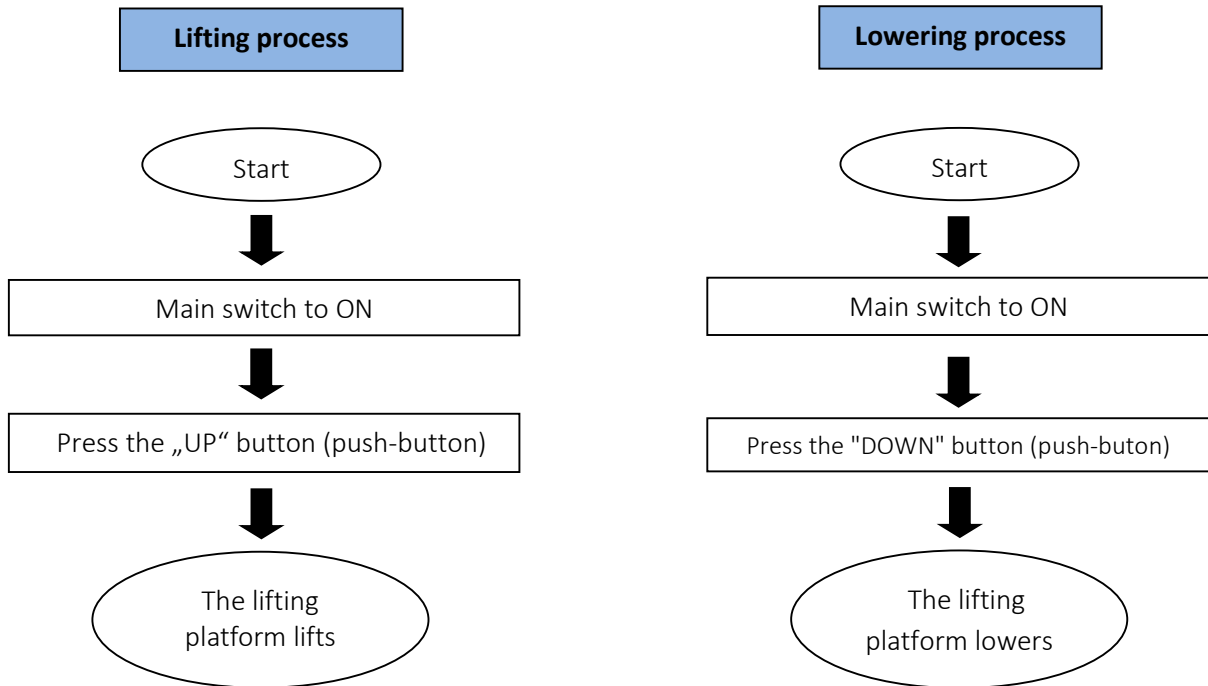
9.2 Description of the control unit (control box)



Pos.	Description	Function
QA	Main switch	Power supply On/Off.
HL	Operating light	Indicates whether there is a power supply.
SB1	"UP" switch	To lift the lifting platform.
SB2	"DOWN" switch	To lower the lift.
FA	Alarm signal	Acoustic warning when lowering.



9.3 Lifting and lowering sequence plan



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. Ensure that the vehicle is not too heavy at the front or rear and that the centre of gravity is centred between the adapters and above the lift/scissor element. **Note: Always lift vehicles with all four adapters.** Never lift only one end, one corner or one side of the vehicle.
4. Carefully place the vehicle on the lift. Position the adapters/rubber blocks at the lifting points recommended by the vehicle manufacturer.
5. Press the "UP" button to raise the lift until the adapters touch the vehicle.
6. Check the adapters for correct and secure contact with the vehicle. Raise the lift to the desired working height.

9.4.2 Lowering process

1. Connect the power supply and switch the main switch to ON.
2. Press the "DOWN" button to lower the lift. When lowering the lift, make sure that there are no people or objects in the working area.
3. After lowering the lift completely, remove the rubber pads and other tools to ensure an unobstructed exit from the lifting area for the vehicle to be moved.
4. Drive the vehicle off the lift.

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 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.

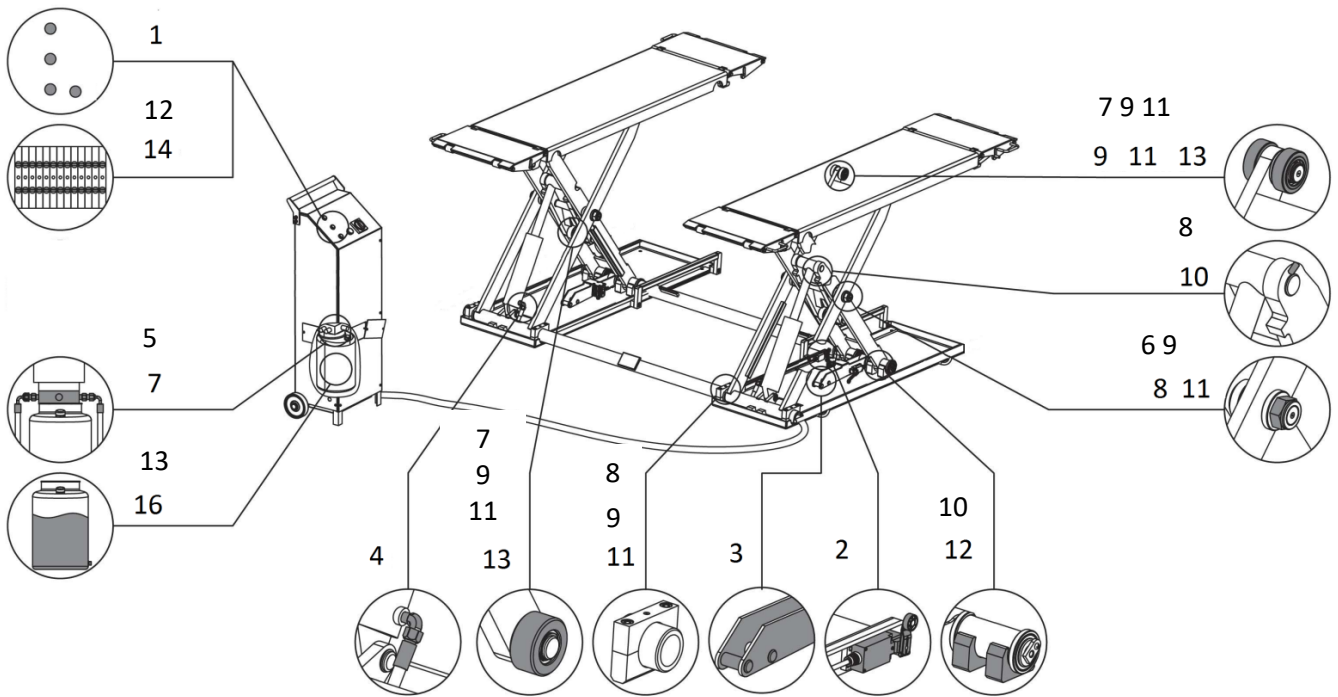
The following table lists possible errors, their cause and the associated troubleshooting for quicker identification and self-remedy.

PROBLEM	CAUSE	SOLUTION
Unusual noise.	Wear on the scissor mechanism.	Lubricate the scissor mechanism.
	Dirt on the scissor element.	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.	Swap two of the phases to reverse the direction.
	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 oil hose is damaged/kinked.	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	Control buttons
2	Limit switch max. height
3	Safety catches
4	Oil hoses and connections
5	Hydraulic block and valves
6	Self-locking nut
7	Retaining rings

S/N	Description
8	Locking screw
9	Joint axis
10	Glider
11	Rollers
12	Terminals in the control unit
13	Hydraulic oil

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 whether the control buttons function as "press and hold to move" and whether they fulfil the specified function.
- Press the "UP" button and check that the lift does not continue to rise at maximum lifting height.
- Check that the oil hoses are connected correctly and that there are no leaks.
- Press the control buttons to check whether both mechanical bolts can be engaged and disengaged simultaneously.

11.2 Monthly inspection and maintenance of the lifting platform

- Check whether the valves are leaking. Clean or replace the valve if leaks occur.
- Open the control unit, check the cable clamps and tighten them if any clamps have come loose.
- Check the lubrication and abrasion conditions of the moving parts.
- Check whether a retaining ring comes out of the groove. Make sure that these are positioned in the grooves.
- Press the "UP" and "DOWN" buttons to check whether the roller is worn or cannot roll. Add grease to ensure smooth operation. Replace worn rollers.
- Run the lift several cycles with and without nominal load. The lift should move smoothly and evenly without any unusual noises.

11.3 Annual inspection and maintenance of the lifting platform elements

- Change the oil 6 months after first use and then once a year. Check the hydraulic oil and change the oil if the oil turns black or if there is dirt in the oil tank.

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.

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. 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 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

No power supply available.

Power supply interrupted.

Main switch not switched on or defective.

Emergency stop pressed or defective.


Fuse in power connection has blown or is defective.


Fuse in the switch box has blown 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 is missing.

With three-phase current: Direction of rotation of motor reversed.

Oil pump defective.


Emergency drain open.

Motor is defective.

Overload.

Remedy

Check power supply. 

Check direction of rotation, change 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.

Lifting platform has moved into limit switch.

Motor is defective.

Lifting platform has been blocked during lowering.

Remedy

Raise platform a little, pull detents, lower.

If necessary, loosen limit switch, raise 1 cm and lower.

Open safety latch and lift over.

Lower emergency drain.

Raise the lifting platform slightly again and remove the obstacle.

13. Disassembly

The 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.

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 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 wheeled 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.

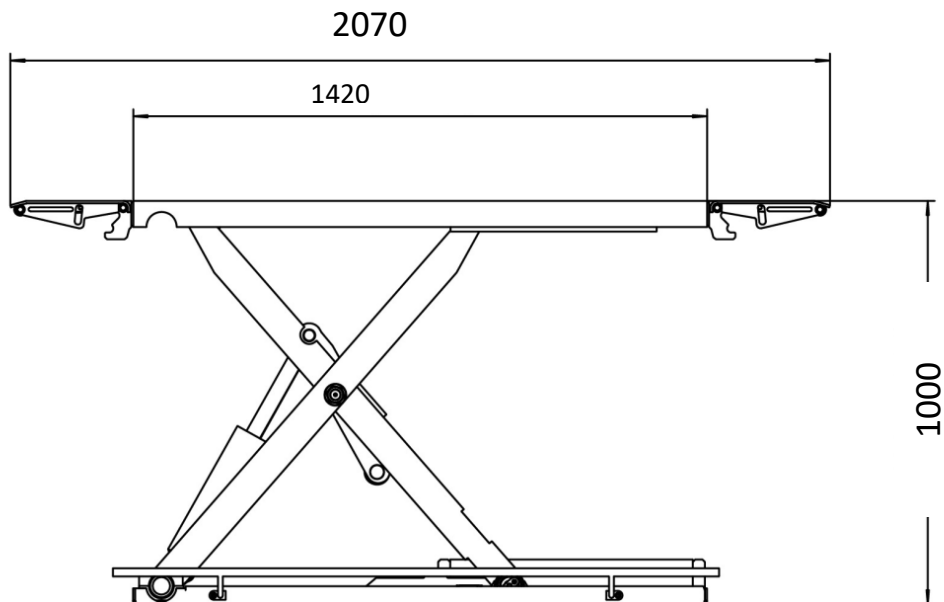
Dispose of used electrical and electronic equipment, including cables, accessories and batteries, separately from household waste.

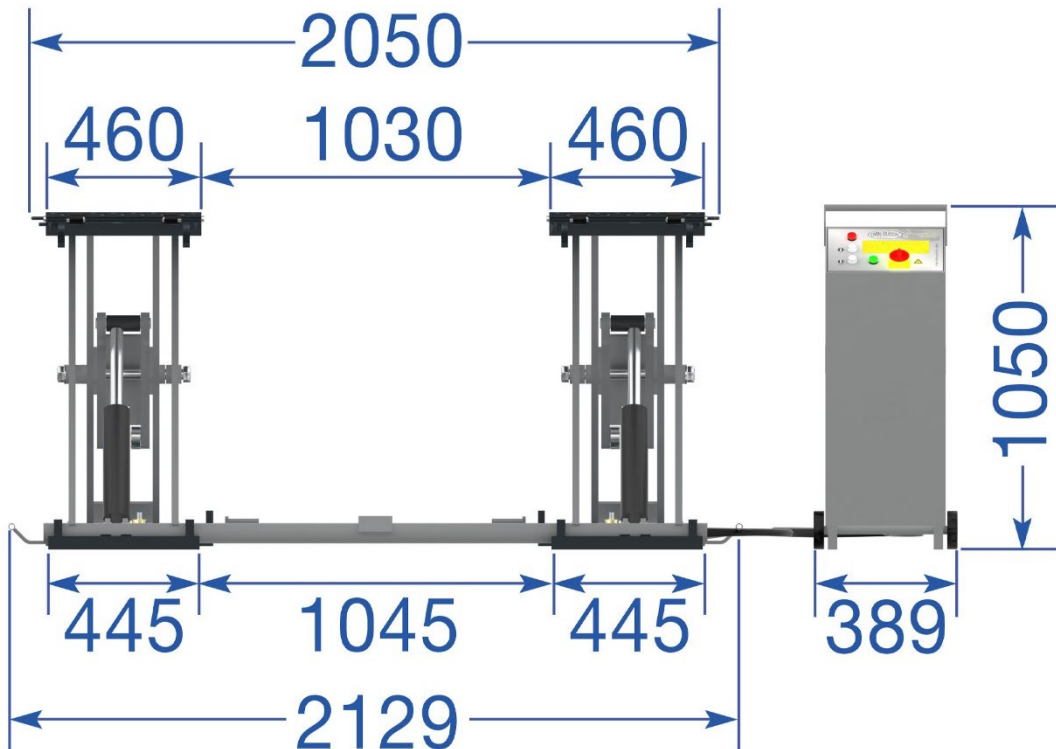
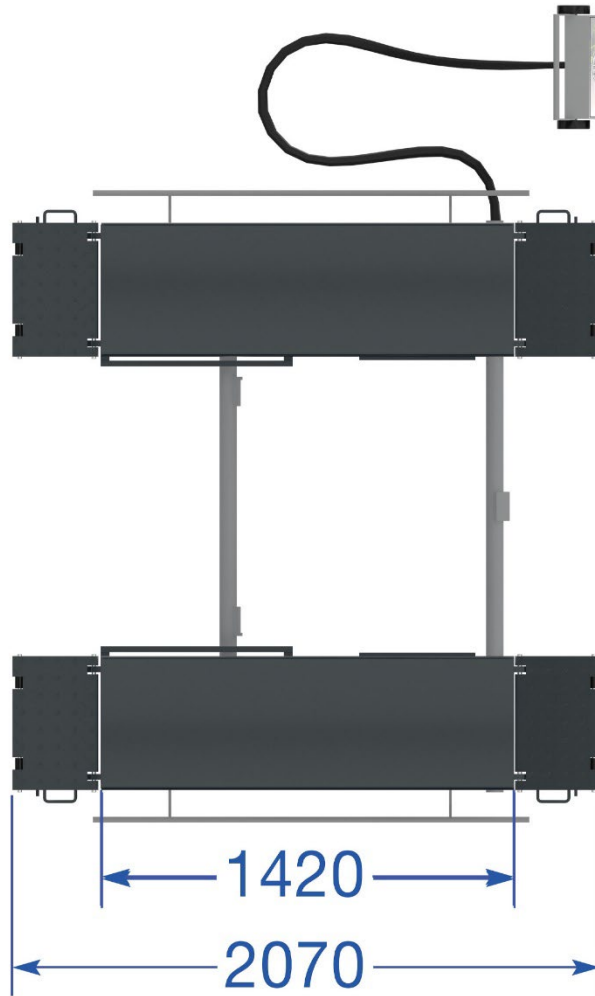
15. Appendix

15.1 Packing list

S/N	Name	Quantity
1	Pre-assembled lifting platform	1
1.1	Foot guard	2
1.2	Hexagon socket screws	4
2	Control unit	1
2.1	Rubber blocks	4
3	Mobile kit	Optional
3.1	Track roller	2
3.2	Connecting element	1
3.3	Lifting and steering rod with double castor	1

15.2 Dimensions of the lift





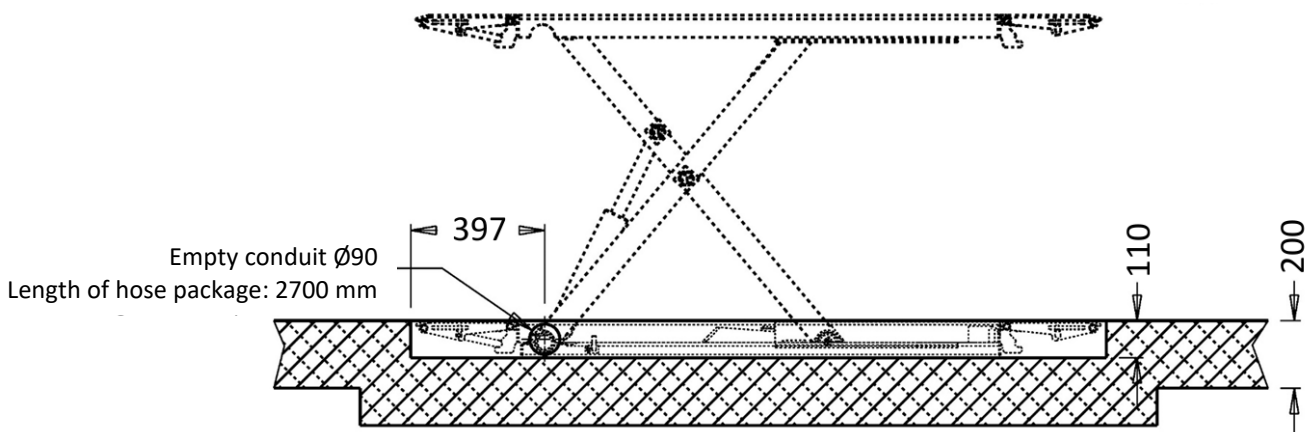
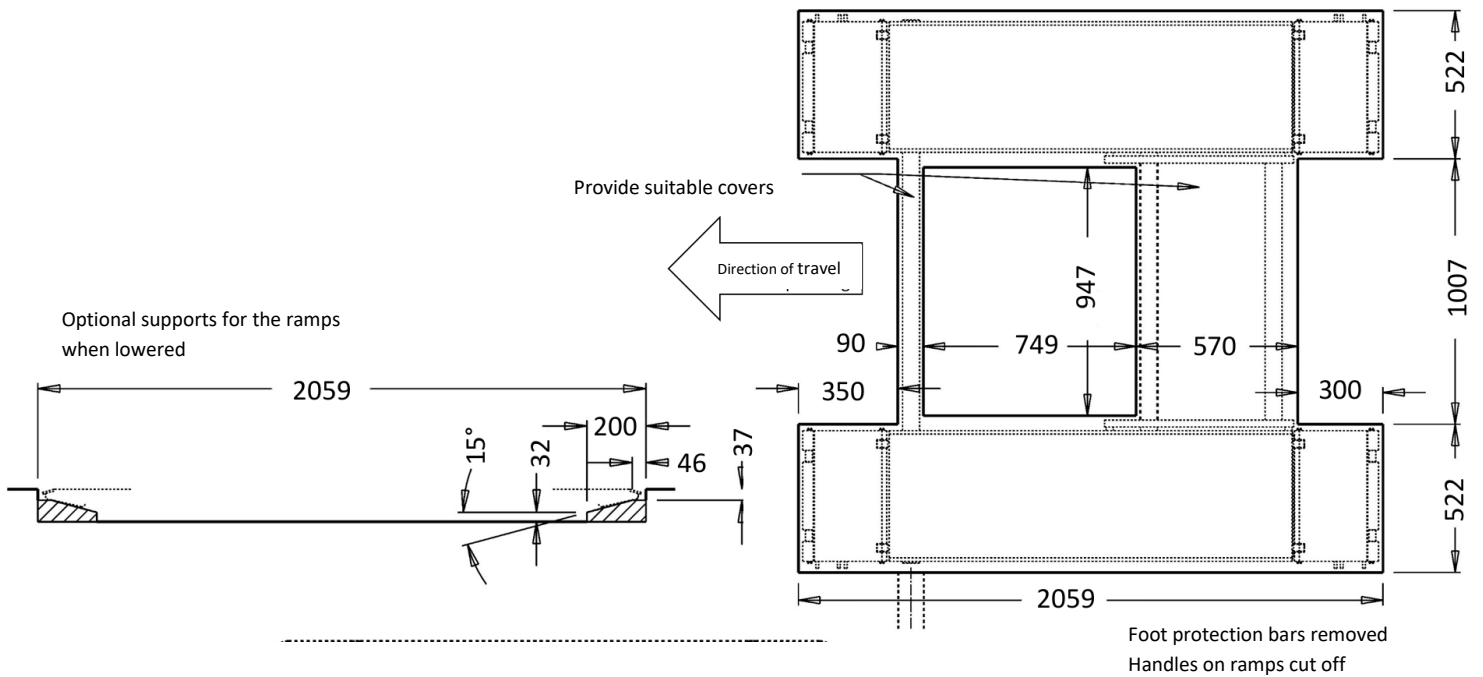
15.3 Foundation requirements and working area

Requirements for the concrete:

- Concrete C20/25 according to DIN 1045-2 (previous designation: DIN 1045 concrete B25).
- The floor must be 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 200 mm.
- In all lifting positions, there must be a distance of at least 0.8 metres between the lifting platform and the fixed elements (e.g. the wall).



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 scissor lift, but is recommended.
- The scissor lift must NOT be installed on ceilings or floors with basements without authorisation. If in doubt, the foundation should always be designed by a structural engineer; this is essential for ceilings or floors with basements.
- If tiles, screed, insulation and underfloor heating are used, please consult our technical department.
- If the foundation for the recessed installation is to be created retrospectively, connection reinforcements must be provided.

The following must be observed for soil exposed to frost:

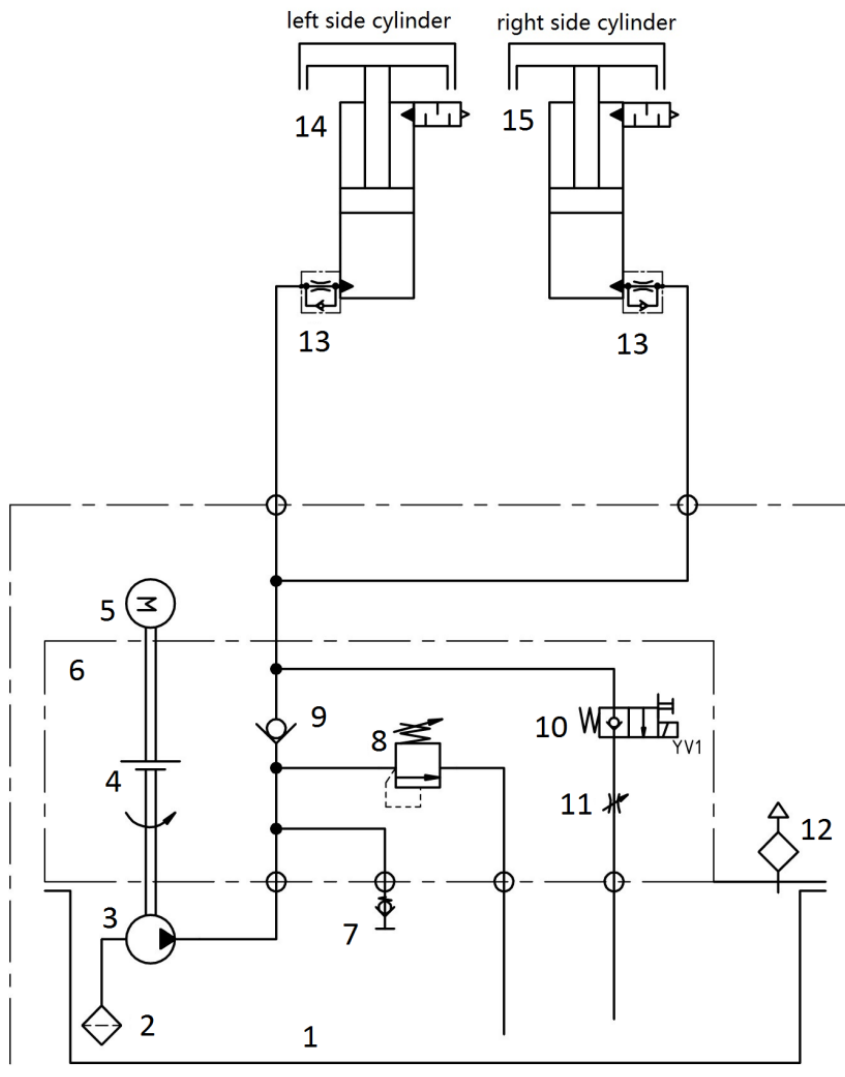
In the case of frost exposure, the concrete must correspond to exposure class XF4, as dripping de-icing agent cannot be ruled out.

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 %
Total foundation depth:	≤ 80 cm (due to frost resistance)
Remainder filled with gravel:	0/32

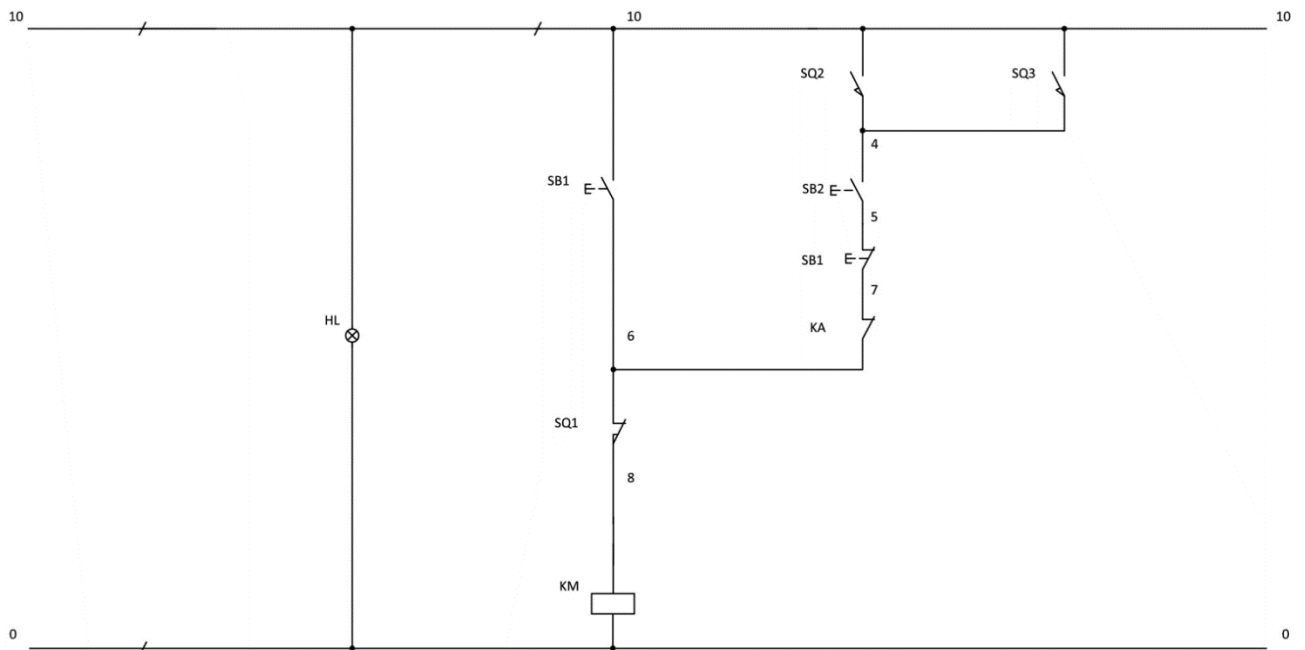
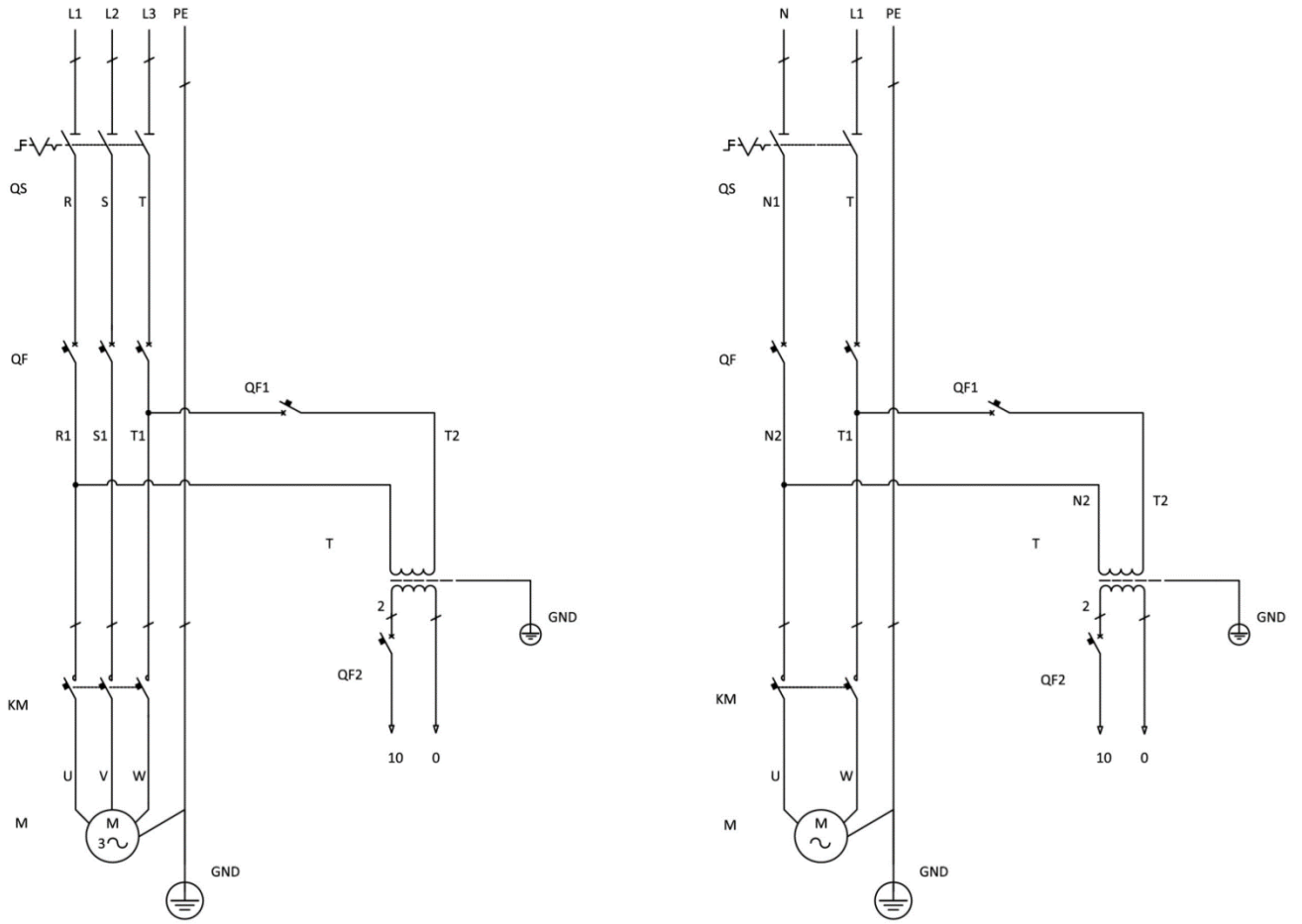
However, it must be noted that the lifts are not designed for outdoor use (except for galvanised models). Although the control box complies with IP54, the rest of the electrics, motors and limit switches have a maximum IP44 rating.

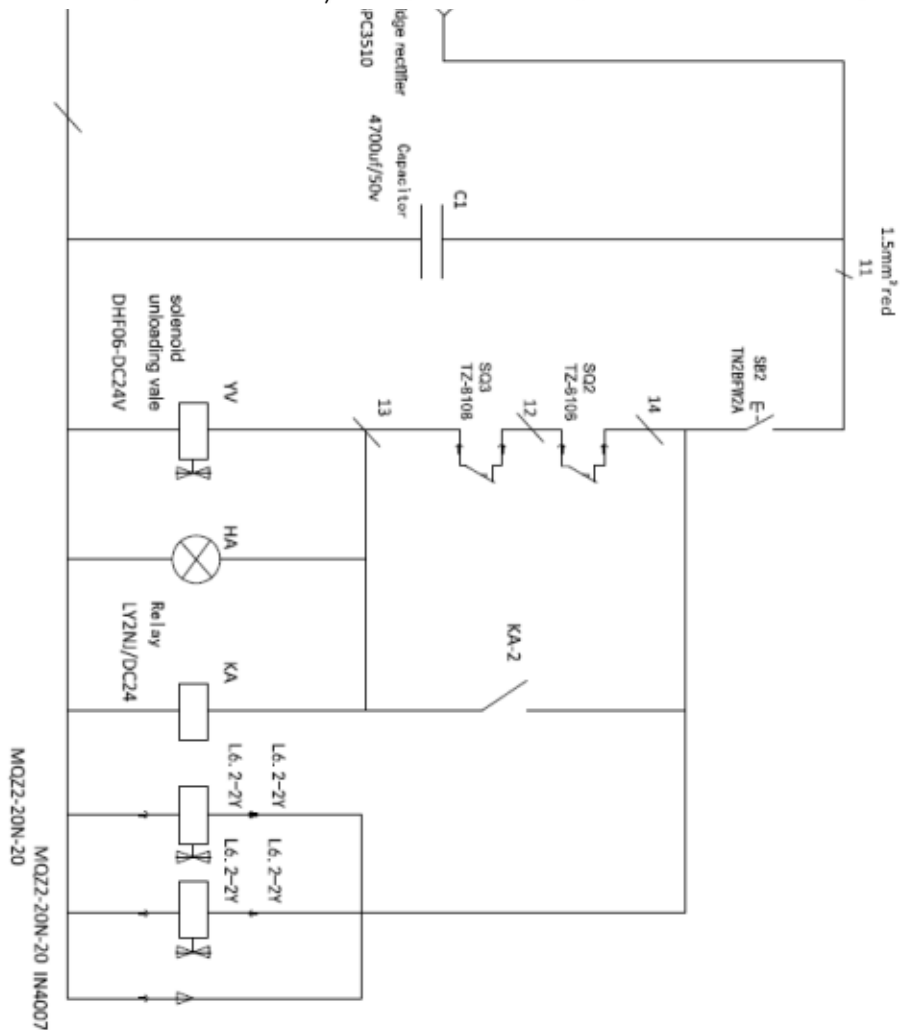
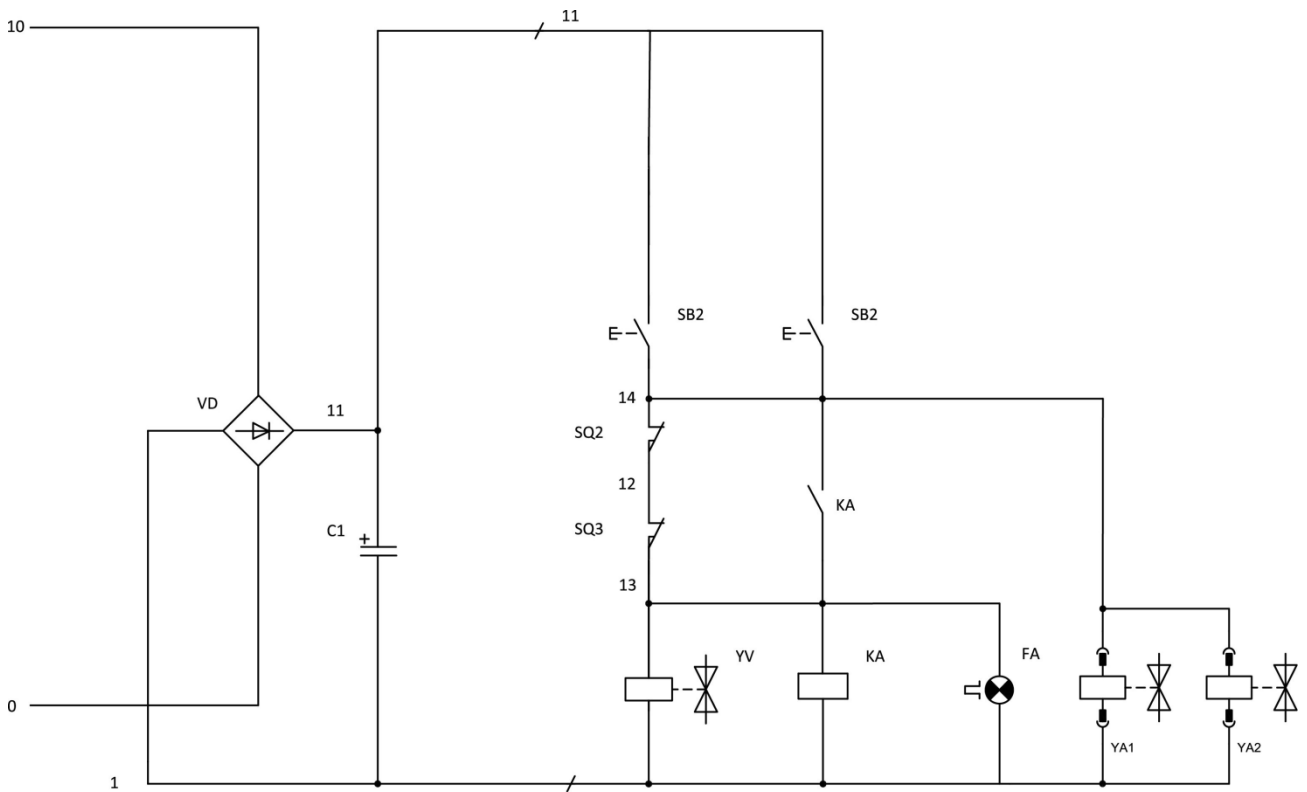
15.4 Hydraulic system

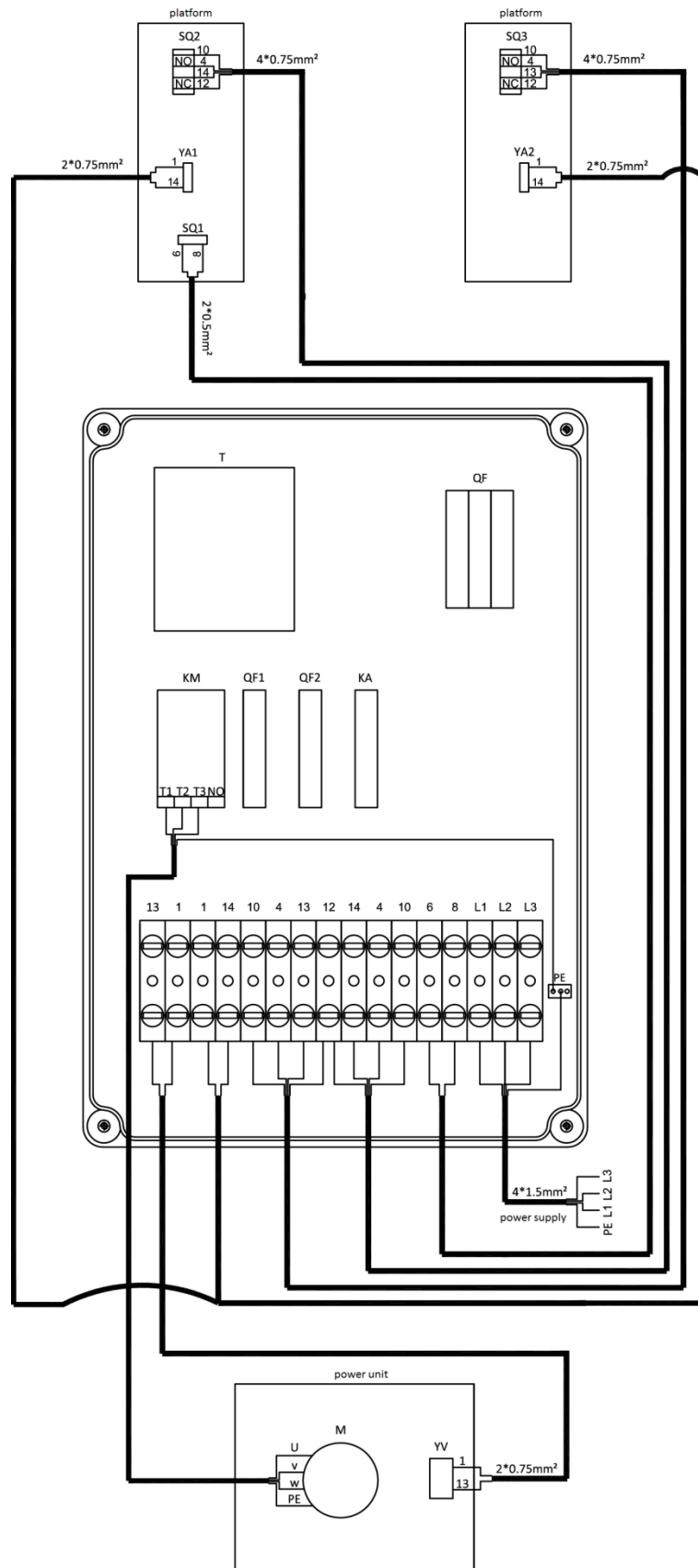


1. Oil tank
2. Oil suction filter
3. Gear pump
4. Clutch
5. Motor
6. Hydraulic block
7. Throttle valve
8. Overflow valve
9. One-way valve
10. Solenoid relief valve
11. Throttle valve
12. Oil tank cap
13. Hose connection (one-way flow control valve included)
14. Cylinder
15. Cylinder

15.5 Electrical circuit diagram



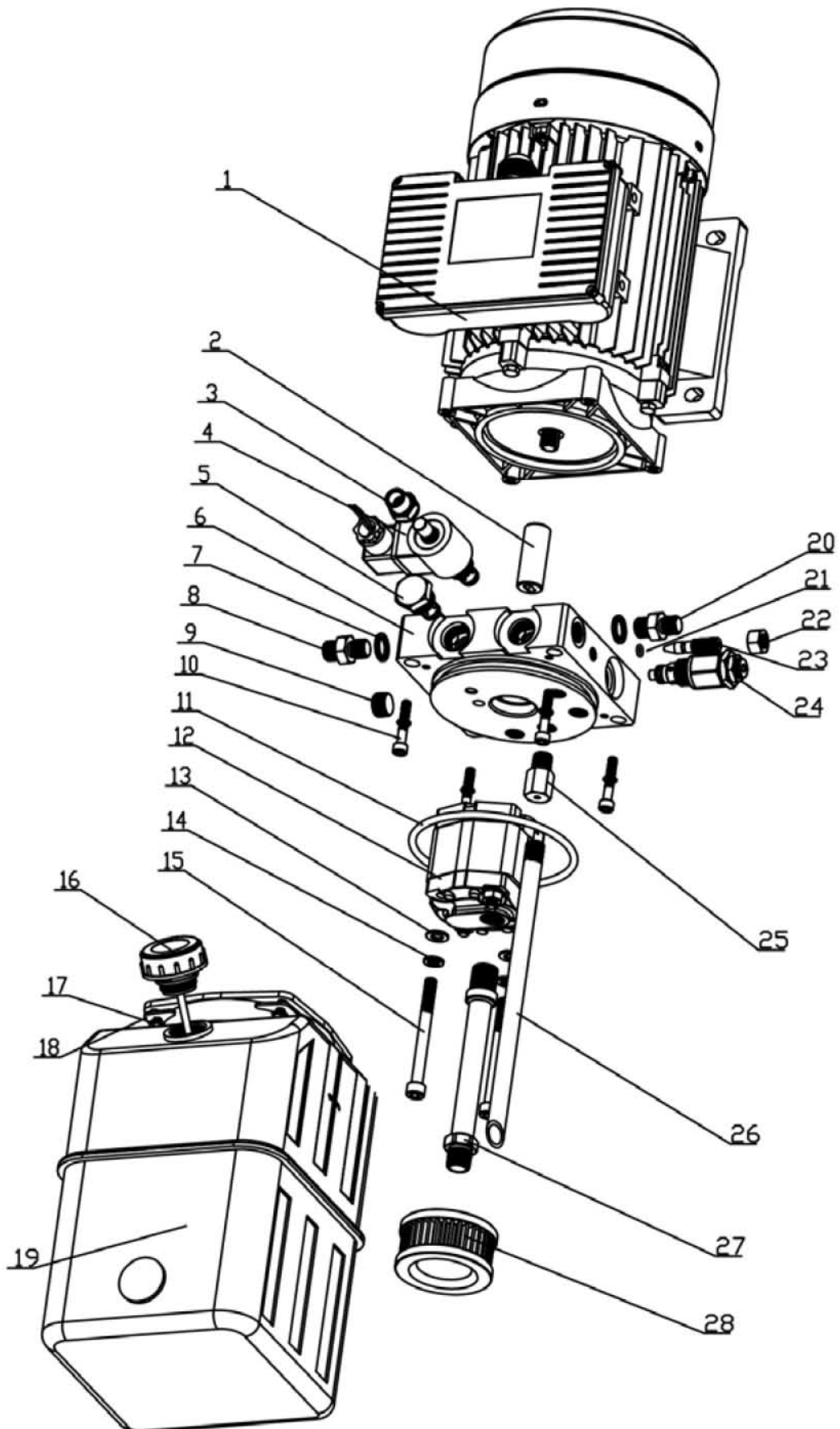




S/N	CODE	Name	Quantity
T	320104010	Transformer 380V400V415V-24V	1
	320104009	Transformer 220V230V240V-24V	1
SQ1,SQ2,SQ3	320301011	Limit switch	3
YA1,YA2	330310018B	Electromagnet	2
QA	320304001	Power switch	1
FA	321202001	Alarm buzzer	1
SB1	320401013	Button	1
SB2	320401019	Button	1
KA	320601005	Relay	1
	320601009	Relay holder	1
	320601018	Realy fixer	2
QF	320802001	Circuit breaker (1Ph)	1
QF	320801001	Circuit breaker(3Ph)	1
QF1	320803003	Circuit breaker	1
QF2	320803006	Circuit breaker	1
KM	320901001	AC contactor	1
C	321001004	Capacitor	1
VD	321002001	Rectifier	1
HL	321201001	Power indicator	1
	320701068	Plug (1Ph) (optional)	1
	920202157	Plug (3Ph) (optional)	1

**NOTE: The transformer is different for power supplies with a different voltage.
Please enquire with our customer service department when ordering spare parts.**

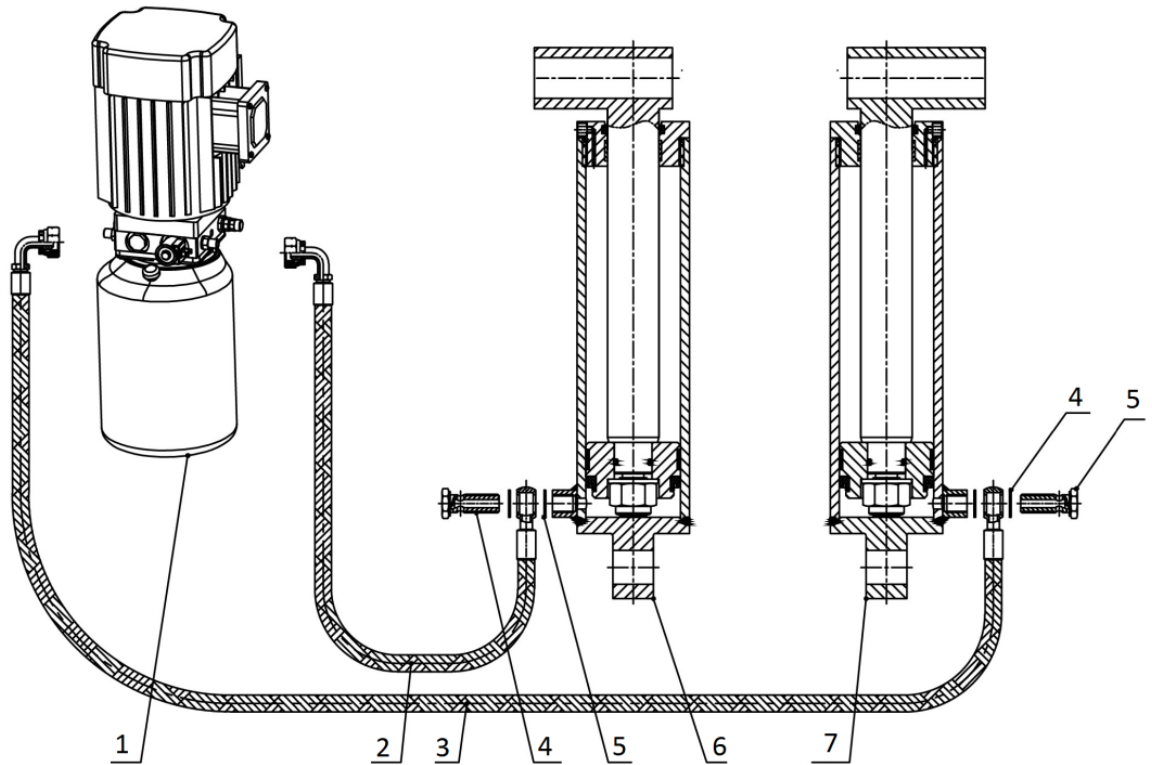
15.6 Detailed drawing of the lifting platform



S/N	CODE	Name	Specification	Quantity
1	320201201	Motor-IE2 (optional)	230V-2.2KW -1PH-50HZ-2P	1
	320201204	Motor-IE2(optional)	400V-2.2KW-3PH-50HZ-2P	1
2	330404006	Coupling	48mm (YBZ-F2.1D4H1/1-03)	1
3	203204102	Locking nut	FHLM-1/2-20UNF	1
4	330311005	Solenoid valve	24DC(Ketai) (LSV-08-2NCP-M-2H)	1
5	330302008	Non-return valve	YBZ-E2D311/1-03	1
6	330105005	Valve holder	LBZ-T2BK-13	1
7	207103019	Composite washer	M14	2
8	310101008	Connector	M14*1.5-G1/4 inside cone	1
9	210101014	Fitting	Z3/8	1
10	201101100	Bolt	M6*50(NLJLD)	4
11	207101098	Type O seal ring	109*5.3	2
12	330201902	Gear pump	CBKA-F2.1F	2
13	204101005	Flat washer	D8-GB95	1
14	204201013	Spring washer	M8	4
15	202109072	Hex socket cylinder head screw	M8x85-GB70_1	4
16	330502013	Breather	YBZ-BT-M30*2-B	1
17	202109144	Bolt	M5x18	1
18	410010091	Reinforced plate	6254E-A4-B12(6254A-A5-B12 50*50*4)	4
19	330405056	Oil tank	YBZ-SLYX-5L-N-B	1
20	310101008	Connector	M14*1.5-G1/4 inside cone	1
21	207101099	Type O seal ring	5*1.8	4
22	203102003	Hex thin nut	M10x1-GB6172_1	1
23	330305015	Throttle valve	YBZ-E2D311/1-11A	1
24	330304010	Over-flow valve	DANRV-08-50	1
25	330301003	Cushion valve	HCF-Z1/4	1
26	330402009	Oil-return tube	YBZ-G3J4H43/1-03	1
27	330401017	Oil-suck tube	YBZ-TJYG-160	1
28	330403003	Filters	YBZ-E2D311/1-10	1

NOTE: The motor differs depending on the voltage or capacity.

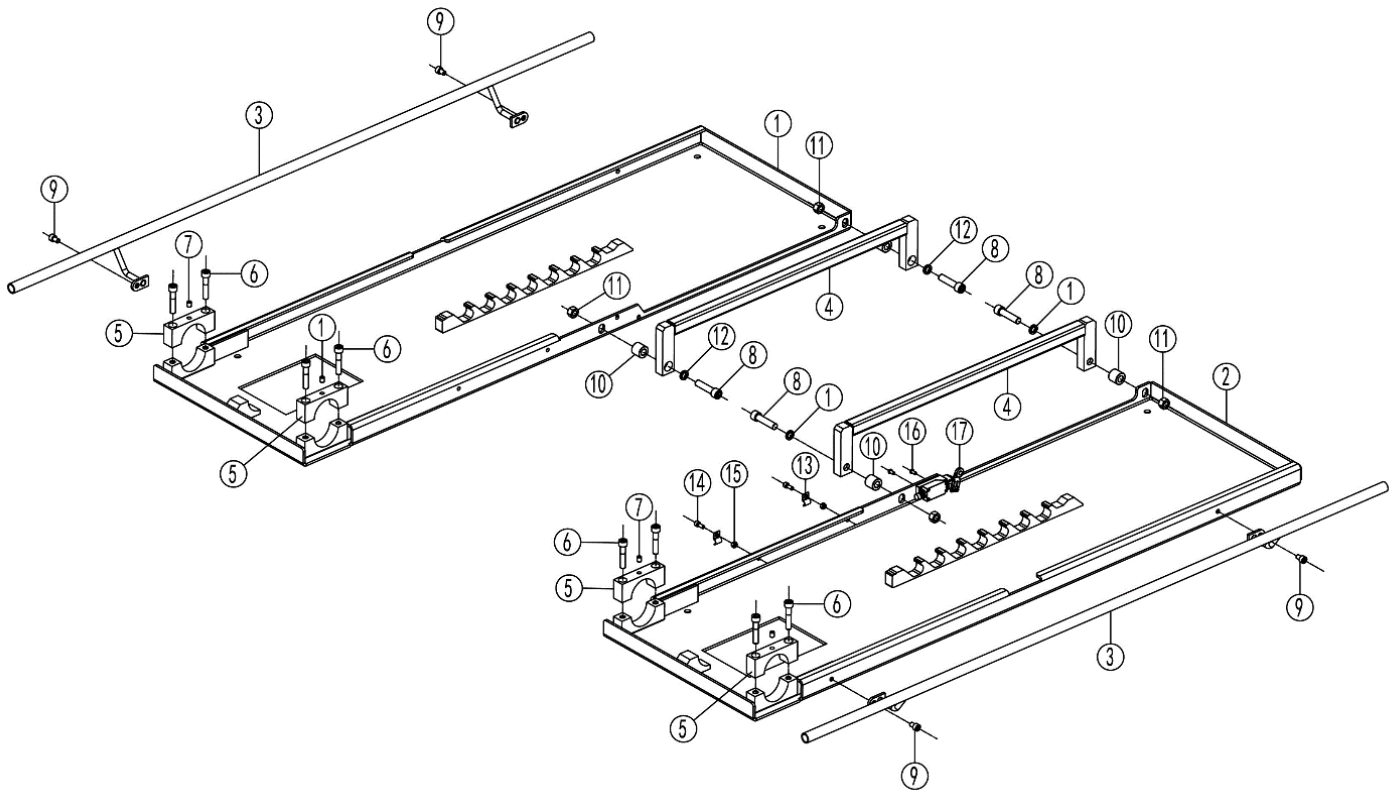
Please enquire with our customer service department when ordering spare parts.



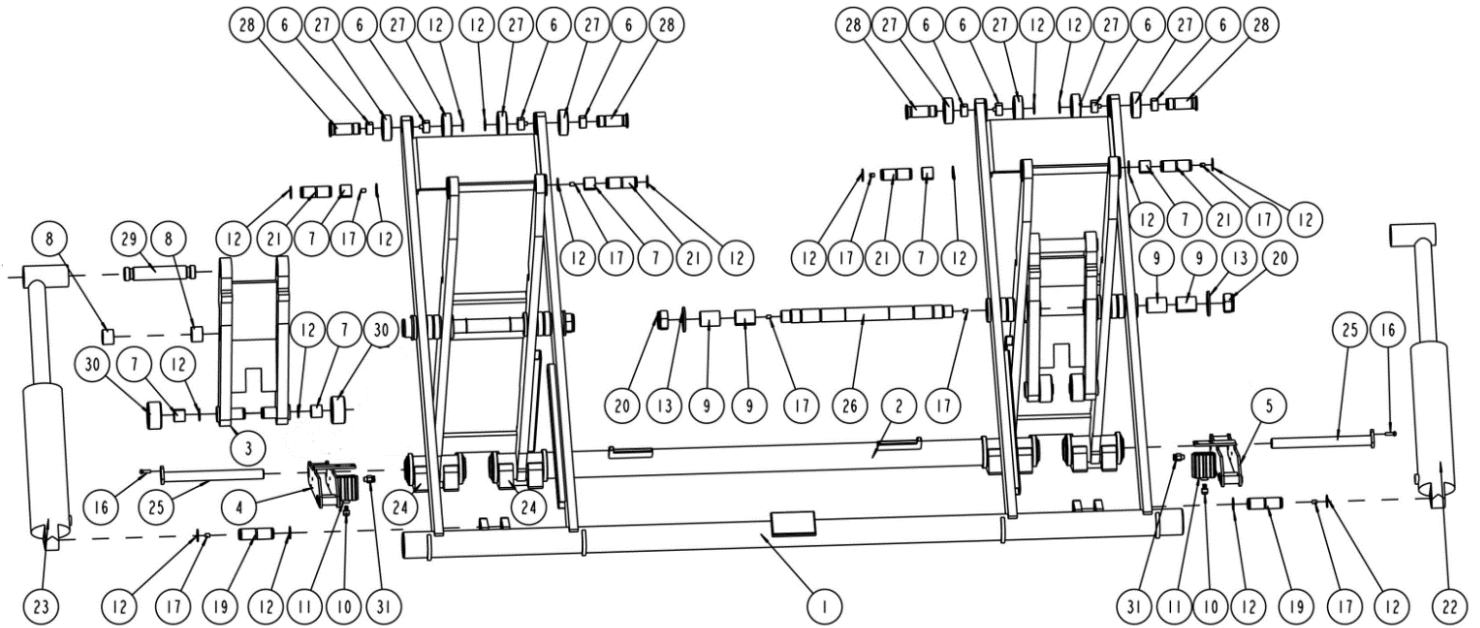
S/N	CODE	Name	Specification	Quantity
1		Hydraulic power unit	2.2kW	1
2	624001862	Rubber oil hose	L=3350	1
3	624001878	Rubber oil hose	L=4770	1
4	410281130	Oil cylinder connector	CJ-A12-B5-C10	2
5	207103019	Composite washer	M14	4
6	615050001	MR35 oil cylinder	MR35-A15-B1	1
7	615050002	MR35 oil cylinder	MR35-A15-B2	1

Sealing ring

Cylinder CODE	Seal ring type	Seal ring code	Cylinder Specification	Quantity
615050001/ 615050002	Y Seal ring	207102018	B7-70*55*9	1
	Y Seal ring	207102030	B7-70*60*6	1
	Guiding ring	207106031	70*66*15	1
	Guiding ring	207106032	38*42*15	1
	Dust proof ring	207105004	BHS38*46*6	1

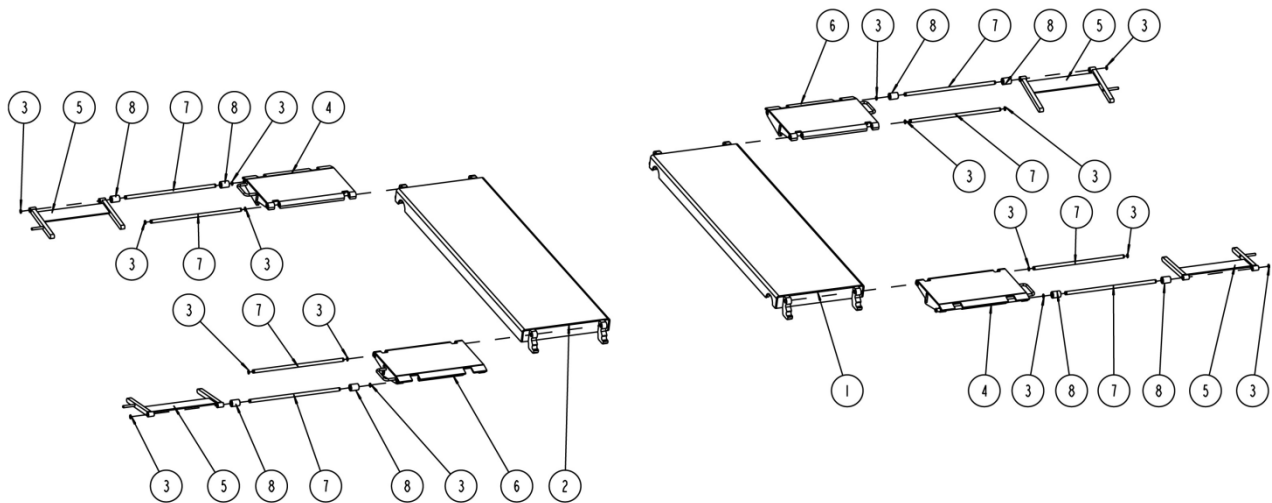


S/N	CODE	Name	Specification	Quantity
1	614901315	Welded base frame assembly A	MR35-A01-B01	1
2	614901316	Welded base frame assembly B	MR35-A02-B01	1
3	614018002	Feet protection fender	MR30-A1-B7	2
4	614018018B	Connection bar	MR30-A26	2
5	410180013	U block	MR30-A4	4
6	202109046	Hex socket cylinder head screw	M10x50	8
7	208106002	Oil cup	M8	4
8	202109081	Hex socket cylinder head screw	M12X50-GB70	4
9	202109027	Hex socket cylinder head screw	M8 x 12	4
10	410901876	Spacer	MR30V2-A1-B14	4
11	203103008	Hex locking nut	M12-GB889_1	4
12	204201006	Spring washer	D12-GB93	4
13	206202005	Air hose clip	D8-304	4
14	202109020	Hex socket cylinder head screw	M6X15-GB70_1	4
15	203101004	Hex nut	M6-GB6170	4
16	202101021	Cross socket cap head screw	M5X10-GB818	2
17	320301011	Limit switch	TZ-8108	1



S/N	CODE	Name	Specification	Quantity
1	614050001B	Slave arm	MR35-A03-B01	1
2	614050002B	Drive arm	MR35-A03-B02	1
3	614050005	Start plate	MR35-A08-B01	2
4	614901210	Mechanical claw	MR35V2-A9-B1	2
6	205101097	Bearing	2515-SF-1X	8
7	205101010	Bearing	2525-SF-1	8
8	205101018	Bearing	3025-SF-1	4
9	205101022	Bearing	3045-SF-1	8
10	420180100	Adjustable head	MR30E-A09-B03	2
11	330310018B	Electromagnet	DCT45X20	2
12	204301009	Circlip	D25_GB894-2	20
13	204101014	Flat washer	M27	4
14	204301011	Circlip	D30-GB894_2	4
16	202101033	Cross socket cap head screw	M6X20-GB818	2
17	208106002	Oil cup M8	M8-JB7940-4	14
18	202207002	Hex socket tapping screw	M8X16-GB80	4
19	410180031C	Fixing shaft for oil cylinder	MR30-A16	2
20	203103013	Self-locking nut	MR30-A18	4
21	410180051B	Platform fixing shaft	MR30-A21	4
22	615050002	Cylinder 2	MR35-A15-B2	1

S/N	CODE	Name	Specification	Quantity
23	615050001	Cylinder 1	MR35-A15-B1	1
24	420180040B	Slider	MR30-A5-B6	4
25	612018001	Safety shaft	MR30-A5-B14	2
26	410500101B	X shaft	MR35-A03-B03	2
27	420180020B	UP rolling wheel	MR30-A8	8
28	410180021	Shaft of up rolling wheel	MR30-A9	4
29	410500241	Cylinder shaft of start plate	MR35-A08-B02	2
30	410500271	Start rolling wheel	MR35-A08-B03	4
31	202101021	Cross socket cap head screw	M5X10	4
32	202109008	Hex socket cylinder head screw	M5X12-GB70_1	4
33	320301011	Limit switch (TZ8108)	TZ8108)	2



S/N	CODE	Name	Specification	Quantity
1	614901317	Platform	MR35V2-A19	1
2	614901317	Platform	MR35V2-A19	1
3	204301004	Circlip $\phi 12$	D15_GB894_2	16
4	614018011B	Ramp B assembly	MR30-A07-B01	2
5	614018010	Supporting rod	MR30-A06-B02	2
6	614018009B	Ramp A assembly	MR30-A06-B01	2
7	410180061	Shaft for the ramp	MR30-A22-B4	8
8	420180010	Small rolling wheel	MR30-A22-B5	8

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 lift or have any questions about individual parts, please contact the expert staff at TWIN BUSCH® GmbH.



The company

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

hereby declares that the **scissor vehicle lift**

TWS3-10E | 3.000 kg (EE-MR30)

TWS35-10E | 3.500 kg (EE-MR35)

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

Applied harmonized standards and regulations

**EN 1493:2022
EN ISO 12100:2010
EN 60204-1:2008**

**Vehicle Lifts
Safety of machinery
Safety of machinery - Electric**

CE Certificate

MD-458 Issue 1

date of issue: 17.10.2023
place of issue: Helsinki
technical file no.: SHES230701349701-01/02/03

Certification body

SGS Fimko Ltd
Takomotie 8,
FI-00380 Helsinki, Finland
Notified Body Appointment No.: 0598

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)



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

Authorized signatory: Michael Glade
Bensheim, 26.10.2023 Qualitätsmanagement

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