

TW445E-G

INSTALLATION, OPERATION AND MAINTENANCE MANUAL



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

Table of contents

1. General information	1
2. Identification of the instructions for use	1
3. Technical data	1
4. Modification of the product.....	2
5. Safety-related information	2
5.1 Safety instructions.....	2
5.2 Warnings and symbols	3
5.3 Safety devices.....	4
6. Compliance with the product.....	5
7. Technical specification.....	5
7.1 Machine description.....	5
8. Structure of lifting platform	6
8.1 Before installation	6
8.2 Soil conditions	6
8.3 Assembly instructions.....	7
8.4 Checkpoints according to the structure.....	13
9. Commissioning.....	14
9.1 Safety precautions.....	14
9.2 Description of the control unit (control box).....	14
9.3 Lifting and lowering process flow chart.....	15
9.4 Operating instructions.....	16
10.Troubleshooting	17
11.Maintenance	18
11.1 Daily inspection and maintenance of the lifting platform elements before use	18
11.2 Weekly inspection and maintenance of the lifting platform elements	18
11.3 Monthly inspection and maintenance of the lifting platform.....	18
11.4 Annual inspection and maintenance of the lifting platform elements.....	18
12.Behavior in the event of an incident	19
13.Appendix	20
13.1 Packing list	20
13.2 Dimensions of the lift	20
13.3 Foundation requirements and working area.....	21
13.4 Hydraulic plan	22

13.5 Circuit diagrams	23
13.6 Parts description of the lift	27
13.7 Spare parts list	32

Further attachment:

- **EU Declaration of Conformity**

**TIPS & TRICKS**

In the "Tips & Tricks" section, we show you simple solutions, in videos to make your TWIN BUSCH® products even more efficient to work. Our technical specialist will explain the exact steps to you.

<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 self-diagnosis 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 information

The **TW445E-G** 4-post lift generally consists of four posts, two beams, two platforms, a hydraulic oil cylinder and a power unit. It is driven by an electro-hydraulic system. The up and down movement of the platforms is controlled by the back and forth movement of the oil cylinder. To ensure maximum safety, the four supports are equipped with mechanical safety interlocks that are automatically activated during lifting to prevent the platforms from falling suddenly if the hydraulic system malfunctions.

The axle-free jack for 4-post lift TW445-W and a turntable set for 4-post lift TW445-D are also available as options.

2. Identification of the instructions for use

Operating instructions **TW 445E-G**

of Twin Busch GmbH,
Ampèrestraße 1,
D-64625 Bensheim

Phone: +49 6251-70585-0
Telefax: +49 6251-70585-29
Internet: www.twinbusch.de
Email: info@twinbusch.de

Twin Busch UK Ltd.
9A, Linnell Way
Telford Way Industrial Estate
NN16 8PS, Kettering (Northants)

Phone: +44 (0) 1536 522 960
Internet: www.twinbusch.co.uk
Email: info@twinbusch.co.uk

Status: -01, 04.03.25

File: TW445E-G_4-Post_Lifts_Manual_uk_01_20250304.pdf

3. Technical data

Power supply	230 V / 400 V
Fuse Protection	16A (C/sluggish)
Load capacity CE	4,500 kg
Degree of protection	IP 54
Lifting time	approx. 60 sec.
Lane length	4510 mm
Carriageway width	536 mm
Net weight	1400 kg
Noise level	< 75 db
Working environment	Working temperature: -15°C to +40°C
	rel. Humidity: 30 % to 90 %

4. Modification of the product

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

5. Safety-related information

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

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

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

5.1 Safety instructions

- Do not install the lift on an asphalt surface.
- Read and understand the safety instructions before operating the lift.
- Do not leave the control unit under any circumstances when the lift is in motion.
- Keep hands and feet away from moving parts. Pay particular attention to your feet when lowering.
- The lifting platform may only be operated by trained personnel.
- Bystanders are not permitted in the vicinity of the lifting platform.
- Wear suitable work clothing.
- The area around the lifting platform should always be kept free of obstructions.
- The lift is designed for lifting motor vehicles that do not exceed the maximum authorised weight.
- Always ensure that all safety precautions have been taken before working near or under the vehicle.

Never remove safety-relevant components from the lift.

Do not use the lift if safety-relevant components are missing or damaged.

- Do not under any circumstances move the vehicle or remove heavy objects from the vehicle that could cause significant weight differences while the vehicle is on the lift.
- Always check the manoeuvrability of the lift to guarantee its performance. Ensure regular maintenance. If an irregularity occurs, stop 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 do not use the lift for a longer period of time:
 - a. Disconnect the lift from the power source
 - b. Empty the oil tank
 - c. Lubricate the moving parts with lubricating oil/grease

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

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 signs must be kept clean and replaced if they are damaged or missing. Please read the signs 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 disable safety devices!



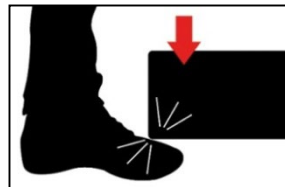
Only qualified personnel allowed in the vicinity of the lifting platform!



Always keep escape routes clear!



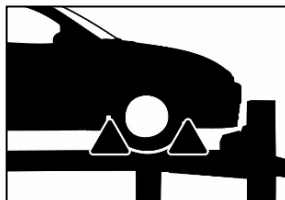
It is forbidden for persons to stand under the lift (when lifting or lowering)!



Watch your feet when lowering!
Danger of crushing!



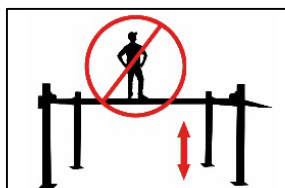
Risk of crushing when lifting or lowering!



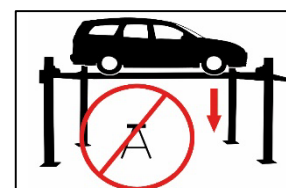
Secure the vehicle against rolling away!



Damaged lifts must not be put into operation!



Do not stand on the carriageways (when lifting or lowering)!



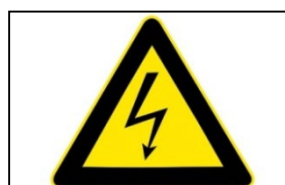
No objects under the lifting platform when lowering!



Do not manoeuvre the lift with the vehicle!



Use only on level ground!



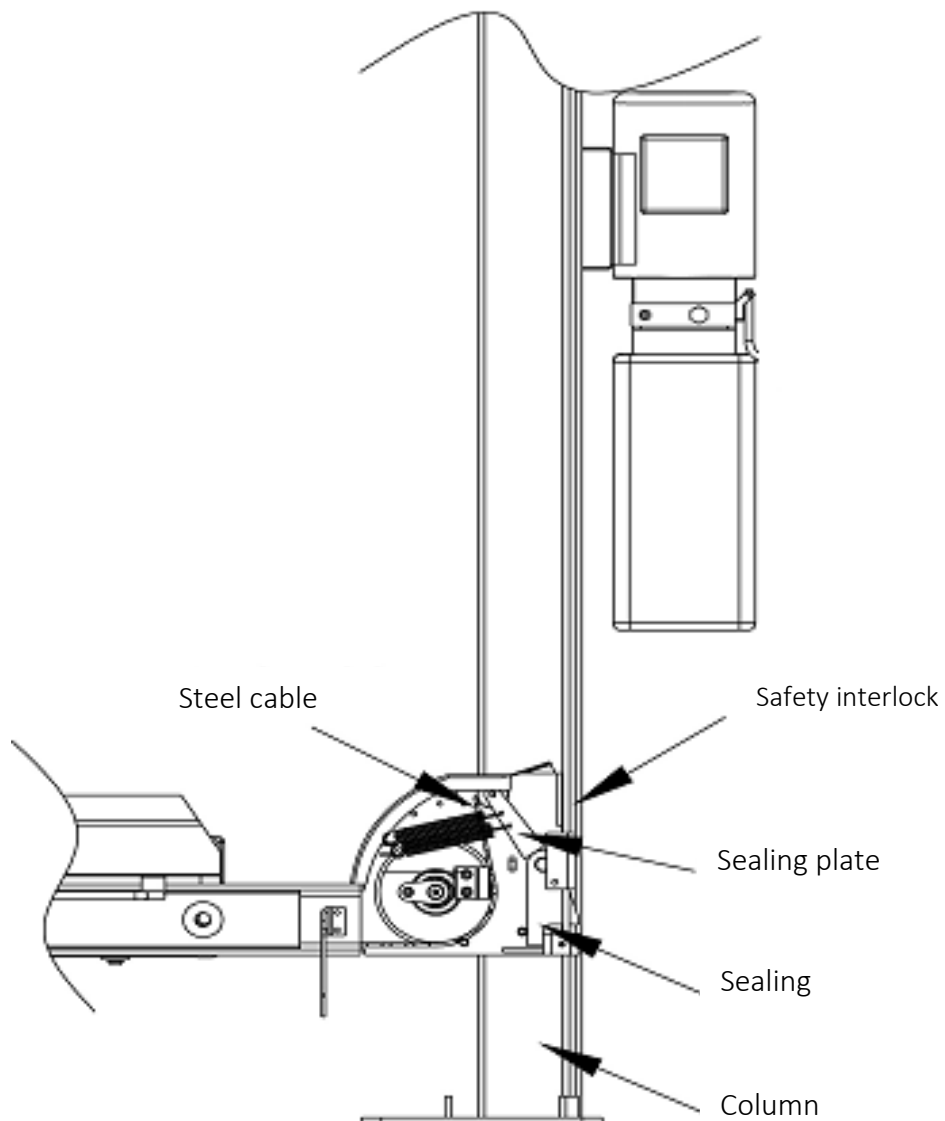
CAUTION!
Electrical voltage!

5.3 Safety devices

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

- Safety detents
- Throttle valve in hydraulic line
- Limit switch
- Lifting carriage lock
- Devices to prevent jamming and crushing (shaft protection, foot deflector)
- Synchronising cables/chains

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

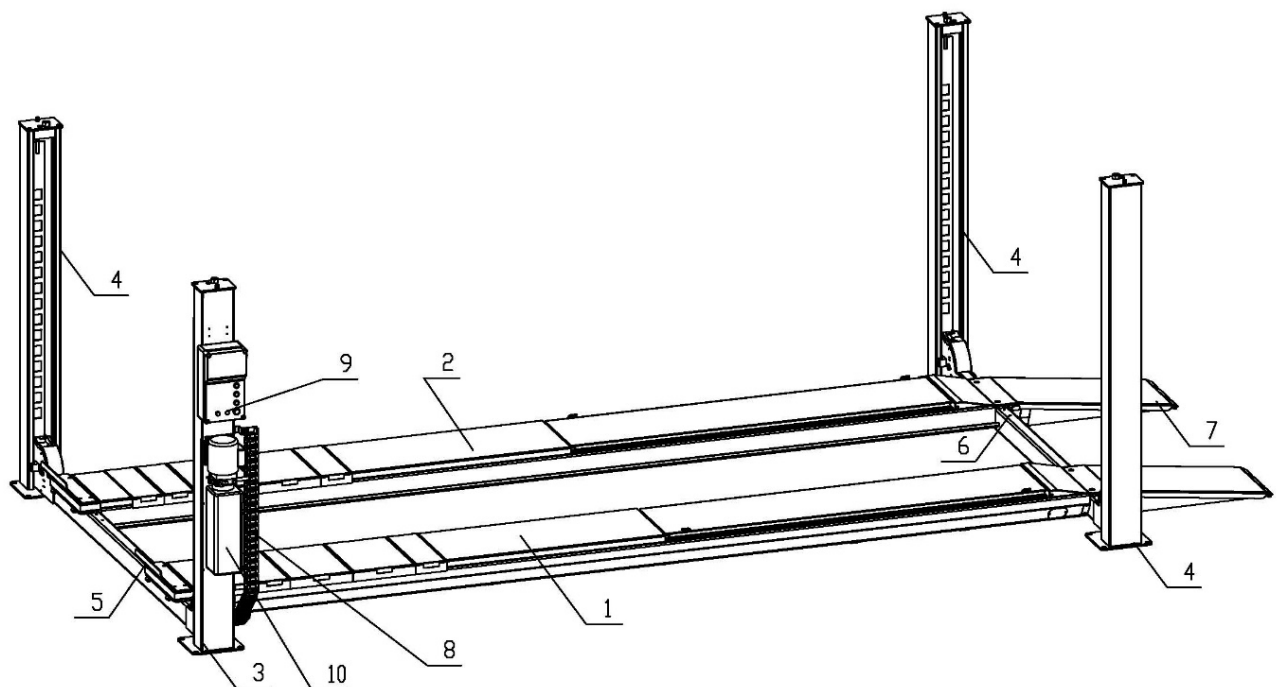


6. Compliance with the product

The TW 445E-G 4-post 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



- 1 Carriageway A
- 2 Lane B
- 3 Main column
- 4 Secondary column
- 5 Main crossbeam
- 6 Traverse
- 7 Drive-on ramp
- 8 Armoured track
- 9 Control unit
- 10 Motor unit

8. Structure of lifting platform

8.1 Before installation

Tools and equipment required:

- Suitable lifting tool for bulky and heavy components
- Hammer drill with $\frac{3}{4}$ drill bit
- Chalk and tape measure, magnetic pump, 8 metre $\Phi 15$ horizontal pipe
- Set of Allen keys
- Spanner attachments and open spanners
- Cross and straight screwdrivers
- Socket spanner $\Phi 17, \Phi 19, \Phi 22$
- Hammer, needle nose pliers
- Hydraulic oil HLP 32

8.1.1 Packing list

Unpack all components of the lift and check that all components are complete using the packing list (see **appendix: Packing list**).

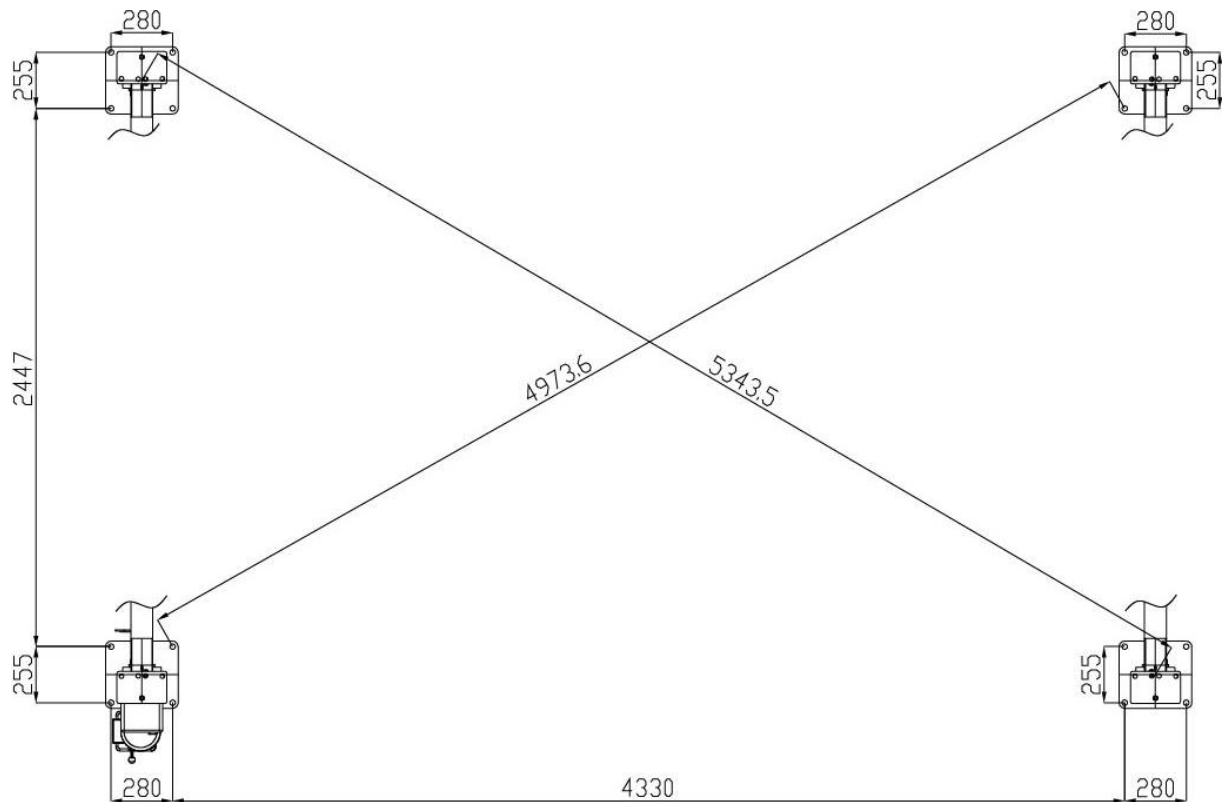
8.2 Soil conditions

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

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

8.3 Assembly instructions

- 1) Read and understand the operating instructions before proceeding.
- 2) **Select a suitable location.** The lifting platform should be mounted on a smooth and firm concrete floor. Ensure that the space around or above the lift is free of obstacles such as heating systems, building supports, electrical cables, etc.
- 3) First mark the position of the four posts with a tape measure and chalk.
Note: Make sure that two diagonal lines have the same length.

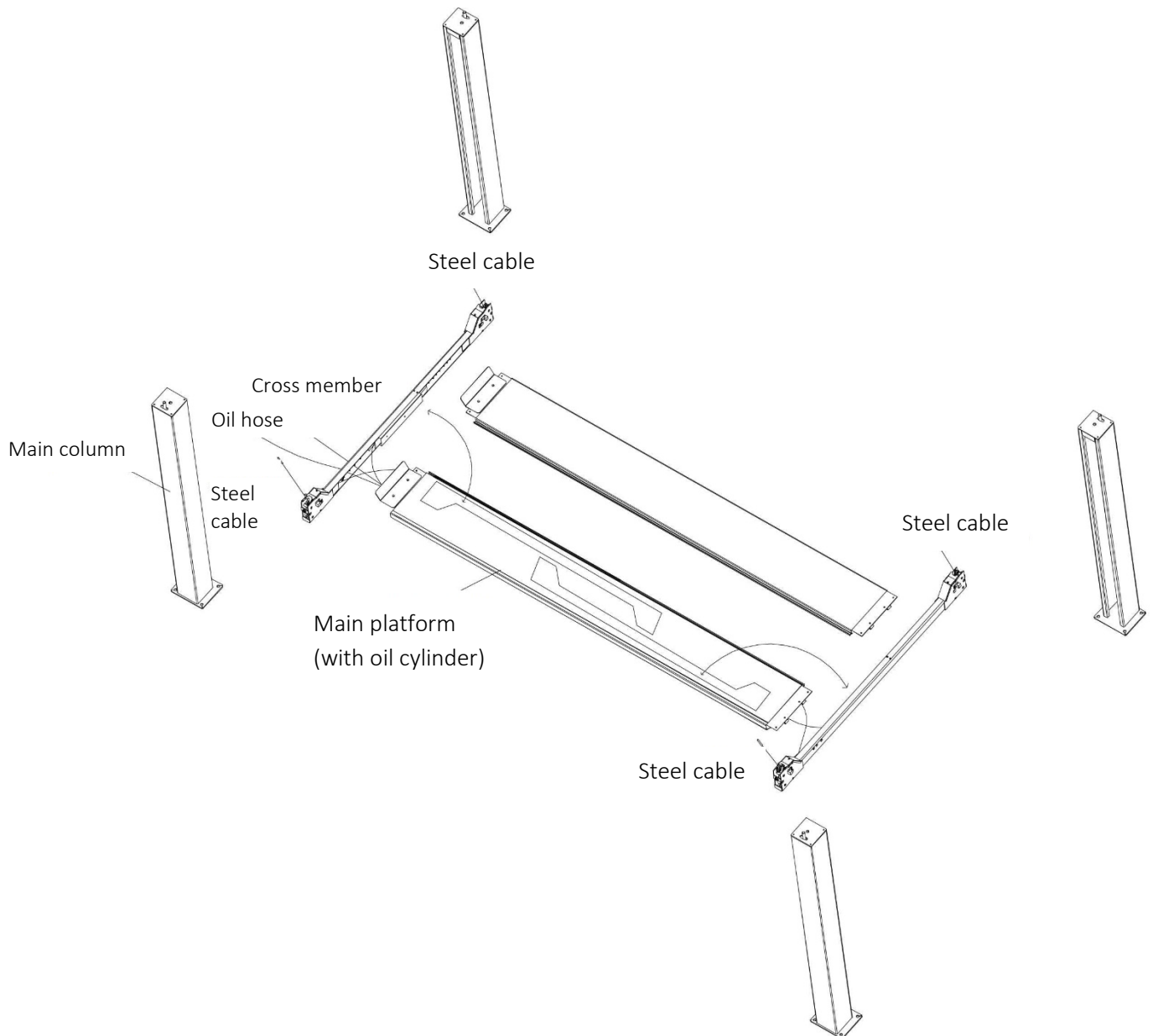


- 4) Remove the packaging
 - a) Lay some wooden slats on the ground and then use a crane to place the packing frame on the slats so that its base is a certain distance from the ground.
 - b) Suspend the platforms of the lifting platform from a crane and then unscrew the upper bolt and place the first platform on the prepared wooden slats.
 - c) Unscrew the bottom screw and remove the packing frame on both sides.
 - d) Remove the shock-absorbing plastic film with a knife.

- 5) Use a crane to position the general parts according to the following plan.

Note: The oil cylinder, the steel cable and the oil hose have already been attached to the main platform before packing.

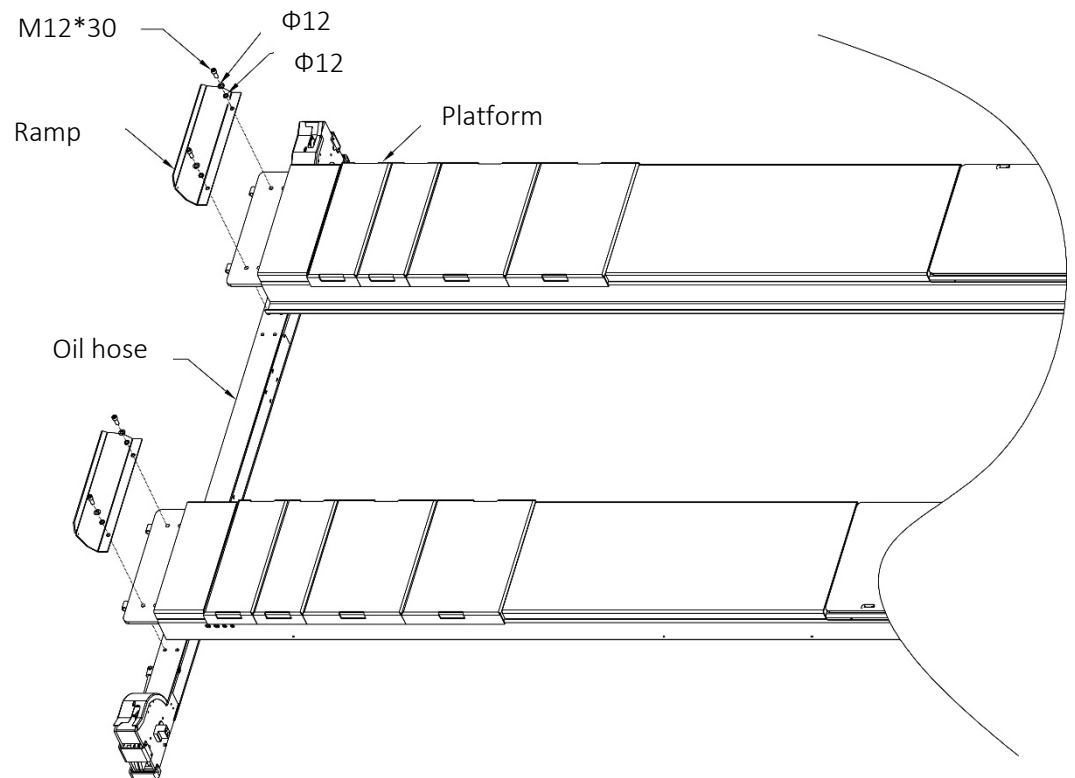
The wire rope, oil hose, safety lock etc. have already been attached to the carriers before packing.



6) Connect the carrier and the platform.

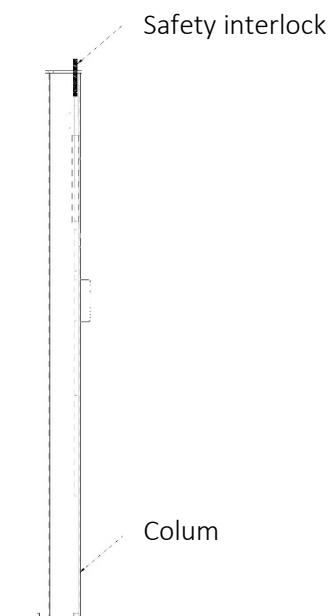
First connect the main beam to the two platforms. Use M12*30 hexagon socket head bolt and M12 hexagon nut to fix the beam and platform through the holes.

Note: You can adjust the distance between two platforms according to the situation, then fix the block plate on the platform.

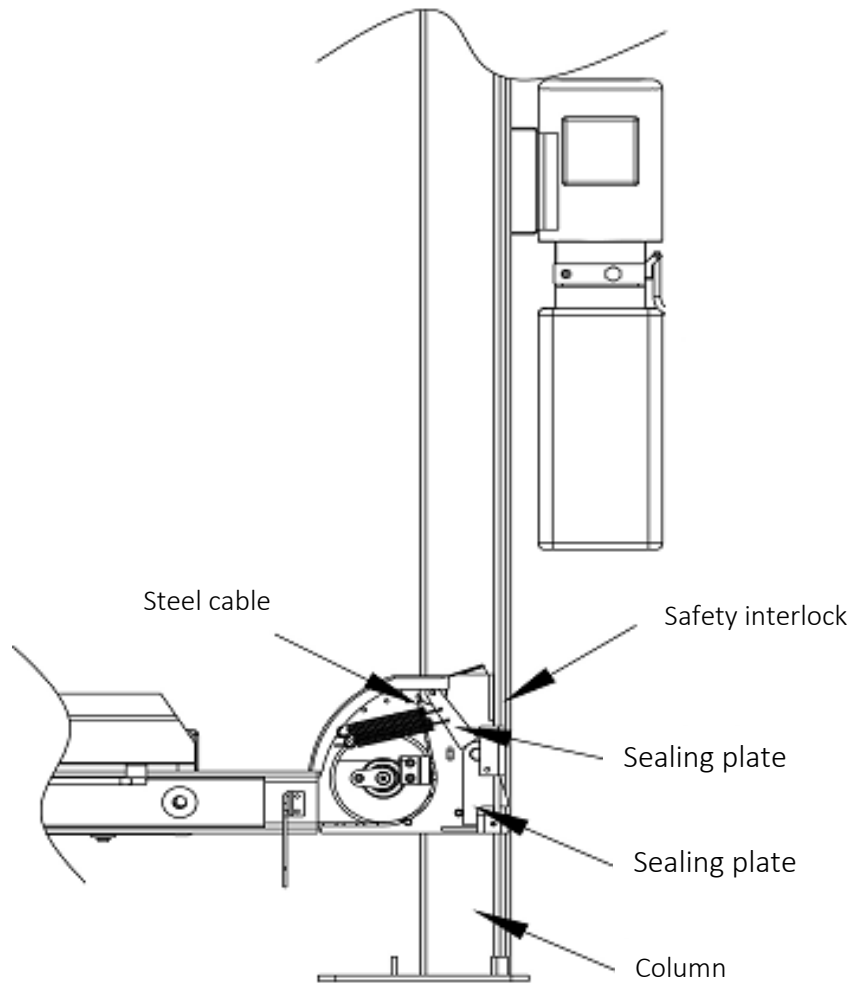


7) Connecting beams and posts

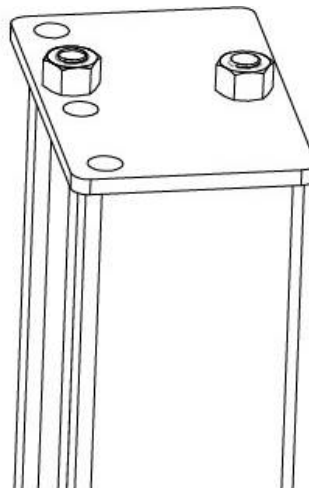
- a) Insert the safety locking plate through the underside of the post.



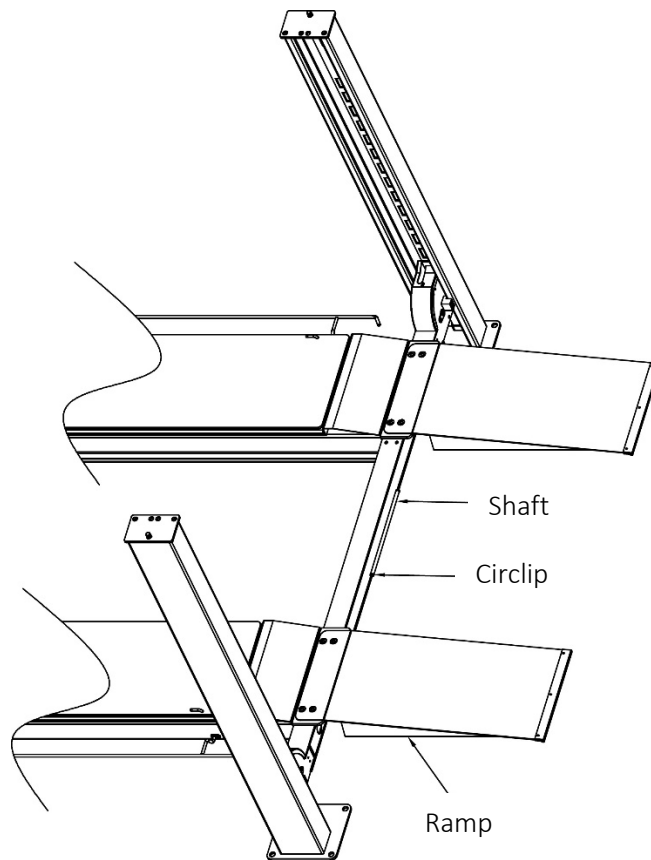
- b) Lever the safety rack higher and move the column into the beam as shown below.



- c) Remove the steel cable inside the support and connect it to the top of the column. To do this, use an M20 washer and a nut that are attached to the top plate of the column.

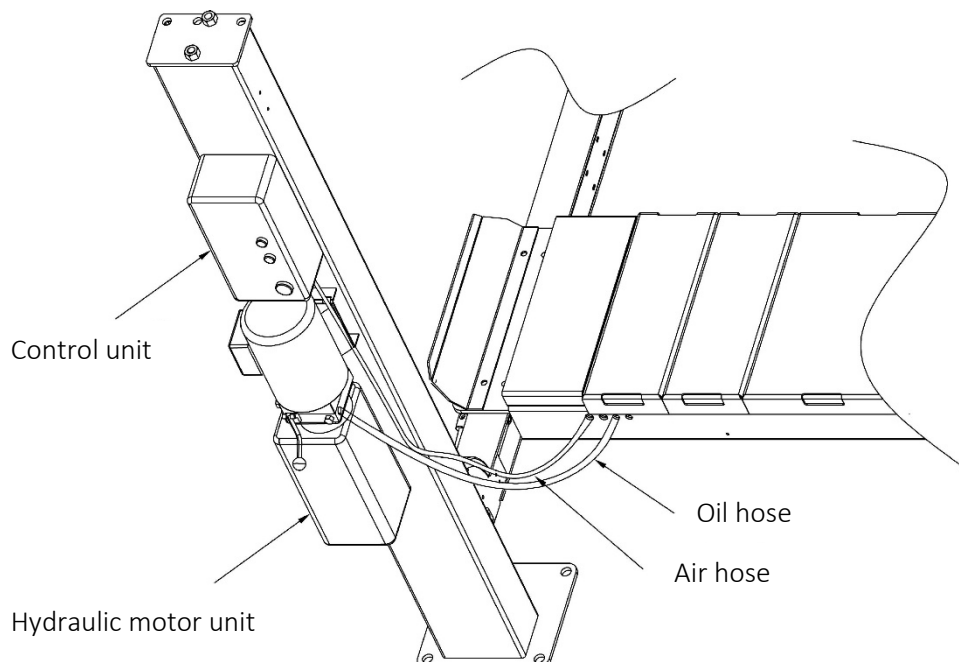


- 8) Secure the ramp with the shaft and split pins.



- 9) Install the control box and the hydraulic motor.

- a) Mount the hydraulic unit and disconnect the oil hose and the air hose from the main platform and connect them to the hydraulic block.



- b) Attach the switch box to the mains-side pillar and connect the cables.

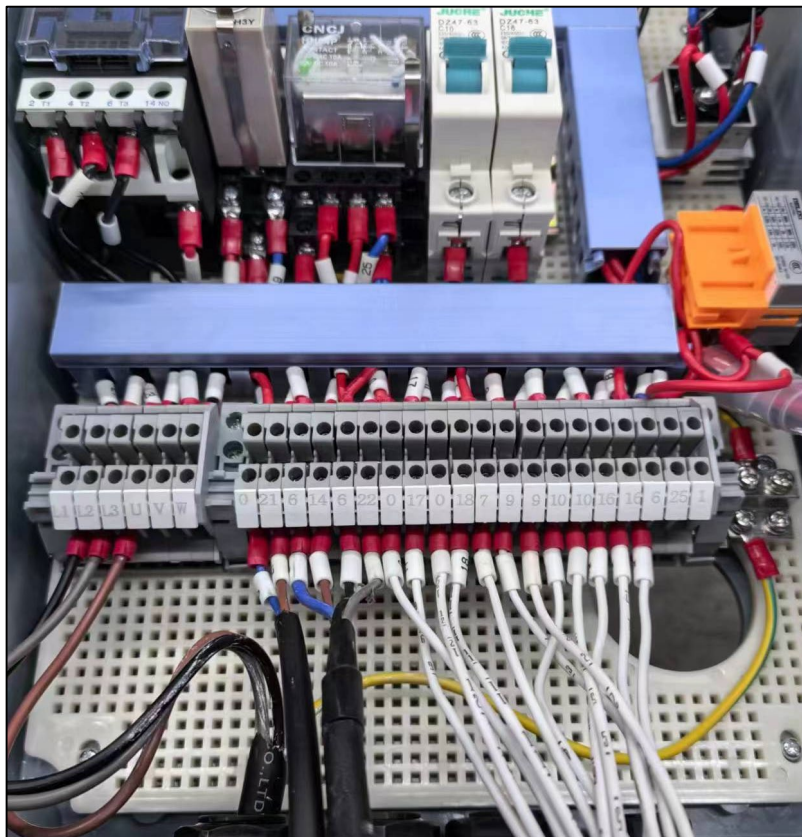
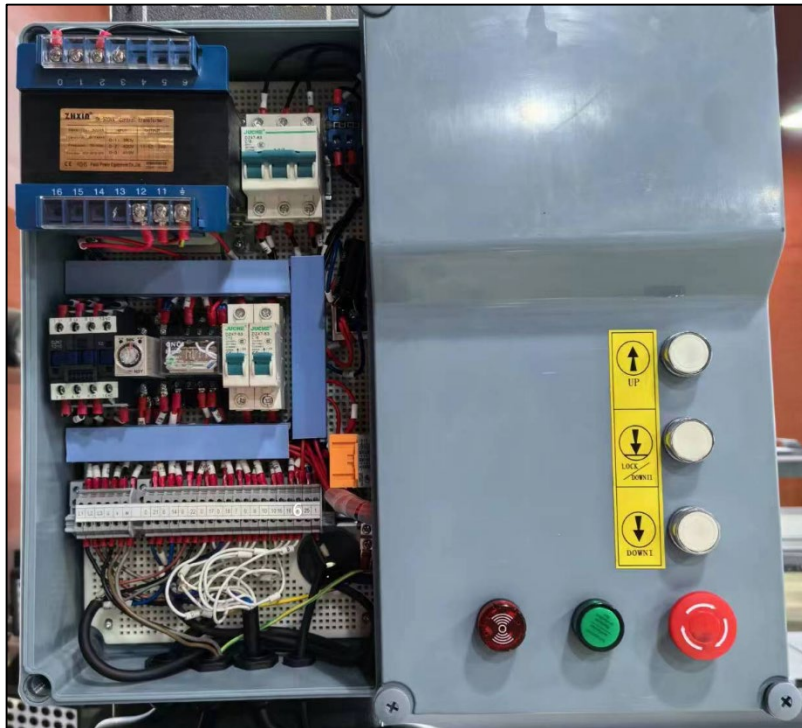
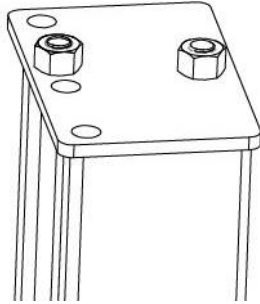


Illustration: Switch box

- 10) Fill the tank with approx. 80 % hydraulic oil. Only use clean and fresh oil!
Hydraulic oil type: HLP 32

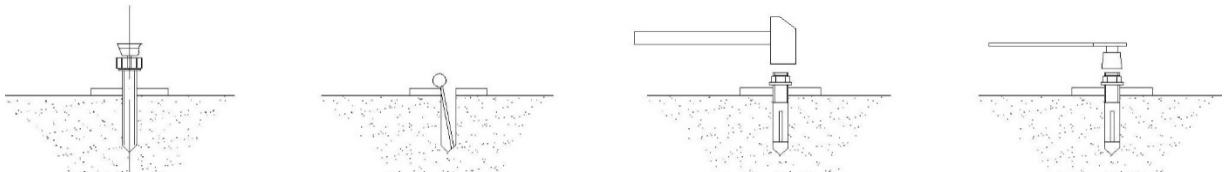
11) Levelling

Caution: No vehicle on the platforms when levelling!



- Switch on the appliance and press the "UP" button when the green power indicator lights up. Remove the screw cap from the centre inlet of the switch box and remove the rubber seal.
- Measure whether the two platforms are at the same height above the ground when the steel cable is tightened. If this is not the case, adjust the tensioning screw attached to the top of the power side post. Finally, connect the cable of the magnetic drain valve.
- Check whether the safety block and the safety rack can engage synchronously in the four posts. If not, adjust the tensioning screw of the steel cable to ensure synchronisation.

12) Fasten the expansion bolts.



8.4 Checkpoints according to the structure

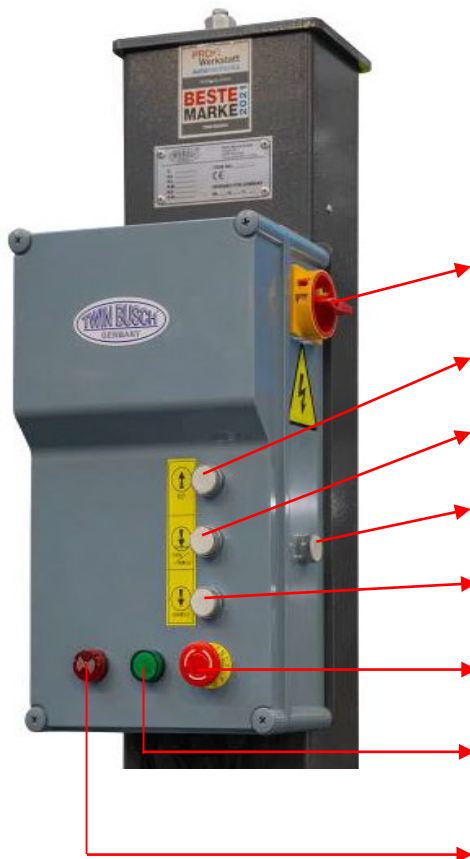
S/N	Check	YES	NO
1	Are the columns vertical to the floor? (90°)		
2	Is the oil hose connected correctly?		
3	Is the steel cable correctly and firmly connected?		
4	Are two platforms well connected?		
5	Are the electrical connections correct?		
6	Are the connections all screwed tight?		
7	Have all parts that need to be greased been greased?		

9. Commissioning

9.1 Safety precautions

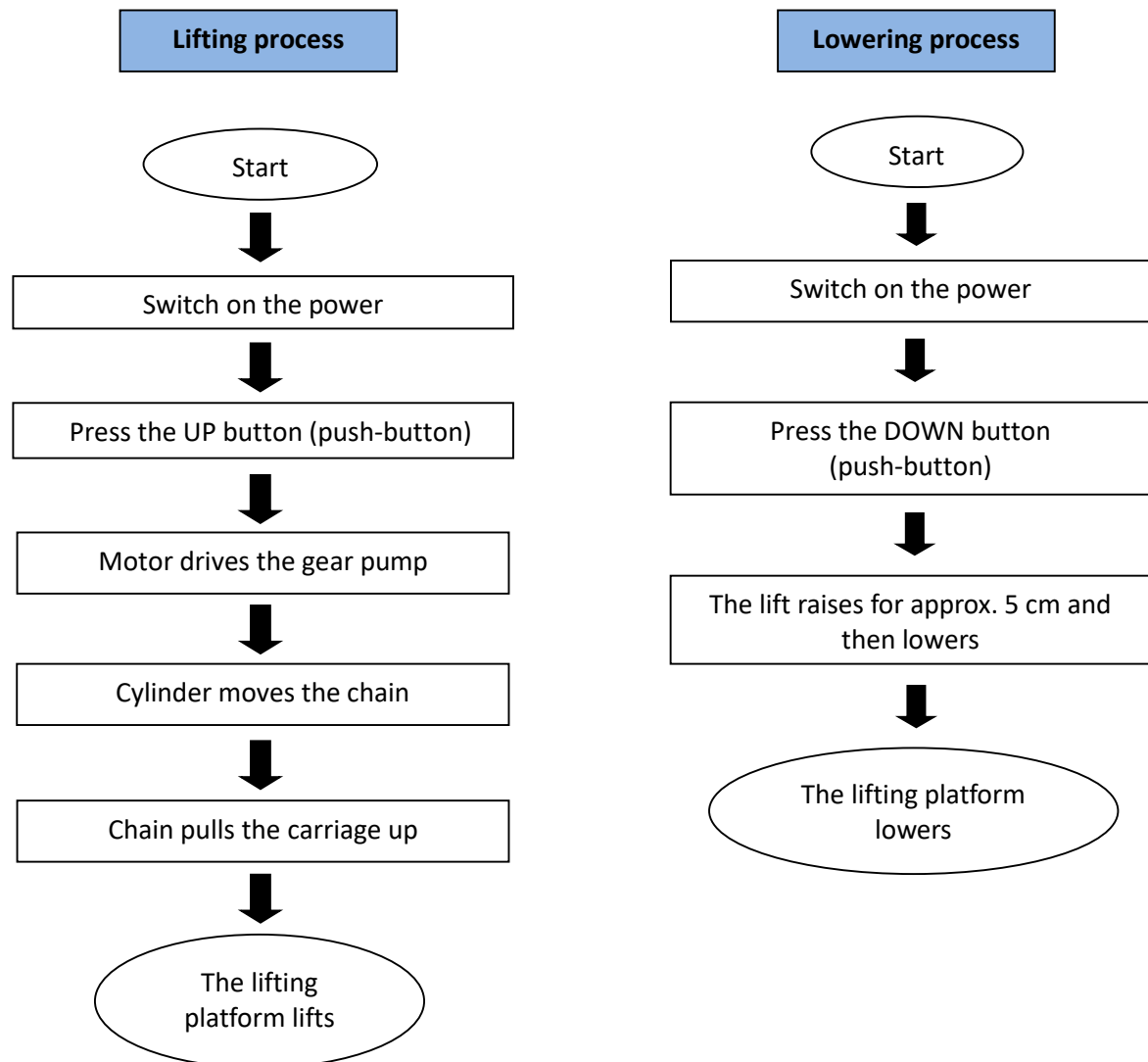
- If the safety devices are defective or show abnormalities, the lift must not be put into operation under any circumstances!
- Check all connections of the oil hose. If there are no leaks, a lifting process can be started.
- Only the operator should be in the vicinity of the lifting platform during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

9.2 Description of the control unit (control box)



Description	Function
Main switch	Indicates whether there is a power supply
UP button (push-button)	Raising the lifting platform
Safety catches	Lowering into the safety catches
Rope slack switch	Raising and lowering the lift
DOWN button (push-button)	Lowering the lifting platform
Emergency stop switch	Switches the system off in an emergency
Operating light	Indicates whether there is a power supply
Buzzer	Flashes and beeps when draining

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 of the platforms.
4. Press the UP button on the control unit until the platform has raised 10-15 cm. Stop the lifting process and make sure that the vehicle has been picked up correctly and safely.
5. After final alignment and checking, press the UP button again and keep it pressed until the desired lifting height is reached.
6. Press the lock button (push-button) to lower the lifting carriages into the safety catches.
7. 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. Once the platforms have lowered, the vehicle can be removed.

10. Troubleshooting

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

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

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.

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.

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.
- Carry out a test run (without the vehicle) to check whether the safety catches are working properly.
- Check that the socket pins are firmly screwed in.
- Check that the safety teeth and safety block fit properly.

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. The oil level is sufficient if the carriage can be raised to the highest position. Otherwise, there is not enough oil.

11.3 Monthly inspection and maintenance of the lifting platform

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

11.4 Annual inspection 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 lift will remain in good condition and damage and accidents will continue to be avoided.

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

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

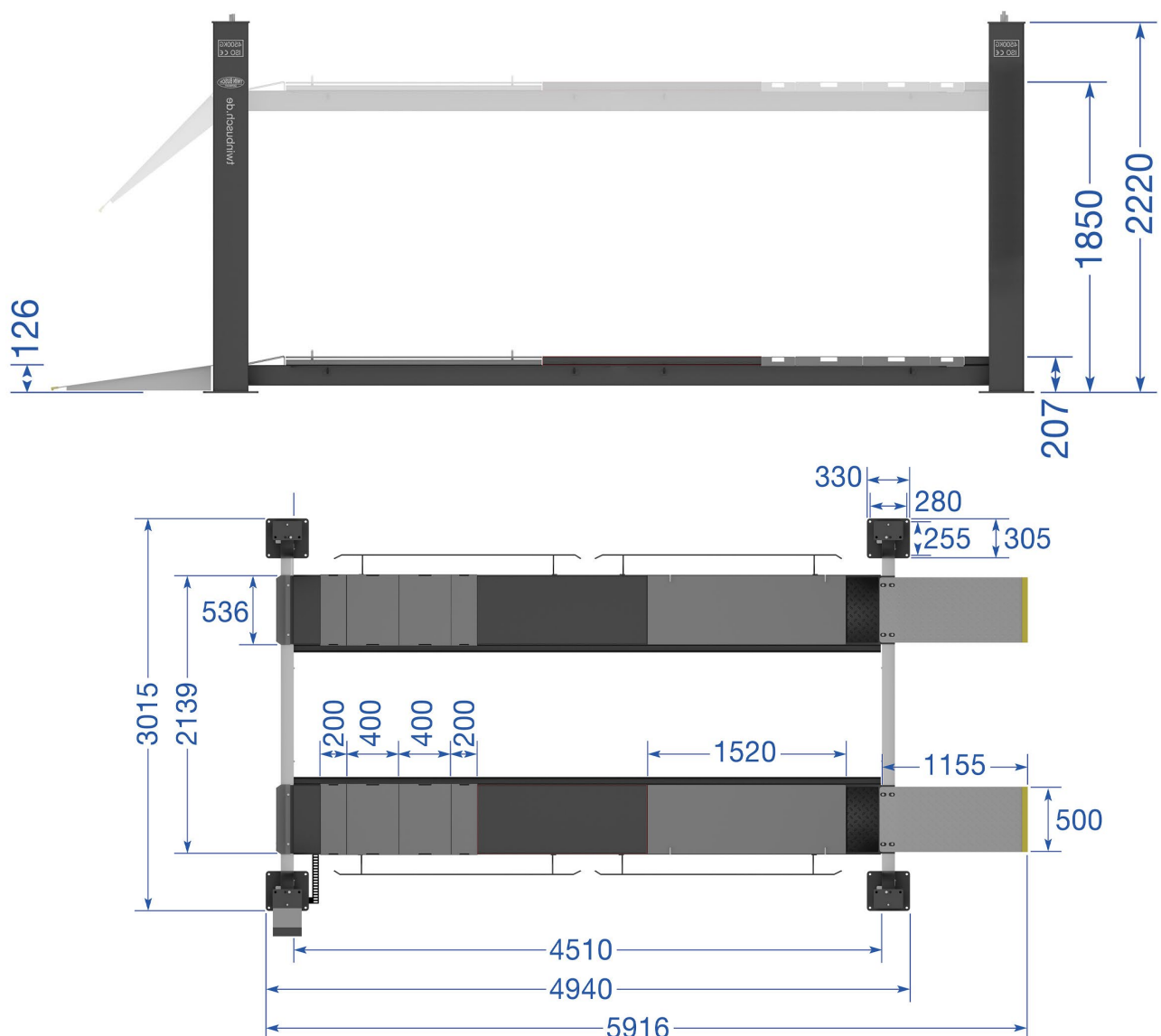
Raise platform a little, pull detents, lower.
If necessary, loosen limit switch, raise 1 cm and lower.
Notify Twin Busch Service.
Raise the lifting platform slightly again and remove the obstacle.

13. Appendix

13.1 Packing list

S/N	Description	Drawing & Specification	Qt	Hint
1	Main platform	FL-8448T-A5	1	
2	Assistance platform	FL-8448T-A6	1	
3	Main girder	FL-8448T-A3	1	
4	Assistance bar	FL-8448T-A4	1	
5	Ramp	FL-8448T-A5-B3	2	
6	Foot guard	FL-8448T-A5-B6	2	
7	Main column	FL-8448T-A1	1	
8	Assistance column	FL-8448T-A2	3	
15	Expansion screw	M18*160	16	
10	Switch box	/	1	
11	Control unit	/	1	

13.2 Dimensions of the lift



13.3 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.

Other requirements:

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

The following must be observed for soil exposed to frost:

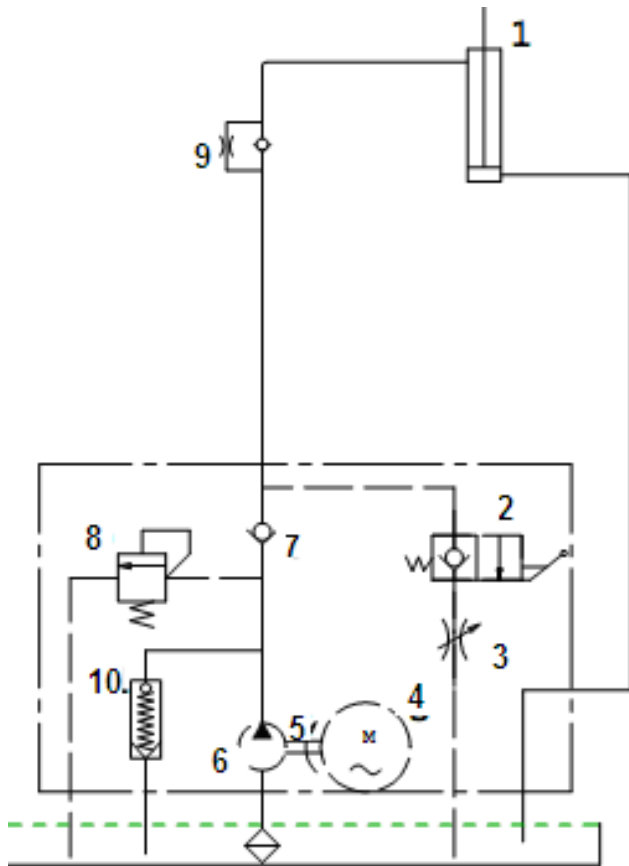
For frost exposure, the concrete must comply with exposure class XF4, as dripping de-icing agent cannot be ruled out.

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

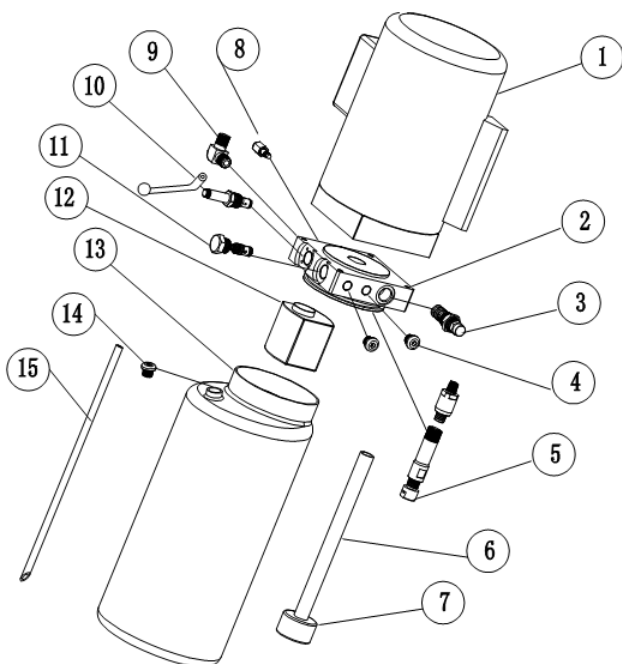
Exposure class:	XF4
Maximum w/c:	0,45
Minimum compressive strength:	C30/37 (instead of C20/25)
Minimum cement content:	340 kg/m ³
Minimum air void content:	4.0 %
Total foundation depth:	≤ 80 cm (due to frost resistance)
Remainder filled with gravel:	0/32

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.

13.4 Hydraulic plan



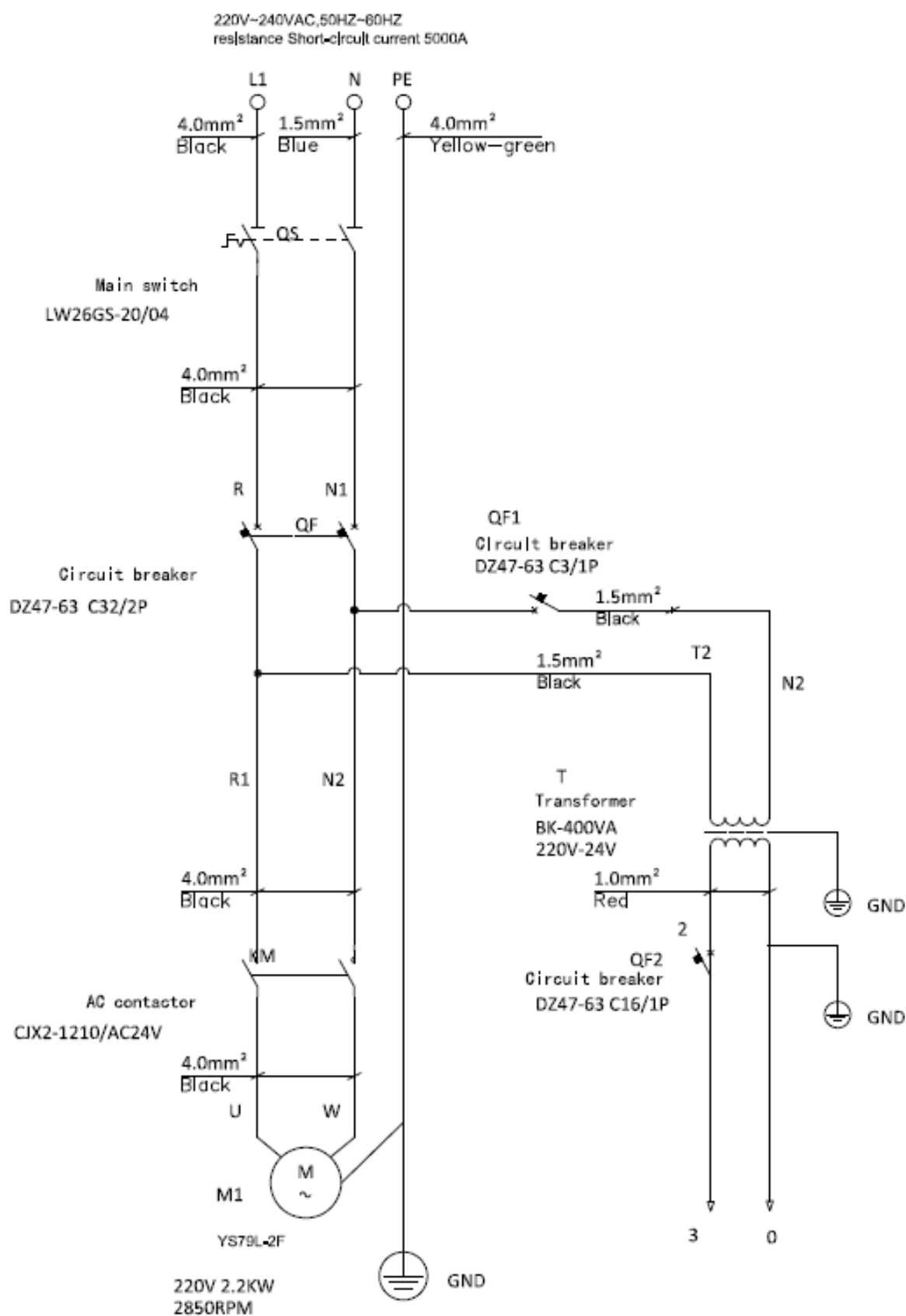
1. Cylinder
2. Emergency release valve
3. Throttle valve adjustable
4. Motor
5. Cutch
6. Pump
7. Non-return valve
8. Pressure relief valve
9. Throttle check valve
10. Spring-loaded non-return valve



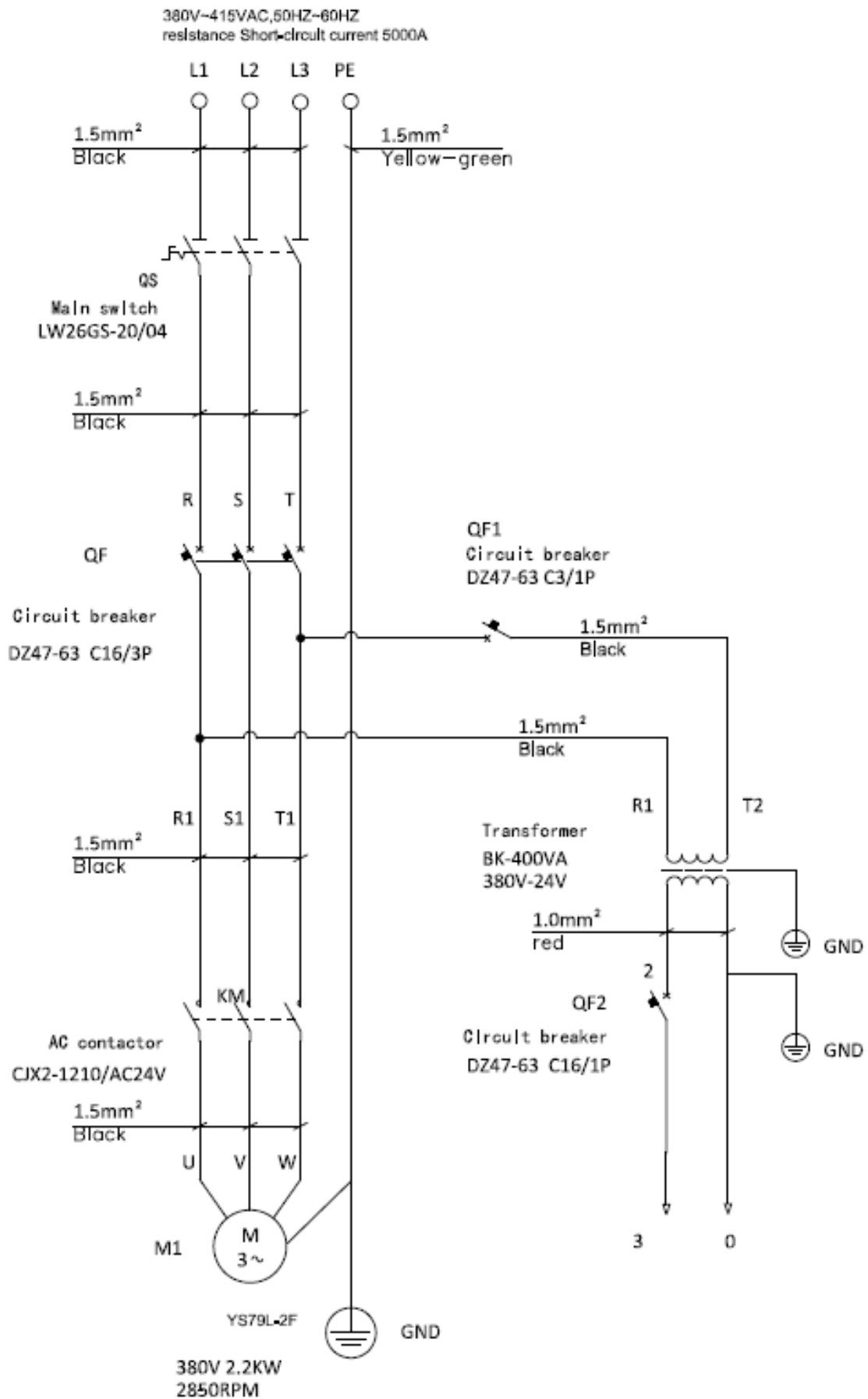
S/N	Name	Quantity
1	Motor	1
2	Hydraulic block	1
3	Pressure relief valve	1
4	Blanking plug	2
5	Damping valve	1
6	Oil suction pipe	1
7	Oil filter	1
8	Throttle valve	1
9	Oil hose fitting	1
10	E-magnetic pressure release valve	1
11	Directional valve	1
12	Pump	1
13	Oil tank	1
14	Filler cap	1
15	Oil return	1

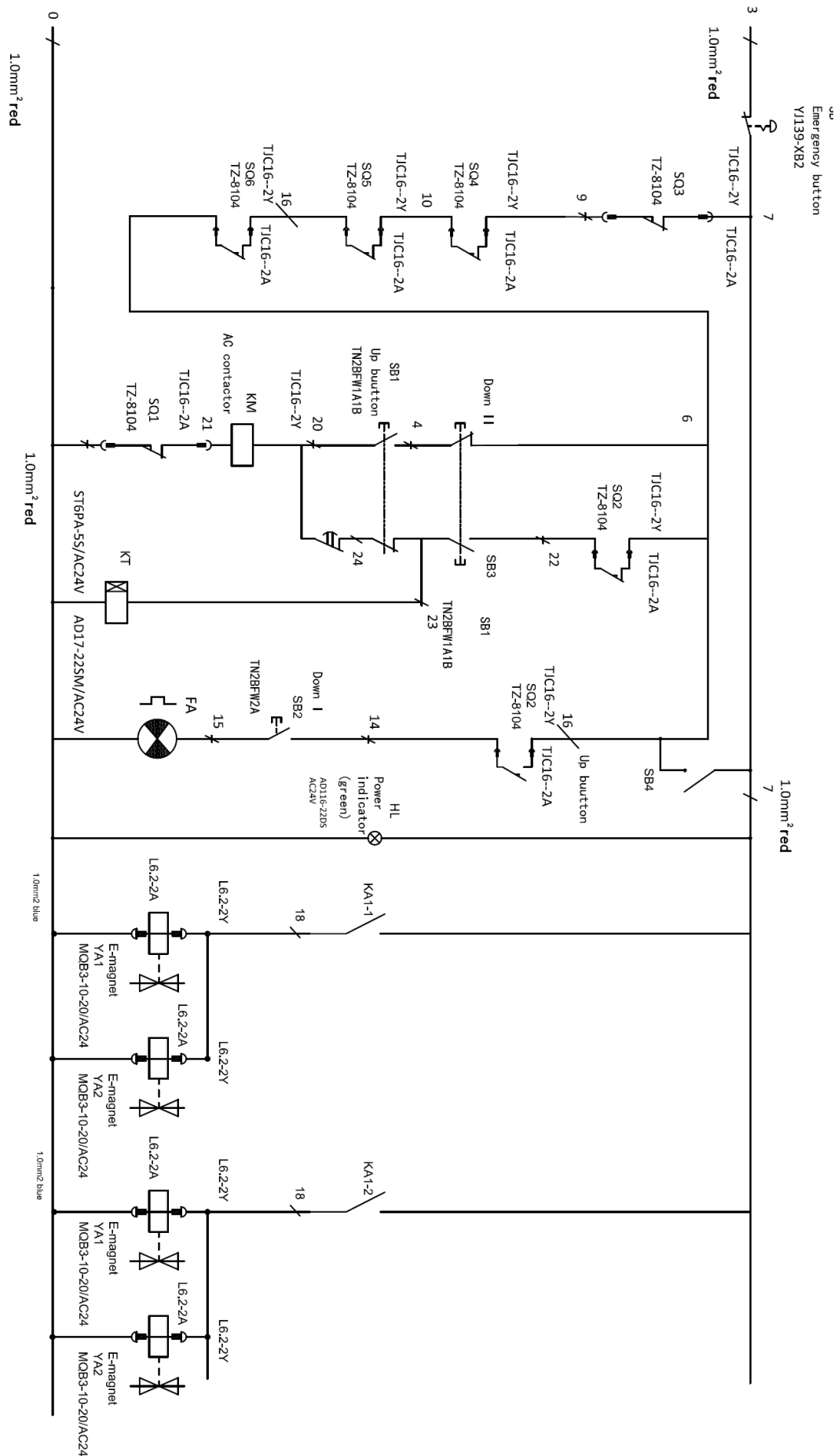
13.5 Circuit diagrams

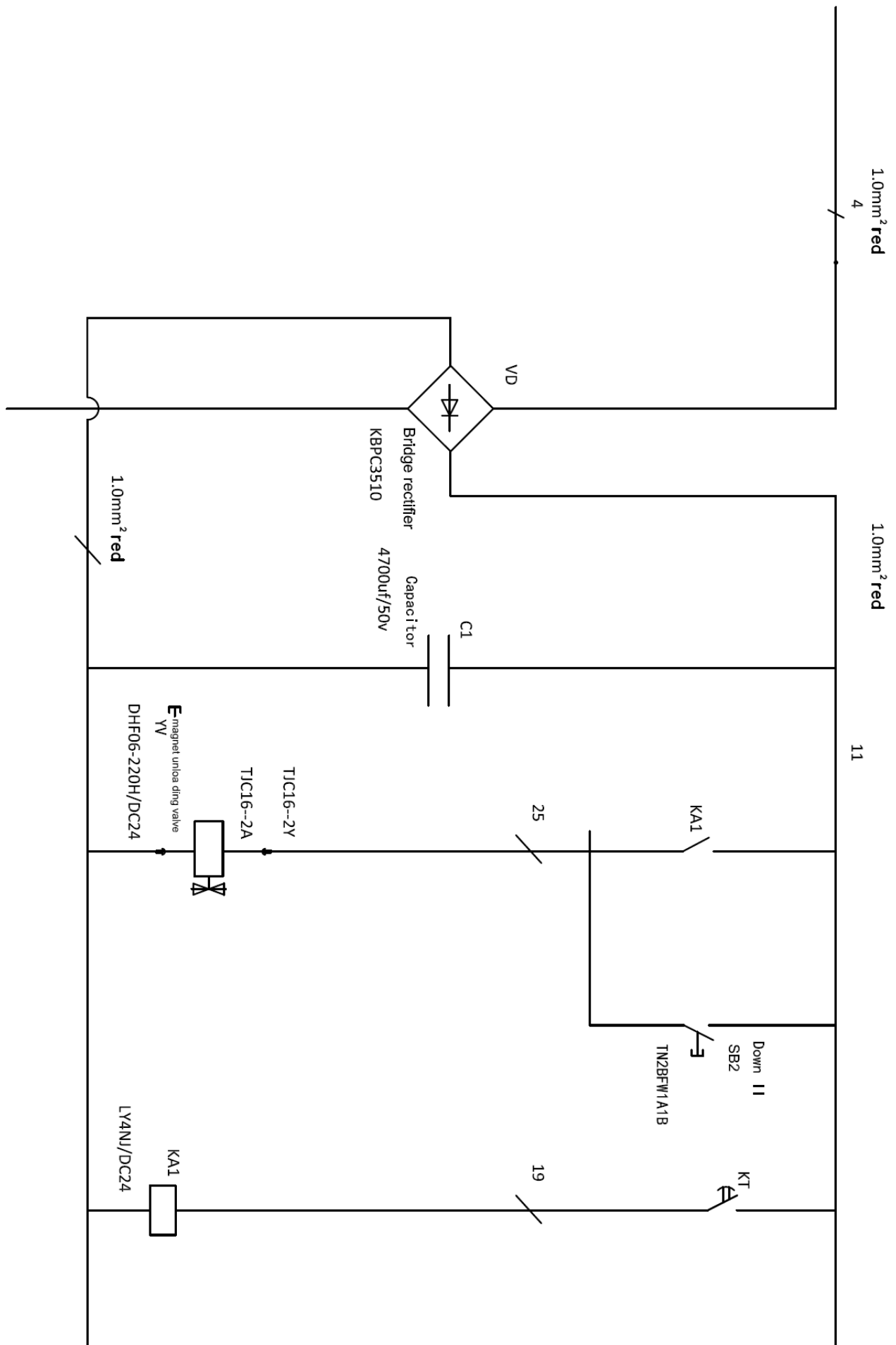
Single-phase



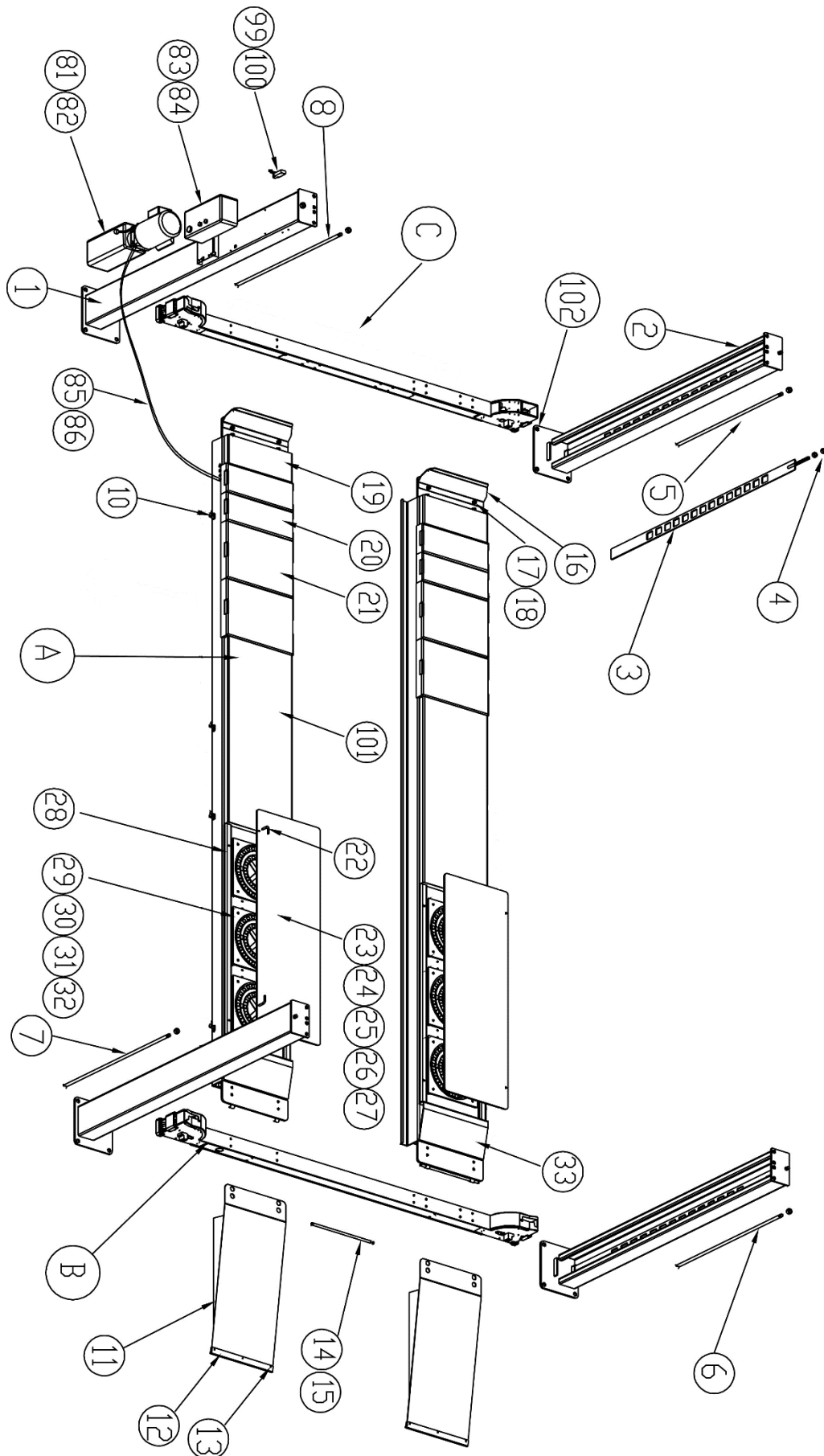
Three-phase

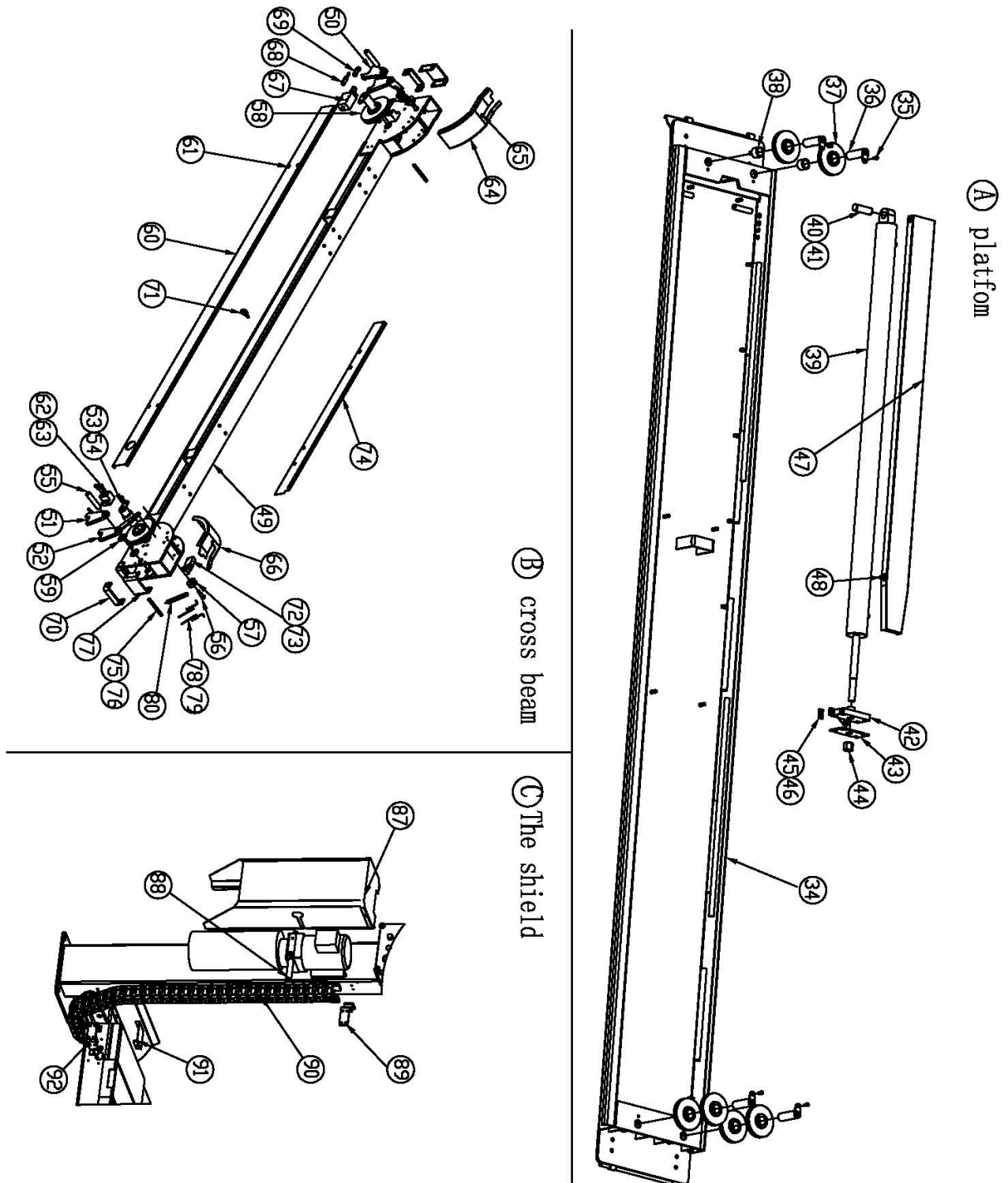






13.6 Parts description of the lift





S/N	Material	Name	Specification	Qtn	Material	Notes
1		Main column	FL-8448ET-A1-B1	1	Welded	GB/T819.1-2000
2		Secondary column	FL-8448T-A2-B1	3	Welded	
3		Safety interlock	FL-8448T-A1-B2	4	Welded	
4		Hexagon nut	M18	4	Standard	GB/T 6170-2000
5		Steel cable L=9650	FL-8448T-A9	1	Standard	
6		Steel cable L=5020	FL-8448T-A9	1	Standard	
7		Steel cable L=3520	FL-8448T-A9	1	Standard	
8		Steel cable L=8150	FL-8448T-A9	1	Standard	
10		Hexagon socket round-head screw	M6*12	10	Standard	GB/T 70.1-2000
11		Ramp	FL-8448T-A5-B3	2	Welded	
12		Ramp slider	FL-8448T-A5-B16	2	Nylon 1010	
13		Cross-head countersunk screws	M5*12	6	Standard	GB/T 818-2000
14		Guide shaft	FL-8803-A22-B4	2	45	
15		Washer	14	4	Standard	GB/T 894.2-1986
16		Block plate	FL-8448T-A5-B2	2	Q235A	
17		Hexagon socket round-head screw	M12*30	20	Standard	GB/T 70.1-2000
18		Spring washer	M12	20	Standard	GB/T 93-1987
19		Box1 weld seam	FL-8448T-A5-B4	2	Welded	
20		Box2 weld seam	FL-8448T-A5-B5	4	Welded	
21		Box3 weld seam	FL-8448T-A5-B6	4	Welded	
22		Introduction wave	FL-8806J-A4-B13	4	45	
23		Rear sliding plate	FL-8448T-A5-B10-C1	2	Welded	
24		Rear sliding mounting plate	FL-8448T-A5-B10-C2	4	Welded	
25		Nylon sleeve	FL-8448T-A5-B10-C3	4	Standard	
26		Large seal		4	Q235A	
27		Open shaft	4	4	Standard	
28		Long square tube	FL-8448T-A5-B9	4	Q235A	
29		Spherical plate	FL-8448T-A5-B8	6	Welded	
30		Spherical base		6	Standard	
31		Ball		120	Standard	
32		Cross hexagon flat head screw	M10*10	6	Standard	GB/T819.1-2000
33		Small ramp	FL-8448T-A5-B11	2	Welded	
34		Main platform	FL-8448T-A5-B1	1	Welded	
35		Hexagon socket round-head screw	M8*16	10	Standard	GB/T 70.1-2000
36		Sliding wheel shaft 2	FL-8448T-A5-B13	8	weld part	
37		Pulley	FL-8448T-A3-B8	6	45	
38		Axle boot 1	FL-8448T-A5-B12	2	Q235A	
39		Cylinder	φ80*1750	1		
40		Shaft of the cylinder	FL-8448T-A5-B15	1	45	
41		Spring washer B	D30	4	Standard	
42		Steel cable mounting plate	FL-8448T-A7-B2	1	Welded	
43		Steel cable closure plate	FL-8448T-A7-B4	1	45	

44		Hexagon nut	M27	1	Standard	
45		Small slider	FL-8448T-A7-B3	2	Nylon 1010	
46		Phillips head screw	M6*15	1	Standard	GB/T819.1-2000
47		Oil sump	FL-8448T-A19	4	Q235A	
48		Hexagon socket round-head screw	M6*15	2	Standard	GB/T 70.1-2000
49		Main girder	FL-8448T-A3-B1	1	Welded	
50		Main safety rack	FL-8448T-A3-B2	2	Welded	
51		Auxiliary safety rack	FL-8448T-A3-B3	2	Welded	
52		Steel cable protection part	FL-8448T-A3-B4	4	Welded	
53		Sliding wheel shaft 1	FL-8448T-A3-B5	4	Welded	
54		Hexagon socket screw	M8*12	4	Standard	GB/T 70.1-2000
55		Safety shaft	FL-8448T-A3-B6	4	45	
56		Small wheel shaft	FL-8448T-A3-B7	4	45	
57		Small wheel	FL-8448T-A3-B9	4	Nylon 1010	
58		Steel cable wheel	FL-8448T-A3-B8	4	45	
59		Small washer	FL-8448T-A3-B11	8	Q235A	
60		U-cover	FL-8448T-A3-B12	2	Q235A	
61		Hexagon socket round head screw	M6*12	8	Standard	GB/T 70.1-2000
62		Slider	FL-8448T-A3-B13	8	Nylon 1010	
63		Hexagon socket round head screw	M8*15	16	Standard	GB/T 70.1-2000
64		Main cover	FL-8448T-A3-B14	1	ABS	
65		Washer C	M8	2	Standard	
66		Auxiliary cover	FL-8448T-A3-B15	1	ABS	
67		Electromagnet	MQB3-10-20/AC24V	4		
68		Structural adjustment	FL-8448ET-A3-B19	4	Q235A	
69		Articulated joint	M8	4		
70		Safety fixing plate	FL-8448T-A3-B18	4	Nylon 1010	
71		Round circle	FL-8448T-A3-B17	2	45	
72		Limit switch 8104			Standard	
73		Hexagon socket round head screw	M5*15	2	Standard	GB/T 70.1-2000
74		Cover	FL-8448T-A3-B22	2	Q235A	
75		Steel cable shaft	FL-8448T-A3-B23	4	45	
76		Spring washer B	M10	8	Standard	
77		Mounting plate	FL-8448T-A3-B16	4	Q235A	
78		Torsion spring 1	FL-8465T-A3-B8	2	65Mn	
79		Torsion spring 2	FL-8465T-A3-B9	2	65Mn	
80		Spring	FL-8448T-A3-B20	8	65Mn	
81		Control unit		1		
82		Hexagon socket round head screw	M10*15	4	Standard	GB/T 70.1-2000
83		Control box	FL-8448ET	1	Welded	
84		Phillips head screw	M6*15	4	Standard	
85		Oil pipe	L=3350	1	Welded	
86		Spring	FL-8448T-A17	1	65Mn	
87		Four-column sign	FL-8465T-A1-B4	1	Q235A	



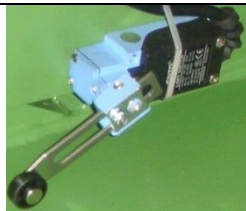
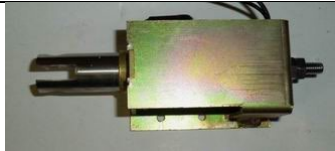
88		Joint	M14*1.5/G1/4	1	Q235A	
90		Fuelling chain	50*30	1		
91		Cover plate	FL-8465T-A1-B7	1		
92		Fixed frame	FL-8465T-A1-B6	1		
99		Limit switch 8108		1	Standard	
100		Hexagon socket round head screw	M5*12	2	Standard	GB/T 70.1-2000
101		Box 4	FL-8448T-A5-B7	2	Welded	
102		Expansion screw	M16*180	16	Standard	

Mechanical parts

S/N	Material	Name	Specification	Qtn	Material	Notes
1		Safety slide	FL-8448T-A3-B4	4	Nylon	
2		Slider	FL-8448T-A3-B13	8	Nylon	
3		Nylon retaining ring	FL-8448T-A5-B10-C5	2	Nylon	
		Electromagnet	MQB3-10-20/AC24V	4		

13.7 Spare parts list

S/N	Material	Name	Specification	Unit	Qty	Picture
1		Mains switch	LW26GS-20/04	Pcs	1	
2		Button	Y090-11BN	Pcs	3	
3		Mains display	AD17-22G-AC24	Pcs	1	
4		Transformer	JBK3-40VA 220V-24V	Pcs	1	Like point 7
5		Transformer	JBK3-40VA 230V-24V	Pcs	1	Like point 7
6		Transformer	JBK3-40VA 240V-24V	Pcs	1	Like point 7
7		Transformer	JBK3-400VA 380V-24V	Pcs	1	
8		Transformer	JBK3-400VA 400V-24V	Pcs	1	Like point 7
9		Transformer	JBK3-400VA 415V-24V	Pcs	1	Like point 7
10		Alternating current protection	CJX2-1210/AC24	Pcs	1	
11		Circuit breaker	DZ47-63 C16 /3P	Pcs	1	
12		Circuit	DZ47-63 C32 /2P	Pcs	1	
13		Circuit	DZ47-63 C3 /1P	Pcs	1	
14		Circuit	DZ47-63 C1 /1P	Pcs	1	Like point 13
15		Limit switch	ME8104	Pcs	1	

S/N	Material	Name	Specification	Unit	Qty	Picture
16		Emergency stop switch	Y090-11ZS/red	Pcs	1	
17		Control unit	190*430*135	Pcs	1	
18		Limit switch	8108	PCS	1	
19		Electromagnet	MQB3-10-20/AC24V	PCS	4	

Hydraulic system

S/N	Material	Name	Specification	Unit	Qty	Picture
1		Hydraulic block (manual release)	YF-1	Pcs	1	
2		Coil of the solenoid valve		Pcs	1	
3		Solenoid valve		Pcs	1	
4		One-way valve	DYF-C	Pcs	1	
5		Overflow valve	EYF-C	Pcs	1	
6		Throttle valve		Pcs	1	

S/N	Material	Name	Specification	Unit	Qty	Picture
7		Damping valve	HCYF-C	Pcs	1	
8		Hexagonal plug connector	M14*1.5	Pcs	2	
9		Connection for generator set	M14*1.5-G1/4inside swivel	Pcs	1	
10		Clutch	YL-A	Pcs	1	
11		Gear pump	CBK-F230	Pcs	1	
12		Gear pump	CBK-F220	Pcs	1	Like point 11
13		Oil pipe	YX-B/270	Pcs	1	
14		Oil filter	YF-C	Pcs	1	
15		Oil return line	YH-D	Pcs	1	
16		Plastic oil tank	14L	Pcs	1	



The company

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

hereby declares that the **4-post vehicle lift**

TW436P (-230,-400) | 3600 kg

TW445, TW445E (-230,-400) | 4500 kg

TW436P-W, TW445-W | 3000 kg

Serial number:

in this 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/EC

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 0043 Rev. 01

date of issue: 18.07.2023

N8MA 087411 0044 Rev. 01

place of issue: Munich

technical file no.: 646642304401

Certification body

TÜV SÜD Product Service GmbH,
Ridlerstraße 65,
80339 München

Notified Body Appointment No.: 0123

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

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



TWIN BUSCH GmbH

Amperestr. 1 · 64625 Bensheim

Tel. 06251 / 70585-0 · Fax: 70585-29

Authorized signatory: Michael Glade
Bensheim, 17.07.2023 Qualitätsmanagement

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

twinbusch.de | E-Mail: info@twinbusch.de | Tel.: +49 (0)6251-70585-0



You can find more products at:

twinbusch.co.uk

Twin Busch UK LTD
Kettering
Northants NN16 8PS

Tel.: +44 (0) 1536 522 960
E-Mail: info@twinbusch.co.uk
Web: www.twinbusch.co.uk

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