



ORIGINAL OPERATING MANUAL

4-post lift

INVENTO EL 455WA

TIP-TOPOL Sp. z o.o.

62-010 Pobiedziska

ul. Kostrzyńska 33_

www.sklep.tiptopol.pl

Original EC/EU declaration of conformity

Tip-Topol Sp. z
o.o.
Kostrzyńska Street
33
62-010 Pobiedziska

Declares that the product:

Four-post lift Model: EL 455WA

complies with the essential requirements of the directive:
2006/42/EC Directive 2006/42/EC

and the specific requirements contained in the harmonized standards:

EN 60204-	Safety of machinery – Electrical equipment of machines – Part 1:
1:2006+A1:200	General requirements
9	
EN 1493:2023-05	Vehicle lifts.

This declaration is the basis for marking the product with the CE mark.

This declaration applies only to machines in the condition in which they were placed on the market and does not cover components added by the end user or subsequent actions carried out by them.

The technical documentation is available at the headquarters of TIP-TOPOL Spółka z o.o. 62-010 Pobiedziska; ul. Kostrzyńska 33, from the person responsible – Jacek Biłski.

Pobiedziska


.....
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1 General

This chapter contains warnings regarding the proper operation of the lift and the prevention of injury to operators or damage to objects.

This manual is intended for workshop technicians responsible for the lift (operators) and technicians involved in routine maintenance (maintenance operators).

The operating instructions are an integral part of the machine and must remain with it throughout its entire service life.

Before operating the lift and unpacking it, carefully read all sections of this manual, as it contains useful information on:

- PERSONAL SAFETY
- LIFT SAFETY
- SAFETY OF LIFTED VEHICLES

The company is not responsible for any problems, damage, accidents, etc. resulting from failure to follow the instructions in this manual.

Only qualified technicians from authorized dealers or service centers authorized by the manufacturer may perform lifting, transport, assembly, installation, adjustment, calibration, settings, extraordinary maintenance, repairs, inspections, and disassembly of the lift.

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED TO PEOPLE, VEHICLES OR OBJECTS IF THE ABOVE-MENTIONED ACTIVITIES ARE PERFORMED BY UNAUTHORIZED PERSONNEL OR THE LIFT IS USED INCORRECTLY.

It is prohibited to use the device by operators who have not read the instructions and procedures contained in this document.

Storage of instructions

To ensure the correct use of this manual, it is recommended that:

- Keep the manual near the lift in an easily accessible place.
- Store the manual in a place protected from moisture.
- Use the manual properly and do not damage it.
- Operators who have not read the instructions and procedures contained in this manual are prohibited from using the device.

This manual is an integral part of the elevator: it must be handed over to the new owner in the event of resale of the elevator.

1.2 Responsibilities in the event of a malfunction



In the event of a device failure, follow the instructions in the following chapters.
--

1.3 *Precautions for for the safety of Operator*

Operators must not be under the influence of sedatives, drugs, or alcohol while operating the machine.

	Before operating the lift, operators must familiarize themselves with the location and function of all controls, as well as the characteristics of the machine
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1.4 *Warnings*

	Unauthorized changes and/or modifications to the machine release the manufacturer from any liability for possible damage to objects or persons. Do not remove or disable safety devices, as this would cause
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	Any other use that deviates from the intended use specified by the machine manufacturer is strictly prohibited.
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	The use of non-original parts may cause damage to persons or property.
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WARRANTY STATEMENT AND LIMITATION OF LIABILITY

The manufacturer has taken due care in preparing this manual. However, none of the information contained in this manual alters or modifies in any way the terms of the manufacturer's agreement under which the lift was purchased, nor does it increase the manufacturer's liability to the customer in any way.

TO THE READER

Every effort has been made to ensure that the information contained in this manual is correct, complete, and up-to-date. The manufacturer is not responsible for any errors made in the preparation of this manual and reserves the right to make changes at any time in connection with product development.

2 Identification

The machine identification data is provided on a label affixed to the machine. Below is a blank template for informational purposes. The actual location should be checked on the machine.

LOGO	
Type:	
Model:	
Serial number:	
Year of manufacture:	
Capacity:	
Voltage:	
Power:	
Maximum pressure:	



The above data should be used both when ordering spare parts and when contacting

Machines may be updated or slightly modified in terms of aesthetics, and therefore may exhibit features that differ from those shown, without prejudice the description contained in this document.

2.1 *Warranty*

The warranty is valid for 12 months from the date of issue of the purchase invoice. The warranty expires immediately in the event of unauthorized modifications to the machine or its parts.

The presence of manufacturing defects must be verified by the manufacturer's authorized personnel.

2.2 *e technical service*

For all service and maintenance activities that have not been specified or described in this manual, please contact the dealer from whom you purchased the machine or the manufacturer's sales department. Only qualified personnel familiar with the lift and this manual may perform activities related to packaging, lifting, moving, transporting, and unpacking.

3 Packaging, transport, and

3.1 *Packaging*

The lift packaging consists of the following elements:

- columns wrapped in scratch-resistant material, secured with 2 straps, 2 columns in one package
- rails, each wrapped in scratch-resistant material
- crossbars, each wrapped in scratch-resistant material
- a lift wrapped in scratch-resistant material
- drive unit, control panel, and other accessories packed in a plywood box
- ramps wrapped in non-scratch material

(In case of special customer requirements, the packaging will be adjusted accordingly).

3.2 *Lifting and handling*

When loading/unloading or transporting equipment to its destination, use appropriate loading equipment (e.g., cranes, trucks) and lifting devices. Also, lift and transport items safely so that they cannot fall, taking into account the size of the packaging, its weight and center of gravity, and fragile parts.



Lift and carry only one package at a time

3.3 *a packaging storage and stacking*

Packages should be stored in a covered area, away from direct sunlight and at low humidity, at a temperature between 10°C and +40°C. It is not recommended to stack packages: the narrow base of the package, as well as its considerable weight and size, make this difficult and dangerous.

3.4 *Delivery and inspection packaging*

Upon delivery of the lift, check for damage during transport and storage; also check that the contents of the shipment match the manufacturer's order confirmation. In case of damage during transport, the customer must immediately inform the carrier.

The packaging must be opened with care to avoid injury to persons (keeping a safe distance when unfastening the straps) or damage to parts of the lift (taking care that no items fall out of the packaging when opening it).

4 Product

description

Four-post lift – general description

This four-post lift is designed to lift motor vehicles for wheel alignment and routine maintenance.

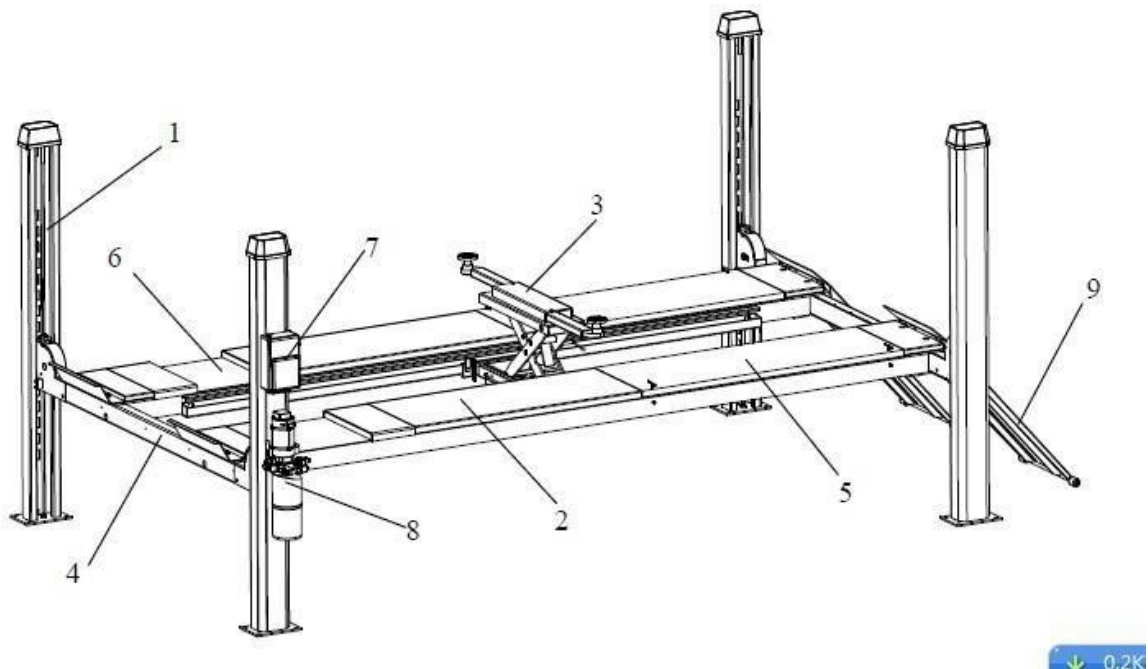
maintenance.

The maximum lifting capacity is indicated on the nameplate.

Most of the mechanical parts, such as the track and cross beams, are made of steel plate to make the lift rigid and durable, yet lightweight. The electro-hydraulic operation is described in detail in Chapter 8.

This chapter describes the main components of the lift so that the user can familiarize themselves with the device. As shown in the figure below, the lift consists of the following parts:

- 1) Column, 4 pcs.
- 2) Platform, 2 pcs.
- 3) Pneumatic-hydraulic lift, 1 pc., optionally 2 pcs.
- 4) Crossbeam, 2 pcs.
- 5) Rear slide plates, 2 pcs.
- 6) Turntable groove, 2 pcs.
- 7) Control panel, 1 pc.
- 8) Hydraulic unit, 1 pc.
- 9) Entrance ramp, 2 pcs.



5

Specifications

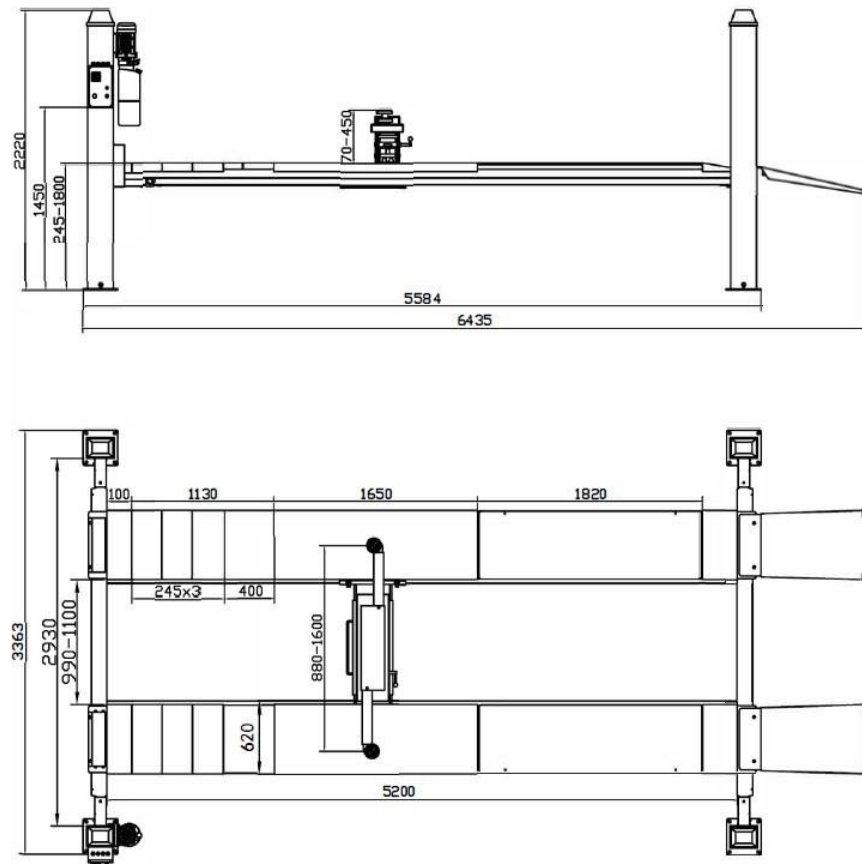
5.1 *Technical data*

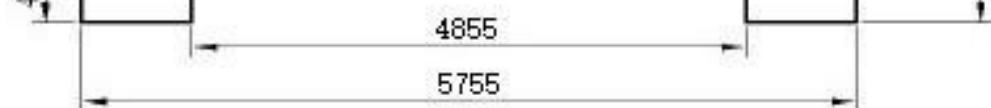
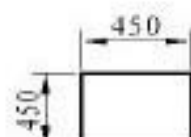
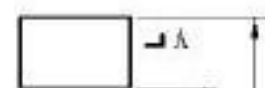
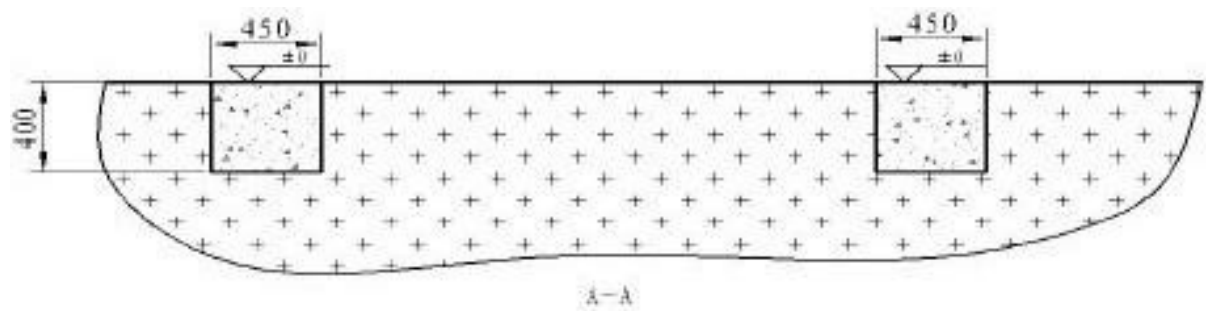
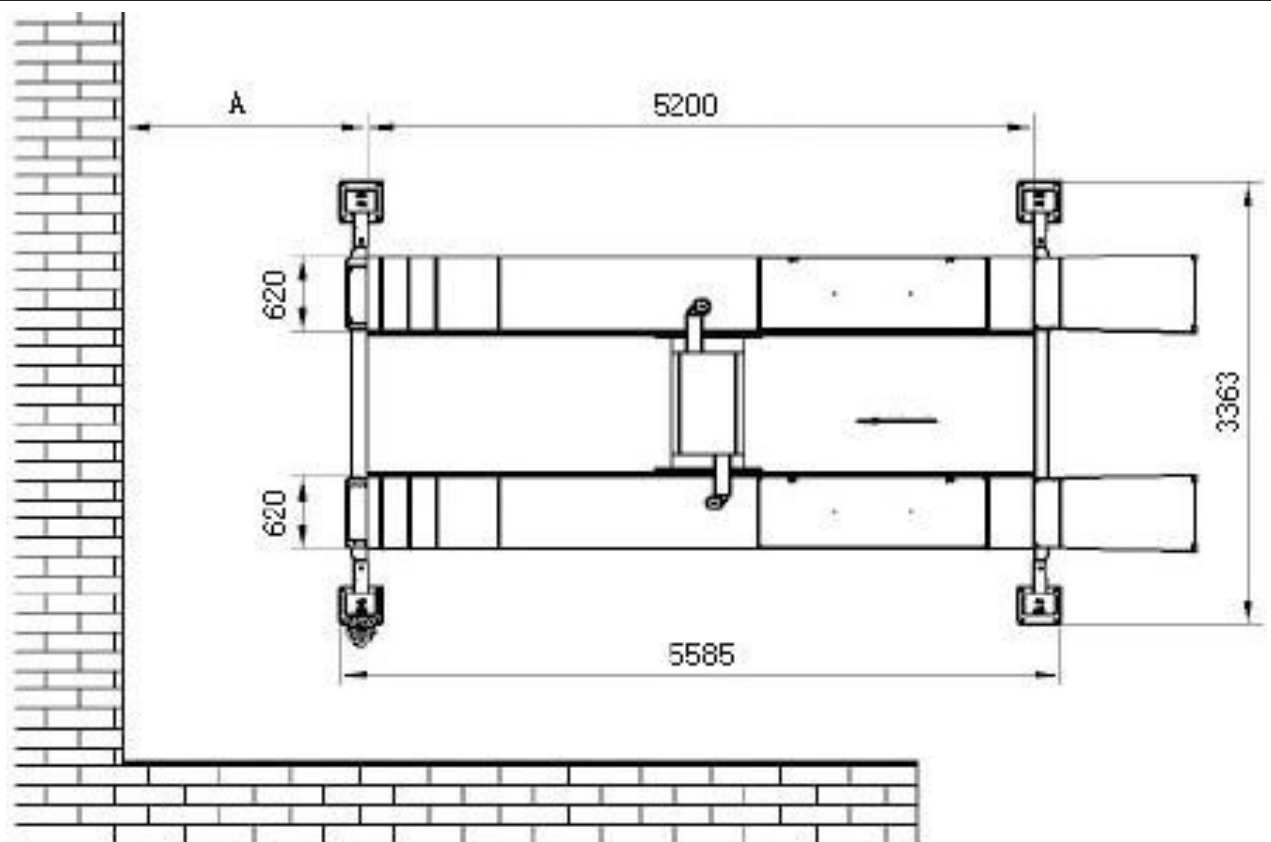
Load capacity	5500 kg
Lifting capacity	3000 kg
Maximum lifting height	1800 mm
Minimum height	245 mm
Lift height	450 mm
Runway length	5200 mm
Runway width	620 mm
Free width between runways	990–1100 mm
Width between two columns	2930 mm
Total length	6435 mm
Total height	2220 mm
Overall width	3363 mm
Lifting time	60 s
Noise level	80 dB(A)/1 m
Nominal pneumatic pressure	6 bar – 8 bar
Operating temperature	-10 °C –40 °C
Average package weight	1780 kg

5.2 *Lift dimensions – sketch*

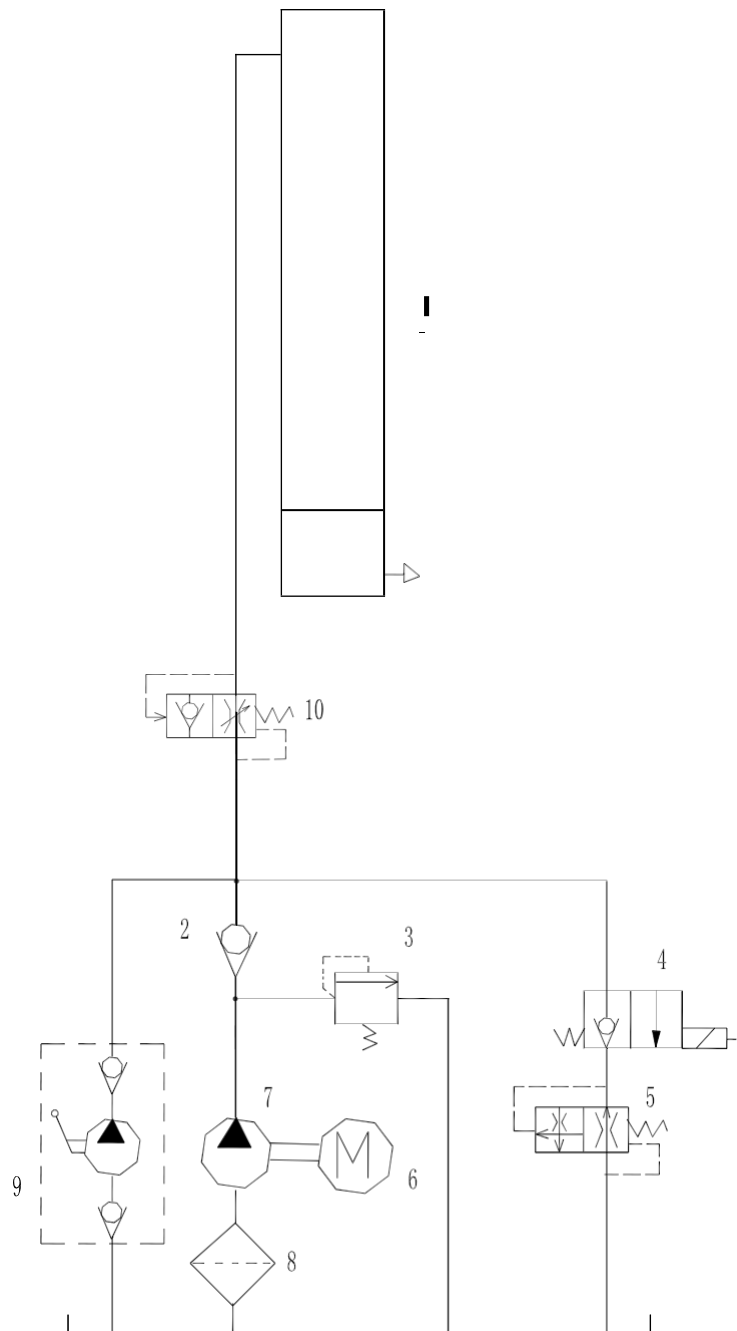
5

Specifications



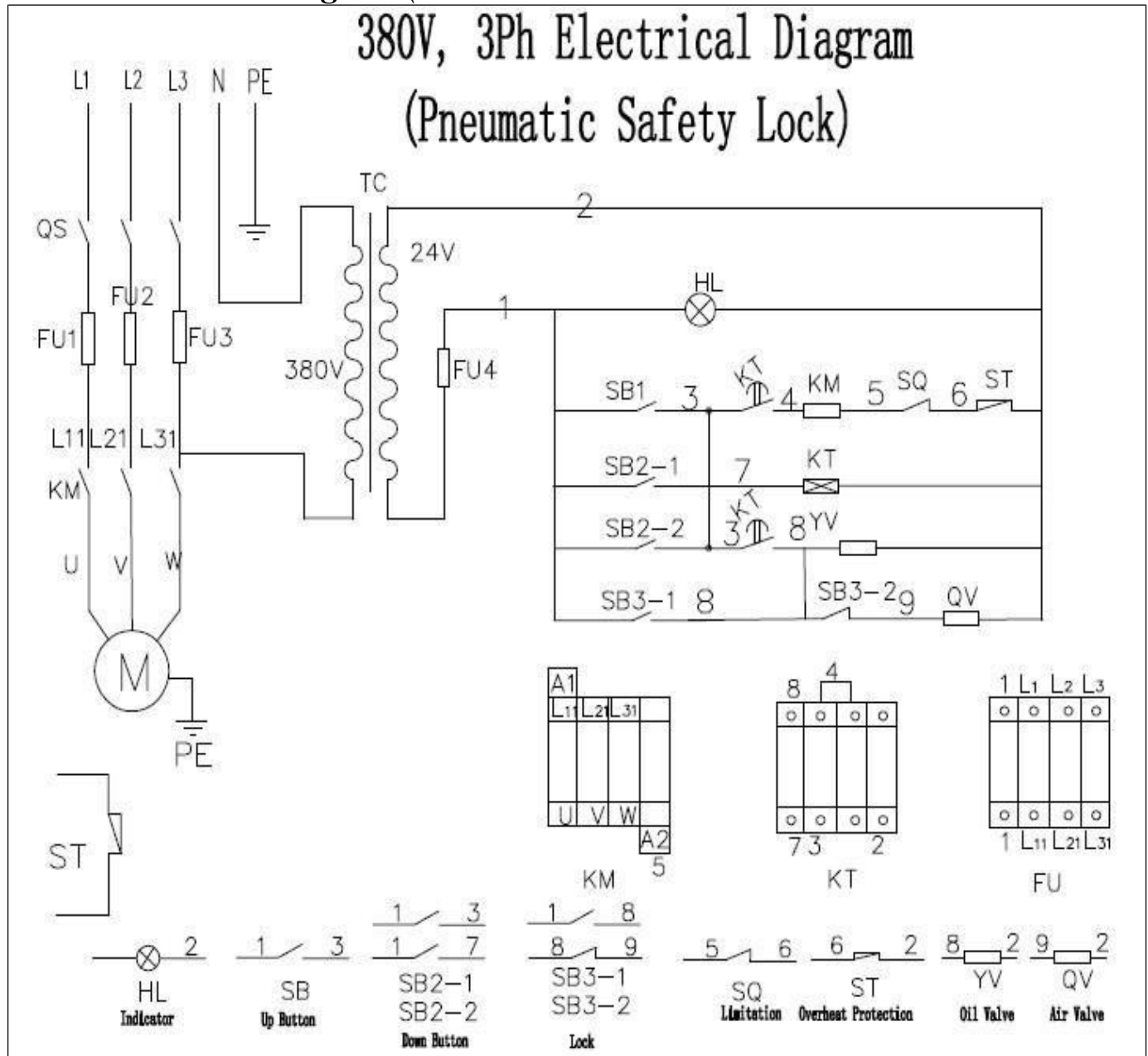


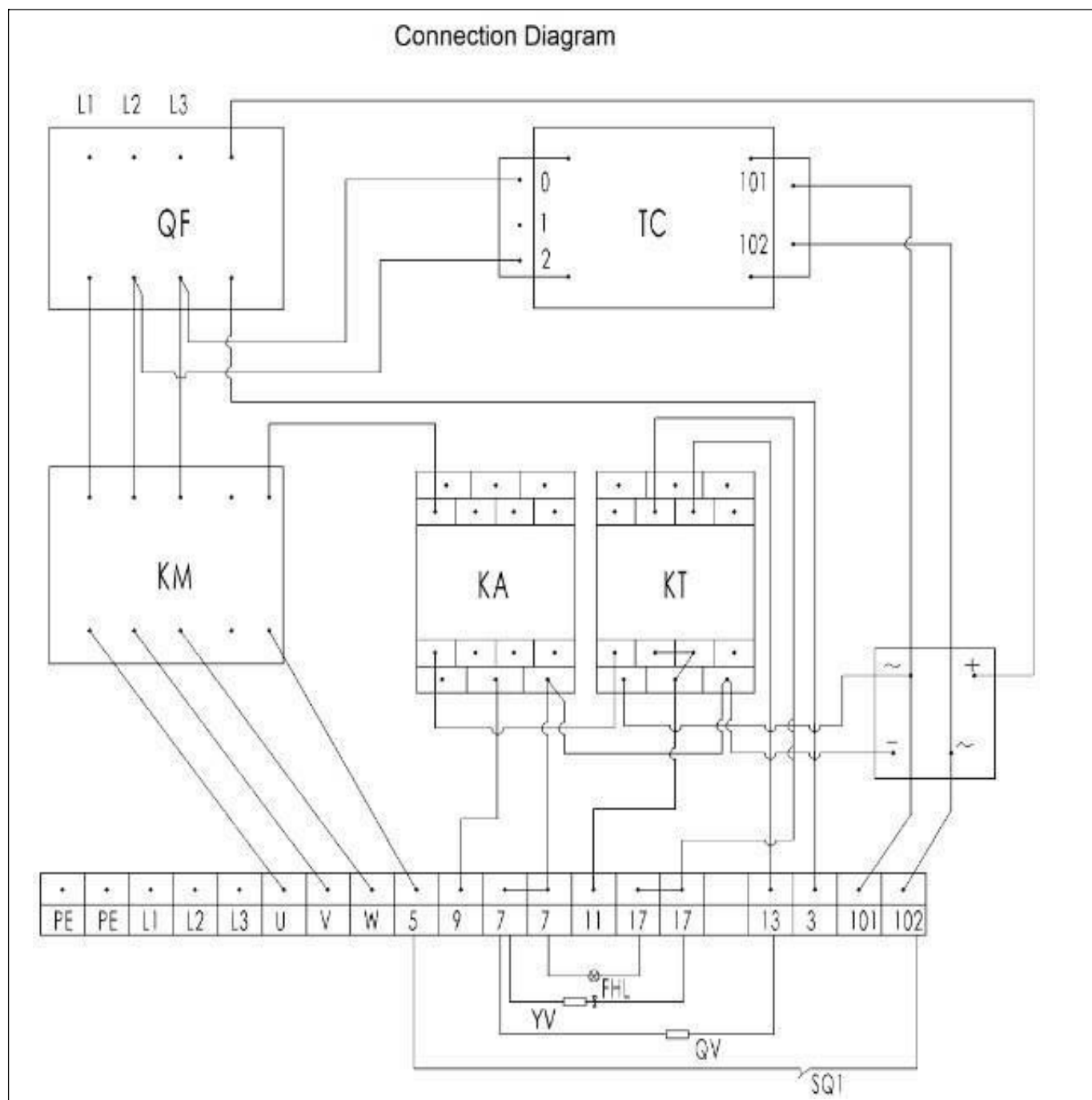
5.3 Figure



1	Main hydraulic cylinder	6	Motor
2	Check valve	7	Gear pump
3	Maximum pressure valve	8	Oil filter
4	Lowering solenoid	9	Manual emergency pump – optional
5	Lowering control valve	10	Parachute valve – optional

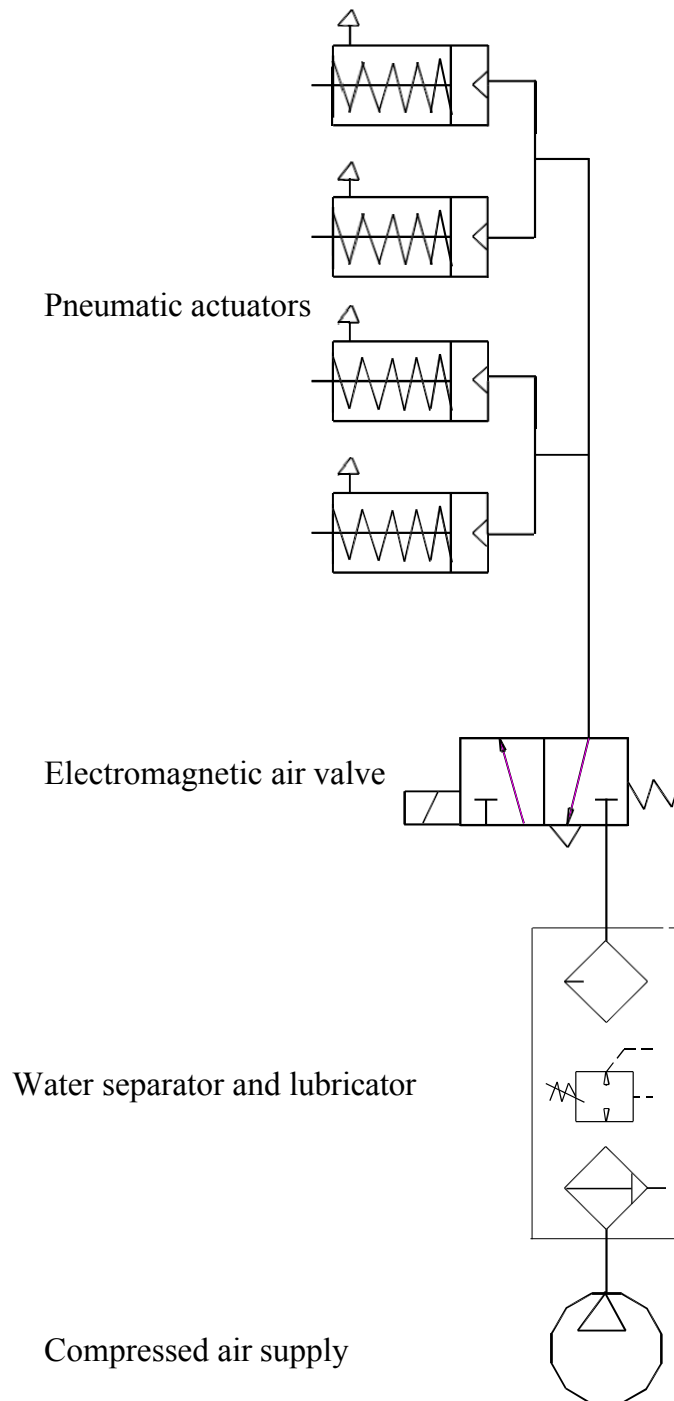
5.4 Electrical diagram (380 V/400 V-3





5.5 Connection diagram

5.6 -pneumatic drawing



6 Safety

Please read this entire section carefully, as it contains important information regarding the safety of the operator and the person responsible for maintenance.

	The lift has been designed and constructed to lift vehicles and position them above ground level in an enclosed space. Any other use is prohibited. The manufacturer is not liable for any damage caused
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For the safety of the operator and bystanders, maintain a distance of at least 1 m from the lift when raising and lowering it. The lift may only be operated from the operator's control station located within the safety zone.

The operator is only allowed to be under the vehicle during operation if the vehicle is raised and the drive belts are not running.

	Never use the lift when the safety devices are disabled. Failure to follow these instructions may result in serious injury to persons, damage to the lift, and damage to the vehicles being lifted.
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6.1 *General warnings*

The operator and the person responsible for maintenance must comply with the accident prevention regulations and rules in force in the country where the lift is installed.

They must also do the following:

- not remove or disconnect hydraulic, electrical, or other safety devices;
- strictly follow the safety instructions on the machine and in the operating manual;
- observe the safety zone during lifting;
- make sure that the vehicle engine is turned off, the gear is engaged, and the parking brake is applied;
- make sure that only authorized vehicles are lifted, without exceeding the maximum load capacity;
- Ensure that no persons are present on the platforms during lifting or standing.

	Any use of the lift other than as specified in these instructions may result in serious accidents to persons in the vicinity of the machine.
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6.2 *Hazard to persons*

This section describes all the hazards to which personnel may be exposed as a result of improper use of the lift.

6.3 *Risk of crushing personnel*

When lowering runways and vehicles, personnel must not remain in the area covered by the lowering trajectory. The operator must ensure that no one is in danger before starting the lift.



6.4 *Risk of vehicle falling from the lift*

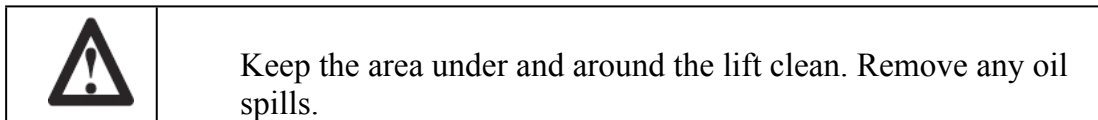
A vehicle may fall from the lift if it is incorrectly positioned on the platforms, if its dimensions are incompatible with the lift, or as a result of excessive movement of the vehicle.

In such a case, immediately move away from the work area.



6.5 *Risk of slipping*

The risk of slipping may be caused by the presence of oil or dirt on the floor near the lift.



6.6 *Risk of electric shock*

Avoid using water, steam, and solvents, and spray painting in the lift area where there are electrical cables, especially near the electrical panel.



6.7 *Risks associated with improper lighting*

Ensure that all areas near the lift are well and evenly lit in accordance with local regulations.

6.8 *Risk of components breaking during operation*

The manufacturer has used materials and procedures appropriate for the design parameters of the lift to create a safe and reliable product. The lift must only be used for its intended purpose and the maintenance schedule set out in the "Maintenance" section must be followed.



6.9 *Risk associated with unauthorized use*

The presence of unauthorized persons near the lift and on the platforms is strictly prohibited during lifting and when the vehicle has already been lifted.



6.10 *Risks during vehicle lifting and operation*

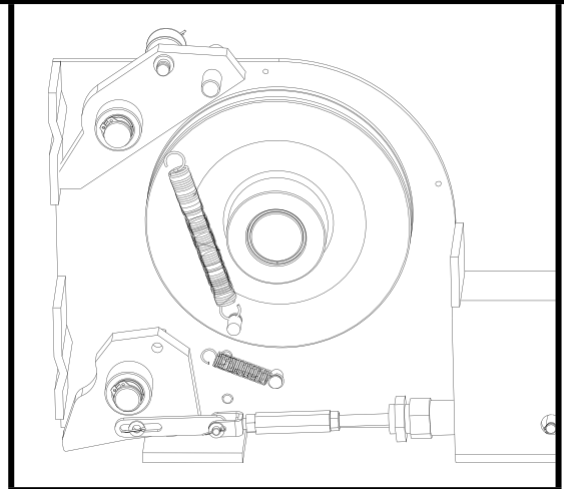
To avoid overloading and possible breakage during lifting and operation, the following safety devices are used:

- A maximum pressure valve located inside the hydraulic unit to prevent excessive loading.



The maximum pressure valve has been preset by the manufacturer to the appropriate pressure. Do not attempt to adjust it in order to

- A special safety mechanism built into each column prevents the lift from suddenly lowering of the lift in the event of cable failure.



It is strictly forbidden to modify any safety devices. Always ensure the safety the correct operation of the device during servicing.

7 Installation

	Installation may only be performed by qualified technicians designated by the manufacturer or authorized dealers. Installation by unqualified personnel may result in serious injury to persons and damage to the lift. During installation, use
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7.1 *sembly tools*

- | | |
|--------------------------|----------------------------------|
| † 1/2" 16 hammer drill | † Set of Allen keys |
| † Masonry drill bit | † Crowbar for installing washers |
| † Hammer | † Surveyor's string |
| † Spirit level | † Medium Phillips screwdriver |
| † Set of flat wrenches | † Medium flathead screwdriver |
| † Medium crescent wrench | † Tape measure |

7.2 *Checking the suitability of the room*

The lift is designed for use in covered and sheltered areas.

The installation site must not be located near washing stations, painting stations, or solvent or paint storage areas. Installation near rooms where there is a risk of explosion is prohibited. Relevant local health and safety regulations must be observed, for example with regard to the minimum distance from walls or other equipment.

7.3 *Lighting*

Lighting must comply with the regulations in force at the installation site. All areas near the lift must be well and evenly lit.

7.4 *Surface Installation Installation*

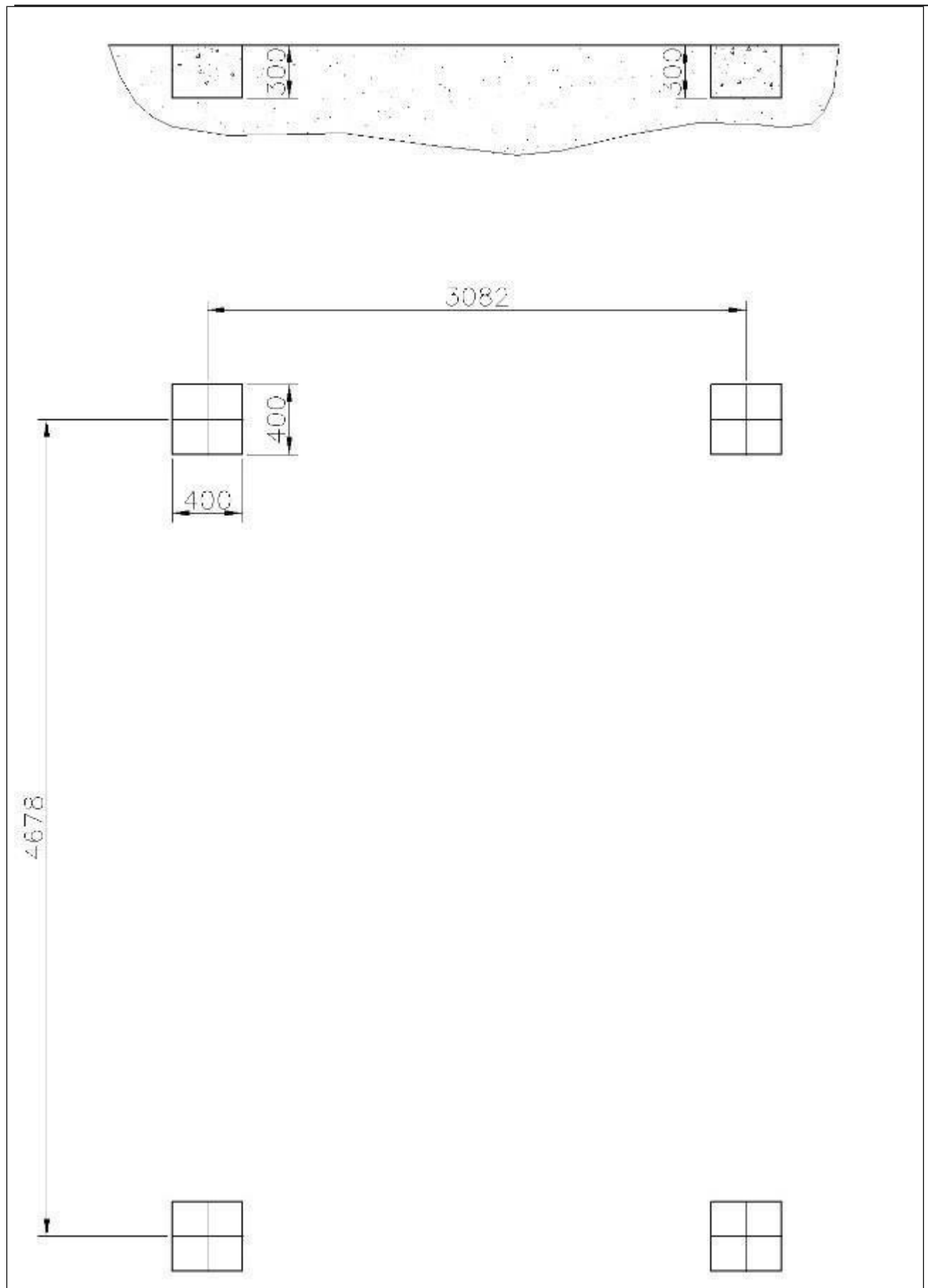
The lift must be placed on a concrete surface with sufficient strength. The surface must be capable of carrying the maximum load values, even under adverse operating conditions. New concrete must be properly cured for at least 10 days. For installation on an elevated surface, it is recommended to observe the maximum load capacity of the surface.

	To ensure proper installation, it is recommended to level the ground. Minor differences in ground slope can be compensated for by placing appropriate shims under the lift. Any major change in slope will affect the lifting performance. If the slope of the ground is in doubt, consult
---	--

7.5 *ystem layout*

- Determine which end of the lift will be the approach side.
- Determine which side will be the drive side track (with the hydraulic cylinder installed). Please note that the drive side track must be installed on the same side as the drive side column.
- In the case of a 4-post lift, do not drill a foundation hole for fixing the bolt before positioning the lift and adjusting it precisely. Usually, you first buy the lift, position it, adjust it, and then fix the posts. Preparing a hole for the bolt in the foundation before

delivering the lift is not a good idea. The figure below is for illustrative purposes only.

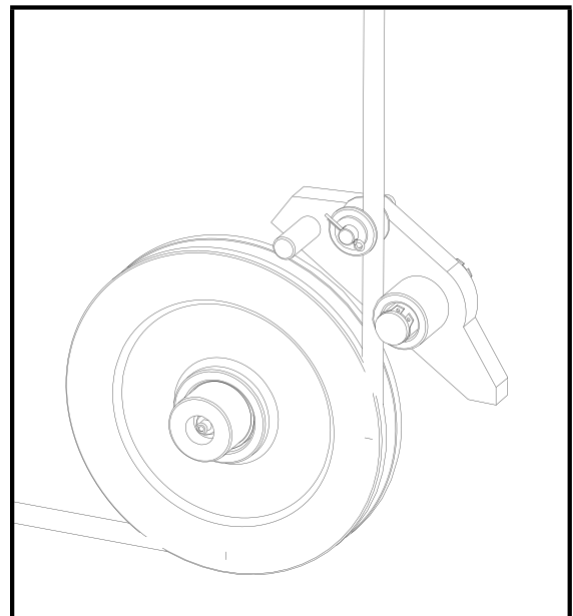
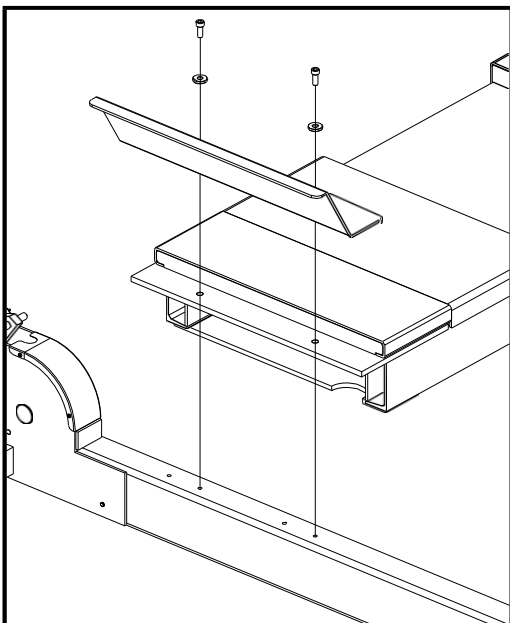
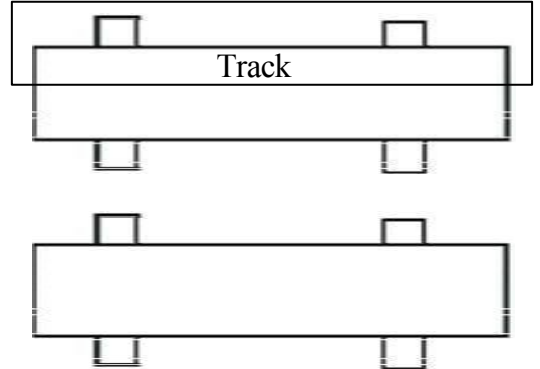


7.6 *Installation of running tracks and crossbeams*



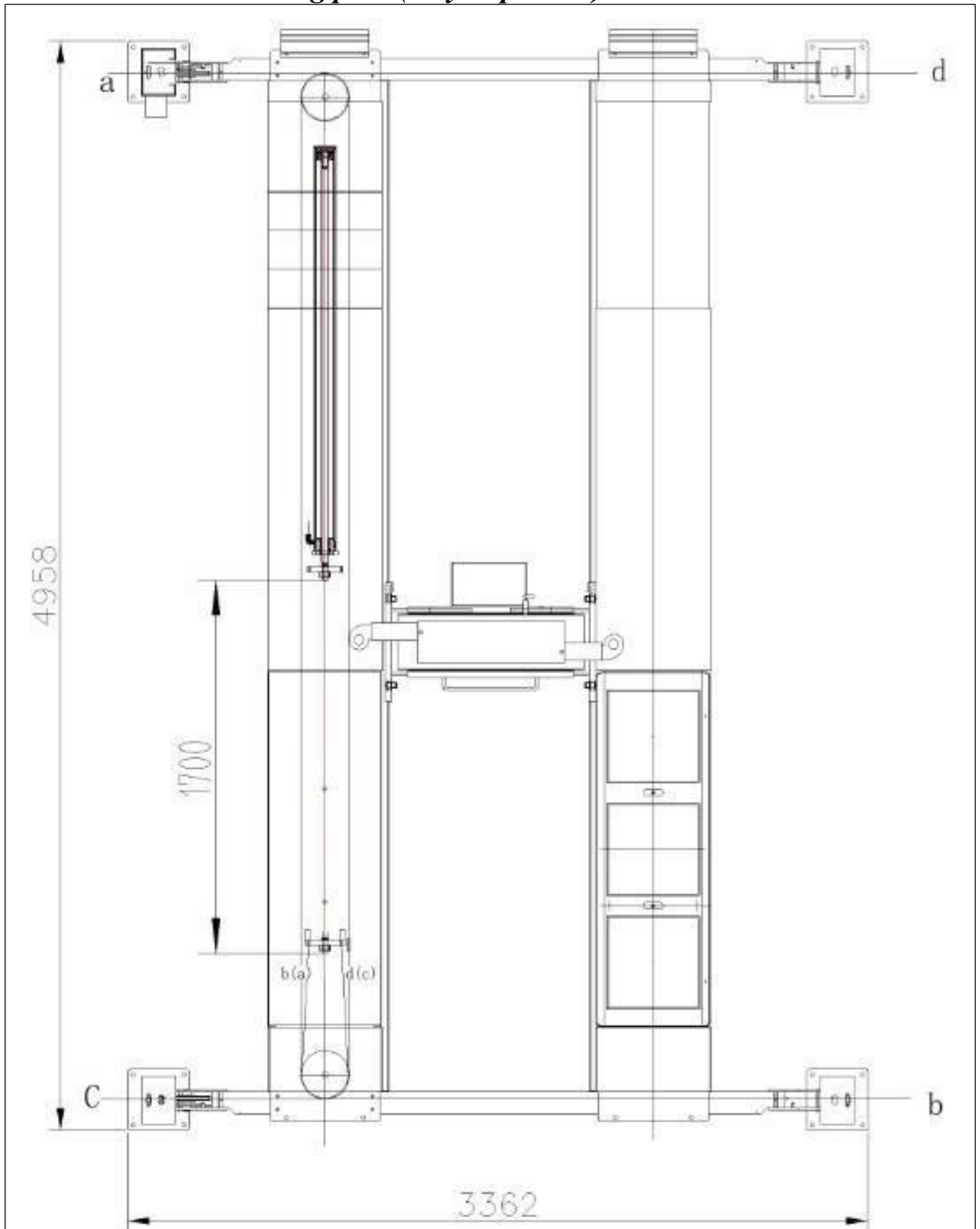
It is important to place the track on the power supply side (with the hydraulic cylinder) on the same side as the power unit. The rails on each side must be installed from the inside.

- Place each track on wooden blocks, as shown in the diagram, which should be approximately 100 mm high, and align each track according to the layout. Ensure that the rails on each side must be mounted from the inside. Pay attention to the position of the track on the power supply side.
- Lift the crossbeams with lifting devices to the ends of the running tracks. Before installation, make sure that the accessories are installed in the running tracks. Make sure that the side with large windows faces inwards and is adjacent to the track on the power supply side. Make sure that the plastic sliding blocks are in place.
- Pull each steel cable out of the end of the tread on the power side and guide the cable through the cross beams according to the cable routing diagram. Make sure that the cables are not twisted during routing and guide them through the safety roller correctly.
- Align the starting belts with the screw holes in the cross beams and temporarily screw them into the correct position (the starting belt on the opposite side can be screwed into two positions on the cross beam for vehicles with different tread widths).



Before installation, make sure that all accessories are mounted in the running tracks and crossbeams.

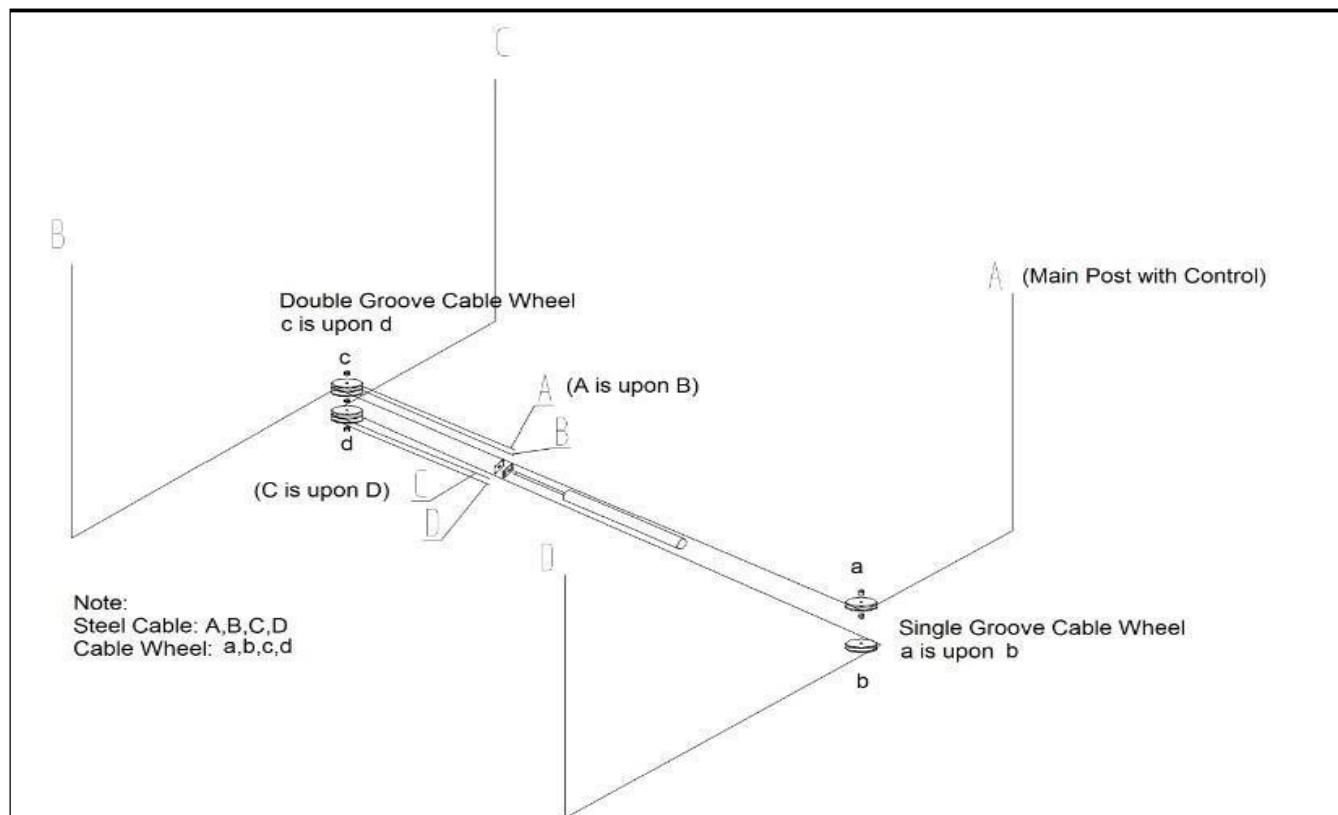
7.7 *Steel cable routing plan (very important)*



Please refer to the above drawing:

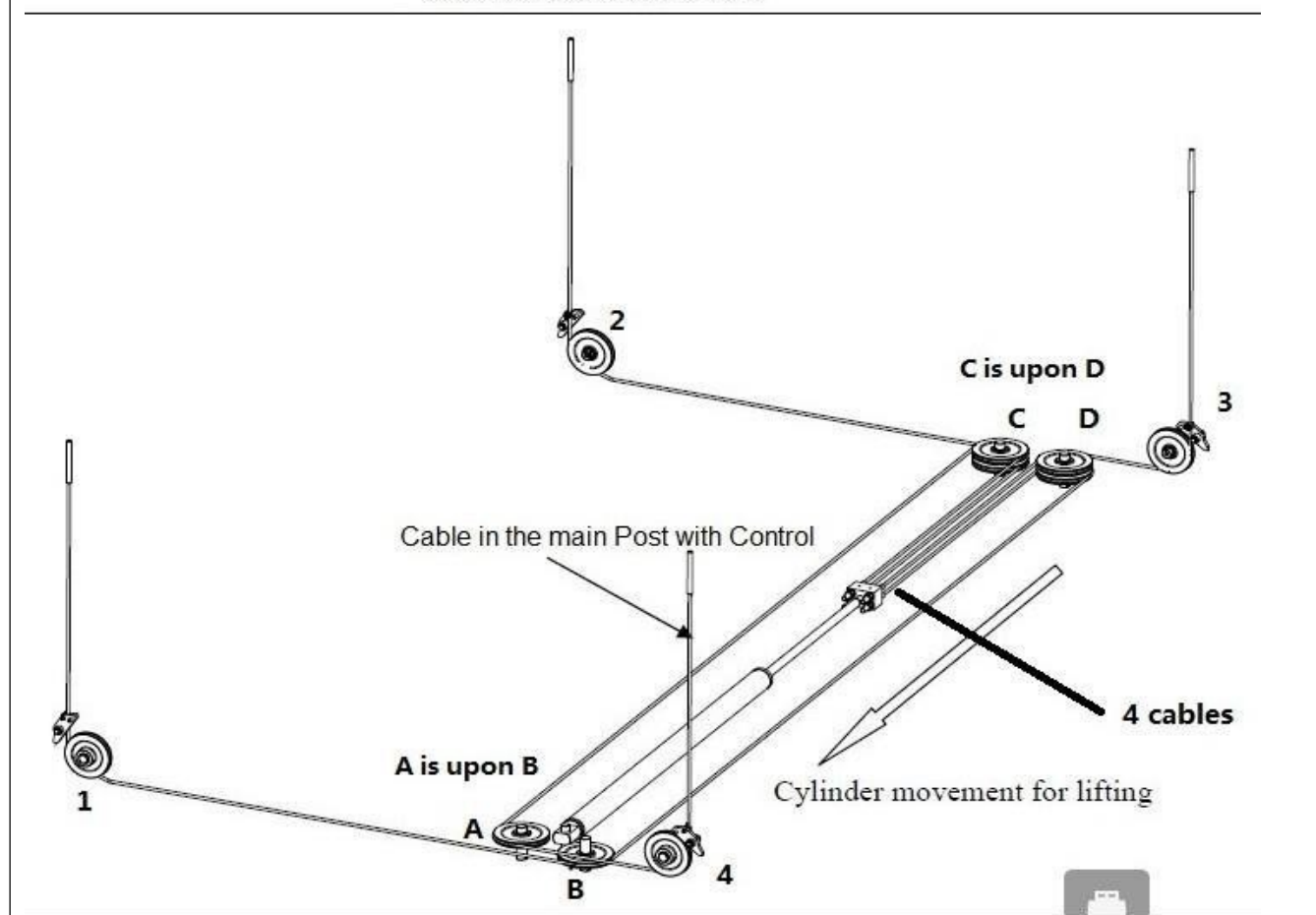
Post "a" is the main post with the control section!

For more detailed information on cable routing, please refer to the two photos below.



The two cable routing drawings on this page are the same, but show different views. Please refer to either one!

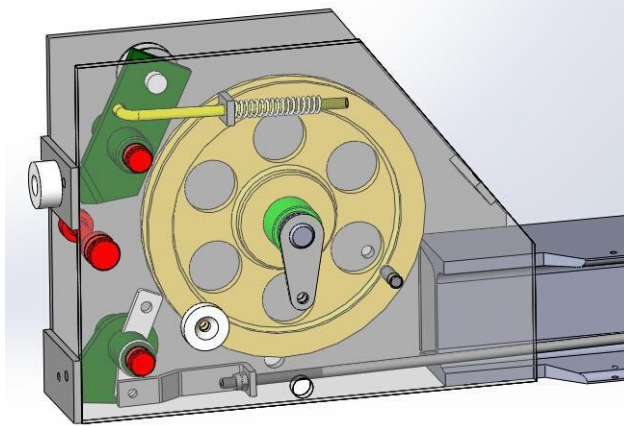
CABLE ROUTING PLAN



	There will be some initial stretching of the cables. It will be necessary to readjust the cables after the first week and then every three to six months. Failure to do so will result in
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7.8 *safety lock installation*

- After carefully reading the description below, installing/adjusting the safety lock is easy.



There are two locking hooks.

- The upper one only works in the event of sudden rope breakage! Therefore, make sure that the following two conditions are met
 - a) Tighten the spring so that it is strong!
 - b) Adjust the latch so that its tip is directed towards the center of the hole in the lock rod.
- The lower latch is a normal safety device. Its purpose is to lock the lift.

Make sure the connecting screw is tightened securely. We must also make sure make sure that the tip is pointing toward the center of the hole in the locking strip

When adjusting the safety lock, pay special attention to the above screw.

When the **"Down"** button is pressed, the magnetic air valve will allow compressed air to pass air to the 4 cylinders of the safety lock actuator, and then retract the upper thin rod to unlock the lift.

Possible error:

1) If the thin rod is too long, it will not be able to effectively pull out the lock tongue. Therefore, be careful when adjusting!

2) Setting the time relay

If the car is heavy but the time relay is set for too short a time.

The motor runs for too short a time before the lift **lowers...**

In this case, the latch **is** still pressed **and** cannot be released completely.

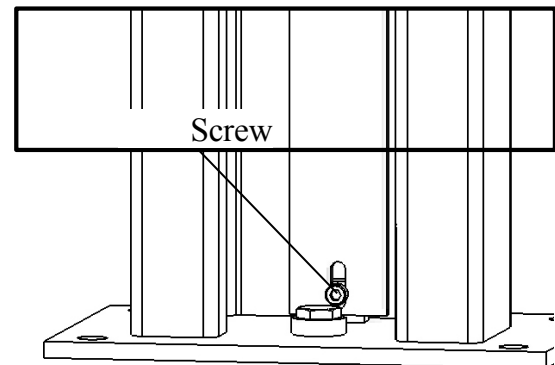
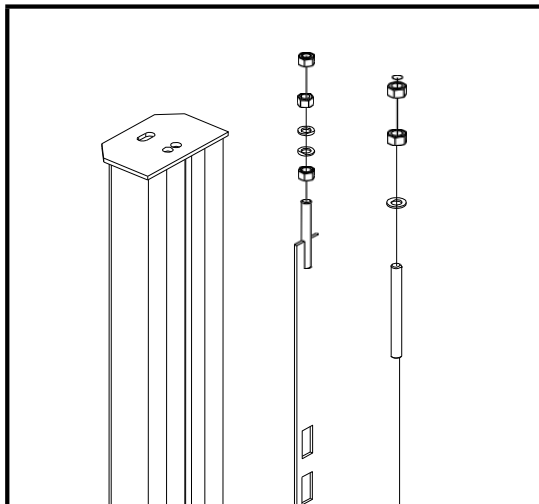
If the latch is not released completely and the lift starts to descend, it can be dangerous and even cause damage to the lift. Therefore, set the time relay to approximately 2.5 seconds or even 3 seconds, especially for a very heavy car...

However, setting the timer too long is not good for light cars. The lift will rise too high when you press the **"Down"** button.

Therefore, you should proceed professionally, adapting to the specific situation.

7.9 *tallation of columns*

- Transport the columns to the designated location.
- Move each column toward the appropriate end of the crossbeam until it is stopped by the slide locks on the crossbeam. Make sure that the column on the power side is in the correct position.
- Set the column at the correct angle and insert the screw end of the safety stand from below into the top cover of the corresponding column. Be careful to prevent the columns from tipping over. Do not use excessive force when bending the stand during installation.
- Attach the stands to the top cover of the corresponding column as shown in the figure below using the included nuts and washers.
- Adjust the height of each bracket by tightening or loosening the adjustment nuts.
- Attach the bottom of the stand to the column using the included screw, as shown in the photo below.
- Install the steel cables on the top cap of the corresponding column, as shown in the photo, using the included nuts and washers.
- Adjust the tension of each cable by tightening or loosening the adjustment nuts.



7.10 *Column mounting*

- Before starting work, check the dimensions according to the plan and make sure that the base plate of each column is positioned perpendicularly.
- Using the base plate as a guide, drill each hole in the concrete to a depth of approximately 120 mm using a D.16 hammer drill. To ensure full holding strength, do not drill the hole or allow the drill bit to wobble.
- After drilling the holes, thoroughly remove dust from each hole using compressed air or a wire brush.
- Install washers and nuts on the anchors, then hammer them into each hole until the washer rests against the base plate. If washers need to be added, make sure there is enough thread exposed.
- If shims are necessary, insert them around the anchor bolts as needed to ensure that the columns are vertical.
- Once the washers and anchor bolts are in place, tighten the nut to the base.

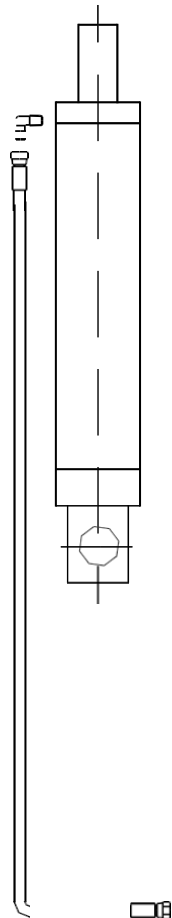
7.11 *Hydraulic System Connection*



When laying the hydraulic hose, make sure that it does not come into contact with any moving parts and that the hose and fittings are clean and free of dust. Failure to do so may result in hose failure, which could damage the equipment or

- Attach the hydraulic unit to the bracket mounted on the power supply side of the column using the screws and washers provided;
- Route the hydraulic hoses as shown in the figure below;
- Tighten the connectors securely.

Hydraulic diagram



Pump

7.12 *l lift installation*

- Install the lift rollers in the lift.
- Adjust the base extensions to match the clearance between the rails of the two tracks.
- Lift the lift beam onto the rails using a lifting device.

7.13 *Connecting the pneumatic system*



When laying the air lines, make sure that the lines do not come into contact with any moving parts. It may be necessary to secure the lines with nylon ties or wire. Failure to follow this recommendation may cause a safety violation, which may result in

The lift system must be equipped with a consisting of a water separator, lubricator, and pressure reducer. These devices can be supplied by the manufacturer upon request.

- Install an electromagnetic air valve on the column on the supply side and secure it with screws.
- Connect the pneumatic lines pre-assembled on the tracks to the electromagnetic air valve;
- Connect the pneumatic system of the lift and lift beam to the pneumatic power supply pneumatic power supply on site;
- Check that the pneumatic control is working properly.

7.14 *Connect the electrical power supply to the power supply unit.*



The connection must be made by a qualified electrician. Make sure that the power supply is correct. Make sure that the phase connection is correct. Do not start the power unit without oil. This may damage the pump. The drive unit must be kept dry.

- Attach the control panel to the column on the power supply side using the screws provided.
- The electrical connection to the hydraulic unit must be made in accordance with the connection diagram, using the supplied electrical cable.
- Ensure that the phase connection is correct and that the lift is grounded.



Unless there are special requirements, black wires are used for phases, blue for neutral (in the case of

7.15 *Start-up*



During the start-up procedure, observe all working parts and check that they are correctly installed and adjusted. Do not attempt to lift the vehicle before completing a thorough inspection operation.

- Ensure that all columns are level and that the base plate of each column is perpendicular.
- Ensure that the lift is secured to the ground with anchor bolts and that all anchor bolts are tightened.

- Ensure that the supply voltage to the electrical system matches the voltage specified on the motor nameplate.
- Make sure that the lift is grounded.
- Make sure that there are no people or objects in the working area.
- Lubricate the slide blocks located on the crossbeams.
- Check that the control unit is powered.
- Pour oil into the tank (approximately *10 liters at a time*).
- Turn on the lift power supply by activating the power switch
- Supply air to the lift
- Check that the direction of rotation of the motor matches the direction indicated on the label by pressing the lift button. If the motor overheats or makes strange noises, stop the device immediately and recheck the electrical connections.
- Slowly raise the lift by pressing the lift button until it reaches its full height. Do not press the button after the lift has reached its full height. Continuing to do so may damage the motor.
- Repeat raising and lowering the lift at least 3 times to remove any air trapped in the cylinder.

7.16 ***Check and adjust***

During the start-up procedure, check and adjust:

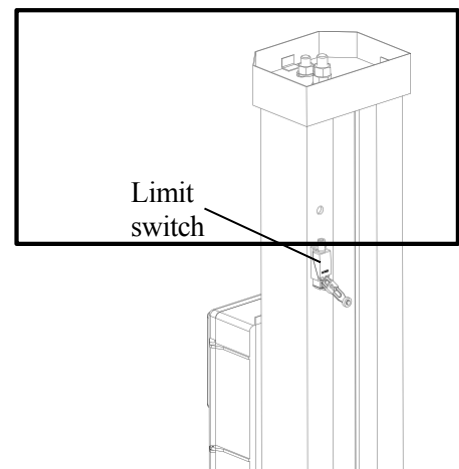
- The level of the travel tracks. Adjust the cable tension;
- Ensure that the safety devices are evenly engaged and that the four safety devices can engage in the same position on the safety bar in the column.
- Ensure that the safety mechanisms are working properly. If necessary, adjust them by tightening or loosening the nuts on the safety hook
- Check the oil level in the reservoir and top up if necessary.
- Cylinder operation;
- No leaks in the hydraulic line;
- The lift reaches its maximum height.

7.17 ***Installation of the limit switch***



This operation may only be performed by qualified personnel. Incorrect adjustment of the limit switches may result in damage to the lift, objects, and personal injury.

- Attach the maximum height limit switch to the right power column in the correct position using the screws provided. When routing the limit switch electrical cable through the column, make sure it passes through the clamp located in the column so that it does not move.
- Perform a full lowering and lifting cycle and check that the installation is correct and that it reaches maximum working height (1850 mm), adjust if necessary.



7.18 *Installation of accessories*

- Install the front wheel stops.
- Install the ramps on the lift.
- Install the post cover at the top of each column.
- Install the drive unit cover.

7.19 *Check the load*



Warning: Carefully follow the instructions in the following paragraph to avoid damaging the lift.

Perform two or three complete cycles of lowering with a loaded vehicle and lifting and:

- Repeat the checks specified in section 7.15.
- Check that there are no unusual noises when raising and lowering.
- If the tracks are not level, readjust them.

8 Operation and use

	Never use the lift when there are people or equipment underneath it. Never exceed the load capacity of the device. Always ensure that the safety locks are engaged before performing any work on or near the vehicle. Never leave the lift in the raised position unless the safety devices are engaged. If the anchor bolt becomes loose or any part of the lift proves to be defective, do not use
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8.1



Switch

The power switch can be set to two positions:

0 Position: the electrical circuit is not powered; the switch can be secured with a padlock to prevent use of the lift.

1 Position: the electrical circuit is powered

Power supply

Indicates that the electrical circuit is powered

Up

When pressed, the hydraulic drive unit is activated: the lift will be raised.

Lock

When pressed, the lift is lowered to activate the nearest mechanical safety devices.

Down

When pressed, the lowering solenoid is energized: the lift begins to descend under its own weight and that of the raised load.

8.2 *To raise the lift*

- Position the vehicle's tires in the center of each runway.
- Apply the parking brake or use wheel chocks to immobilize the vehicle.
- Before lifting the vehicle, make sure that there are no people or objects in the safety zone. Pay attention to the headroom.
- Set the power switch to position 1.
- Raise the lift by pressing the lift button on the control panel until the desired height is reached.
- Press the safety lock button to lock the lift at the nearest safety point.
- Before entering the work area, check that all four safety locks are evenly engaged.

8.3 *To lower the lift*

- Make sure there are no people or objects in the safety area.
- Press the lift button to raise the lift slightly and release the safety device.
- Press the lowering button; the lift needs a few seconds to release the safety devices, and then the electromagnetic lowering valve is powered: the lift begins to descend under its own weight and the load is lifted.

8.4 *Lift operation*

The lift uses a pneumatic-hydraulic lift. It has a 3-stage manual safety lock. When the lift rises, the lock

The safety lock is always released.

When the lift is lowered, the safety lock is always engaged.

Therefore, if we want to lower the lift, we must manually release the safety lock using the handle.



9 Maintenance



Maintenance of the lift may only be performed by trained personnel who are familiar with its operation.

To service the lift correctly, perform the following steps:

- Use only original spare parts and equipment suitable for the work to be performed.
- Follow the maintenance and inspection schedule provided in the operating manual.
- Determine the causes of any malfunctions, such as excessive noise, overheating, oil leakage, etc.
- For maintenance, refer to the documents provided by the manufacturer or seller.



Before performing maintenance or repairs on the lift, disconnect the power supply, lock the main switch with a padlock, and store the key in a safe place to prevent unauthorized persons from

9.1 *Regular maintenance*

The lift should be cleaned properly at least once a month using self-cleaning cloths.



The use of water or flammable liquids is prohibited.

Ensure that the piston rod of the hydraulic cylinders is always clean and undamaged, as this may cause leaks from the seals and, consequently, possible malfunctions.

9.2 *periodic maintenance*

Daily Pre-startup activities	• Check hydraulic connections and hoses for leaks • Check the safety lock audibly and visually during operation • Check that bolts, nuts, and screws are tight
Monthly	• Check all chain/cable connections, pins, and bolts to ensure they are properly installed • Check all anchor bolts and tighten them if necessary. • Check that the columns are perpendicular and vertical. • Check the tension of the steel cable and adjust if necessary. • Check all lifting pads and replace them if necessary. • Lubricate the columns with grease. • Lubricate all pivot pins. • Check the hydraulic oil, top up or replace if necessary • Check that the hydraulic systems are working properly

Every 12 months	• Check that all components and mechanisms are not damaged • Check that the steel cables are not worn by more than 5%, replace if necessary • Check the electrical system to ensure that the motor, limit switch, and control panel are working properly (this work must be performed by qualified electricians) • Drain the oil tank and replace the hydraulic oil
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10 Troubleshooting

Below is a list of possible faults and solutions

PROBLEM:	POSSIBLE CAUSE:	SOLUTION:
The elevators are not working	The main switch is not turned on	Turn on the switch
	No power	If necessary, check the power supply to restore it
	Electrical cables are disconnected	Reconnect them
	Blown fuses	Check that the voltage is correct Replace
The lifts are not rising	The lift is overloaded	Check the vehicle weight
	The direction of rotation of the motor is incorrect.	Swap two phases on the main switch
	There is not enough oil in the power supply system.	Add some hydraulic oil
	The UP button is damaged.	Check the UP button and connection for proper operation. Replace if necessary
	The maximum pressure valve is clogged or leaking	Check and clean if dirty, or replace if damaged
	The drain valve does not close.	Check and clean if dirty, or replace if it is damaged
	The suction pipe or pump filter is dirty.	Check and clean if necessary.
	Air in the hydraulic system Check and bleed the hydraulic system	Bleed the hydraulic system.
The lifting capacity is insufficient	The pump is damaged	Check the pump and replace it if necessary.
	Oil leaks in the hydraulic circuit	Check the circuit for possible leaks
The lift does not lower when the lowering lever	The lowering valve is not working properly	Check the valve and replace it if necessary.
	Safety lock is not released	Release the safety lock.
	The steel cables are not evenly tensioned.	Adjust the steel cables.
The lift does not descends smoothly	Air in the hydraulic system	Bleed the hydraulic system
	Insufficient lubrication of the slides.	Lubricant
	The slides are damaged	Replacement

The motor does not stop when the lift reaches its maximum height	The maximum height limit switch is not working	Check the limit switch and replace it if necessary
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WARRANTY CARD

Lift typeserial number

1. P.U.P. TIP-TOPOL guarantees trouble-free operation of the device for a period of months from the date of commissioning.
2. The device is started up and the operating personnel are trained by the technical staff of TIP-TOPOL.
3. During the warranty period, the Guarantor provides free repairs of the equipment (removal of faults covered by the warranty).
4. During the warranty period, the Guarantor is the only entity authorized to perform repairs and inspections.
5. Warranty repairs will be carried out at the place where the device is installed.
6. In the event of damage causing the device to be taken out of service, the warranty shall be extended by the time between the reporting of the failure and its repair – this fact must be documented by an entry made by an authorized employee of the Guarantor's service department.
7. User obligations:
 - i. The user of the device undertakes to comply with the rules of use contained in the "Operating Instructions" provided with the device
 - ii. The User undertakes to notify the Guarantor of any failure requiring repair. The User may report a failure at the place of purchase of the device or at the TIPTOPOL headquarters in Pobiedziska, tel. (0****61 8152 200)
 - iii. This completed "Warranty Card" constitutes documentation of the warranty rights and should be kept at the place where the device is installed and made available to TIPTOPOL service personnel for the purpose of making notes about repairs and possible warranty extensions
 - iv. **The user undertakes to perform maintenance inspections in accordance with applicable regulations (every 90 days according to the Regulation of October 30, 2018, item 2176).**
8. The warranty **shall expire** if:
 - i. the device's serial numbers have been removed,
 - ii. the device has been used contrary to its intended purpose or in conditions and in a manner other than specified in the user manual
 - iii. the user or a third party has repaired or modified the device without the consent of the Guarantor,
 - iv. the damage was caused by the user or as a result of random events
 - v. the installation location of the device has been changed without the consent of the Guarantor this applies to situations where, for example, the device has been exported/resold outside the country
 - vi. **technical inspections (every 90 days) have not been performed => no entries in the maintenance log by a person authorized to perform inspections and maintenance of the lift**

Date of sale and invoice number (to be filled in by the seller)

Date of commissioning, signature (to be completed by the service provider)

I declare that I have read and understood the warranty terms and conditions set out in this Card. I confirm that the device is in full working order at the time of signing the Warranty Card and that the personnel operating the device have been trained.

Company stamp

Date and legible signature of the user

No.	Date of notification	Date of repair	Repair work performed, components replaced, notes on warranty extension	Signature of the service technician

Environmental information

Thank you for choosing our products. As a company that cares about the environment, we ask you to familiarize yourself with the following guidelines for handling used products.

If the product has a crossed-out wheellie bin symbol on its nameplate
below



, please follow the disposal procedure

This product may contain substances that are hazardous to the environment or health if not disposed of properly. This information is provided to prevent the release of hazardous substances. substances into the environment. Electrical and electronic components must never be disposed of in municipal waste bins. All equipment must be disposed of in accordance with applicable regulations at the place of installation. This will prevent harmful consequences for the environment and health.

In accordance with the applicable regulations in the country concerned, disposal of the product in any other way than described above will be punished. It is also recommended to segregate other waste: recycling

the outer and inner packaging of the product and used batteries and accumulators (if the product requires them). Your help is very important in reducing the amount of raw materials needed for manufacturing equipment, minimize the use of landfills, and improve the quality of life by reducing the amount of potentially hazardous substances in the environment.

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