

TWO POST OVERHEAD CAR LIFTING OPERATING MANUAL

Model: QJY5.5-D



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1 safety

1.1 Introduction

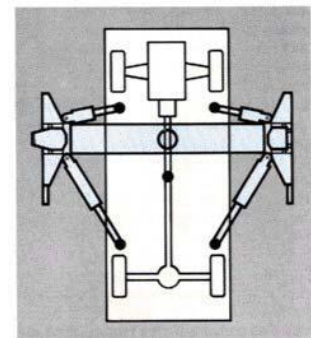
Thoroughly read this manual before operating the lift and comply with the instruction display the manual in a conspicuous location.

Personal injury and property damage incurred due to non-compliance with these safety instructions are not covered by the product liability regulations.

1.2 Intended Use

The lift is designed for the safe lifting of automotive vehicles. Observe the rated load capacity and load distribution of the lift.

	Load Capacity	Load Distribution Front: rear	
		Minimum	Maximum
QJY5.5-D-1	5500kg	2:3	3:2



Note:

The manufacturer declines all responsibility for injury to persons or damage to vehicles or objects when any of the above mentioned operations have been performed by unauthorized personnel or when the rack has been subject to abuse.

This manual indicates only the operative and safety aspects that may prove useful to the operator and maintenance workers better understanding the structure and operation of the lift and for best use of the lift.

In order to understand the terminology used in this manual, the operator must have specific experience in workshop, service, maintenance and repair activities, the ability to interpret correctly the drawings and descriptions

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contained in the manual and be acquainted with the general and specific safety rules relevant to the country in which the machine has been installed.

The same applies to the maintenance fitter, who must also possess specific and specialized knowledge (mechanical, engineering) needed to perform the operations described in the manual in complete safety.

The words “operator” and “maintenance fitter” used in this manual are construed as follows:

OPERATOR: person authorized to use the lift.

MAINTENANCE FITTER: person authorized for routine maintenance of the lift.

The end user can only use the machine in correct way as defined in instruction.

Loose clothes shall not be used protection cap shall also be used for long hair person, etc.

The end user should provide the MSDS (Material Safety Data Sheet) at easy accessible place when providing lubrication.

WORKING CONDITIONS:

- 1、 Regarding ambient temperature shall be 5 - 40°C.
- 2、 Regarding humidity shall be 30 - 95%.
- 3、 Regarding transportation and storage temperature shall be between 25 - 55°C , and short period not exceeding 24 hours at up to 70°C.
- 4、 Regarding installation altitude max 1000m.

1.3 Safety Instructions for Commissioning

The lift may be installed and commissioned by authorized service personnel only.

The standard lift version may not be installed and commissioned in the vicinity of explosives or flammable liquids, outdoors or in moist rooms (e.g. car wash).

1.4 Safety Instructions for Operation

Read the operating manual.

Lift operation by authorized personnel over 18 years only.

Always keep the lift and lift area clean and free of tools, parts, debris etc.

Once the pads contact the lift points, please check arm restraints for engagement.

After raising the vehicle briefly, stop and check the pads for secure contact.

Always lift the vehicle using all four adapters.

Make sure the vehicle doors are closed during raising and lowering cycles.

Closely watch the vehicle and the lift during raising and lowering cycles.

Do not allow anyone to stay in lift area during raising and lowering cycles.

Do not allow anyone on lift or inside raised vehicle.

Only use the lift for its intended purpose.

Comply with the applicable accident prevention regulations.

Do not overload the lift. The rated load capacity is indicated on the lift nameplate.

Only use the vehicle manufacturer's recommended lift points.

After positioning the vehicle apply the parking brake.

Use caution when removing or installing heavy components (center-of-gravity displacement).

The main switch serves as emergency switch. In case of emergency turn to position 0.

Protect all parts of the electrical equipment from humidity and moisture.

Protect the lift against unauthorized usage by padlocking the main switch.

1.5 Safety Instructions for Servicing

Maintenance or repair work by authorized service personnel only.

Turn off and padlock the main switch before doing any maintenance, or repair work.

Work on pulse generators or proximity switches by authorized service personnel only.

Work on the electrical equipment by certified electricians only.

Ensure that ecologically harmful substances are disposed of only in accordance with the appropriate regulations.

Do not use high pressure / steam jet cleaners or caustic cleaning agents. Risk of damage!

Do not replace or override the safety devices.

1.6 Safety Features

1.6.1 Dead Man's Type Control

The operator is required to hold the controls in the engaged position to raise or lower the lift

1.6.2 Equalizing System

The lift is provided with equalizing cables to ensure level movement of both carriages.

1.6.3 Collision Prevention Switch

Limit switch is provided for preventing collisions between bar and the top bar.

1.6.4 Pinch Point Protection

During lowering cycles the support arms lower down by hold to run, safety bar provided for pinch protection.

1.6.5 Automatic Arm Restraint

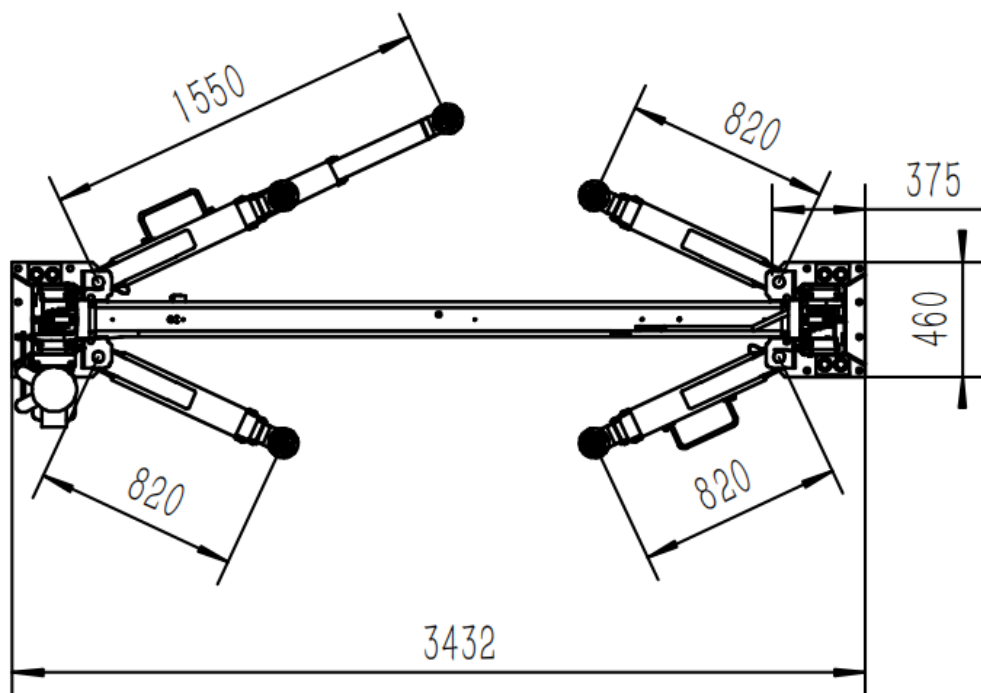
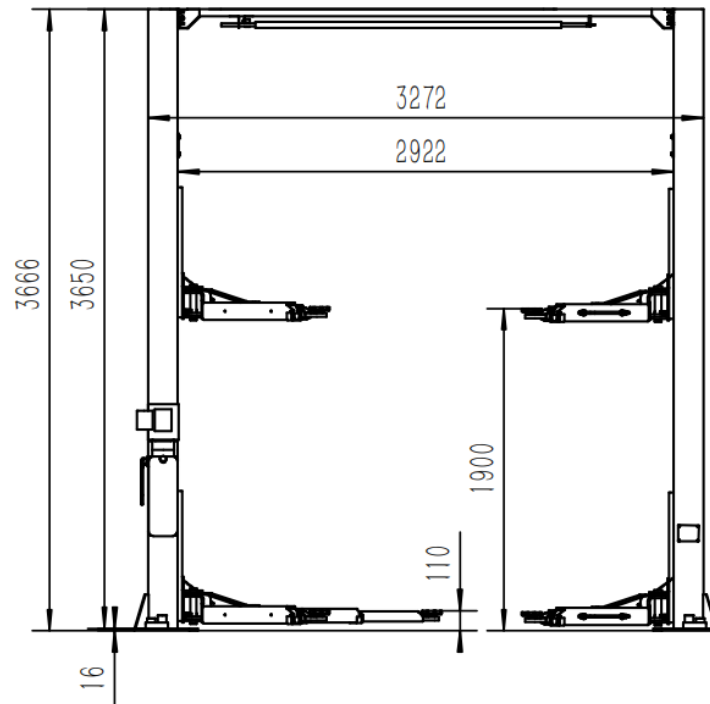
Once the lift is raised, the arm restraints are locked automatically to avoid any swivel under load.

1.6.6 Pressure Relief Valve

A pressure relief valve is used to limit the hydraulic working pressure to a maximum of 150 bar.

2. Specification

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	QJY5.5-D-1	
Height overall	3666 mm	
Raising / Lowering time	Approx. 50s	
Lifting height	1900mm	
Lifting height min.	110mm	
Support arm reach	820-1550mm	
Inside columns	2922mm	
Drive-through clearance max.	2630mm	
Load capacity	5500kg	
Net weight	650kg	
Anchoring	M19	
Concrete grade min.	C20/25(DIN 1045:2001-07)	
Motor power	2.2kW	
Rated current	10A	
Power supply	220V 50Hz	380V 50Hz
Sound pressure level	≤75dB(A)	
Hydraulic pressure	20MPa	

3. Operation

Lift operation by authorized personnel over 18 years only.

Apply the parking brake after positioning the vehicle on the lift.

Do not allow anyone to stay in lift area during raising and lowering cycles.

Closely watch the vehicle and the lift during raising and lowering cycles.

Observe the rated load capacity and load distribution.

Do not allow anyone to climb on lift or stay inside vehicle.

After raising the vehicle briefly, stop and check adapters for secure contact.

Once the pads contact the lift points, please check arm restraints for engagement.

Make sure the vehicle doors are closed during raising and lowering cycles.

3.1 Defects/Malfuctions

In case of defects or malfuctions such as jerky lift movement or deformation of the superstructure, support or lower the lift immediately.

Turn off the padlock the main switch. Contact qualified service personnel.

3.2 Controls

3.2.1 Control Unit

Once any button is actuated, press the Up button, the lift moves until the button is released

When the Up button is released, press the Unloading Handle once to set the lift on the mechanical locks automatic.

Press the Up button once first, insure the safety plate is in disengaged position, press the Unloading Handle to lower the lift

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Engaged Position



Disengaged Position



3.2.2 Arm Restraint

Once the pads contact the lift points, check arm restraints for engagement,

If necessary, slightly move the arms until the gear segments mesh. Never unlatch the arm restraints when the lift is under load.

Each support arm is provided with an automatic arm restraint which unlatches automatically when the lift is in bottom position.

When the carriages are in a raised position, the arm restraint can be disengaged by pulling the Pull Handle

3.3 Operation

3.3.1 Preparations

1. Fully lower the lift and swing the arms to full drive-through position.
2. Slowly position vehicle midway between adapters. Apply the parking brake.
3. Swing and telescope arms as required to position adapters under vehicle manufacturer's recommended lift points.
4. Turn the pad that they evenly contact all four lift points.
5. Leave vehicle and remain clear of lift.

3.3.2 Raising

During raising and lowering cycles: Closely watch the vehicle and the lift, do not allow anyone to stay in lift area and make sure the vehicle doors are closed. Once the pads contact the lift points, check arm restraints for engagement. After raising the vehicle briefly, stop and check adapters for secure contact.



3.3.3 Vehicle in Raised Position

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Observe all accident prevention regulations.

Do not allow unauthorized persons to stay under the raised vehicle.

Avoid rocking of vehicle.

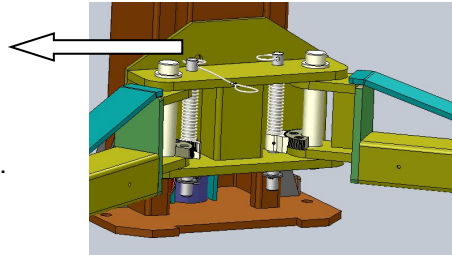
Keep lift free of tools, parts, etc. pulling handle

Fasten the vehicle to the support arms using lashing.

Straps when removing or installing heavy components.

Set on Locks

Use the Unloading Handle to set the lift on the mechanical locks. In this way the vehicle can be securely fixed when the vehicle is in a raised position.



3.3.4 Lowering



During raising and lowering cycles: Closely watch the vehicle and the lift, do not allow anyone to stay in lift area and make sure the vehicle doors are closed.

1. Remove tools, stands or other objects from lift bay.
2. If the safety plate is in the engaged position, briefly raise the lift before lowering.
3. Pull the unlocking steel wire at both columns.
4. Press the Unloading Handle until lift reaches desired height.
5. Lift stops once Relief Handle is released or downward travel
6. To lower the arms completely, release the Unloading Handle.
7. Swing arms to full drive-through position and drive the vehicle off the lift.

3.4 Manual Lowering

In case of motor defect or power failure, the lift can be lowered manually.

Authorized personnel only! Do not restart the lift before the error has been remedied.

If the lift load lies fully on the safety plates, manual lowering is not possible.

4 Maintenance



The maintenance intervals indicated below apply to average workshop use. The lift should be inspected more frequently for severe use applications.

4.1 Maintenance Schedule

Establish a periodic preventive maintenance procedure to ensure trouble free operation and long service life.

4.2 Annual Inspection

We recommend to have the lift inspected by qualified service personnel every 12 months.

4.3 Maintenance by the Operator

4.3.1 Hydraulic System

- 1 Once a year check the fluid level with the lift fully lowered and add fluid as required.
- 2 Visually check all hydraulic hoses for tightness.

The hydraulic fluid must be replaced periodically depending on aging, soiling and water absorption recommended to replace the pressure hoses as required, but after six years at the latest.

Interval	Maintenance to be performed	Items
1 week	Support arms	Check rubber pads for wear Check arm restraints for engagement
6 months	Greasing points	Check and lubricates as required; -Slide tracks -Arm extensions -Threads of pads
	Nuts of anchor bolts	Check all nuts for correct torque and retighten them as required.
12 months	Hydraulic system	Check fluid level. Check tightness of hoses and fittings.

4.3.2 Greasing Points

Carriages

The carriage inside the columns should be greased every six months(for more frequently in case of noise generation).

1. Slightly grease the carriage over their whole length using a brush.

4.3.3 Arm extensions

1. Every six months check the support arm extensions for smooth operation.
2. Grease as required.

4.3.4 Operational and Wear Checks

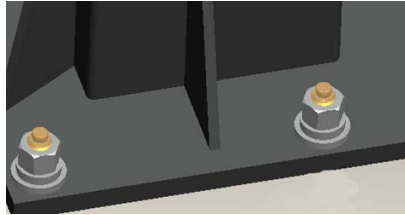
4.3.4.1 Rubber Pads

1. Weekly check the rubber pads for wear.
2. Replace them as required

4.3.5 Lift Stability

- 1 Every six month check the nuts of all anchor bolts for correct installation torque
- 2 Retighten them as requirement

	Installation Torque
QJY5.5-D-1	80Nm



4.4 Cleaning

Do not use high pressure / steam jet cleaners or caustic cleaning agents.

Risk of damage!

- 1 Periodically wash off aggressive substances and treat the lift with oil or wax spray.
- 2 Repair damage to the paintwork immediately to prevent corrosion. The RAL number is available through the manufacturer.

4.5 Troubleshooting

Trouble	Diagnosis	Remedy
Lift does not respond.	Main switch off.	Turn on main switch.
	Mains fuse defective.	Replace mains fuse.
Motor starts up, pressure build-up insufficient to raise load.	Lowering valve Permanently open	Close lowering screw.
	Hydraulic system leakage	Contact service.
	Low fluid level	Remove leakage.
	Load on lift too heavy.	Check fluid level, add fluid as required.
	Load on lift too heavy.	Reduce load, observe rated load capacity.
Level difference between carriages too big.	Adjust cables maladjusted.	Contact service.
Lift cannot be lowered.	Latch release defective.	Contact service.

4.6 Disposal

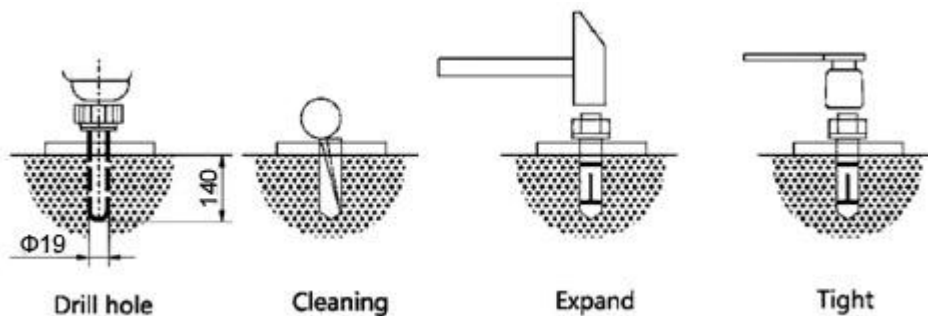
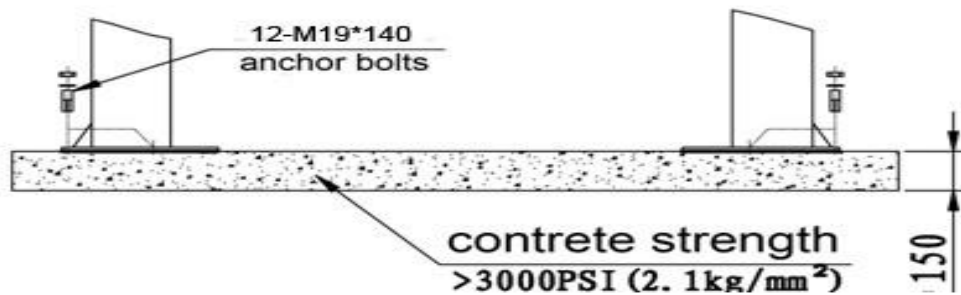
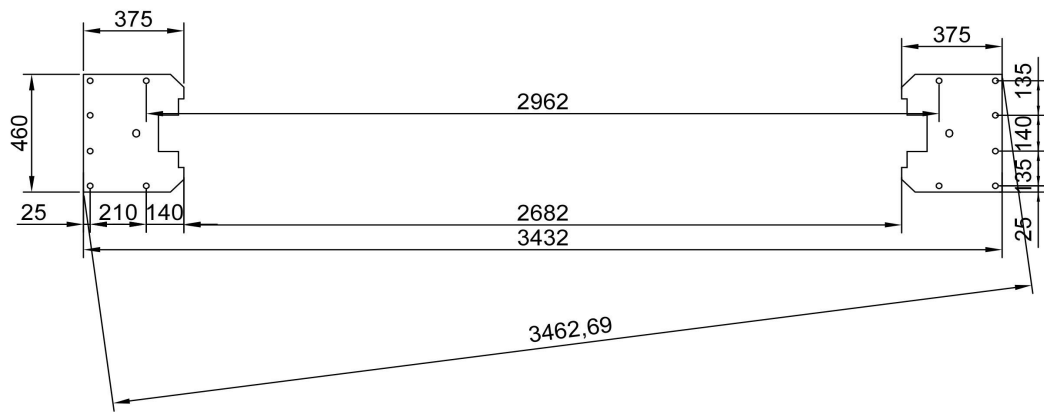
For disposal at end of working life, drain hydraulic fluid and dispose of fluid and other components through the normal industrial scrap route. No hazardous materials are used.

4.7 Installation

4.7.1 Space required

The lift must be installed on a level concrete floor, detailed data of which as shown in the following drawing.

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4.7.2 INSTALLATION

STEP ONE: (determine location and marks with chalk on the floor.)

1. Determine which side is the approach side and on which side the power unit to be mounted.
2. Once the location is selected, use a chalk line to layout a grid for the post locations and make an outline of the posts on the floor at each location.
3. Before proceeding, double check measurements and make certain that the bases of each column are square and aligned with the chalk line.

STEP TWO: (Mounting two columns)

1. Drill each anchor hole in the concrete using a rotary hammer drill. To assure full holding power, do not ream the hole or allow drill to wobble.
2. After drilling, remove dust thoroughly from each hole and make certain that the column remains aligned with the chalk line during this process.

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3. If shimming is required, insert the shims as necessary under the base plate so that when the anchor bolts are tightened, the columns will be plumb.
4. With the shims and anchor bolts in place, tighten by securing the nut to the base then turning 2 -3 full turns clockwise. DO NOT use an impact wrench for this procedure.
5. Position the other column at the designated chalk locations and secure to the floor following the same procedures as outlined in step 1, 2, 3, 4.

STEP THREE: (Routing the Equalizer cables)

1. Raise and lock each carriage approximately 800mm high above the ground.
2. Make sure that the safety locks on each column are fully engaged before attempting to route equalizer cables.
Carriages must be equal height from the floor before proceeding.
3. With the carriages in equal position from the floor, route the equalizer cables as shown below.
4. After the equalizer cables have been routed, adjust each cable so that they are equal tension.



NOTE: The equalizer cables should be checked weekly for equal tension. Failure to do this will cause uneven lifting. The cables should always be adjusted so that they are equal tension when resting on the safety locks.

STEP FOUR: (Mounting the power unit.)

Attach the power unit to the POWERSIDE COLUMN with supplied tools and parts. Fill the reservoir with hydraulic oil.

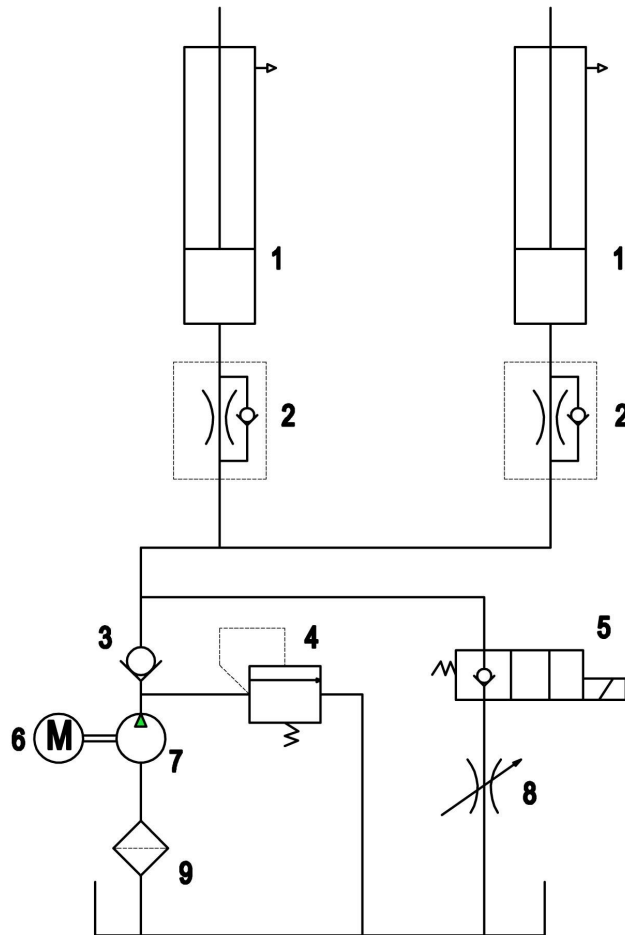


**Make sure the funnel used to fill the power unit is clean
In summer and winter you should change the oil**

STEP FIVE: (Installing Hydraulic Lines.)

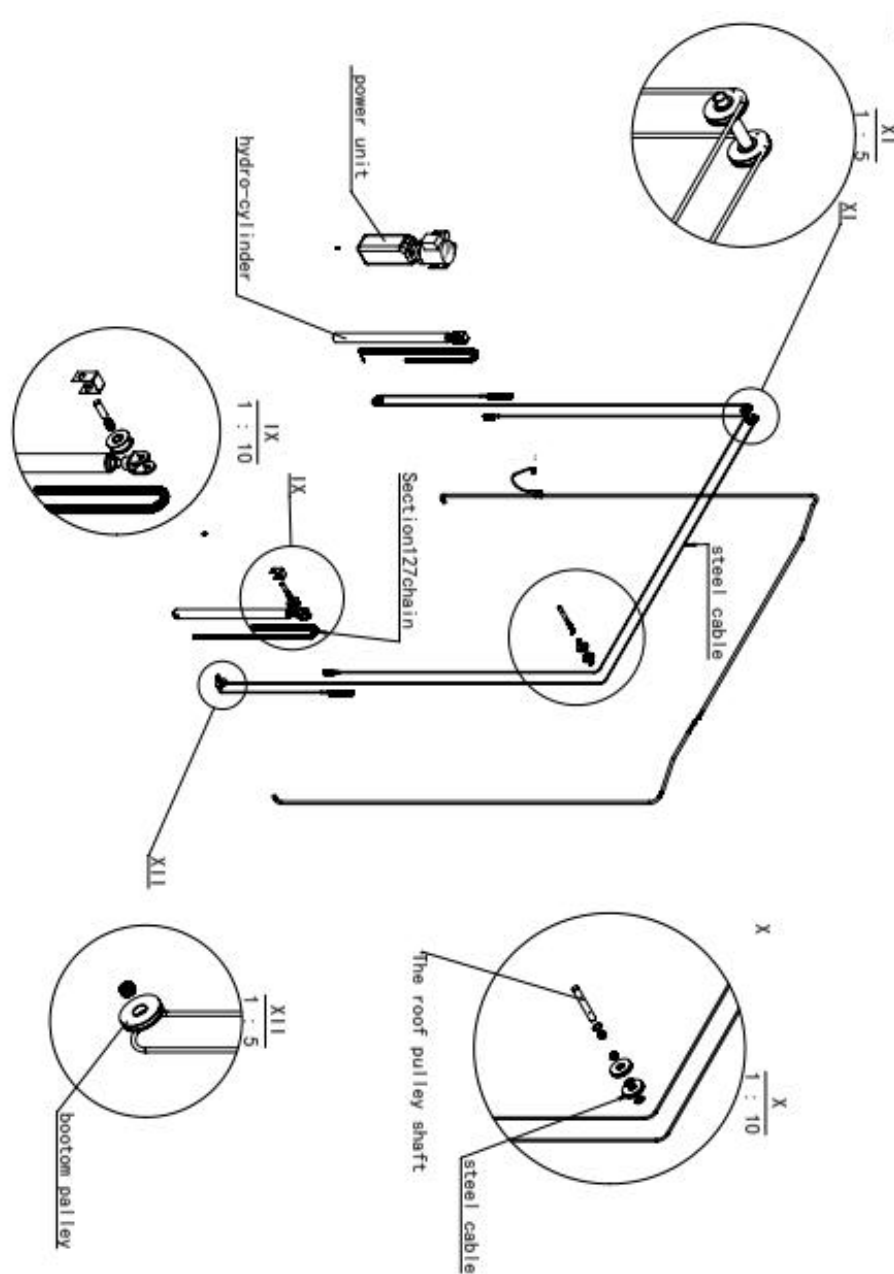
1. Install the hydraulic lines as shown below, paying careful attention to keep the hoses, clean and free of debris.

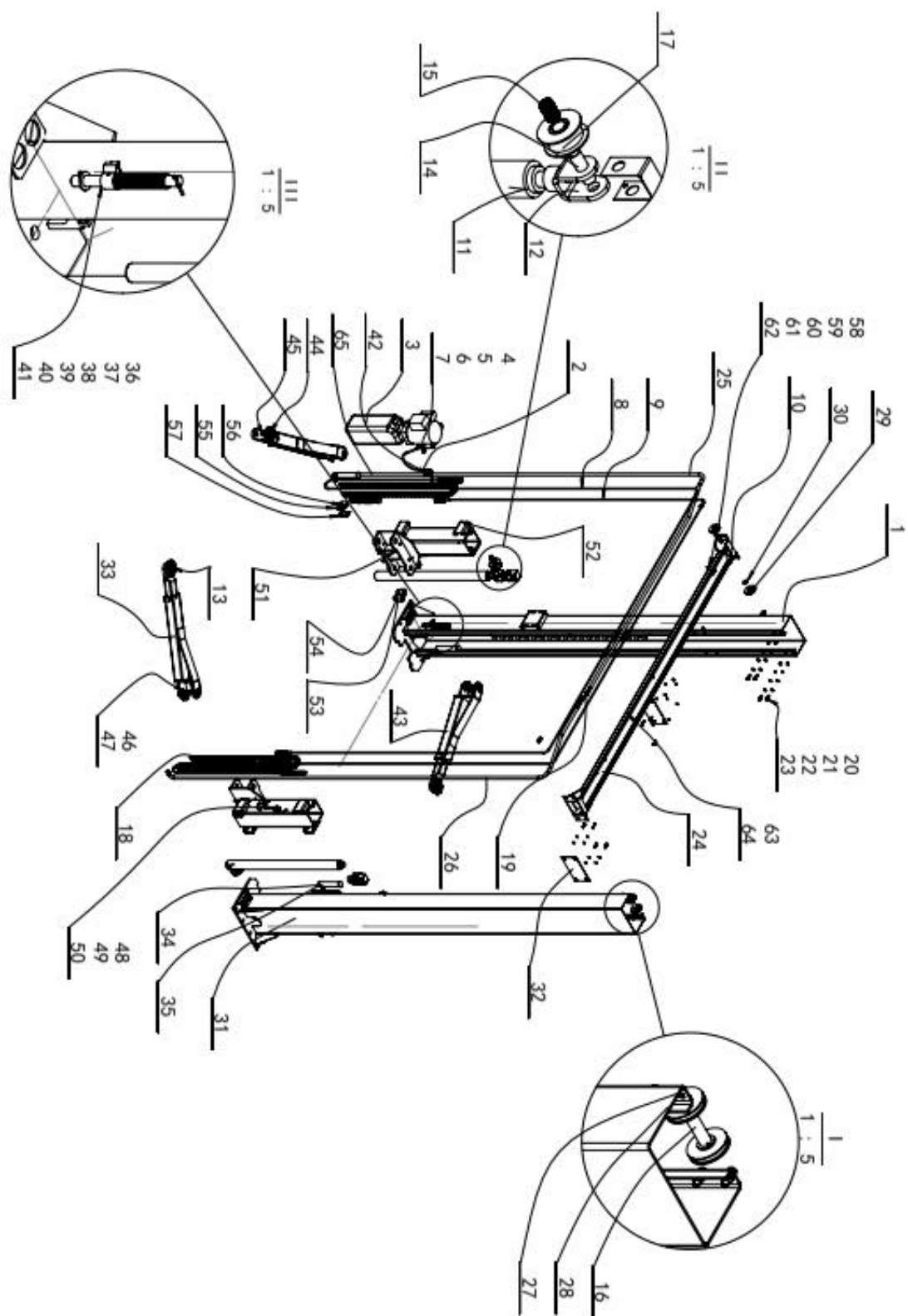
5. Hydraulic drawing



No.	Name	No.	Name	No.	Name
1	cylinder	4	overflow valve	7	gear pump
2	one-way throttle valve	5	unloading valve	8	adjustable throttle valve
3	one-way valve	6	electric motor	9	Filter

6. Exploded drawing





No.	Name	Qty	No.	Name	Qty
1	Main column assembly	1	34	Arm pin	4
2	Hydraulic hose L=570mm	1	35	Snap ring	4
3	Power unit	1	36	Fixing gear rod	4
4	M8*25 nut	14	37	Spring	4
5	D8 washer	4	38	Elastic pin	2
6	D8 spring washer	4	39	Fixing gear	4
7	M8 nut	4	40	D22 washer	4
8	Steel cable L=10560mm	1	41	Cotter	4
9	Steel line	1	42	Fitting(16H)	1
10	Top plate assembly	2	43	Short arm assembly	2
11	Double hole cylinder	2	44	Rubber pad	4
12	Cylinder fixing ring	2	45	Pad weldment	4
13	M6*12 bolt	4	46	gear	4
14	Chain pulley axle	2	47	M10*20 bolt	12
15	Oiless bearing	2	48	spring	2
16	Spindle pulley	1	49	latch	2
17	Chain pulley	1	50	Release cable	2
18	Chain	2	51	carriage	2
19	fitting	1	52	Nylon block B	8
20	M10*30bolt	8	53	Middle adaptor	4
21	D10 washer	8	54	Short adaptor	4
22	D10 spring washer	8	55	Bottom pulley	2
23	M10 nut	8	56	Oiless bearing	2
24	crossbeam	1	57	Pulley stopper	2
25	Steel hose L=5170mm	1	58	Limit plate	1
26	Steel hose L=4270mm	1	59	M5*10 nut	4
27	B clip	6	60	D5 washer	4
28	Top pulley	4	61	M8 nut	4
29	Oiless bearing	4	62	spacing	1
30	D25 washer	4	63	stainless steel tube	1
31	Sub column assembly	1	64	pin roll	1
32	Column strength plate	2	65	Hydraulic hose L=970mm	1
33	Long arm assembly	2			