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Safety Precautions

- Make sure that you have read the Instructions completely, including relevant instructions on installation, operation, and safety before operating the lift.
- Do not use the lift if any abnormality is found in it.
- Do not overload the lift beyond its rated load of 4,000KG.
- The lift shall be operated by trained personnel only. The vehicle customer or inexperienced person is prohibited from operating the lift at will.
- The rubber pads of the Sub Lift must have contact with the support points of the vehicle, otherwise the vehicle chassis may be damaged. (It is recommended to consult the vehicle manufacturer by

telephone if the locations of the support points are not clear.)

- Be sure to perform mechanical locking after the vehicle is lifted. It is forbidden to work under the vehicle before mechanical locking is performed.
- Keep the area around the lift clean and tidy, as any oil stain or obstacle may pose a safety risk.
- Never lift the vehicle with people in it.
- Make sure there is no obstacle under the vehicle before lowering it.
- It is prohibited to remove any hydraulic component when the hydraulic system is under pressure.
- Do not put hands in any dangerous place, such as the space between tool arms.
- Do not use the product outdoors, as it is only suitable for indoor use.
- Press and hold the Down button while lowering, so the platforms ascend a little automatically to open the safety device, and then descend automatically.
- Always wear safety shoes during operation.
- It is forbidden to lift the vehicle with people in it.
- Cut off the power supply when the lift is shut down.
- When a vehicle is being loaded onto or unloaded from the lift, no person shall stand in the vehicle passage.
- Ensure that the platforms of the main and sub lifts are lowered to their lowest positions before the vehicle is loaded onto/unloaded from the lift.
- Use wedge blocks to lock the vehicle so that the vehicle cannot move.
- Read the operation warning label carefully and thoroughly.
- Note: A forklift can only lift one product at a time. When stored in the warehouse, only two products can be piled up together at most.

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1. Product Features and Parameters

1.1 Product features

- Stiffened body, for strong supporting capacity.
- Extended platforms, 4500mm.
- Aluminum alloy motor with high radiation capability.

1.2 Technical parameters

Drive mode	Direct-acting hydraulic cylinder
Rated lifting capacity of Main Lift	4000kg
Rated lifting capacity of Sub Lift	4000kg
Lifting height of Main Lift	1850mm
Lifting height of Sub Lift	435mm
Initial height of platform	330mm
Length of Main Lift platform	4500mm
Width of Main Lift platform	625mm
Motor parameters	1PH, 220VAC,3KW, motor with an aluminum alloy housing
	3PH, 380VAC,3KW, motor with an aluminum alloy housing
Type of hydraulic oil	ISO 46# anti-wear hydraulic oil
Air supply pressure	6-8 bar

1.3 Dimension diagram

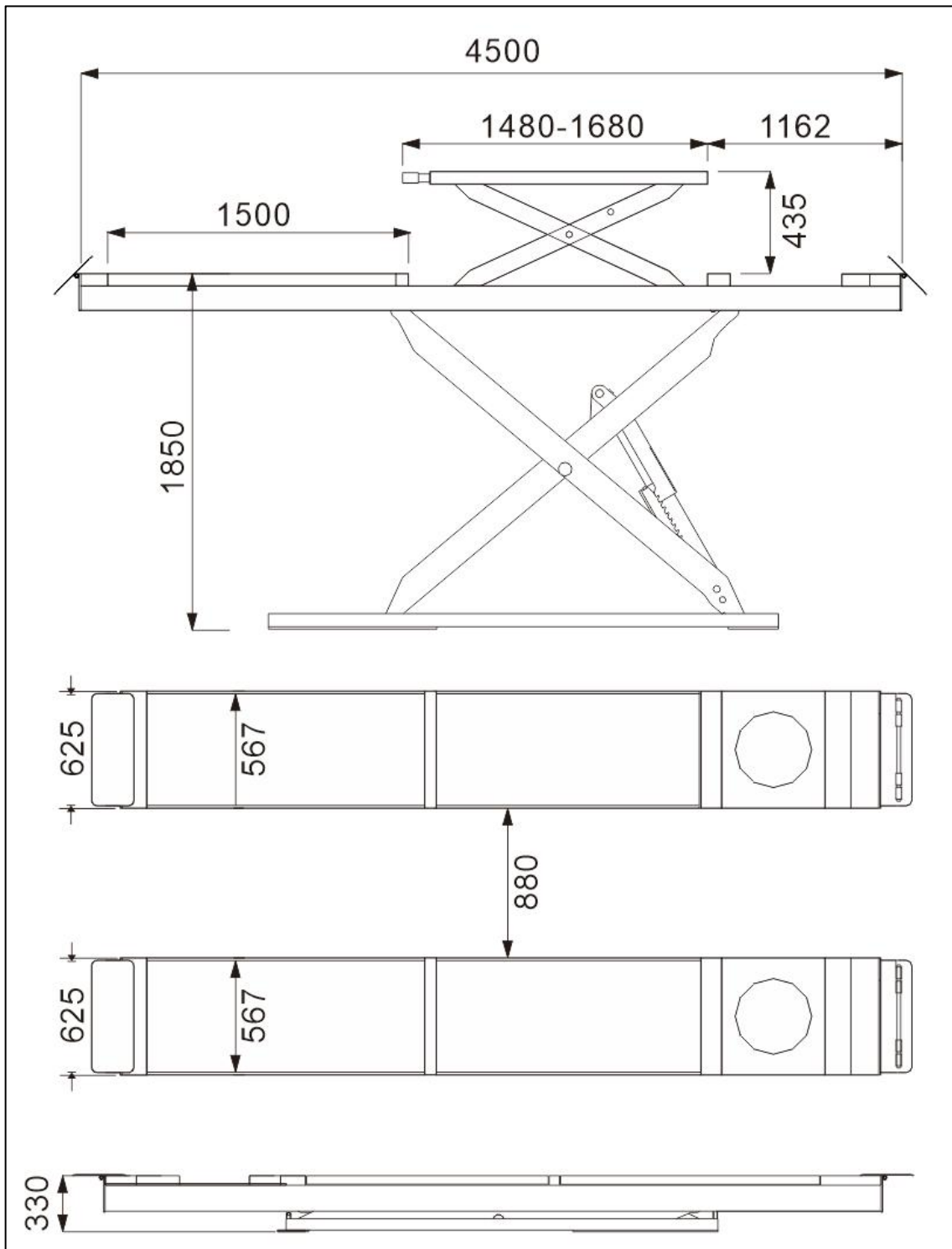


Fig 1

1.4 Civil Work Plan

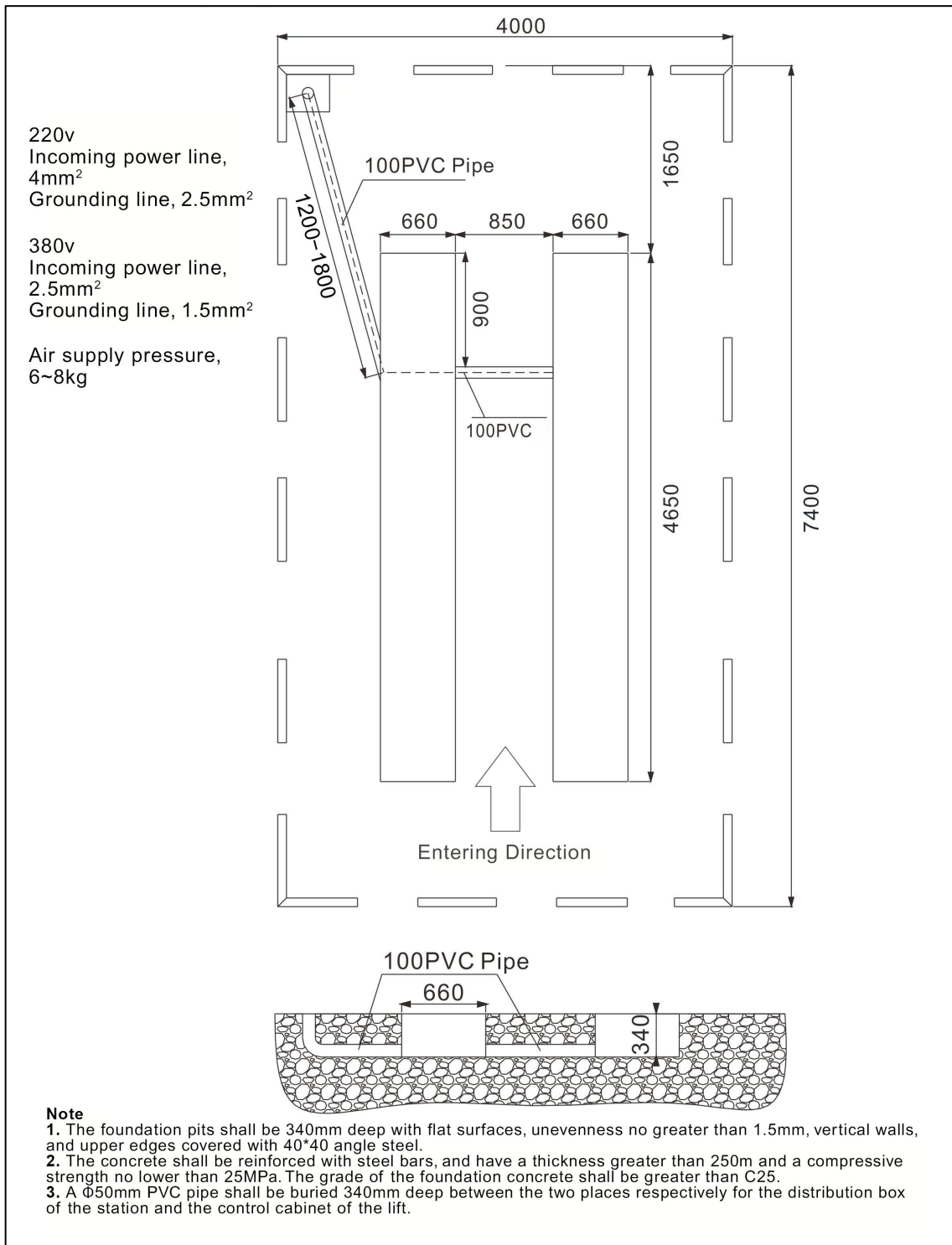


Fig 2

1.5 Working space layout

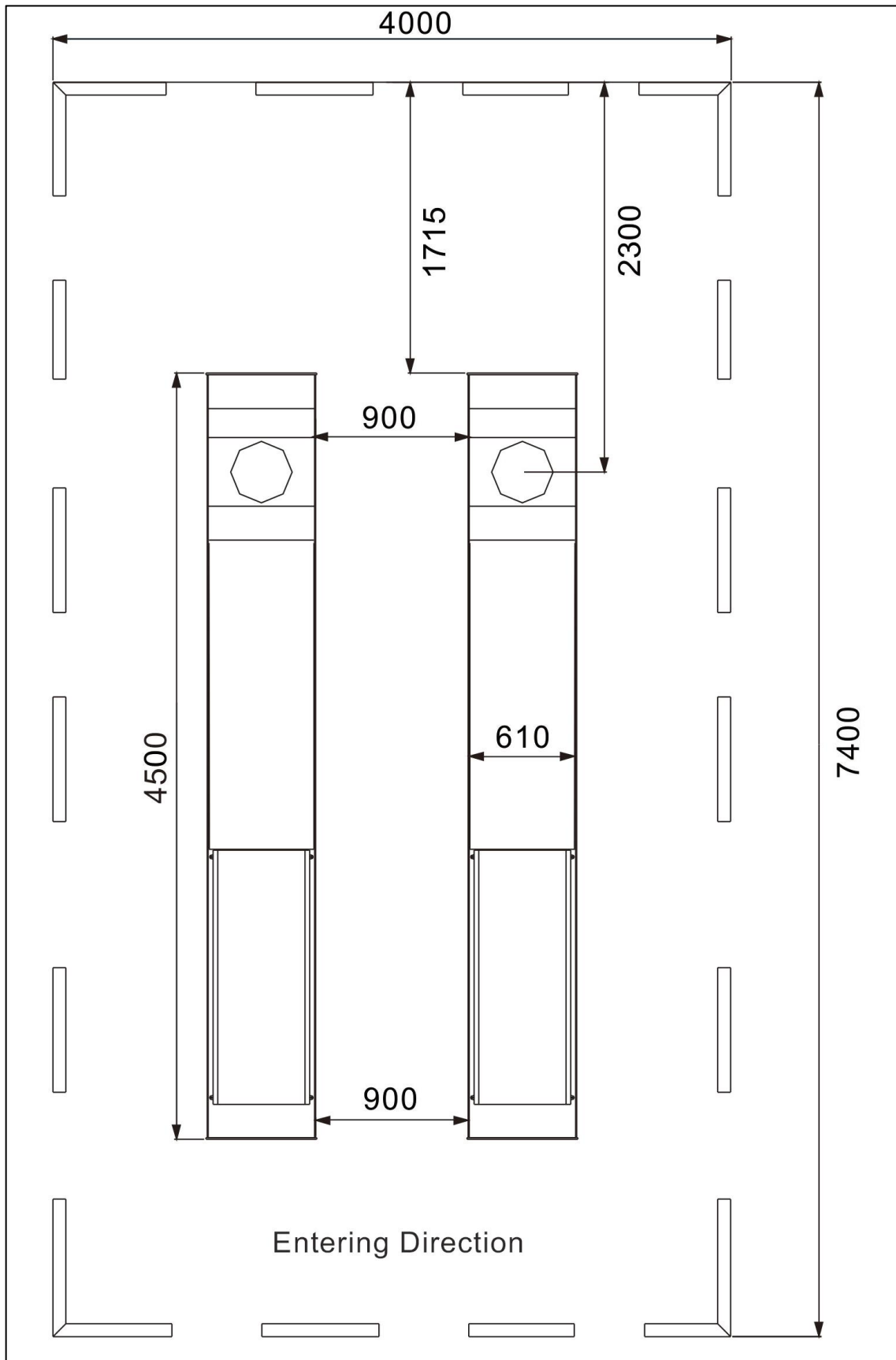


Fig 3

1.6 Oil pipe diagram of ultra-thin large scissor

Note: Only when the platform is not balanced on both sides was the adjustment needed.

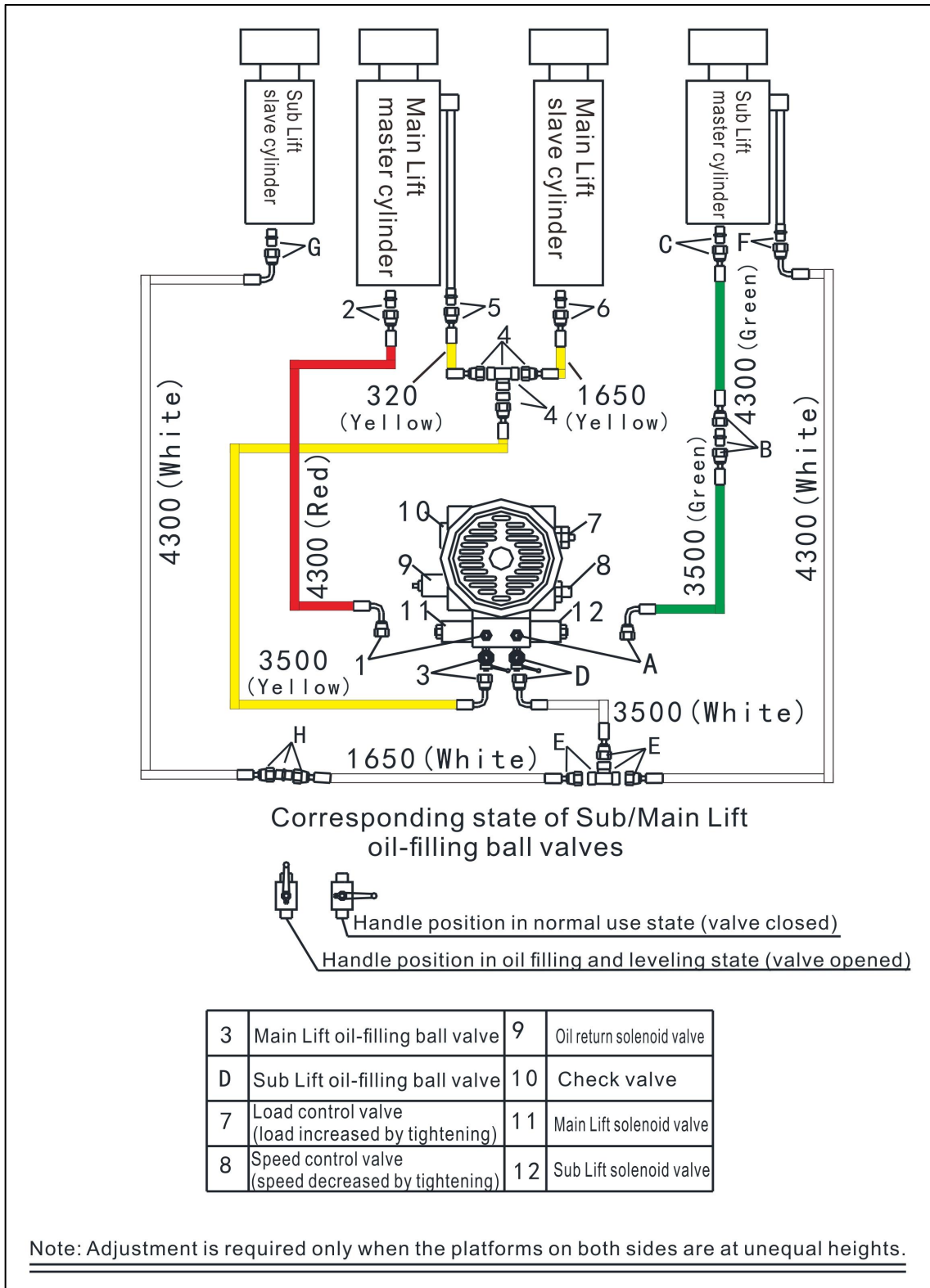
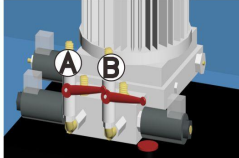


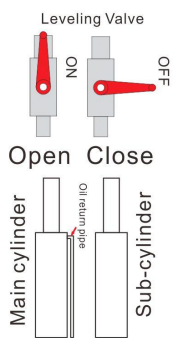
Fig 4

1.7 Tips for leveling and oil-filling

Leveling of the alignment scissor lift main platforms

For 3 phases motor, check it runs clock wise.
 For 1 phase motor, electric-wire 4mm² is a must.
 Check the connection of the hydraulic and electrical system before leveling operation.
 Check the leveling valve stay off mode before leveling operation.
Before finish the leveling operation, The sub-platform shall remain lower than the main platform.





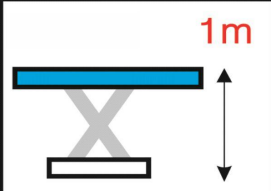
As running speed of the lift is mainly decided by the density hydraulic oil, we suggest using NO.46 hydraulic oil when average temperature of the location is above 18 degree Celsius and using NO.32 hydraulic oil when temperature is below 18 degree Celsius.

Two post lift ——10L
 In-ground scissor lift ——14L
 Low-profile scissor lift ——14L
 In-ground alignment scissor lift ——16L
 Low-profile alignment scissor lift ——16L

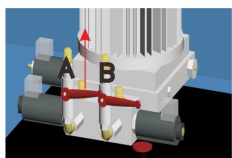
Change hydraulic oil in 12 month.
 Change hydraulic oil in 36 month.

1. Press “up” button and raise the main platform 1m high.

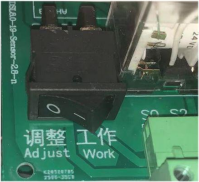
Do not raise the main platform to max.



2. Open Leveling Valve A.

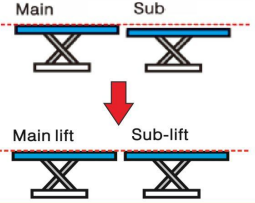


3. Open the display of control cabinet and turn the switch to “Adjust”. in order to operate (compensate) only sub-platform.

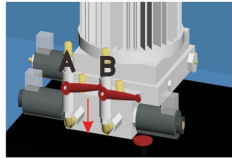


4. Press “up” button to raise the sub-platform until same height of the main platform. Press “lock” button to lower the sub-platform to the bottom. (Repeat 3 times), until the 2 platforms are same height.

During the operation, do not over compensate the sub-platform, the sub-platform shall not be higher than main platform.



5. Close leveling Valve A.



6. Open the display of control cabinet and turn the switch to “work”.


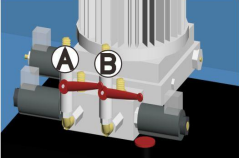


Fig 5



Leveling of the alignment scissor lift secondary platforms

For 3 phases motor, check it runs clock wise.
For 1 phase motor, electric-wire 4mm² is a must.
Check the connection of the hydraulic and electrical system before leveling operation.
Check the leveling valve on off mode before leveling operation.



Before finish the leveling operation, The sub-platform shall remain lower than the main platform.



Leveling Valve


NO


Open Close


Main cylinder

Sub-cylinder

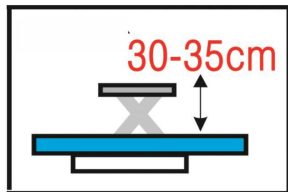
As running speed of the lift is mainly decided by the density hydraulic oil, we suggest using NO.46 hydraulic oil when average temperature of the location is above 18 degree Celsius and using NO.32 hydraulic oil when temperature is below 18 degree Celsius.

Two post lift ——10L
In-ground scissor lift ——14L
Low-profile scissor lift ——14L
In-ground alignment scissor lift ——16L
Low-profile alignment scissor lift ——16L

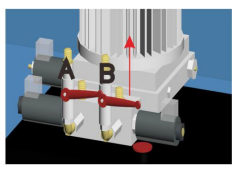
Change hydraulic oil in 12 month.
Change hydraulic oil in 36 month.

1. Press "up" button and raise the secondary platforms 30-50cm high.


Do not raise the secondary platform to max.



2. Open Leveling Valve B.

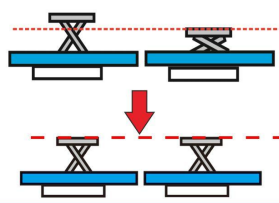


3. Open the display of control cabinet and turn the switch to "Adjust". in order to operate (compensate) only secondary sub-platform.

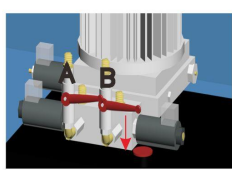


4. Press "up" button to raise the secondary sub-platform until same height of the main platform. Press "lock" button to lower the it to the bottom. (Repeat 3 times), until the 2 platforms are same height. (Repeat 3 times, until the 2 platforms are same height at 30-50cm.

During the operation, do not over compensate the sub-platform. the sub-platform shall not be higher than main platform.



5. Close leveling Valve B.



6. Open the display of control cabinet and turn the switch to "work".

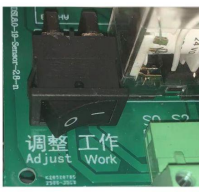


Fig 6

1.8 Emergency manual lowering procedures at power failure:

Lift the safety gears above the cylinders of the two platforms and hold them with paper pads to ensure the safety gears are completely detached from the gear racks, switch off the power supply, open the door of the control cabinet and select the corresponding solenoid valve, loosen the copper nut at the rear of the oil return solenoid valve (9), and then push the front ends of the two solenoid valves (the left one to control the Main Lift, and the right one to control the Sub Lift) with a small hex key to perform manual lowering. After lowering, screw the copper cap at the rear of the oil return solenoid valve quickly. Otherwise, when the power is switched on and the lift is rising, the hydraulic oil will flow back to the hydraulic tank directly and cannot push the cylinder to raise the lift, which will cause unnecessary trouble. Do not perform this operation except in case of an emergency.

1.9 Schematic diagram for main components

Turntable recess: accommodate the turntable for four-wheel alignment.

Side slide plate: prevent rear wheel side sliding during four-wheel alignment.

Stop plate: prevent the vehicle from sliding out of the platform. This plate is laid flat when the lift is at the lowest position.

Sub Lift: lift the vehicle further.

Safety tooth: safety mechanism, for mechanical locking.

Control cabinet: control unit, providing the power takeoff.

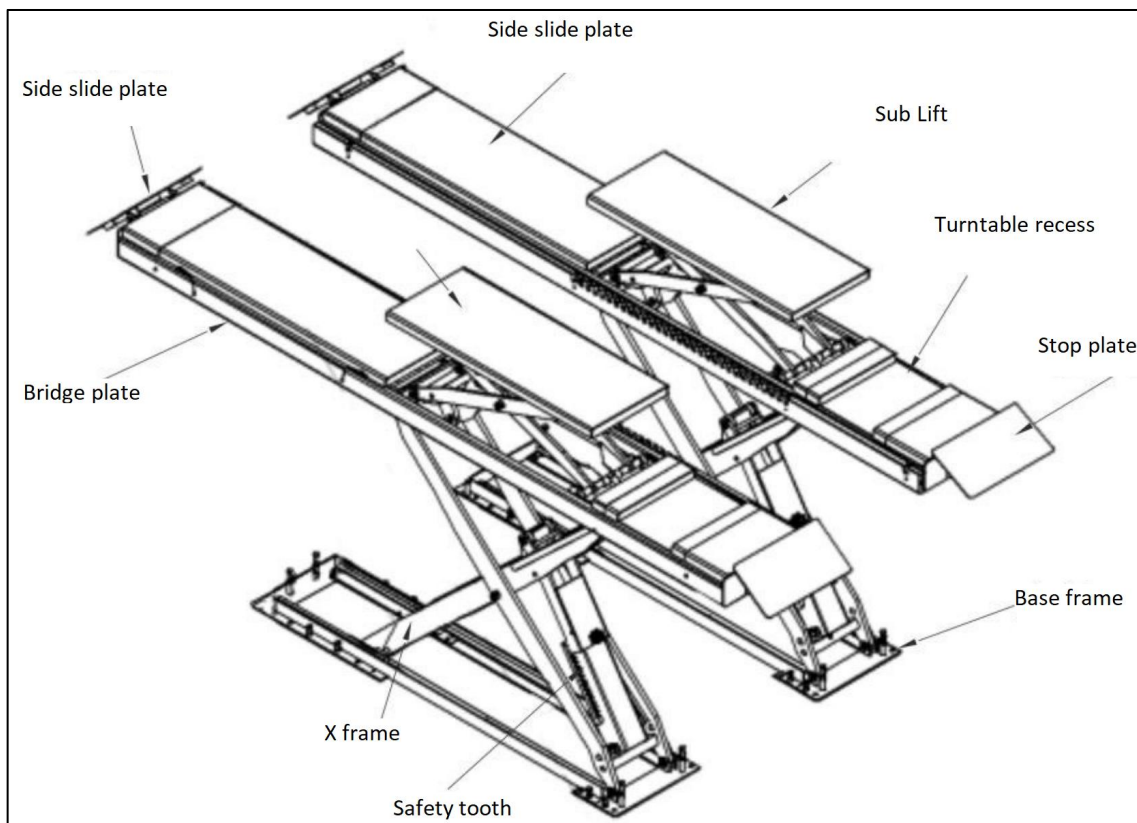


Fig 7

2. Preparation for Installation

2.1 Unpacking

All packing, loading/unloading, transportation and unpacking operations must be performed by professional personnel.

Transportation:

The cargo shall be loaded/unloaded and moved by a lifting machine and forklift with capacity over 3 tons. To prevent the cargo falling off, one person shall pay attention to the cargo during the lifting operation for fear of accidents. The cargo shall be transported by motor vehicle or ship.

The cargo shall be inspected for completeness when it arrives, for fear of damage or loss during transport. If the packing box is broken during transport, inspect the broken box according to the Packing List, confirm the damaged articles and lost components, and at the same time, inform the carrier immediately.

The lift is heavy cargo. Therefore, loading/unloading by hand is forbidden. Safety in handling is of much importance. In addition, during loading/unloading the cargo shall be hoisted as illustrated

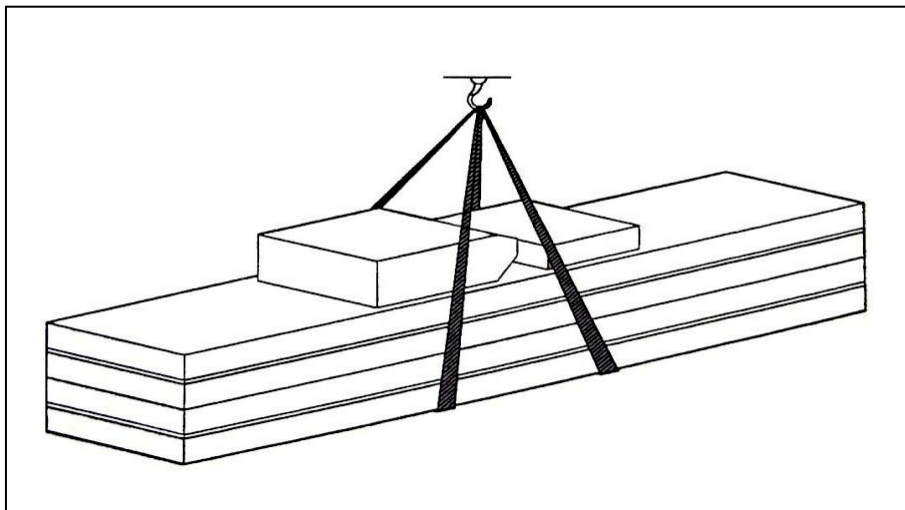


Fig 8

Storage:

Machinery equipment shall be stored in an indoor warehouse, and waterproof protection shall be used in case of outdoor storage. A van truck shall be used for highway transport, and a container for waterway transport. The control cabinet must be placed upright during transport and be protected from squeezing by other goods.

2.2 Installation



- Only professionals are allowed to conduct the installation work. Moreover, they shall read and follow the operation instructions below carefully to prevent machine damage or injuries.
- Only authorized technicians are allowed to install the lift.

2.2.1 Installation requirements

The lift must be installed in accordance with the specified safe distances from walls, columns and other equipment (as shown in Fig. 9), including the minimum distance 1000mm from walls. To prevent any emergencies and for the convenience of operation, a sufficient space for exit passageway shall also be considered.

On the installation site, power supply and air supply shall be provided and connected to the control cabinet station in advance, and the ceiling height shall not be less than 4000mm. It is recommended to install the lift in pits and construct the foundation as required in Fig. 9.

Nevertheless, the lift can be installed on any indoor floor, provided that the floor meets the leveling requirements and has enough bearing capacity (25MPa).

During installation, there shall be sufficient light to ensure the safe operation of commissioning and repair. Strong light shall be avoided, because it would affect personnel sight and cause eyestrain.

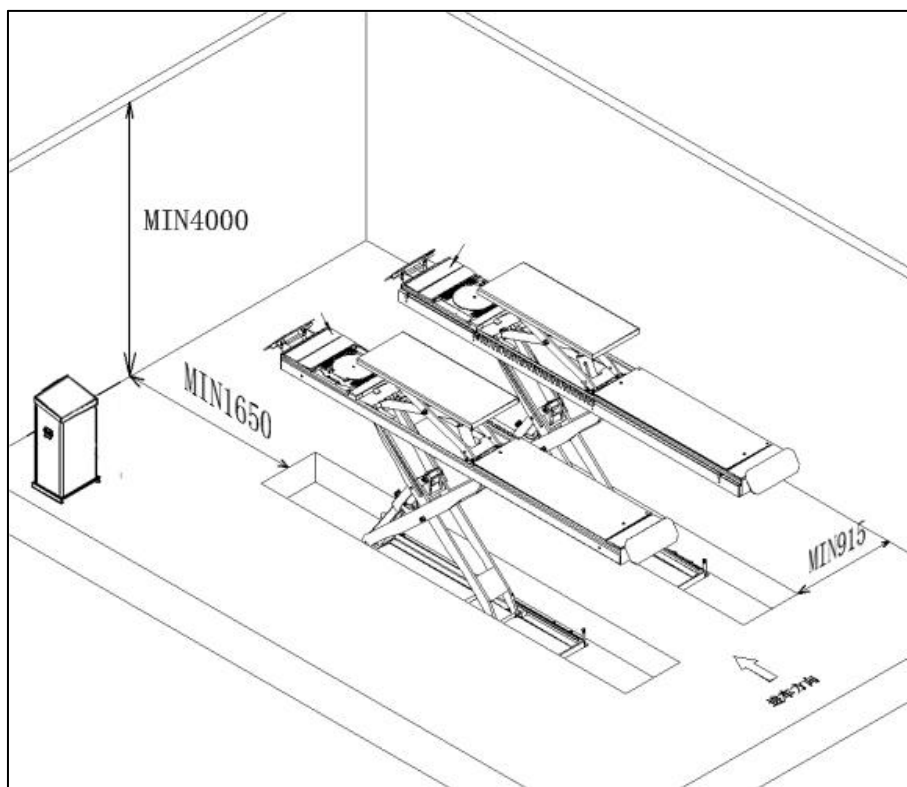


Fig 9

The cargo shall be inspected upon arrival for completeness before installation. The movement and installation of the lift shall be carried out by professionals.

2.2.2 Installation of lifting platforms

Insert sizing blocks under the platform and lift the lifting platform with a forklift or other lifting equipment (Fig. 10) to about 1000mm, so as to ensure that the mechanical safety device is activated and locked.

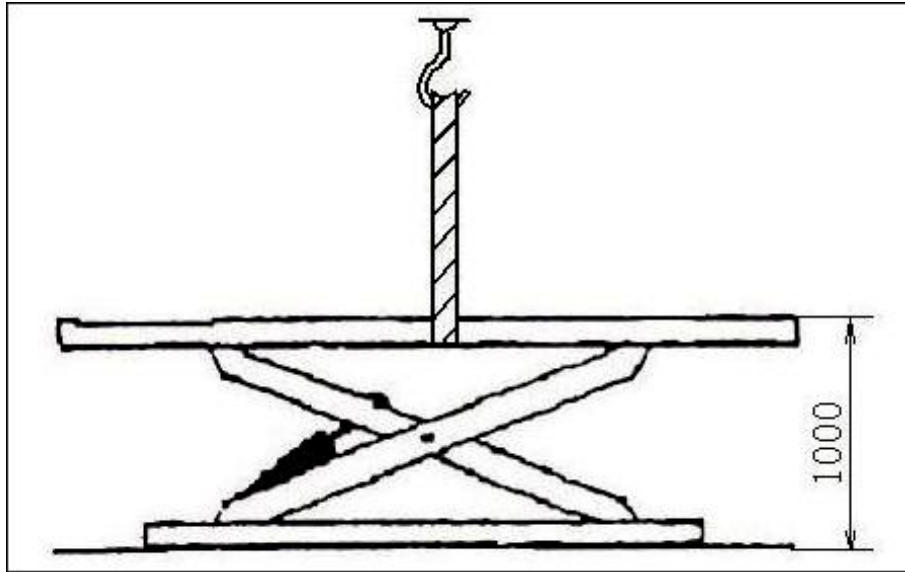


Fig 10

To avoid the failure of the mechanical safety device, a wood block can be inserted in the middle of the connecting rod. When the hydraulic system is not fully filled with hydraulic oil and has the lifting and lowering actions, do not work under the lift. Move the lifting platforms, adjust the distance between the two platforms to make them parallel, and connect the electric circuit, oil circuit, and air circuit as specified in the Wiring Diagram and Oil Circuit Connection Diagram.

Only after the hydraulic system is connected, the air circuit can be connected. Do not damage the oil pipes, wires, or air pipes.

When inserting the oil pipes and air pipes into the pits from the control cabinet via PVC pipes, pay special attention to the protection of pipe connectors so as to prevent damage to the hydraulic system caused by foreign matter entering the oil circuit and air circuit.

Connection of electrical circuit: connect the electrical circuit according to the wire diameter and wire size specified in the Wiring Diagram.

2.2.3 Installation of electric circuit

⚠ Note: If external earth leakage circuit breakers are connected, four-pole earth leakage circuit breakers with neutral wires shall be used

Voltage	Power	Start current	Operating current	Wire size	Air switch	Applicable to
380V	3KW	21A-35A	8.5A	Above 2.5 mm ²	C63	Scissor lift
220V	3KW	60A	21A-25A	Above 4mm ²	C63	Scissor lift
380V	2.2KW	18A-30A	7.5A	Above 2.5 mm ²	C63	2-post lift, gantry lift, 4-post lift
220V	2.2KW	60A	20A-22A	Above 4mm ²	C63	2-post lift, gantry lift, 4-post lift

Only the professionals qualified for electrical operation are allowed to conduct the electrical installation.

Open the upper cover of the control cabinet first.



- Connection of power line: Connect the 380V three-phase four-wire power line (cable of 3×2.5MM² + 1×1.5MM²) to the control cabinet interfaces L1, L2, L3 and input terminal, and connect the PE ground wire to the labeled ground bolt first, and then to the labeled ground bolts at the bottom of the two platforms (Fig. 11).
- Wiring method for the three-phase motor is as shown below (Fig. 12).

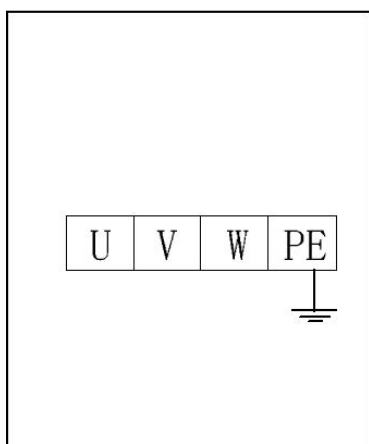


Fig 11

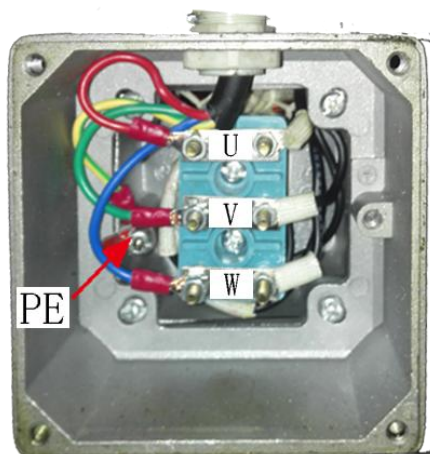


Fig 12

Wiring diagram

Voltage :380V Phase:3

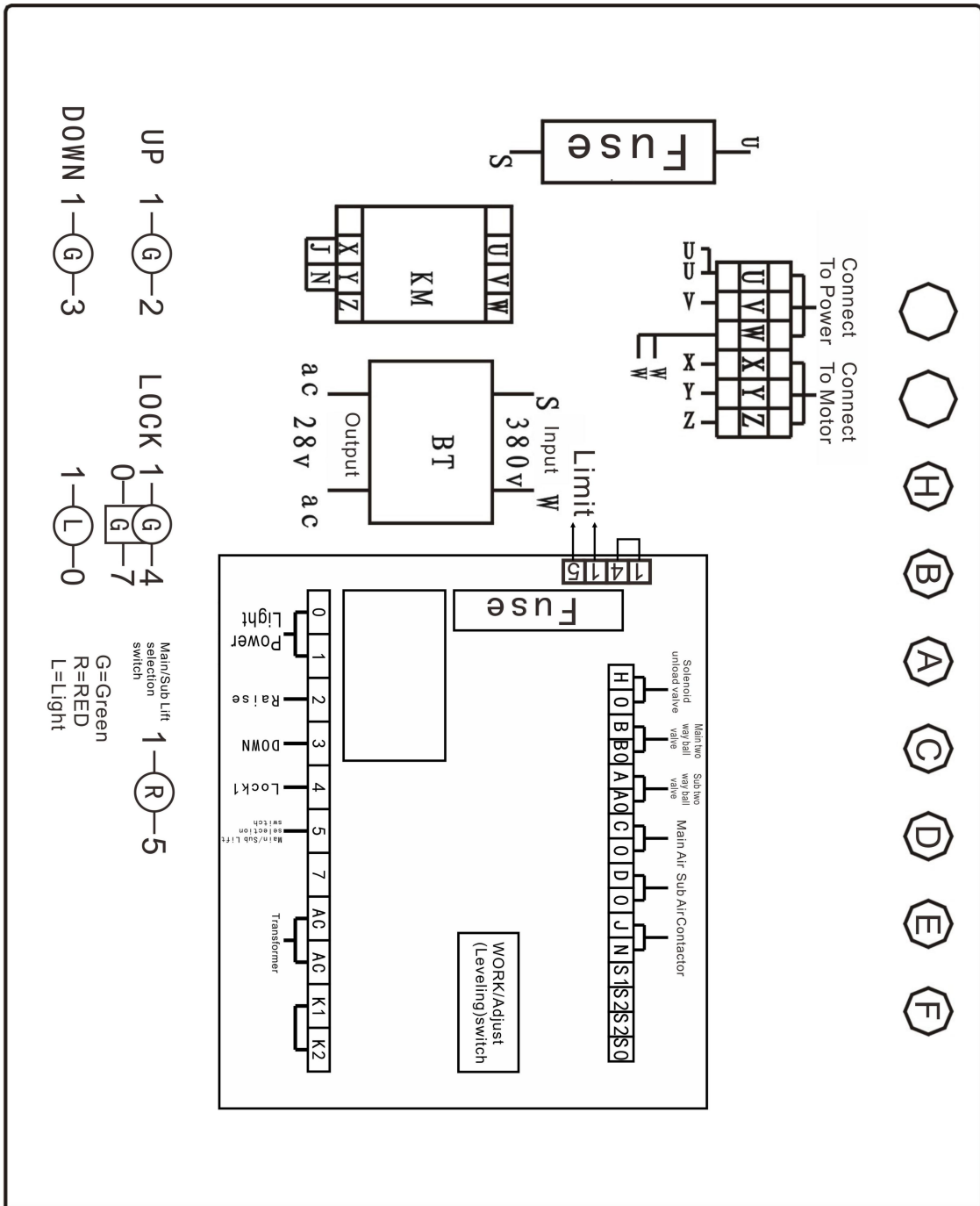


Fig 13

Voltage :220V Phase:1

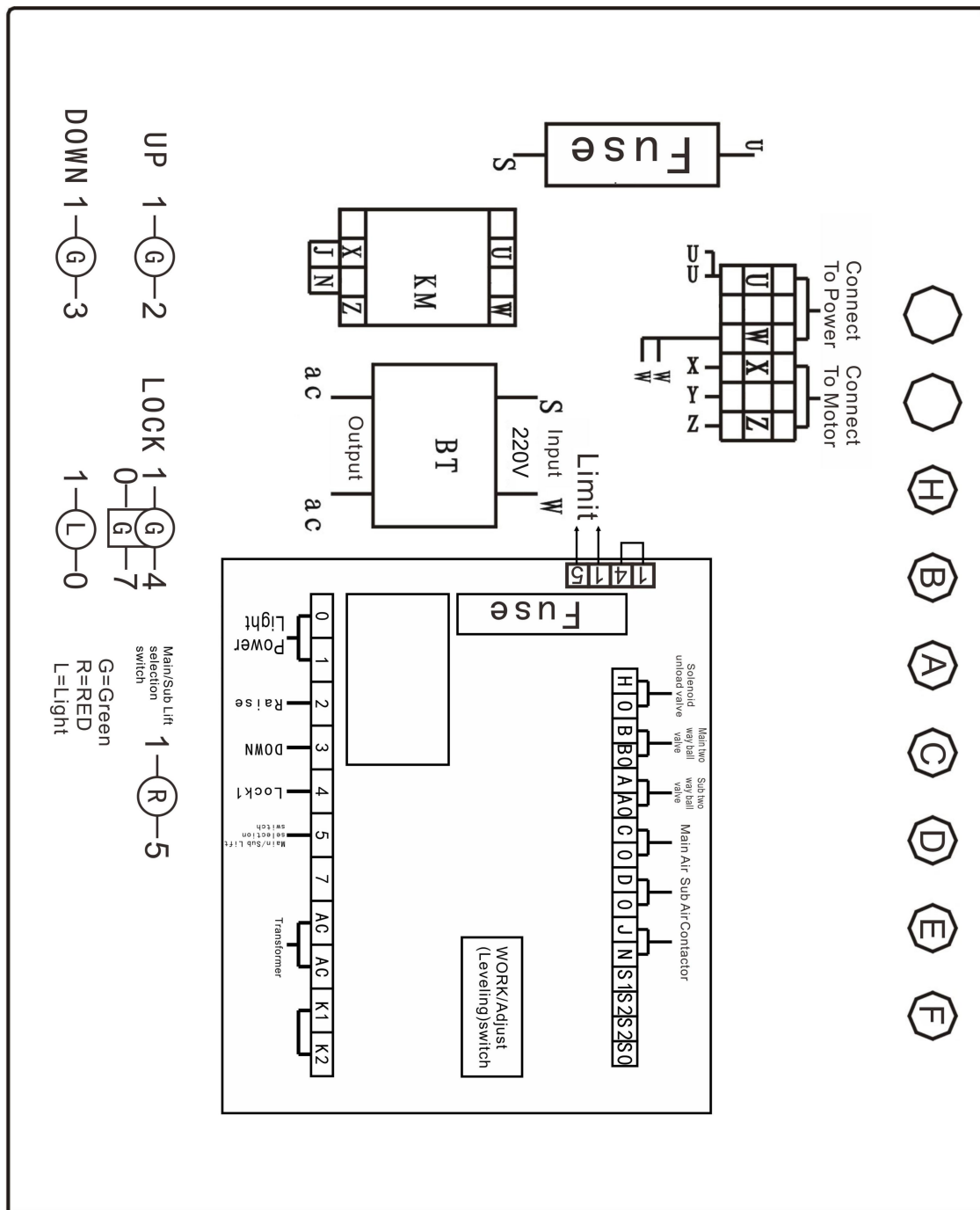


Fig 14

Note:When the fuse operates, S1 (blue) and S0 (red) are connected with the test wire. Before use, remove the connecting wire between S1 and S0.

S/N	Code	Item	Specification	Quantity	Remarks
1	QS	Automatic air switch	C63	1	To be installed by the user
2	CK	AC contactor	CJX2-1201	1	
3	HL	Power indicator	AD130	1	
4	SA1	Up button	Y090 10	1	
5	SA2	Down button	Y090 10	1	
6	SA3	Lock button	Y090 10	1	
7	YV	Oil return solenoid valve	24V-50HZ	1	To be installed at the hydraulic station
8	M	AC motor	3KW/50HZ	1	

2.2.4 Hydraulic schematic diagram

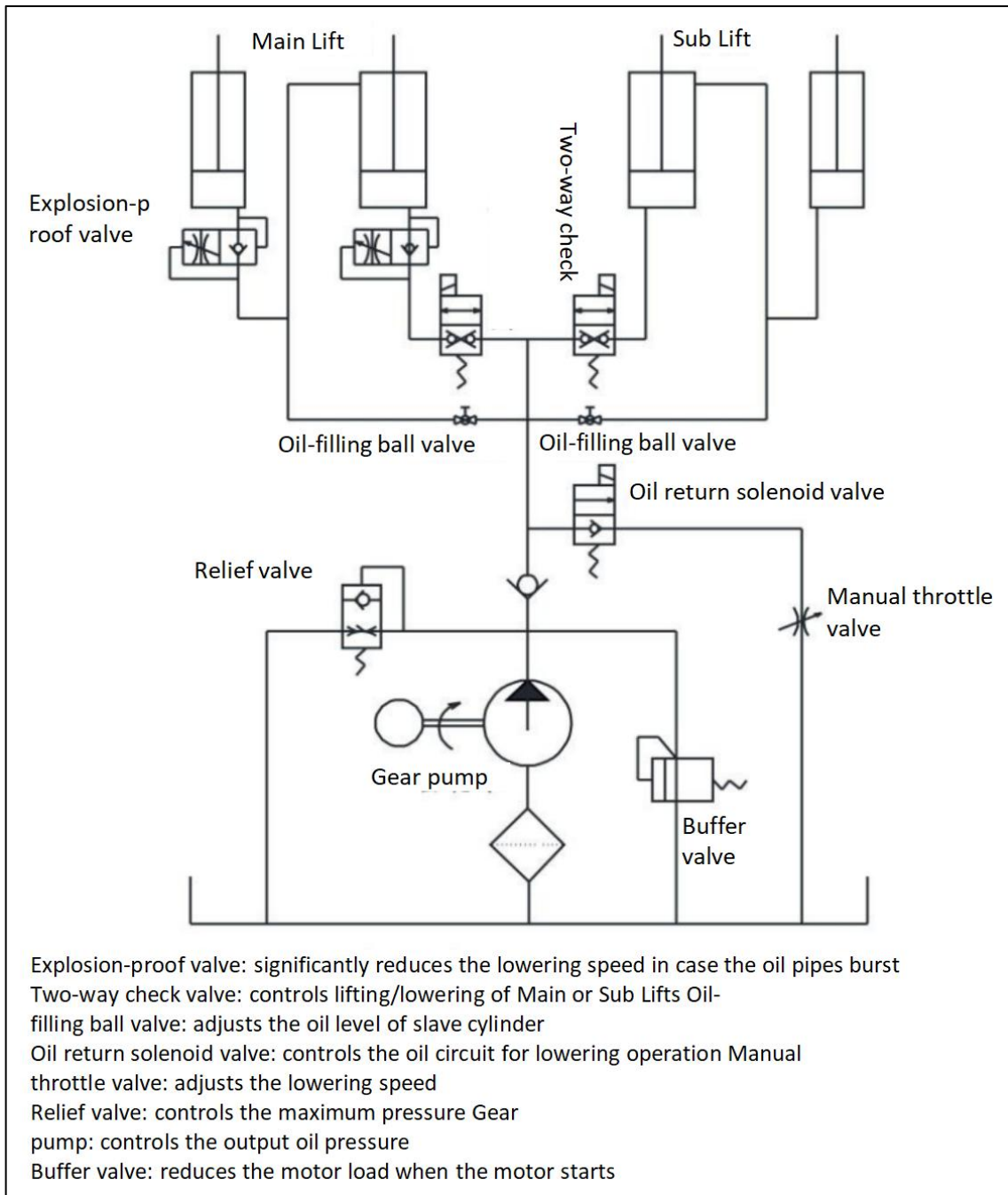


Fig 15

Pay special attention to the protection of oil pipe connectors

- Lead the high-pressure oil pipe out from the main lift solenoid valve in the control cabinet and then connect it to the hydraulic cylinder of the main lift through the PVC pipe as per oil pipe No. (for details, see the Oil Circuit Connection Diagram).
- Lead the oil pipe of the sub lift out from the solenoid valve of sub lift to cylinder of the sub lift via the PVC pipe along the connecting rod (Fig. 16).
- During connection, wrap the oil pipe connectors to prevent foreign matter from entering the hydraulic circuit.

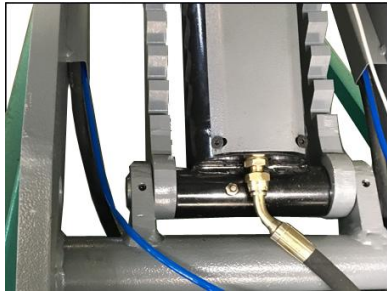


Fig 16



Fig 17

Connect the oil pipes according their colors

Only authorized and qualified technicians are allowed to conduct the installation.

- Connect the Ø8×6 compressed air intake pipe to the intake port of the control cabinet.
- Lead the Ø6×5 compressed air pipe out from the air outlet of the pneumatic solenoid valve of main lift and then connect it to the uplifted-pawl air valve of the main lift (Fig. 18) according to the Air Circuit Connection Diagram.
- Lead the compressed air pipe of the sub lift out from the pneumatic solenoid valve of sub lift to the uplifted-pawl air valve of the sub lift via the PVC pipe along the connecting rod.
- When passing through the PVC pipe, the air pipe connectors shall be wrapped to prevent any foreign matters from entering the compressed air circuit.

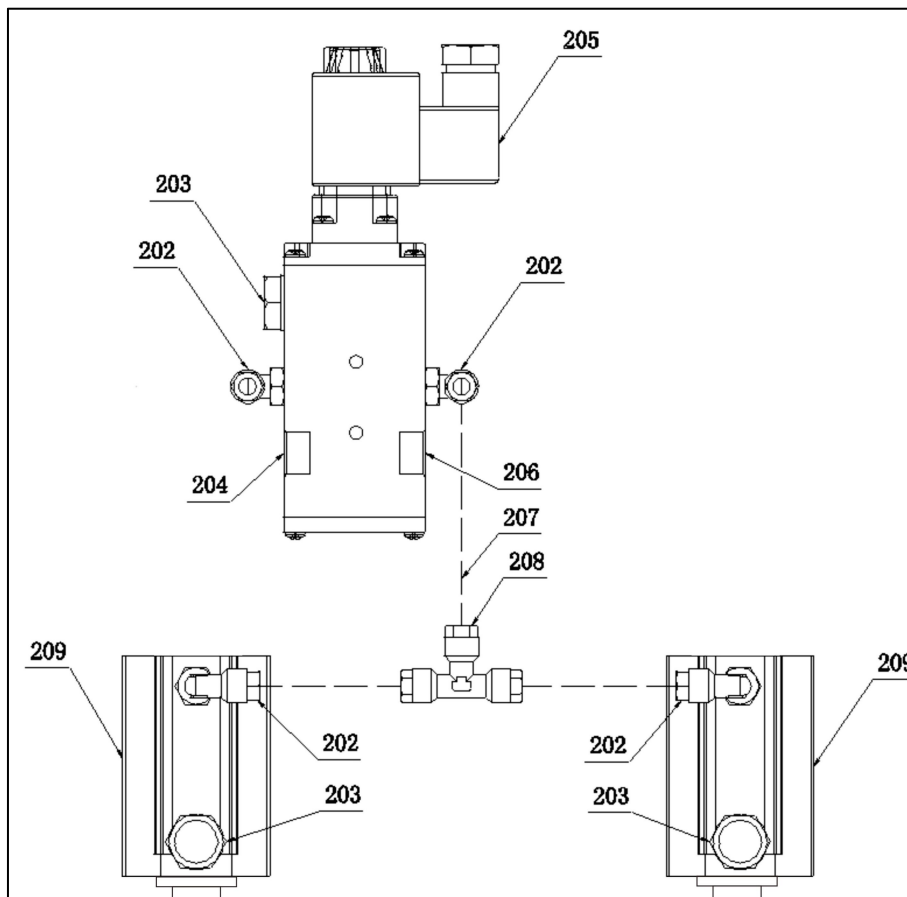


Fig 18 (Connection of one-layer cylinder)

S/N	Item	Quantity
203	Muffler	3

204	Plug 1/8	1
205	Solenoid valve	1
206	Plug 1/4	1
207	Air pipe PU0604	9
208	T joint APE6	1
209	Small cylinder	2

- The air pipe of the main lift shall be connected on the side close to the cabinet.
- Hydraulic/air pipes passing through the PVC pipe shall not be bent or knotted, for fear of clogged or blocked air circuits.
- The Main Lift and Sub Lift are controlled by two air valves, and their air circuit diagrams are the same.

3. Adjustment

3.1 Oil-filling and inspection:

Install the lift, connect the hydraulic circuit, electrical circuit and pneumatic circuit, and then follow the following procedures:

- (1) Open the cover of the control cabinet and fill the hydraulic tank with 16L 46# anti-wear & anti-freezing hydraulic oil (provided by the user) with a funnel.
- (2) Make sure the hydraulic oil is clean before filling the oil. No impurity shall enter into the oil circuit, which may lead the oil circuit blockage and the solenoid valve failure.
- (3) Turn on the main switch of the power supply, press the “Up” button and inspect that the motor's rotation is anticlockwise (viewed downward). Otherwise, cut off the power supply and adjust the phase sequence of power supply.
- (4) After the power supply is switched on, there is a risk of high-voltage electric shock in the control cabinet. Only the authorized professionals who are qualified and experienced in electrical operation are allowed to conduct the operation for fear of the electric shock.

Inspection: check if the operation of two safety devices with the safety jaws of the main lift is flexible and reliable and if the oil circuit and air circuit leak.

3.2 Leveling of platforms

Insert metallic sizing blocks under the platform to avoid the horizontal leveling of the lift on the uneven ground. (Fig. 19, 20).

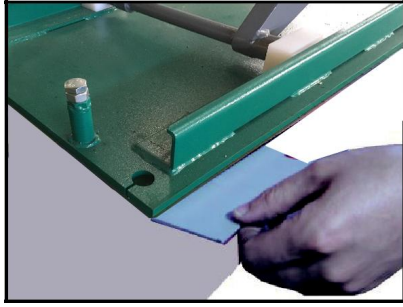


Fig 19

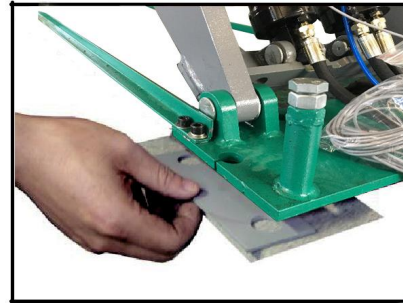


Fig 20

Drive a $\Phi 18$ percussion bit to 160 mm depth in the ground from the holes on the base plate with an electric hammer (Fig. 21), clean the hole, and fix foundation bolts into the holes with a light hammer (without inserting the central expansion screws of the foundation bolts, which shall be fixed after the leveling is completed).

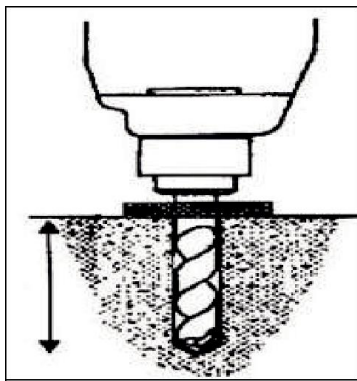


Fig 21

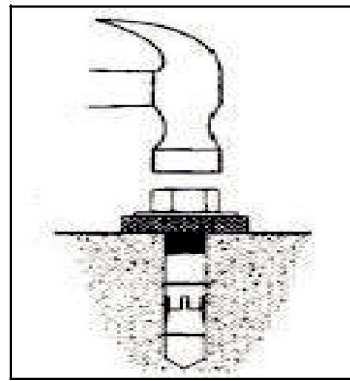


Fig 22

⚠ Leveling: The level precision of the machine is a precondition of the precise detection for four-wheel alignment, therefore the machine leveling is significant.

- Lift the main lift platform to the fifth or sixth gear, then press the “Lock” button to fasten the safety jaws of the left and right platforms into the safety gear rack firmly.
- Inspect that the surfaces of the left and right platforms are level laterally and longitudinally with a transparent leveling pipe or level gauge (Fig. 23).

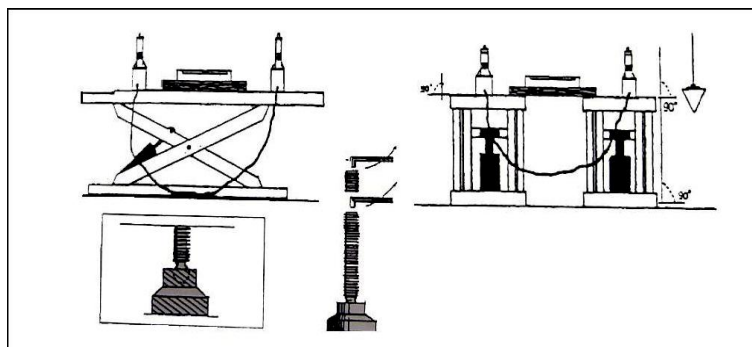


Fig 23

- If the platforms are of unequal heights due to an uneven foundation, adjust the adjusting bolts (Fig. 24) on the base frame of the main lift with a wrench to make the platforms' level precision meet the detection requirements of four-wheel alignment.



Fig 24

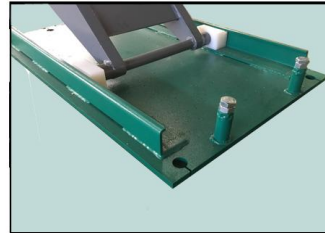


Fig 25



- After the leveling, insert the central expansion screws of foundation bolts, and fix the expansion screws with a heavy hammer.
- Tighten the nuts of the foundation bolts.
- If the concrete curing period is not over, do not hammer the central expansion screws of the foundation bolts. After leveling, the clearance between the base plate and the ground must be filled with cement mortar.

Low position leveling: When the main platform is lowered to the lowest position, the level of the platform in the low position can be adjusted by the supporting screw rods at the bottom of the main platform (See Fig. 25).

- Loosen the tightening nut first.
- Adjust the length of the supporting screw rod to the proper position.
- Then tighten the nut.

3.3 Test

No-load test of main lift:

Turn on the power switch and turn the changeover switch to the “Main Lift” position. At this time, all oil-filling ball valves are closed.

- Press the “Up” button and observe whether the two platforms of main lift rise stably and synchronously.
- Press the “Lock” button, then observe whether the safety jaws get into place precisely.



No person or article shall be on, under or near the lift or within specified areas during the test. Shut down the lift in time if any abnormality is found and retest it after troubleshooting.

Load test: main lift

- Turn the switch to the “Main Lift” position.
- Drive a vehicle not exceeding the maximum lifting capacity onto the platform and apply the parking brake tightly. The person in the vehicle shall leave the vehicle and the platform.
- Press the “Up” button to lift the platforms of the main lift and observe whether they rise stably and synchronously.
- Inspect the lift frame and the hydraulic pump unit for abnormal sounds.
- Observe whether the highest position limit of the platforms is precise and reliable.
- Press the “Lock” button, then observe whether the safety jaws get into place precisely.



No person or article shall be on, under or near the lift, within specified areas or in the vehicle during load tests.

The weight of the tested vehicle shall not exceed the maximum lifting capacity of the lift. Inspect the oil circuit and air circuit for oil or air leakage. Shut down the lift in time if any abnormality is found and retest it after troubleshooting. Only trained operators are allowed to operate the lift. Before operating the lift, inspect the lift as follows.

**Operation precautions:**

- Eliminate barriers around and under the machine before operation.
- When lifting, no person shall be on, under or near the lift, within the specified area, or in the vehicle on the platforms.
- Do not lift the vehicle or other cargoes that exceed the lifting capacity of the lift.
- During lifting, the vehicle brake shall be applied tightly and anti-skid devices such as anti-skid wedges (provided by the user) shall be used.
- Always observe if the lift platforms act synchronously during lifting and lowering. Shut down the lift in time if any abnormality is found and restart the lift only after troubleshooting.
- For maintenance or detection and adjustment in four-wheel alignment, press the “Lock” button to lock the safety jaws of the two platforms at the same level. After the locking operation, personnel can enter the lift and work under the vehicle.
- When conducting the lowering operation, please observe whether the two safety jaws are separated from the safety gear completely; if not, stop the lowering operation.
- The platforms shall be lowered to the lowest position on the ground, drive away the vehicle and cut off the power supply according to the instructions for electric operation when the machine will not be in use for a long time or overnight.

Main lift (sub lift) lifting:

- When the “Up” button is pressed, the oil pump runs to send the hydraulic oil to the hydraulic cylinder via the solenoid valve of the main lift or sub lift, and then the platforms are lifted.

Main lift (sub lift) lowering:

- When the “Down” button is pressed, the oil pump runs, the main lift (sub lift) rises first (after the safety jaws are released), and after a 2~2.5s delay, the motor stops running, the air cylinder's safety device opens, then the oil return solenoid valve opens; at this time, the lift starts lowering.
- Lock: when the Lock button is pressed, the oil return solenoid valve starts to return oil, and the mechanical safety mechanism is locked

4. Maintenance

The maintenance of the lift shall be performed by trained personnel.

- (1) Apply oil at all hinge shafts of this machine with an oiler once a week.
- (2) Apply lubricating grease on the moving parts, including the safety gear rack and the upper and lower sliding blocks, once a month.
- (3) Disassemble the side slide plate and apply lubricating grease once a year.
- (4) After the new machine is used for three months, the hydraulic oil must be changed for the first time. After that the hydraulic oil must be changed once a year, and the pump oil inlet filter and oil filler port filter shall be cleaned. The oil level shall always be kept at the upper limit.
- (5) Safety determination of the structural strength of the lift must be conducted by the specialized department every five years.

(6) For change of hydraulic oil, lower the machine to the lowest position and discharge the old oil from the hydraulic tank. The fresh oil added into the hydraulic tank shall be filtered.

(7) Inspect the pneumatic safety device for flexibility and reliability every shift.



- Troubleshooting must be conducted by trained and experienced technicians.
- Fault symptoms and troubleshooting methods:

Fault symptom	Cause	Troubleshooting method
The motor does not rotate when the UP button is pressed.	① The power supply is abnormal	Perform inspection and troubleshooting, and connect the electric wires.
	② The AC contactor of the pump motor main circuit does not pull in.	The motor will run if the contactor is pressed with an insulating rod forcibly. Inspect the control circuit, and replace the contactor if the voltage at the contactor coil terminal is normal.
	③ Phase loss.	Use a multimeter to check if the three phases are 380V. Note: A tester cannot be used to check if the phase is lost.
	④ The button switch is faulty.	Inspect the button contracts and wires and perform troubleshooting.
The motor rotates but the platform does not rise when the UP button is pressed.	① The motor rotates reversely.	Exchange the phase sequence of the incoming power wires.
	② The platform ascends with light load but does not ascend with heavy load.	Increase the safe pressure setting of the relief valve by rightward rotating the valve slightly. If there is dirt in the valve core of the lowering solenoid valve, clean the valve core.
	③ The hydraulic oil is insufficient or the grade is incorrect.	Refill or change the hydraulic oil.
	④ The manual oil drain plug of the solenoid valve is not tightened.	Tighten the oil drain plug of the main lift or sub lift.
	⑤ The solenoid valve connector is blown.	Replace the solenoid valve connector of the main lift or the sub lift.
The lift does not descend when the DOWN button is pressed.	① The safety jaw is not separated from the safety gear rack.	Extend the delay time of the time delay slightly.
	② The safety jaw is not uplifted.	The air pressure is insufficient, the safety jaw gets stuck or the air pipe is broken. Adjust the pressure of the air compressor, inspect the air pipe and perform troubleshooting.
	③ The pneumatic solenoid valve does not work.	If the pneumatic circuit is blocked for the energized pneumatic solenoid valve does not work, inspect or replace the pneumatic solenoid valve.
	④ The lowering solenoid valve does not work.	Inspect the connector and coil of the lowering solenoid valve and inspect whether the copper nut at the end of solenoid valve is rightward tightened.

	⑤ The explosion-proof valve is blocked.	Remove the "explosion-proof valve" from the oil inlet port at the cylinder bottom of main lift or sub lift cylinders, and clean explosion-proof valve.
The lift descends slowly with normal load.	① The hydraulic oil is too viscous or frozen and deteriorated (in winter).	Change the hydraulic oil or increase the room temperature according to the instruction.
	② The "explosion-proof valve" preventing the blowout of the oil pipe is blocked.	Remove or close the intake pipe to lock the safety jaw without lifting, remove the "explosion-proof valve" from the oil inlet port at the bottom of the oil cylinder and clean it.
The left and right platforms are out of sync and not at the same height.	① The air in the oil cylinder is not bled completely.	Refer to the procedures for oil filling and leveling.
	② The oil pipe or joint leaks oil.	Tighten the joint or replace the oil seal, and then fill oil and perform leveling.
	③ The "oil filling shutoff valve" cannot be closed tightly, and therefore oil filling is required almost everyday.	Replace the oil filling shutoff valve, and then fill oil and perform leveling.
There is noise during raising and lowering.	① Insufficient lubrication.	Apply oil at all hinges and moving parts (including piston rods) to lubricate them.
	② The foundation or the machine is distorted.	Readjust the machine to make it level and fill (pad) the foundation.
The platform always rises when the Down button is pressed.	① The time relay is loose or damaged.	Reinsert or replace the time relay.
Main lift and sub lift rise synchronously	① The solenoid valves of the main lift and sub lift cannot return for the foreign matters in the valve cores.	Turn the valve cores around or disassemble the valve cores to clean them with diesel and air gun.

5. Exploded View of Main Lift

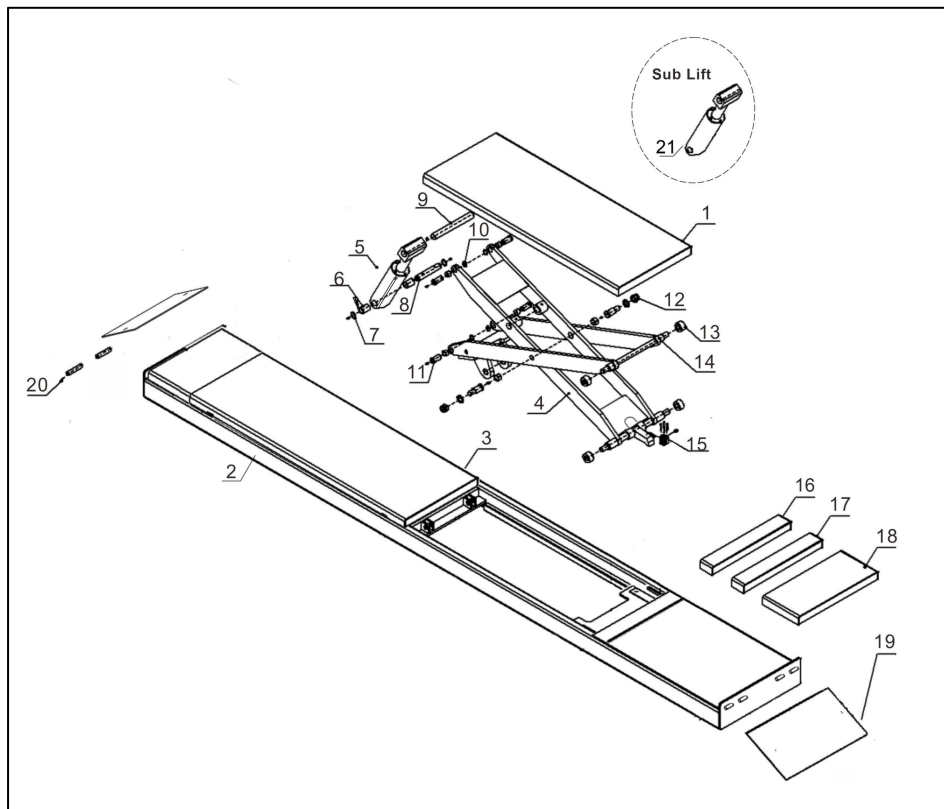


Fig 26

Item No.	Name	Item No.	Name
1	Sub lift panel	12	Upper rack connecting shaft nut
2	Bridge plate	13	Upper X frame roller
3	Side slide plate	14	Upper X frame roller copper bush
4	Upper inner X frame	15	Sub Lift safety device open cylinder
5	Sub Lift master cylinder	16	Turntable cover plate 1
6	Sub Lift cylinder bottom shaft copper bush	17	Turntable cover plate 2
7	Sub Lift cylinder circlip	18	Turntable cover plate 3
8	Sub Lift cylinder bottom shaft	19	Stop plate
9	Sub Lift cylinder top shaft	20	Stop plate mounting pin
10	Sub Lift inner X frame shaft circlip	21	Sub Lift slave cylinder
11	Upper outer X frame and bridge plate connecting shaft		

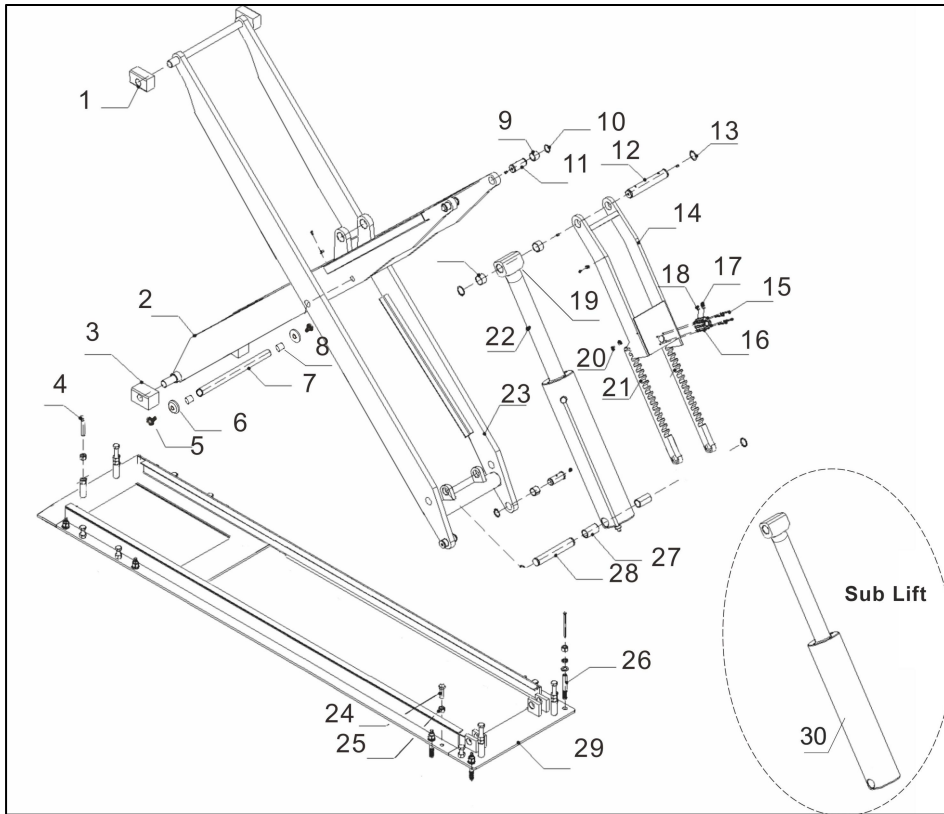


Fig 27

Item No.	Name	Item No.	Name
1	Lower X frame upper sliding block	16	Main Lift safety device cylinder
2	Lower inner X frame	17	Lower safety device cylinder connector
3	Lower X frame lower sliding block	18	Lower safety device muffer
4	Bridge plate screw	19	Hydraulic cylinder T joint
5	Middle shaft retaining screw	20	Lower safety device mounting screw
6	Middle shaft chuck	21	Main Lift safety device lower gear rack
7	Middle shaft	22	Main Lift master cylinder
8	Middle shaft copper bush	23	Lower outer X frame
9	Lower X frame top shaft copper bush	24	Base frame trim strip retaining screw
10	Lower X frame top shaft circlip	25	Base frame trim strip nut
11	Lower X frame top shaft	26	Foundation screw
12	Safety device mounting shaft	27	Main Lift cylinder copper bush
13	Safety device mounting shaft circlip	28	Main Lift cylinder bottom shaft
14	Main Lift upper safety device	29	Base frame
15	Lower safety device mounting screw	30	Main Lift slave cylinder

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- Part number
- Part name

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