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Safety Precautions

- Make sure that you have read the User's Manual completely including relevant instructions on installation, operation and safety before operating the lift.
- Do not use the lift if any abnormality is found in the lift.
- Do not overload the lift beyond its rated load4000KG.
- The lift can be operated by trained personnel only. The vehicle customer or the inexperienced person is prohibited from operating the lift at will.
- The rubber pad of the small scissor lift must have contact with the support point of the vehicle, otherwise the vehicle chassis may be damaged. (It is recommended to consult the vehicle manufacturer by telephone if the location of the support point is 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 at any dangerous place, such as the space between tool arms.
- It is prohibited to 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 lock, and then descend automatically.
- · Always wear safety shoes during operation.
- It is forbidden to lift the vehicle when someone is in the vehicle.
- Cut off the power supply after the use of lift.
- When a vehicle is being loaded onto or unloaded from the lift, no person is allowed to stand in the vehicle passage.
- Ensure that the platforms of main and sub lifts are lowered to the lowest positions before the vehicle departs from/leaves 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

- Ultra-thin body, no pit is required.
- Platform extended to 4520mm.
- Aluminum alloy motor with fast heat dissipation.

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	1630mm
Lifting height of sub lift	460mm
Initial height of platform (excluding the side slide plate)	190mm
Length of main lift platform	4520mm
Width of main lift platform	655mm
Total width of whole machine platform	2190mm
Power	1PH, 220VAC, 3KW, motor with an aluminum alloy housing
Fower	3PH, 380VAC, 3KW, motor with an aluminum alloy housing
Hydraulic oil	46# anti-wear hydraulic oil
Air supply pressure	6-8 bar

1.3 Dimension diagram

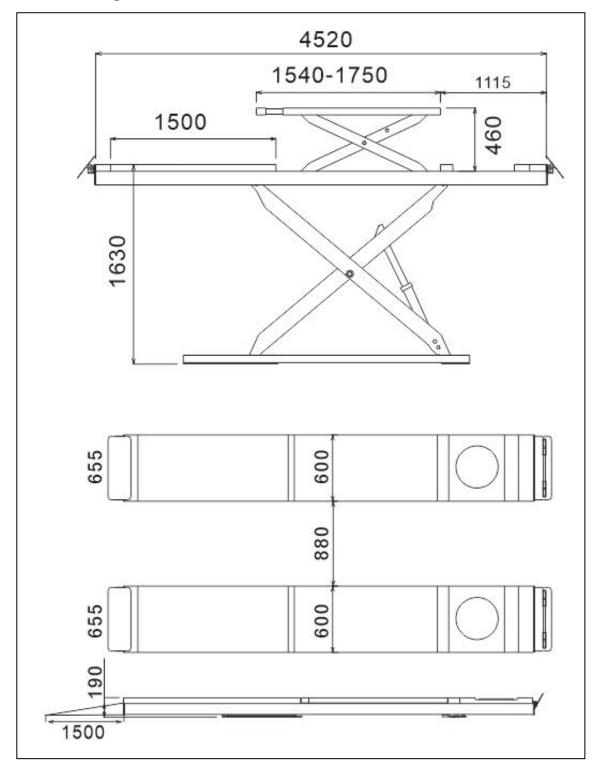


Fig 1

1.4 Civil Work Plan

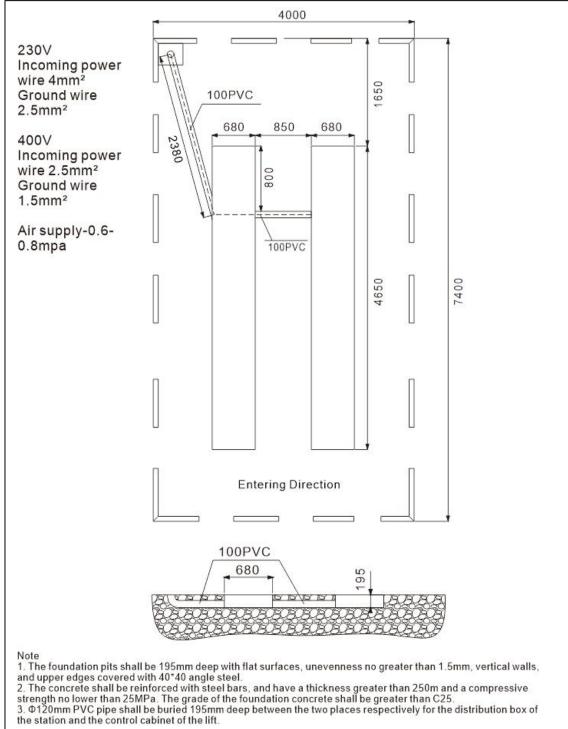


Fig 2

1.5 Working space layout

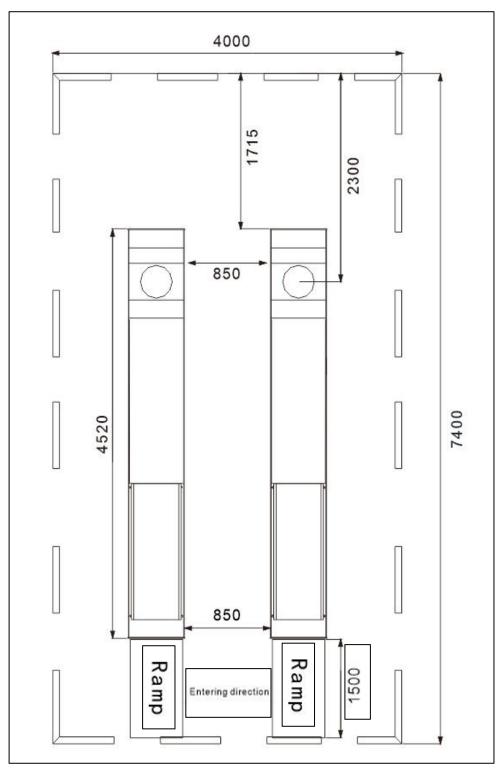


Fig 3

1.6 Oil pipe diagram



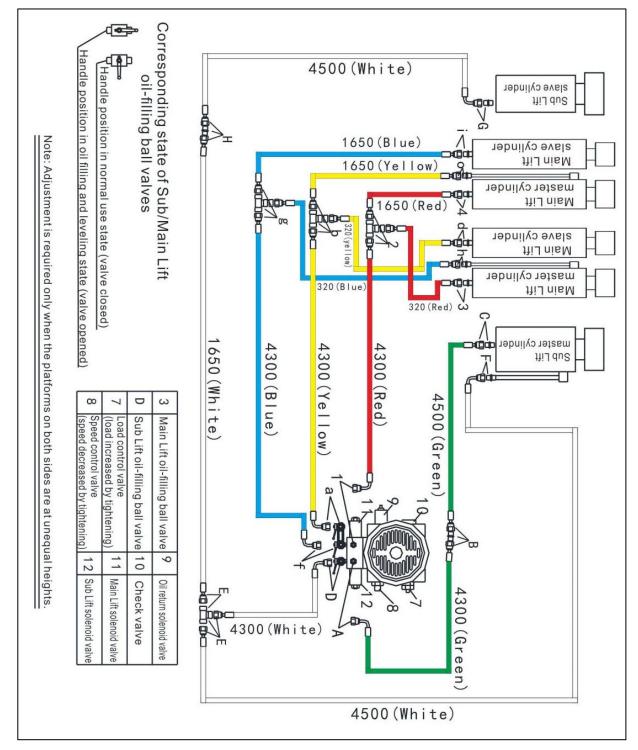
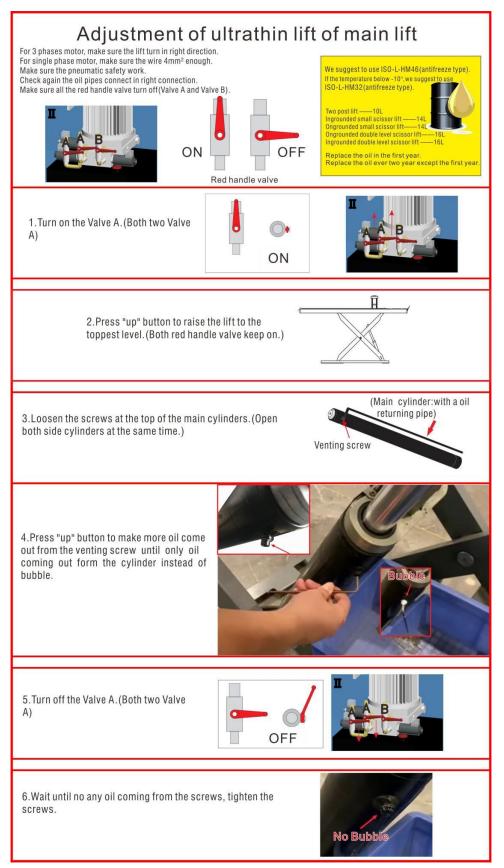
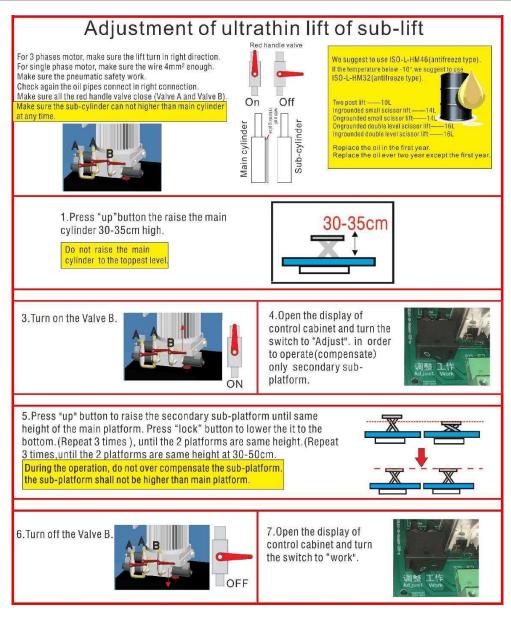


Fig 4

1.7 Tips for leveling and oil-filling







1.8 Emergency manual lowering procedures at power failure:

Lift the safety jaws above the cylinders for both platforms and insert paper blocks under the safety jaws to separate them from the safety gear rack. Cut off the power and open the control cabinet cover to locate the oil return solenoid valve. Loosen the golden head of valve C and use a 4mm hex key to hold it in the middle of valve A (in the direction of the arrow), and the lift will lower. When the platforms have descended, tighten the copper cap at the end of oil return solenoid valve timely to avoid unnecessary trouble. Otherwise, the hydraulic oil will directly return to the tank and thus cannot drive the cylinders to raise the lifts when the voltage is supplied normally and the lifts have ascended. Manual lowering is not recommended unless in case of emergency.

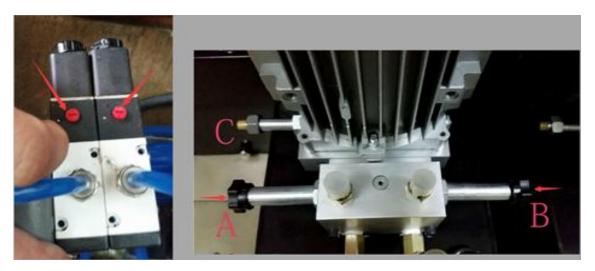


Fig 7

1.9 Schematic diagram for main components

Turntable recess: Used to accommodate turntable for four-wheel alignment.

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

Stop plate: Used to prevent the vehicle from slipping out of the platform, and is set level at the lowest position.

Secondary lifting trolley: Used to lift the vehicle.

Safety gear rack: safety mechanism, for mechanical locking.

Control cabinet: control unit, providing the power takeoff.

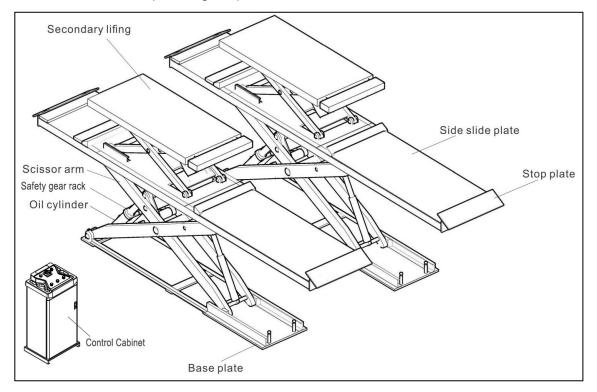


Fig 8

2. Preparation for Installation

2.1 Unpacking

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

Transportation:

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

The lift shall be inspected for completeness when it arrives, for fear of damage or loss during transportation. If the packing box is broken during transportation, 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 scissor lift is a heavy cargo. Therefore, manpower loading/unloading and handling are forbidden. Safety is of much importance. In addition, the hoisting of scissor lift during loading/unloading shall be operated as illustrated.

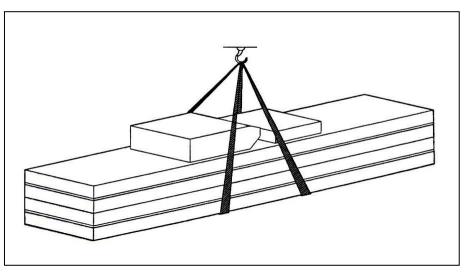


Fig 9

Storage:

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

2.2 Installation

Λ

- 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. 10), 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 with the control cabinet station in advance, and the ceiling height cannot be less than 4000mm. It is recommend to install the lift in a pit, and construct the foundation as required in Fig. 10. 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.

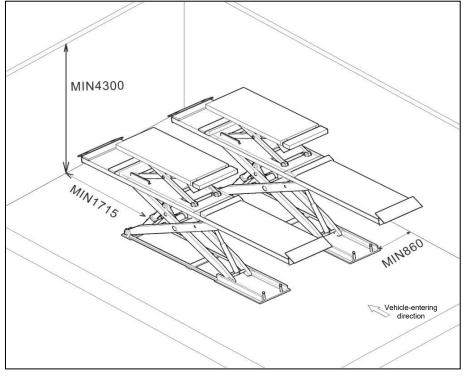
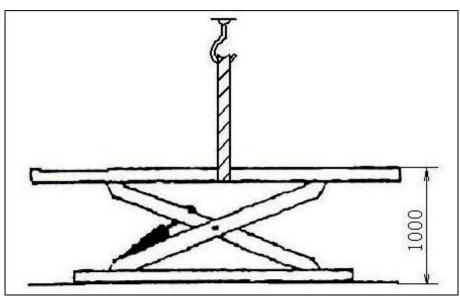


Fig 10

The arrived goods shall be inspected for completeness before installation of scissor lift. The movement and installation of the lift shall be carried out by the professionals.

2.2.2 Installation of lifting platforms

Insert adjusting sizing blocks under the platform, lift the lifting platform with a forklift or other lifting equipment (Fig. 11) to about 1000MM, so as to ensure that the mechanical safety device is activated and locked.





To avoid the failure of the mechanical safety device, a wood block can be inserted at 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 two platforms to make them parallel, and connect the electric circuit, oil circuit and air circuit of two platforms as specified in the Electrical Wiring Diagram and Oil Circuit Connection Diagram.

Only after the hydraulic system connection is completed, the pneumatic circuit connection can be conducted. Oil pipes, electric wires and air pipes shall not be damaged.

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

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

2.2.3 Installation of electric circuit

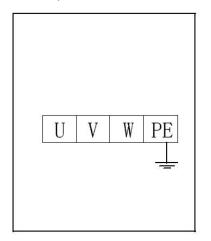
Note: A four-pole leakage protection switch with a neutral wire shall be used as the external leakage protection switch for the user.

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

Only the professionals qualified for electrical operation are allowed to conduct the electrical installation. Open the cover on the control cabinet first.

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- 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 marked ground bolt firstly and then to the marked ground bolts at the bottom of the two platforms (Fig. 12).
- Wiring of the three-phase motor is as shown below (Fig. 13).





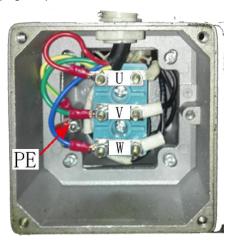


Fig 13

Electrical diagram

Voltage :380V Phase:3

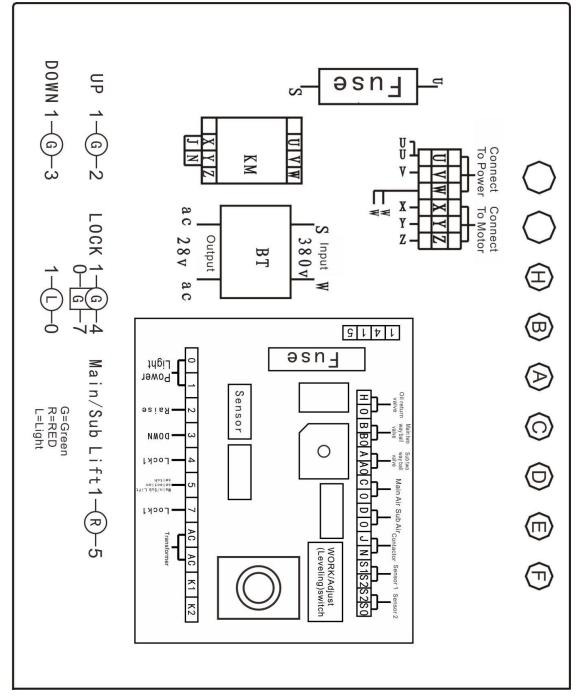


Fig 14

Voltage :220V Phase:1

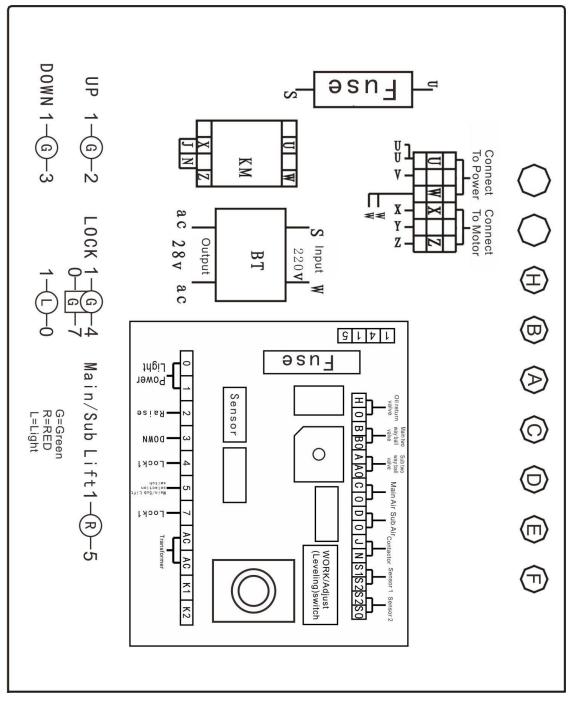


Fig 15

2.2.4 Hydraulic schematic diagram

Hydraulic schematic diagram

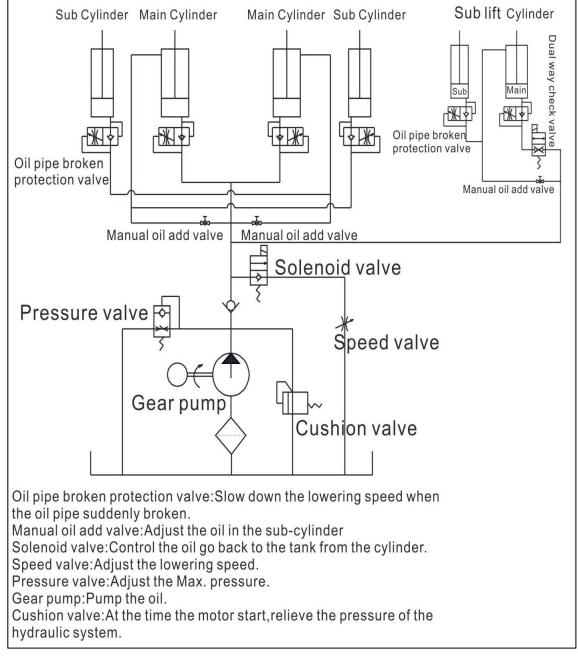


Fig 16

Pay special attention to the protection of oil pipe joint.

- Lead the high-pressure oil pipe out from the main lift solenoid valve in the control cabinet and then connect it to the oil cylinder of the main lift through the PVC pipe as per the numbers of oil pipes (for details, see the Oil Circuit Connection Diagram).
- During connection, wrap the oil pipe joint to prevent foreign matters from entering the hydraulic circuit.
- · Connect the oil pipes as per colors indicated on the oil circuit diagram
- Only the 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 Φ6×5 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. 17) according to the Pneumatic Circuit Connection Diagram.
- When passing through the PVC pipe, the air pipe joint shall be wrapped to prevent any foreign matters from entering the compressed air circuit.

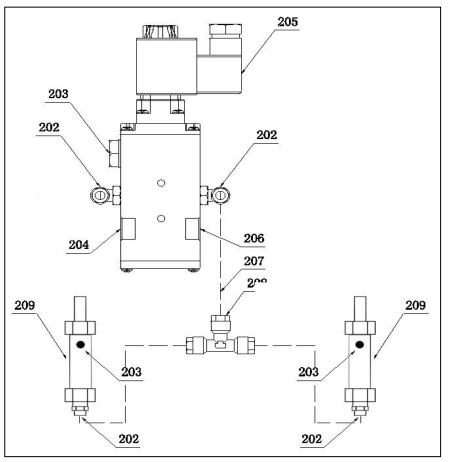


Fig 17 (Cylinder Connection)

- 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.

Accessory number	Item	Quantity
203	Muffler	3
204	Plug 1/8	1
205	Solenoid valve	1
206	Plug 1/4	1
207	Air pipe PU0604	1
208	T-joint APE6	1
209	Small cylinder	2
211	Air pipe PU0806	

3. Commissioning

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: inspect if the operation of safety devices on two safety jaws of the main lift is flexible and reliable and if the oil circuit and pneumatic circuit leak.

3.2 Platform level adjustment

Insert metallic sizing blocks under the platform to avoid the horizontal leveling of the lift on the uneven ground. (Fig. 18, 19).





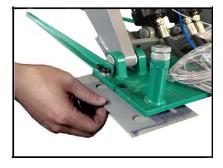
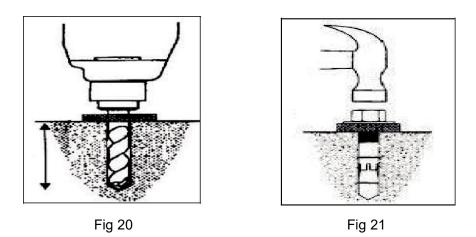


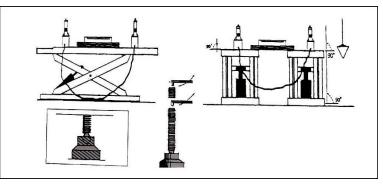
Fig 19

Drive a Φ 18 percussion bit to 160 mm depth in the ground from the holes on the base plate with an electric hammer (Fig. 20), 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).



Leveling: The level precision of the machine is a precondition of the precise detection for fourwheel 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. 22).





• If the uneven platform is caused by the uneven foundation, adjust the adjusting bolts (Fig. 23) on the base frame of the main lift with a wrench to make the platform's level precision meet the detection requirements of four-wheel alignment.





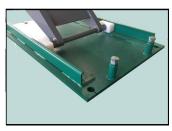


Fig 24

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- 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. 24).

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

3.3 Test

Unladen test of the main lift:

Switch on the power switch, turn the changeover switch to the "Main lift" position and close all oil-filling valves.

- Press the "Up" button, and observe whether the two platforms of main lift ascend stably and synchronously.
- Press the "Lock" button, then observe whether the safety jaws get in place precisely.

No person or article shall be on or near the lift or within specified areas during the test. Shut down the machine 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 the 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 the platforms of main lift ascend stably and synchronously.
- Inspect the lift frame and the hydraulic pump unit for abnormal sound.
- Observe whether the highest position limit of the platforms is precise and reliable.
- Press the "Lock" button, then observe whether the safety jaws get in place precisely.

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

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

⚠ Operation cautions:

- Eliminate the barriers around and under the machine before operating the machine.
- When lifting, no person shall be on or near the lift, within the specified area, or in the vehicle on the platforms.
- Do not lift the vehicle or other goods that exceed the lifting capacity of the lift.
- During lifting, the vehicle parking brake shall be applied tightly and anti-skid device such as anti-skid wedges (provided by the user) shall be used.
- Always observe if the lift platforms act synchronously during ascending and descending. Shut down the machine in time if any abnormality is found, and restart the machine only after inspection and

troubleshooting.

- For maintenance or test and adjustment in four-wheel alignment, press the "Lock" button to lock the safety jaws of two platforms at the same level. After the locking operation, the 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 rack completely, if not, stop the lowering operation.
- The platforms shall be lowered to the lowest position, drive away the vehicle and cut off the power supply according to the instruction for electric operation when the machine will not be in use for a long time or overnight.

4. Maintenance

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

- (1) Apply oil at all hinged 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 verticalmovement 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 oil inlet filter of pump unit 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 replacement 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 per shift.

\wedge

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

Fault symptom	Cause	Troubleshooting method
	(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.
The motor does not rotate when the UP button is pressed.	③Phase 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.

	(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.	
The motor rotates but the platform does not	③The hydraulic oil is insufficient or the grade is incorrect.	Refill or change the hydraulic oil.	
rise when the UP button is pressed.	④The manual oil drain plug of the solenoid valve is not tightened.	Tighten the oil drain plug of the main lift or sub lift.	
	⑤The solenoid valve connector is blown.	Replace the solenoid valve connector of the main lift or the sub lift.	
	①The 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.	
The lift does not	③The 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.	
descend when the DOWN button is pressed.	④The 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.	
	⑤The 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.	
	①The hydraulic oil is too viscous or frozen and deteriorated (in winter).	Change the hydraulic oil or increase the room temperature according to the instruction.	
The lift descends slowly with normal load.	②The "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.	
	①The air in the oil cylinder is not bled completely.	Refer to the procedures for oil filling and leveling.	
The left and right platforms are out of sync and not at the same	②The oil pipe or joint leaks oil.	Tighten the joint or replace the oil seal, and then fill oil and perform leveling.	
height.	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.	

	②The 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 synchronously① The solenoid values of the main lift and sub lift cannot return for the foreign matters in the value 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

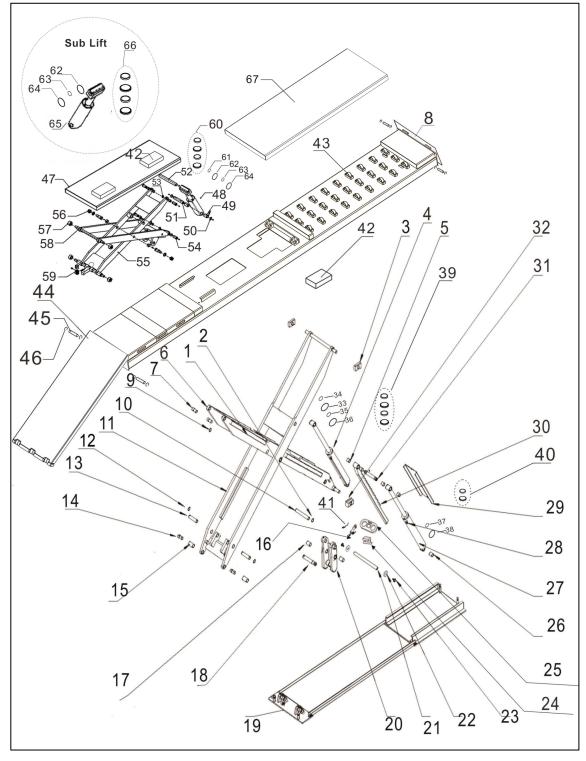


Fig 25

1Innerscissor arm35Dust seal of main cylinder nut2Auxiliary arm central shaft circlip36Piston sealing ring of main cylinder3Upper sliding block37Dust seal of slave cylinder nut4Master cylinder38Piston sealing ring of slave cylinder5Cylinder Tee bushing39Sealing group of main oil cylinder6Innerscissor arm bushing40Sealing group of slave oil cylinder7Upper hinged shaft forinner scissor arm41Ultrathin cylinder sense8Stop plate42Large foam rubber pad9Circlip for rupper hinged shaft ofinner scissor arm43Slider board roller10Auxiliary arm central shaft44Ramps11Outerscissor arm45Ramps shaft12Oil cylinder bottom shaft circlip46Circlip for Ramps shaft13Oil cylinder bottom shaft or outerscissor arm49Upper shear cylinder bottom shaft corper sleeve16Safety jaw cylinder50Cut the oil cylinder bottom shaft17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper ut inner frame shaft card spring20Auxiliary arm54The upper outer frame connectis the bridge axee21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft55Cut	Item No.	Name	Item No.	Name
3 Upper sliding block 37 Dust seal of slave cylinder nut 4 Master cylinder 38 Piston sealing ring of slave cylinder 5 CylinderTee bushing 39 Sealing group of main oil cylinder 6 Innerscissor arm bushing 40 Sealing group of slave oil cylinder 7 Upper hinged shaft forinner scissor arm 41 Ultrathin cylinder sense 8 Stop plate 42 Large foam rubber pad 9 Circlip for upper hinged shaft ofinner 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft circlip 46 Cut the oil cylinder on 14 Hinged shaft for outerscissor arm 48 Cut the oil cylinder spring on 15 Bushing for outer scissor arm 49 Upper shear cylinder bottom shaft copper shear cylinder bottom shaft 18 Lower wheel shaft for auxiliary arm 52 Cut the oil cylinder spring on 17 Auxiliary arm central sha	1	Innerscissor arm	35	Dust seal of main cylinder nut
4 Master cylinder 38 Piston sealing ring of slave cylinder 5 CylinderTee bushing 39 Sealing group of main oil cylinder 6 Innerscissor arm bushing 40 Sealing group of slave oil cylinder 7 Upper hinged shaft forinner scissor arm 41 Ultrathin cylinder sense 8 Stop plate 42 Large foam rubber pad 9 Circlip for upper hinged shaft ofinner scissor arm 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps shaft 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft 47 Secondary lift panel 14 Hinged shaft for outerscissor arm 49 Upper shear cylinder on 15 Bushing for outer scissor arm 49 Upper shear cylinder bottom shaft 16 Safety jaw cylinder 50 Cut the oil cylinder 17 Auxillary arm central bushing 51 Upper shear cylinder bottom shaft 18 Lower wheel shaft for auxillary arm 52 Cut	2	Auxiliary arm central shaft circlip	36	Piston sealing ring of main cylinder
5 Cylinder Tee bushing 39 Sealing group of main oil cylinder 6 Innerscissor arm bushing 40 Sealing group of slave oil cylinder 7 Upper hinged shaft forinner scissor arm 41 Ultrathin cylinder sense 8 Stop plate 42 Large foam rubber pad 9 Circlip for upper hinged shaft ofinner scissor arm 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft 47 Secondary lift panel 14 Hinged shaft for outerscissor arm 49 Upper shear cylinder bottom shaft copper sleeve 16 Safety jaw cylinder 50 Cut the oil cylinder spring on 17 Auxiliary arm central bushing 51 Upper outer frame connects the bridge axle 20 Auxiliary arm 54 Cut the oil cylinder spring 18 Lower wheel shaft for auxiliary arm 52 Cut the top shaft of the oil cylinder 20 Auxiliary arm 54	3	Upper sliding block	37	Dust seal of slave cylinder nut
6 Innerscissor arm bushing 40 Sealing group of slave oil cylinder 7 Upper hinged shaft forinner scissor arm 41 Ultrathin cylinder sense 8 Stop plate 42 Large foam rubber pad 9 Circlip for upper hinged shaft ofinner scissor arm 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft 47 Secondary lift panel 14 Hinged shaft for outerscissor arm 48 Cut the oil cylinder on 15 Bushing for outer scissor arm 49 Upper shear cylinder bottom shaft copper sleeve 16 Safety jaw cylinder 50 Cut the oil cylinder spring on 17 Auxiliary arm central bushing 51 Upper shear cylinder bottom shaft 18 Lower wheel shaft for auxiliary arm 52 Cut the oil cylinder 19 Baseplate 53 Upper cut inner frame shaft card spring axle 21 Scissor arm central shaft 55	4	Master cylinder	38	Piston sealing ring of slave cylinder
7 Upper hinged shaft forinner scissor arm 41 Ultrathin cylinder sense 8 Stop plate 42 Large foam rubber pad 9 Circlip for upper hinged shaft ofinner scissor arm 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft 47 Secondary lift panel 14 Hinged shaft for outerscissor arm 48 Cut the oil cylinder on 15 Bushing for outer scissor arm 49 Upper shear cylinder bottom shaft copper sleeve 16 Safety jaw cylinder 50 Cut the oil cylinder bottom shaft 18 Lower wheel shaft for auxiliary arm 52 Cut the top shaft of the oil cylinder 19 Baseplate 53 Upper cut inner frame connects the bridge axle 21 Scissor arm central shaft 55 Cut the X frame 22 Scissor arm central shaft 57 Upper X-frame wheel copper cover 23 Screw for scissor arm central shaft	5	CylinderTee bushing	39	Sealing group of main oil cylinder
8 Stop plate 42 Large foam rubber pad 9 Circlip for upper hinged shaft ofinner scissor arm 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft 47 Secondary lift panel 14 Hinged shaft for outerscissor arm 48 Cut the oil cylinder on 15 Bushing for outer scissor arm 49 Upper shear cylinder bottom shaft copper sleeve 16 Safety jaw cylinder 50 Cut the oil cylinder bottom shaft 18 Lower wheel shaft for auxiliary arm 52 Cut the top shaft of the oil cylinder 19 Baseplate 53 Upper cut inner frame shaft card spring 20 Auxiliary arm 54 The upper outer frame connects the bridge axte 21 Scissor arm central shaft 55 Cut the X frame 22 Scissor arm central shaft 57 Upper X-frame wheel copper cover 23 Screw for scissor arm central shaft 57	6	Innerscissor arm bushing	40	Sealing group of slave oil cylinder
9 Circlip for upper hinged shaft ofinner scissor arm 43 Slider board roller 10 Auxiliary arm central shaft 44 Ramps 11 Outerscissor arm 45 Ramps shaft 12 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 13 Oil cylinder bottom shaft circlip 46 Circlip for Ramps shaft 14 Hinged shaft for outerscissor arm 48 Cut the oil cylinder on 15 Bushing for outer scissor arm 49 Upper shear cylinder bottom shaft copper sleeve 16 Safety jaw cylinder 50 Cut the oil cylinder bottom shaft 18 Lower wheel shaft for auxiliary arm 52 Cut the top shaft of the oil cylinder 19 Baseplate 53 Upper cut inner frame shaft card spring 20 Auxiliary arm 54 The upper outer frame connecting shaft nuts 23 Sciesor arm central shaft 55 Cut the X frame 24 Safety lock 58 Upper X-theel 25 Cylinder positioning board 59 Upper shear insurance opens the cylinder 26 Cylinder bottom bushing 60	7	Upper hinged shaft forinner scissor arm	41	Ultrathin cylinder sense
3scissor arm43Sider Doard Houer10Auxiliary arm central shaft44Ramps11Outerscissor arm45Ramps shaft12Oil cylinder bottom shaft circlip46Circlip for Ramps shaft13Oil cylinder bottom shaft47Secondary lift panel14Hinged shaft for outerscissor arm48Cut the oil cylinder on15Bushing for outer scissor arm49Upper shear cylinder bottom shaft copper sleeve16Safety jaw cylinder50Cut the oil cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axil21Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	8	Stop plate	42	Large foam rubber pad
11Outerscissor arm45Ramps shaft12Oil cylinder bottom shaft circlip46Circlip for Ramps shaft13Oil cylinder bottom shaft47Secondary lift panel14Hinged shaft for outerscissor arm48Cut the oil cylinder on15Bushing for outer scissor arm49Upper shear cylinder bottom shaft copper sleeve16Safety jaw cylinder50Cut the oil cylinder spring on17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft57Upper X wheel24Safety lock58Upper X wheel24Safety lock58Upper Shear insurance opens the cylinder25Cylinder positioning board59Upper shear cylinder cap26Cylinder muffler61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	9		43	Slider board roller
12Oil cylinder bottom shaft circlip46Circlip for Ramps shaft13Oil cylinder bottom shaft47Secondary lift panel14Hinged shaft for outerscissor arm48Cut the oil cylinder on15Bushing for outer scissor arm49Upper shear cylinder bottom shaft copper sleeve16Safety jaw cylinder50Cut the oil cylinder spring on17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper outer frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft57Upper X wheel23Screw for scissor arm central shaft57Upper X-frame wheel copper cover24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder politionire head outer sealing ring	10	Auxiliary arm central shaft	44	Ramps
13Oil cylinder bottom shaft47Secondary lift panel14Hinged shaft for outerscissor arm48Cut the oil cylinder on15Bushing for outer scissor arm49Upper shear cylinder bottom shaft copper sleeve16Safety jaw cylinder50Cut the oil cylinder spring on17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder28Cylinder muffler62Upper shear cylinder cap	11	Outerscissor arm	45	Ramps shaft
14Hinged shaft for outerscissor arm48Cut the oil cylinder on15Bushing for outer scissor arm49Upper shear cylinder bottom shaft copper sleeve16Safety jaw cylinder50Cut the oil cylinder spring on17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	12	Oil cylinder bottom shaft circlip	46	Circlip for Ramps shaft
15Bushing for outer scissor arm49Upper shear cylinder bottom shaft copper sleeve16Safety jaw cylinder50Cut the oil cylinder spring on17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	13	Oil cylinder bottom shaft	47	Secondary lift panel
13Busining for outer scissor arm49sleeve16Safety jaw cylinder50Cut the oil cylinder spring on17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	14	Hinged shaft for outerscissor arm	48	Cut the oil cylinder on
17Auxiliary arm central bushing51Upper shear cylinder bottom shaft18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder head outer sealing ring	15	Bushing for outer scissor arm	49	
18Lower wheel shaft for auxiliary arm52Cut the top shaft of the oil cylinder19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	16	Safety jaw cylinder	50	Cut the oil cylinder spring on
19Baseplate53Upper cut inner frame shaft card spring20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	17	Auxiliary arm central bushing	51	Upper shear cylinder bottom shaft
20Auxiliary arm54The upper outer frame connects the bridge axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	18	Lower wheel shaft for auxiliary arm	52	Cut the top shaft of the oil cylinder
20Adxillary arm34axle21Scissor arm central shaft55Cut the X frame22Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	19	Baseplate	53	Upper cut inner frame shaft card spring
22Scissor arm central shaft chuck56Store shelf connecting shaft nuts23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	20	Auxiliary arm	54	
23Screw for scissor arm central shaft57Upper X wheel24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	21	Scissor arm central shaft	55	Cut the X frame
24Safety lock58Upper X-frame wheel copper cover25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring	22	Scissor arm central shaft chuck	56	Store shelf connecting shaft nuts
25Cylinder positioning board59Upper shear insurance opens the cylinder26Cylinder bottom bushing60Large cut upper cylinder sealing ring set27Slave cylinder61Cut the main cylinder cap28Cylinder muffler62Upper shear cylinder cylinder head outer sealing ring20Oil cylinder cover plate62Upper shear cylinder cylinder head inside	23	Screw for scissor arm central shaft	57	Upper X wheel
26 Cylinder bottom bushing 60 Large cut upper cylinder sealing ring set 27 Slave cylinder 61 Cut the main cylinder cap 28 Cylinder muffler 62 Upper shear cylinder cylinder head outer sealing ring 29 Oil cylinder cover plate 62 Upper shear cylinder cylinder head inside	24	Safety lock	58	Upper X-frame wheel copper cover
27 Slave cylinder 61 Cut the main cylinder cap 28 Cylinder muffler 62 Upper shear cylinder cylinder head outer sealing ring 20 Oil cylinder server plate 62 Upper shear cylinder cylinder head inside	25	Cylinder positioning board	59	Upper shear insurance opens the cylinder
28 Cylinder muffler 62 Upper shear cylinder cylinder head outer sealing ring 20 Oil cylinder cover plate 62 Upper shear cylinder cylinder head inside	26	Cylinder bottom bushing	60	Large cut upper cylinder sealing ring set
20 Cylinder muller 02 sealing ring 20 Oil gylinder opvor plate 62	27	Slave cylinder	61	Cut the main cylinder cap
	28	Cylinder muffler	62	
	29	Oil cylinder cover plate	63	

SmartSafe

30	Safety gear rack	64	Upper shear cylinder piston sealing ring
31	Upper shaft for auxiliary arm cylinder	65	Cut the side oil cylinder
32	Lower sliding block	66	Upper shear sub-cylinder sealing ring set
33	Outer sealing ring of main cylinder nut	67	Slider board
34	Inner sealing ring of main cylinder nut		

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