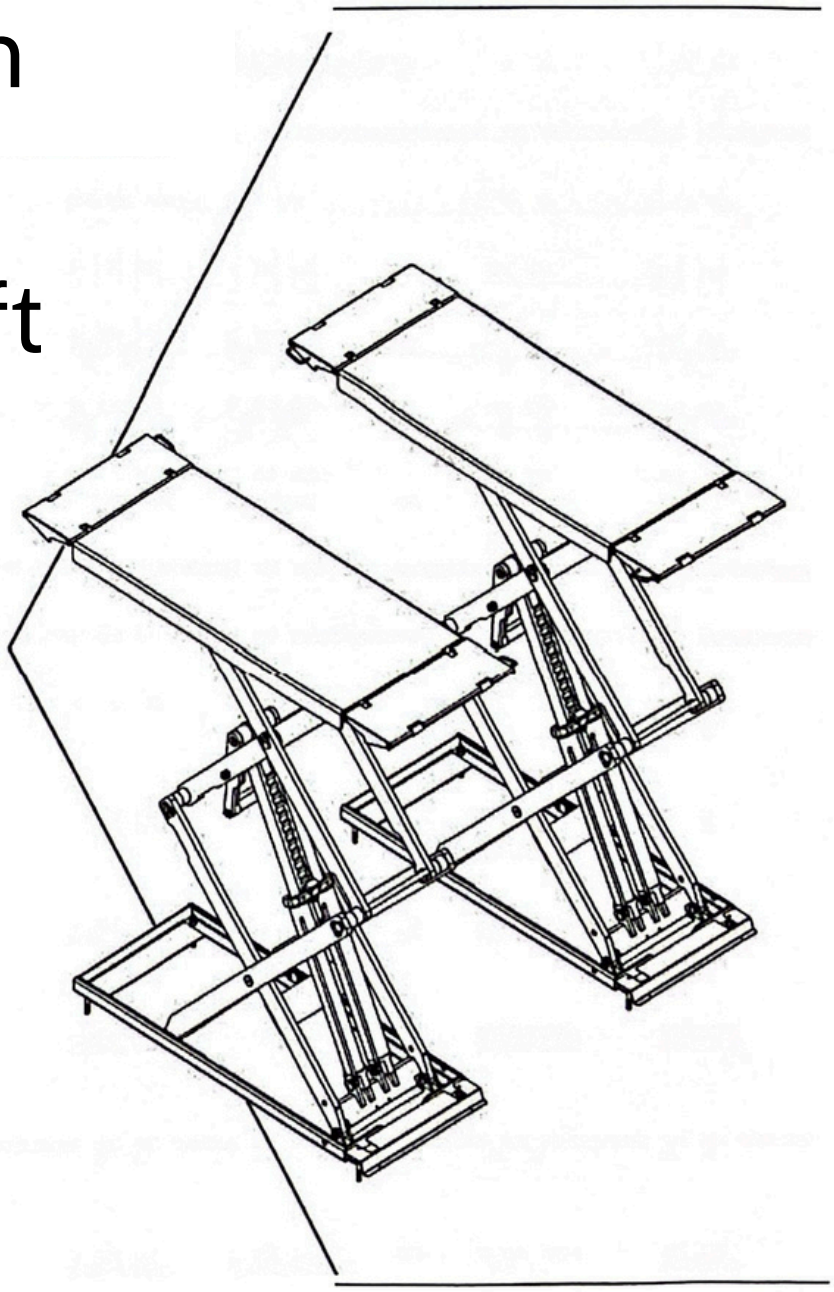
FORCE CANADA

Ultra Thin Full Rise Scissor lift



Please read this manual carefully before operating this equipment

CONTENTS

Chapter I Safety Instructions

When you use the lift,you must ensure that you have fully read this manual,including installation,operation,safety and other related content.

2.If any abnormal problem is found with the lift,stop using it.

3 Do not overload the lift,the rated capacity of the liftis **3.5 Ton**

4 Only trained personnel can operate the lift.It is forbidden to allow car customers or people without operating experience to operatethe lift randomly

5.The rubber pad of the small scissor lift must be in contact with the support point of the vehicle,otherwise the vehicle chassis will be damaged.(If you do not know the position of **the support point,it is recommended to consult the vehicle manufacturer by telephone)**

6.After the car is lifted,the mechanical locking action must be performed,and it is prohibited to work under the vehicle without the mechanical lock locked well.

7 The surrounding area of the lift must be clean and tidy.Any obstacle such as oil pollution is a safety hazard.

8.It is prohibited to lift the vehicle whenthere are people in the vehicle.

9 Before lowering the vehicle,make sure there are no obstacles underneath.

10Whenthe hydraulic system is under pressure,it is forbidden to disassemble any hydraulic parts.

11.Do not put your hands in any dangerous point such as between knife arms

12.This product is only suitablefor indoor use,and it is forbidden to use it outdoors.

13 Keep pressing the down button when descending.The platform automatically rises for a short period and the insurance is opened.automatic descent.

14.The operator must wear safety shoes to operate the lift.

15 It is prohibited to lift the car with people in the car.

16 When the lift not work,cutoff the power.

17 When the vehicle is getting on and off the lift,it is forbidden for people to stand on the aisle of getting on and offthe vehicle.

18.Before the vehicle leaves the lift,confirm that the lift platform has been lowered to the lowest position.

19.Carefully read each item on the operation warning label.

Chapter II product features &parameters

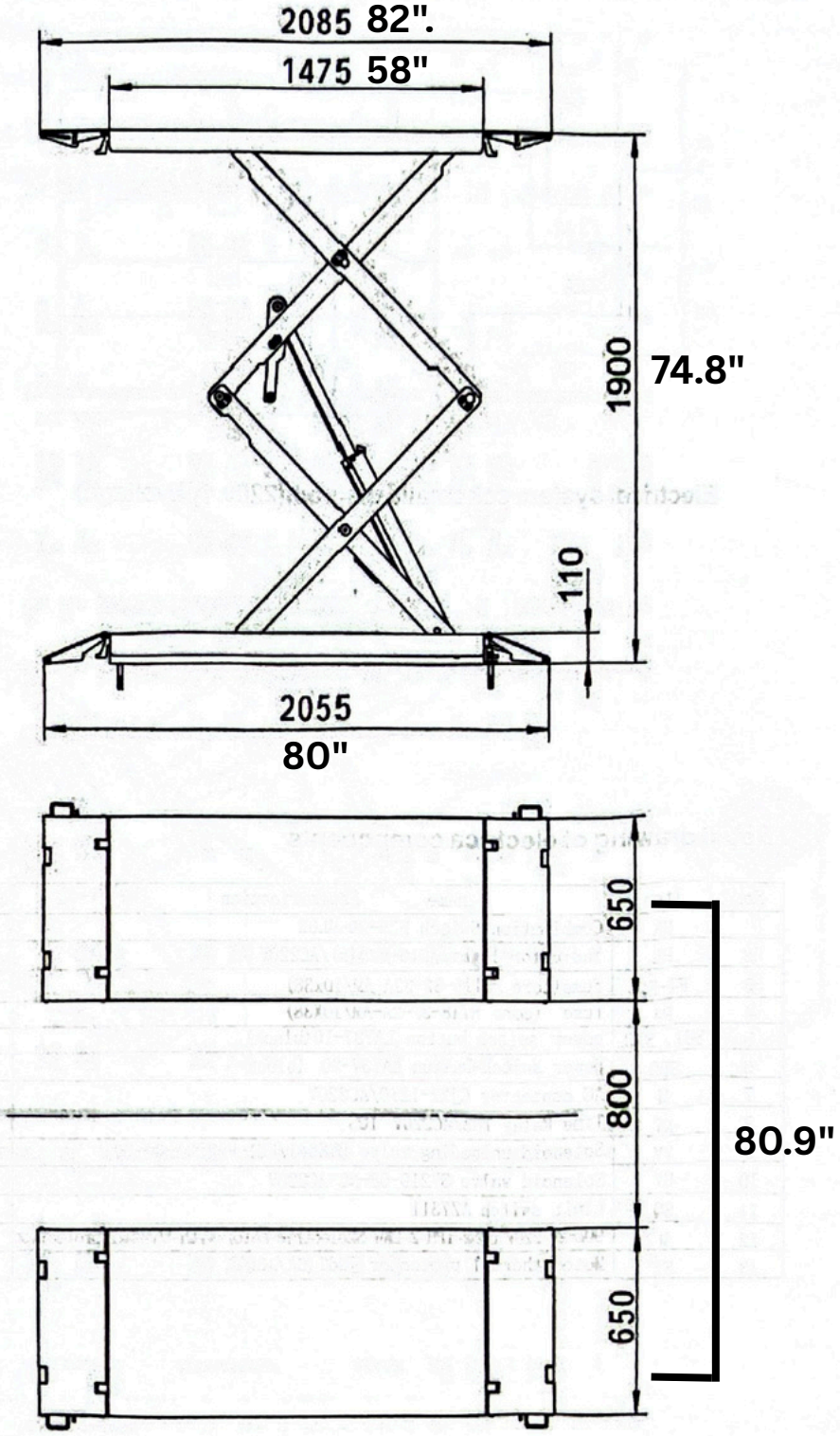
product features

No tedious hydraulic testing,just fill the oil with power on
Integrated circuit board control,beautiful,efficient,and stable
High-strength materials,safe,stable and durable
Equipped with drop alarm buzzersystem,safety reminder is always in mind

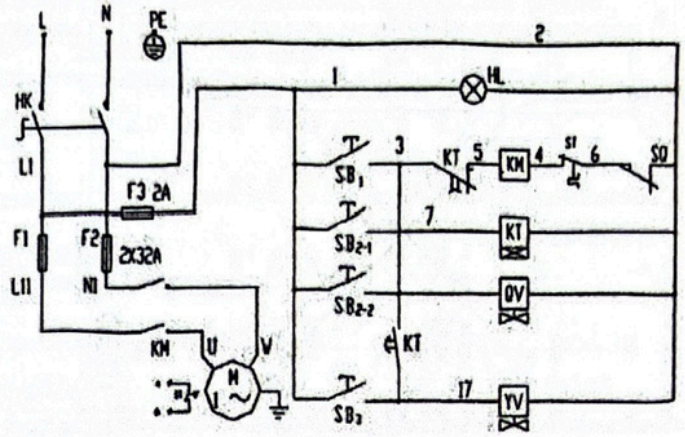
Technical data:

drive mode	Oil Cylinder direct drive
Rated capacity	3500 Kg≈7700 Kg
Lifting height	1850mm
Lowest height	110mm
Platform length	1475mm-2085mm
Platform width	650mm
Total width	2100mm
Power	110V
Hydraulic oil	46#Anti-wear hydraulic oil
Air pressure	10 bar

Diagram(unit:mm)



Electrical system schematic diagram10-1



Electrical system schematic diagram(220v 1phvoltage)

Detail drawing of electrica components

No.	Item	name &specification	quantty
	HK	Combination Switch HZ5-20-4L03	
2	HL	Indicator light AD16-22D(s)/AC220V	
3	F1-F2	fuse(core RT18-32-32A-AM/10x38)	2
4	P4	fuse (core RT18-32-2A-AM/10X38)	
5	SB1、SB3	power switch button LAY37-10(black)	2
6	SB2	power switch button LAY37-20 (black	
7	M	AC contactor CJX2-1210/AC220V	
8	KT	Time Relay TH3/AC220V 10S	
9	YV	Solenoid unloading valve EVK041/EC1-F-220A-00-00	
10	QV	Solenoid valve 3V210-08-NC-AC220V	
11	SQ	Limit switch AZ7311	
12	M	90L-2F 220V 50Hz 1PH 2.2KW S2electric motor with thermal protection	
13	ST	Motor thermal protector JW67(6A/130℃	

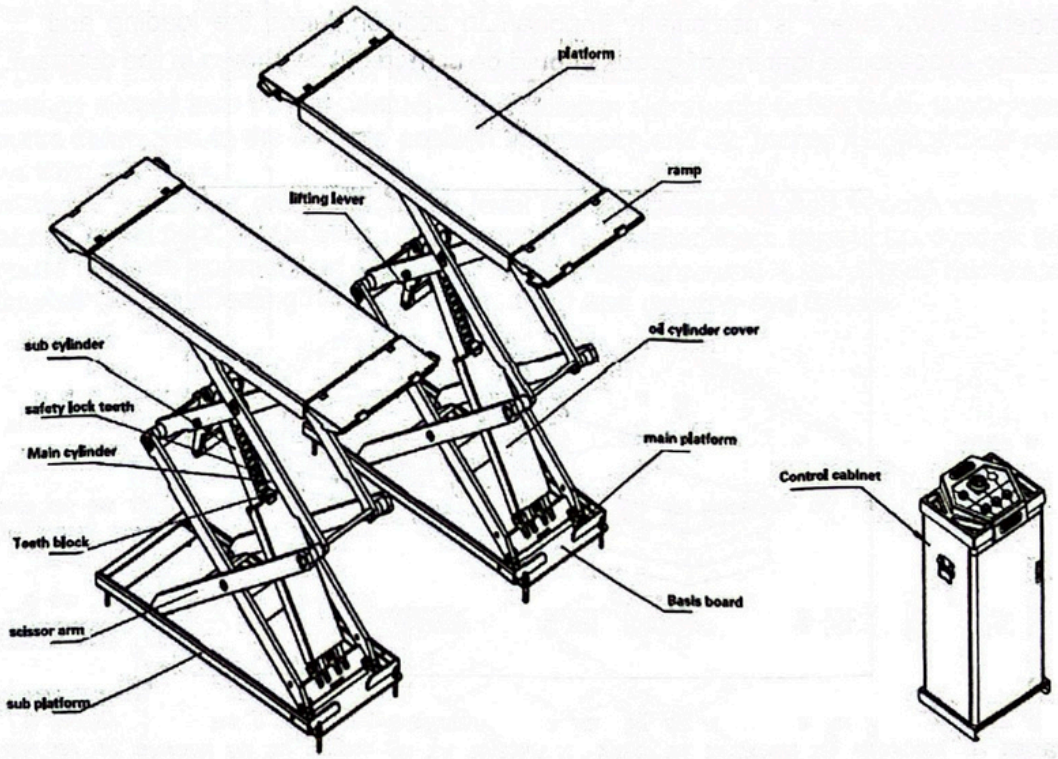
Introduction of main components,diagram

Working Platform:Chassis Contact Lifting Car Locking Teeth:Safety Mechansm, Mechanical Locking

Pull Arm:Extended Working Platform

Control cabinet:The control unit provides power output

Cylinder:Actuator.drive the platform up



Chapter III Installation preparation

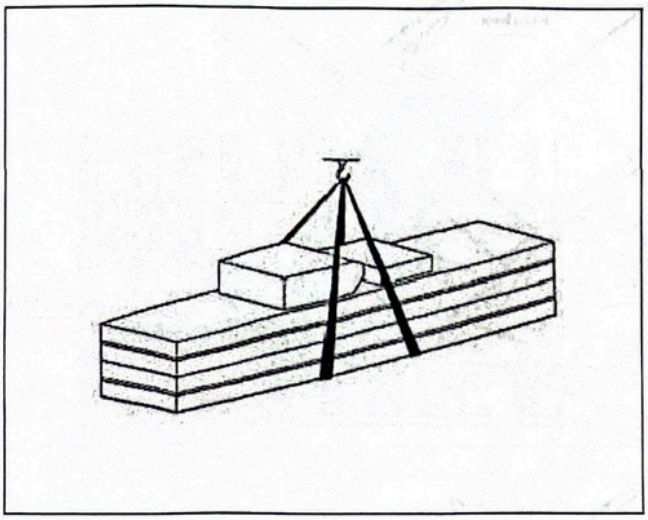
3.1 open the package:

All the packaging,unloading,transport and disassemble work must be operated by professional technical staff.

Transportation:

Use crane,forklift above 3ton capacity to unloading or move it,to avoid **goods from falling,one person need to observethe goods during operation,to to avoid** accidents.Goods loaded by cars or ship transportation,Check the integrity of the goods to prevent damage or loss during transportation.If the packaging is damaged during transportation,check the damages according to the packing list to determine the damage to the goods and the missing parts,and notify the carrier at the same time.

The machine is a heavy cargo,manual unloading or handling methods cannot be considered.Work safety is particularly important.In addition,during the loading and **unloading process,the loading of goods should be carried out as shown in the diagram.**



Storage:

Machines should be stored in indoor warehouses,and waterproof treatment should be done for outdoor storage.Van truck should be used during transportation.If by sea usually by shipping containers.During transport,the control cabinet must be placed upright with othercargo to avoid cargo squeeze.

3.2 Installation preparation

Note:basic requirements

.Connect power supply

·Connect Compressed air intake pipe(φ8x6mm)

3.3 Installation:

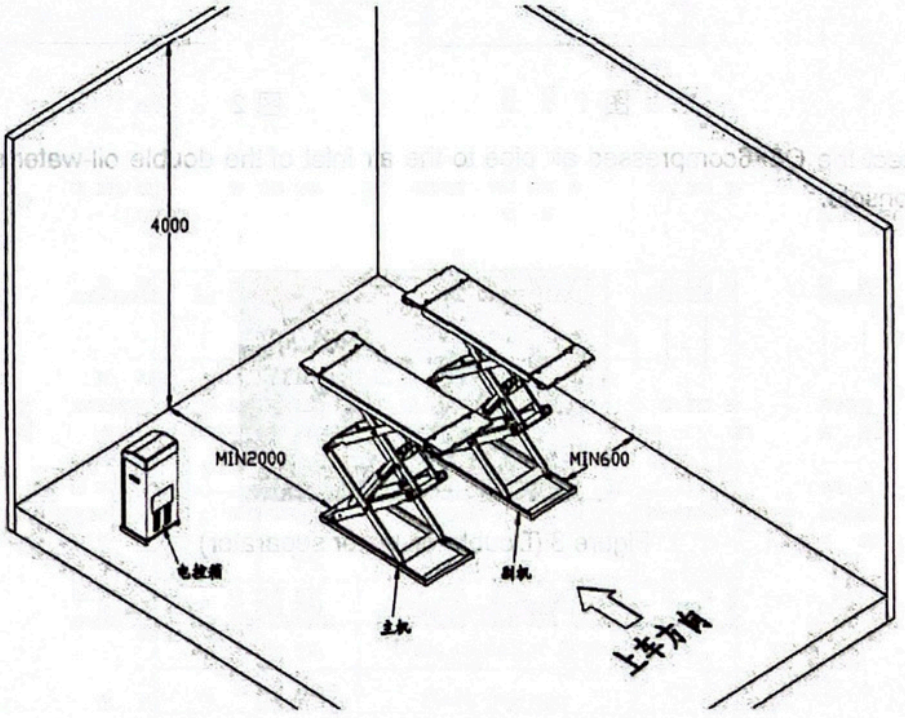
·work should only be carried outby professionals.The following instructions should be read and followed carefully to prevent machine damage and personal injury.

·Only authorized technicians should install the lift.

3.3.1 Installation requirements:

The lift must be installed according to the specified safety distance from walls,columns and other equipment(Fig 4)The minimum distance from the ground is 1000mm,in order to prevent prohibitedconditions and facilitate work.Sufficient space for the safety passage should also be considered.The installation site should have power supply and air source connected to the console position in advance,and the indoor height should not be less than 4000mm.

Install inany indoors ground,if ground level meet requirements and enough weight bearing capacity(≥25MPa)When the machine is installed,there should be enough light to ensure the safe operation of debugging and maintenance,and it shouldalso avoid strong stimulating light affectingthe sight of personnel and causing eye fatigue.



Before installing the lift,the integrity of the arrival of the goods should be checked.The movement and installation ofthe lift should be carried out by professionals
Transport and storage of the machine see Transport and storage

3.3.2 Electricsystem installation

Electrical installation work should only be performed by professionals qualified in electrical operation.

·Open the top cover of the control box first
·Power cable connection:Connect the 380V 3ph four-wire power cable (3×2.5mm2+1x1.5 mm2 cable)to the console L1,L2.L3 and the PE ground wireon the incoming terminal to the ground,
on the marking bolts,andthen connect to the grounding marking bolts at the bottom of the two platforms(Figure 1)
·If it is a 220V single-phase power supply,connect the 220V power cord to the PEground wire on the N.L terminal of the console (Figure 2)

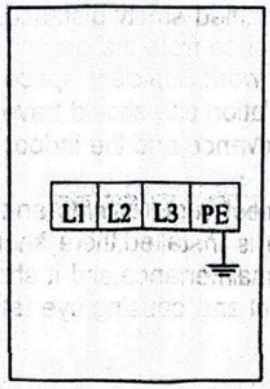


图 1

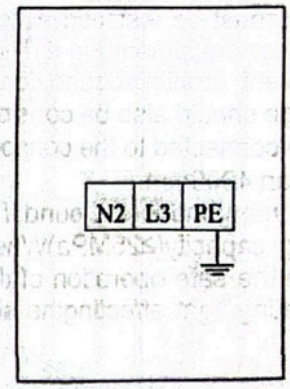


图 2

Connect the O8×6compressed air pipe to the air inlet of the double oil-water separator in the console.

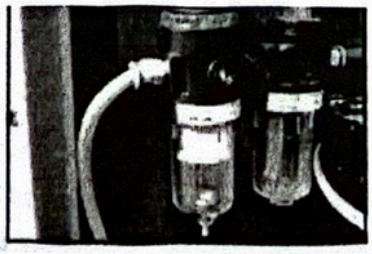
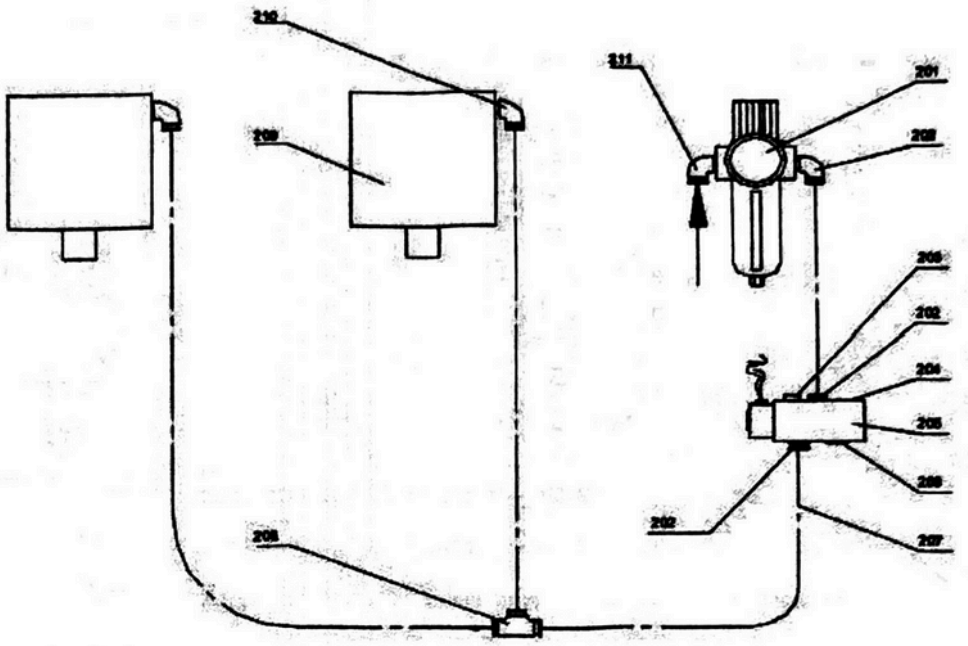


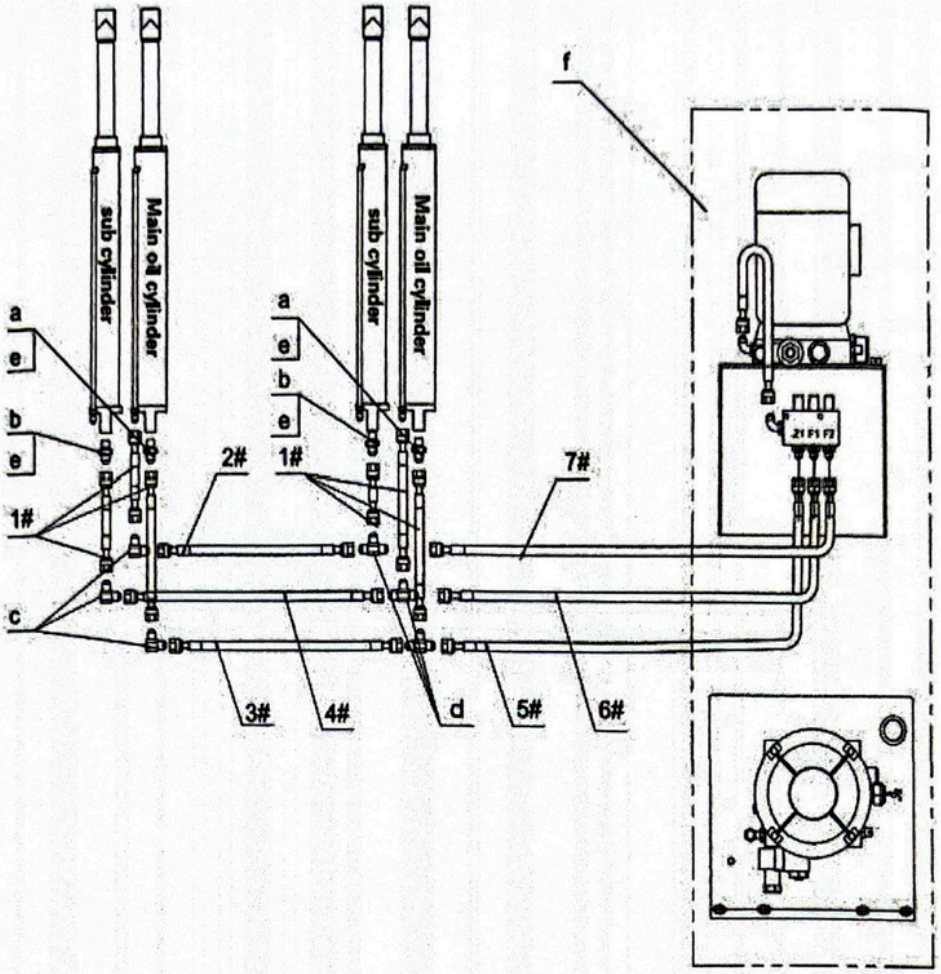
Figure 3 (Double oil-water separator)

Schematic diagram of Air pipe connection:



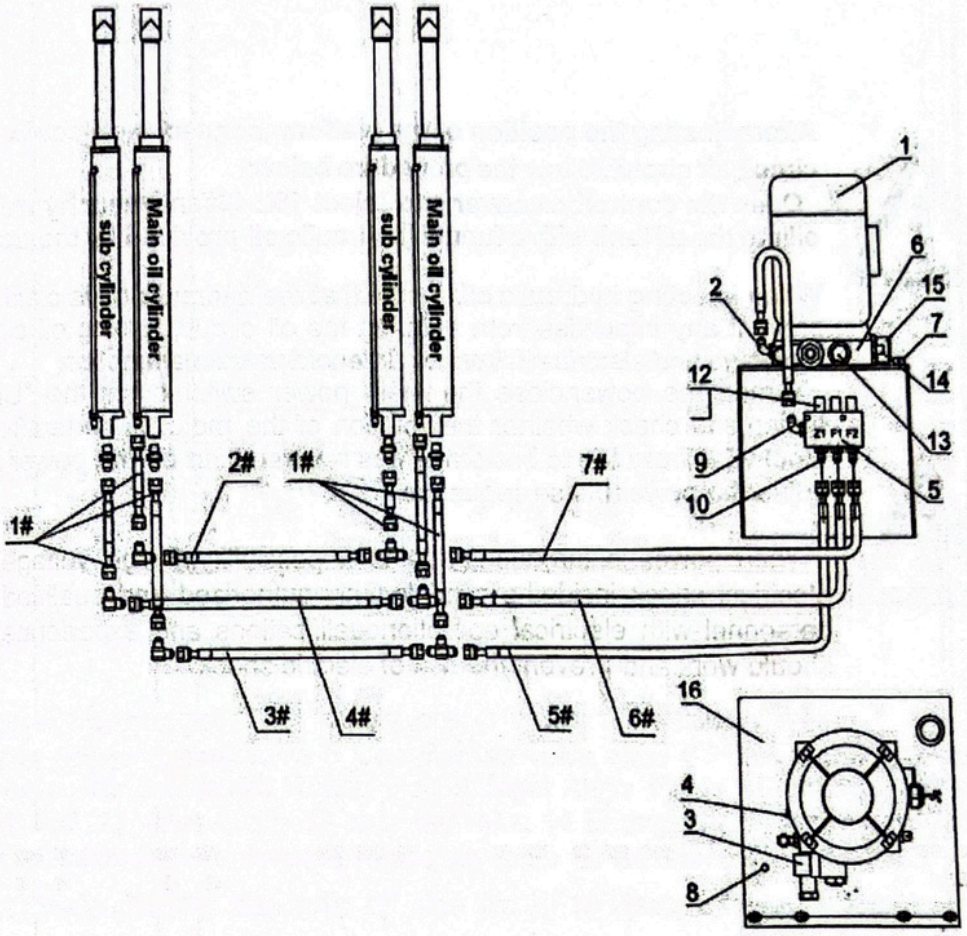
No	200	Mam	quantity
1	201	Air sourcetreatment two-piece	1
2	202	Joint APL6-02	1
3	203	acoustical damper	1
4	204	Plug 1/8"	1
5	205	Solenoid 4V210-08-DC24V	1
8	206	Plug 1/4"	1
9	207	Airhose PU0604	10m
10	208	Ttype connector APE6	1
11	209	small cvlinder	2
12	210	joint APL6-01	2
13	211	Joint APLB-02	2

Schematic diagram of the oil pipe joint



No.	Htem	Name	quantity	Remark
1	1#	2-180 Cydinder	6	220m
2	2#	2-180 Cylinder	1	1360mm
3	3#	Odode	1	1430mm
4	4#	2-180Cylinder	1	1520mm
5	5#	2-180 Cylinder	1	3350mm
6	6#	2-180 Cylinder	1	3450mm
7	7#	2-180 Cylinde	1	3600mm
8	a	Throtlejoint assembly	2	
9	b	throtte body	2	
10		2-M14 right anglejoin	3	
11	d	-M4ioht angk loin	3	
12	e	16Combinaton pad	4	
13		Electriccontrol box	1	

Hydraulic Tube Assembly:



No.	Name	No.	Name
1	electric motor (motor	9	nghtandi jgint
2	Oil supply connector	10	nghtandejsint
3	unloading solenoid valve	11	apsW
4	Throttle speed control valve	12	stem
5	Combination valve plate	13	的 h
6	valve bodyassembly	14	Eme gngydretun vche jmarual]
7	Oil standard cap	15	RlietvkelSjstem pes5ref[)ptingth
8	exhaust return port	16	ecthc motor Imoo

Chapter IV Adjustment

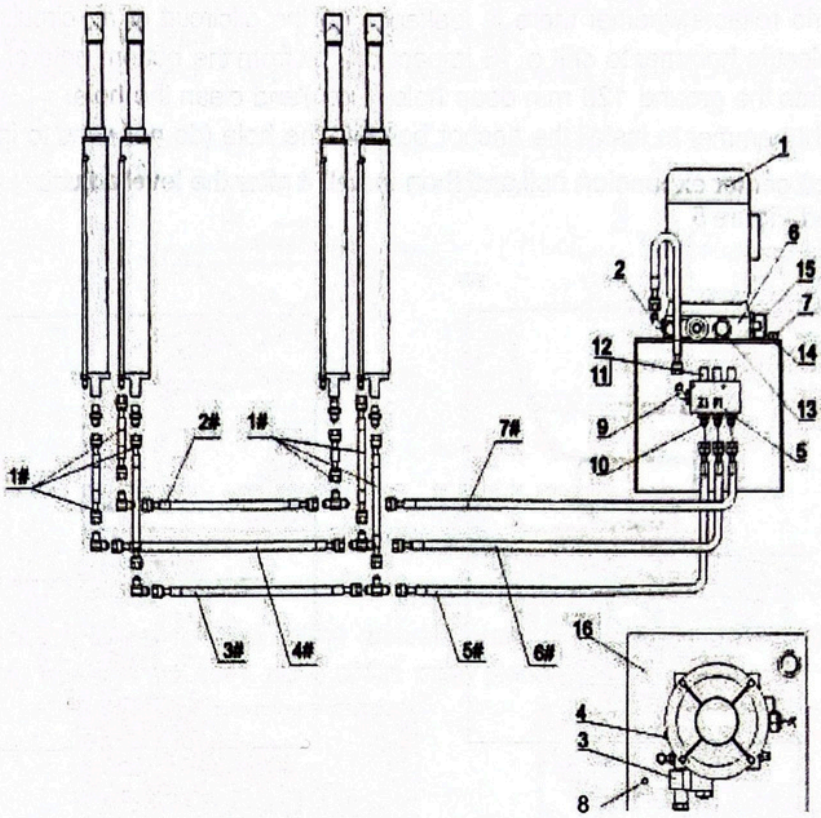
Afteradjusting the position of the platform,connect the electric circuit,air circuit,follow the procedure below::

· Open the controlbox cover and inject 10L 46#anti-wear hydraulic oilinto the oil tank with a funnel (hydraulic oil provided by the user)

When injecting hydraulic oil,ensure that the hydraulic oil is clean,and prevent any impurities from entering the oil circuit,causing oil circuit **blockage and electrical failure or Solenoid valve malfunction**

·Turnon the power,close the main power switch,press the "Up" button,and check whether the rotation of the motor is correct(rotate **clockwise from top to bottom).If it is reversed,cut off the power and adjustthe power phase sequence.**

·When power is turnedon,there is a possibilityof high voltage electrical shock insidethe console.Only authorized and qualified personnel with electrical operationqualifications and experience should work and prevent the risk of electric shock.



1 Electric motor(motor)2 Oil supply port 3 Unloading solenoid valve
4Throttle speed control valve 5 Combination valve plate 6 Valve BodyAssembly
70il gauge cap 8 Exhaust Return Port 9 Right Angle Fitting 10 Straight Fitting
11 Cap Nut 12 Valve Stem 13 one way valve 14 Emergency oil return port (manual)
15 Relief valve/system pressure regulating valve 16 Oil tank (oil volume:14L)

No.1(21)main cylinder hydraulic oil pipe No.2(F1/F2)sub cylinder hydraulic oil pipe

Instructions foruse and adjustment

normal working condition.The main circuit Z1 of the combined valve plate 5 is open and the secondary circuit F1/F2 is closed.

In the closed state,if the hydraulic system has a lifting fault or a power failure,the hydraulic jack will be opened after the safety gear top is opened.

Rotate the emergency oil return 14 to lower the machine.The descendingspeed of the system can be adjusted by adjusting the throttle speed controlvalve 4.Adjust the no-load speed between 45 and 55s.

Adjust the oil replenishment and leveling state of the oil cylinder.When the working surface of the sub platform is low,the sub oil cylinderneeds to besupplemented with oil.Then,after the main valve Z1 of the combined valve plate is completely closed,the auxiliary circuitvalve stem F1/F2 is adjusted to the open state,andpress the up button to fill and level the oil:if the oil is toomuch,press the down button toremove a part of the auxiliary oil cylinder.Oil will do.After the adjustment is completed,the valve stem of the combined valve plate is rotated back to the normalworking state, and the oil filling and leveling is completed.

Check whetherthe safety device of the safety claw of the two main platforms is flexible and reliable,whether there is leakages on the oilcircuit or air circuit.
Use an electric hammer to drill φ 16 impact drill bit from the bottom hole of the platform into the ground 120 mm deep hole (Fig.4)'and clean the hole.
Use a light hammer to install the anchor bolt into the hole (do not need to install the **anchorbolt center expansion nail,and then install it after the level adjustment is completed)Figure 5**

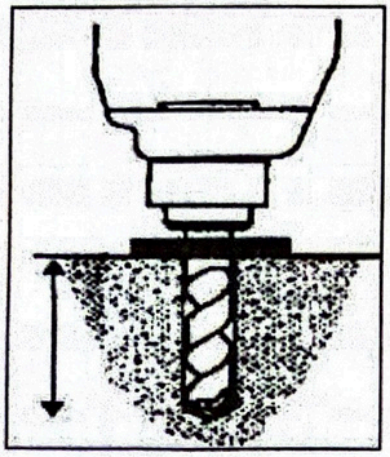


Fig.4

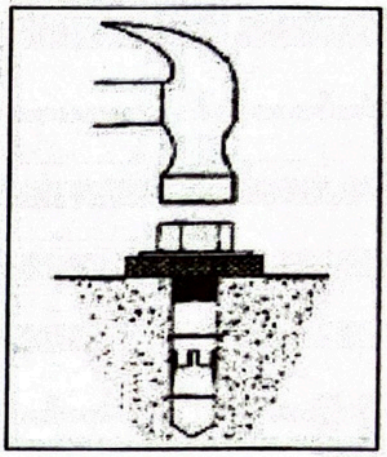


Fig.5

Raise the platform to the fifth or sixth teeth andpress the "lock"button,put left and right platform insurance teeth to the safety teeth.
Use a clearlevel tubeor a spirit level to check the level of the left and right platform level (Fig.6)

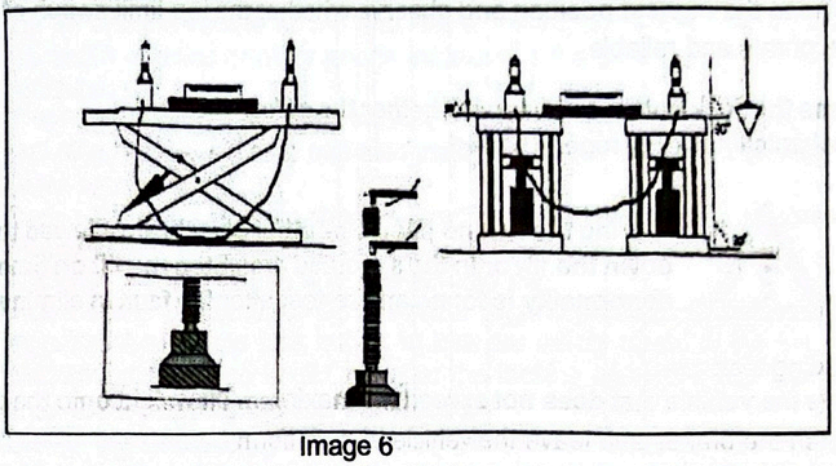


Image 6

If theplatform is not flat due to the uneven foundation,use a wrench to adjust the adjusting bolts on the base plate of the main platform (Fig.7)

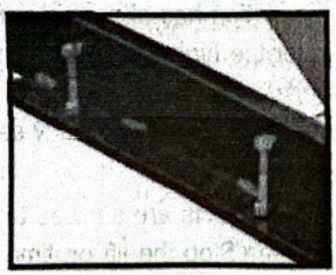


Fig.7

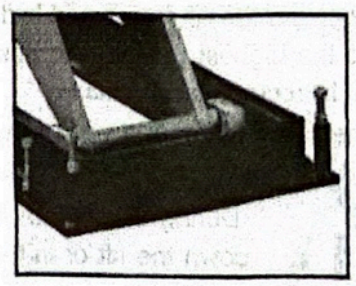


Fig.8

Afterthe horizontal adjustment is completed,insert the expansion nail in the center of the anchorscrew,and hammer it into the expansion nail with a heavy hammer.
Tighten the anchor bolts and nuts
When the concrete curing period has not expired,it is not allowed to hammer into the center expansion nailof the anchor bolt.After adjusting the level,the gap between the bottom plate and the ground must be filled with cement mortar and compacted.
Low level adjustment:When the main platform is lowered to the lowest position,the lowlevel of the platform can be adjusted by adjusting the support adjusting screw at the lower end of the main platform (see Fig.8)
Loosen the retaining nut first
Adjust the length of the support screw to the appropriate position
Re-tighten the nut

4.2 test

No-load test

Connect power switch

Press on button,watch if 2 main platform rise Smooth and synchronised.

Raise to the highest position and observe whether the top limit switch of the platform is accurate and reliable

Press the lock'button to observe whether the safety

Mechanical lock is properly seated

During the test,no people or other objects are allowed to go up and down the lift or in the specified area.Stop the lift on time when abnormality is found,and re-test after the fault is eliminated.

Loading test:

Drive the vehicle that does not exceed the maximum lift weight onto the platform, tighten the brakes,and leave the vehicle and platform

Press the "Up"button to raise the main platform and observe whether the main **platform is stable and synchronized**

Check whether the lift frame and hydraulic pump station has abnormal noise

Raise to the highest positionand observe whether the highest limit switch of the **platform is accurate and reliable**

Press the 'Lock'button and observe whether the safety pawl is properly seated

During the test,no people or other objects are allowed to go up and down the lift or in the specified area.Stop the lift on time when abnormality isfound,and re-test afterthe fault is eliminated.

Only trained machine operators should operatethe lift.Before operation, check the following precautions:

Operation Notes:

Before work,remove obstacles around and below it.

When lift raise and lower,there should be no people in the specified area of the lift and the vehicle above and below the machine and onthe platform. Do notlift vehicles or other goods thatexceed the lift capacity of this **machine.**

When lifting,the brakes ofthe vehicle should be pulled closer,and anti-skid devices such as anti-skid triangles should be placed on them (user-supplied).

During the lifting process,observe whether the lift platform is synchronized at any time.If any abnormality is found,stopit on time,check and eliminate the fault before it canbe put into use.

When doing maintenance or four-wheel alignment inspection and adjustment,press the lock button to lock the safety claws of the two platformsat the same level.Only after the locking operation can personnel enter the lift and work under the vehicle.

During the descending operation,pay attention to observewhether the two safety claws and the safety teeth are completely disengaged,otherwise stop descending.

When it is not used for a long timeor overnight,the platform should be **lowered to the lowest position on the ground,drive away the vehicle,and** cutoff the power supply.

Electrical Operation Instructions

Rise:

Press the "Up"button,the oil pump runs.the hydraulic oil is sent to the hydraulic cylinder platform through the main engine or sub-machine solenoid valve to rise

Down:

Press the downbutton,the oilpump running platform will rise first,and then open the safety (slave platform)and rise first (release the safety claw).After a delay of 1-2 seconds,the motor stops running,the cylinder safety is opened,the oil return solenoid valve is opened,and the lift is lowered.

When the platform reaches the highest limit and stops at the limit,at thistime,press the "Down"button for 1-2 seconds

the platform can be turned to descend (no ascending action)

Lock:Press the lock button.The electromagnetic oil return valve returnsoil and falls into the mechanical insurance

Chapter V Maintenance

Lift maintenance and maintenance should be performed by trained operators

At all the supporting shafts of the machine,use the oil can to add oil once a week

For moving parts such as safety racks and upper and lower sliders, add grease once amonth

The hydraulic oil must be replaced for the first time when the new machine is used for three months.After that,it should be replaced once a year and the oil inlet and oil filter of the oil filling port of the pump station should be cleaned.The oil level should be kept at the upper limit for a long time.

The structural strength of the lift must be judged by a professional department once every five years of use.

The oil cup and water cup of the gas oil-water separator must be cleaned every quarter,and the oil in the oil cup must be replaced

When replacing hydraulic oil,the machine must be lowered to the lowest level,and the old oil in the oil tank must be emptied.When filling new oil,it should be filtered by an oil filter

Checkthe reliability of limit switch action every day

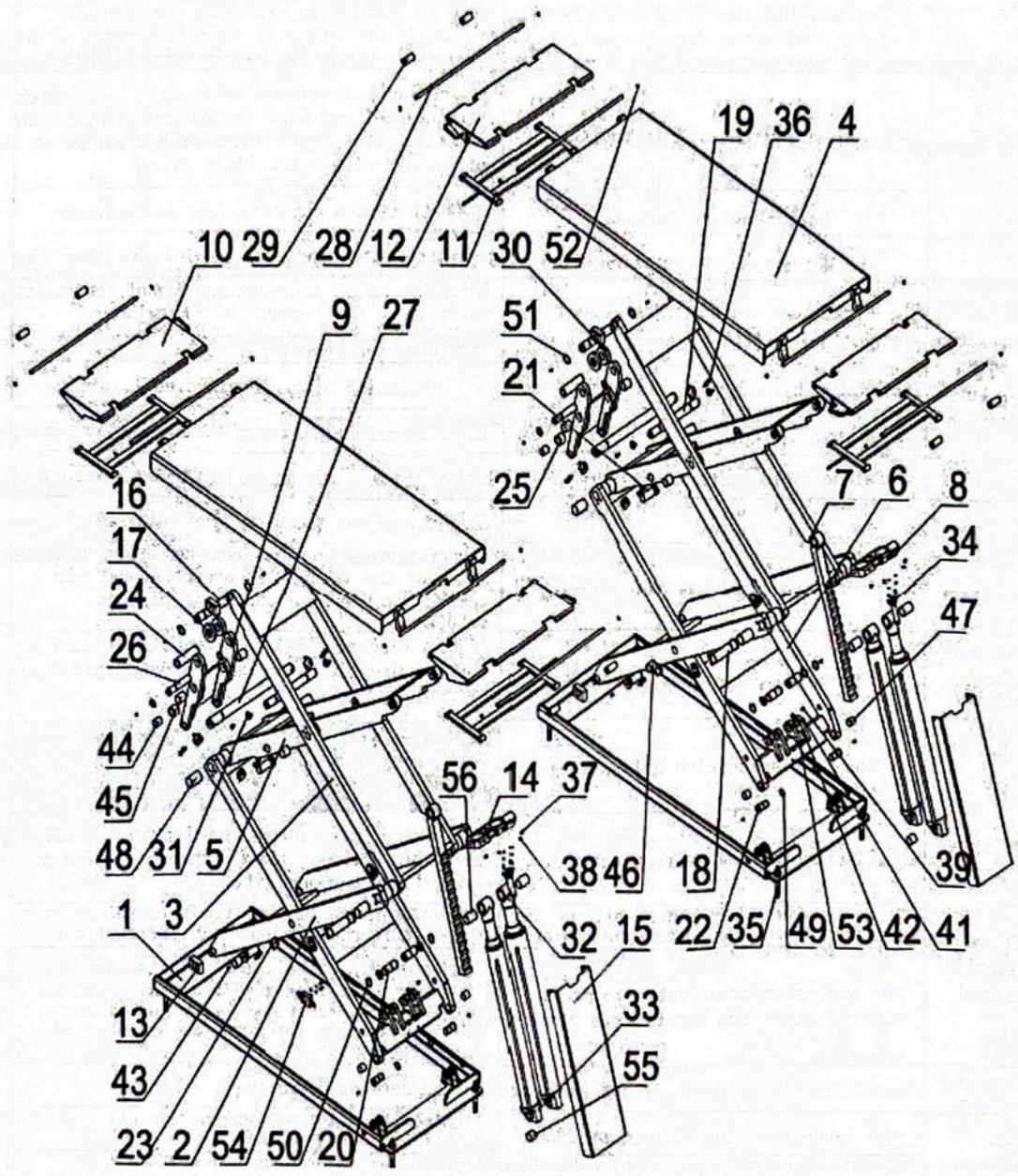
Check the flexibility and reliablityof the pneumatic safety device **every shift**

Machine troubleshooting must be performed by trained and experienced technicians

Malfunction and Method of exclusion

fault phenomenon	Cause and phenomenon	Troubleshooting method
The motor doesn't turn when it is working up	The power supply is abnormal	Check to exclude and connect the wires
	The AC contactor ofthe main circuit of the pump motor does not pull in	f themotor can work byforcib y pressing it with an insulating rod, check the contro circuit, if the voltage at the coil terminal of the GO11laGL0r 15110riidl, TepiaGe L11e C011laGuor
	Limit switch circuit fault	lt the tauit disappears after the limit sWitch terminal S01 sor S0.2 is short-circuited with the wire, check the limit sWitch, Wire and adjust or replace the limit sWitch
	button switch failure	Check button contacts, lead and exclude
When pressing up, the motor rotates but doesnot rise	Motor reverse rotation	Swap the phase sequence of the incoming power line
	Light load can rise, Heavy load does not lift	Raise the safety pressure setting of the relief valve by a smal amount of right-hand rotation, and the spool of the solenoid valve is dirty, Clean the spool
	Insufficient hydraulic oil or incorrect label	Replenish or replace hydraulic oil
	The solenoid valve manual oil rseturn screw is not tightened	Tighten the oil drain screw of the main unit or subunit
	Solenoid valveplug burned out	Replace the main unit or sub unit Solenoid valve plug
The lift does not descend when the descend button is pressed.	Safety paw does not disengage the safety tooth	Slightly adjust the long-time relay delay time
	Safety claw does not lift	Air pressure is not enough. The safety claw is stuck or the trachea is broken, Adjust air compressor pressure Check air pipeand reh00Ve
	Solenoid valve does not work	If the solenoid valve is energizedbut does not work so that the air circuit cannot pass, check or replace the solenoid valve
	Down solenoid valve not working	Check the plug and coil of the descending solenoid valve, and check whether the copper nut at the end is tightened to the right, etc
	Anti-blocking valve blocked	Remove the anti-explosion valve in the oil nlet hole atthe bottom of themain engine or sub-cylinderand open the oil
he lift descends very slowly undernormal oad	The viscosity of hydraulic oil is too large or frozen or deteriorated(winter)	Change to hydraulic oil or increase the room temperature according to the instructions
	The explosion-proof valve to prevent the oil pipe from bursting is blocked	Remove or close the intake pipe sothat the iftsafety claw does notlift upand lock it. Remove the explosion-proof valve in theoi inlet hole at the bottom of the cylinder and clean it up
The left and right platforms are not synchronized and the height is not equal	The air in the cylinder is not exhausted	See adjustment Operation
	Oil leakage at the oilpipe or joint	Tighten the joint or replace the oil seal Refill oi for leveling
	The shut-off valve is not tightly dosed, and need to be refilled every day.	Replace the oi filing shut-off valve, and then refill the oil for leveling
Abnormal noise during work	Lack of lubricating oil	All joints and moving parts (including piston rod)are lubricated with oil
	Foundation or machine twist.	Readjust the machine level Fill (mat)foundation
Press down and It aiWays up	The time relay is loose or damaged	Reinsert the time relay or replace it.

Chapter VI product explosive diagram
Main platform explosive diagram



main platform parts list:

No.	Item	quantity	No.	Item	quantity
	HGT730-1H0-Abesehod	2	29	HGTTJ0-80-17-Arampwheel	8
2	HGTJ0-]-004 tonotsidesisa	2	30	HGTTJ0-80-14-ACJlinder spacer roler A	2
3	HGT73-50-044upautsies50	2	31	TLT632AF-00-14Shaft lock plate	4
4	HGTJ-7-0 •Atum	2	32	Main cylnder	2
5	HGTI41-00Aupimrsis0	2	33	Subcylinder	2
6	HGTJ-0-00-4dom mersis0	2	34	HGTTJ0-90—05aircylinde	2
7	HGT731-10-401Sstyatbnstonethon	2	35	Expansion boltM16X120	8
8	HG7第-10-2Strbepto ding	2	36	Hexagon CountersunkHeadScrewsM8X16	36
9	HGT70t-0-kasstng m	2	37	GB/T818-2000 Cros recessed pan head ant nailM6x 8	4
10	HGT71-7-0-4Wngddmbing	2	38	GB/T78-2000Hexagon socket end fixing nalM8x12	4
11	HGT73-72-004Wngatdmbngpibakets	4	39	GB/T818-2000Cross recessed pan head buttonM5x12	8
12	T-HHamwingp	2	40	GB/T818-2000Cross Recessed Pan Head NaisM5 X20	2
13	HGTTJIH0H4gd	8	41	GB/T93-19870uas-type dastic washerSx1	10
14	HGTI-3-嗷hsinghdbs	2	42	GB/T95-2002 Hat Washer ClassC 5x1	10
15	HGT70-400-3Q]htr的	2	43	JB/T79404-1995 press fit oicup 8	40
16	HGTJI-3)-30-depushshl	2	44	SF2-282530	4
17	HGT7H-60hder serdr	2	45	SF2-343036	4
18	HGT71-0HEcandtheansha	4	46	SF2-343033	8
19	HGTJ4H5nsstnsimshf	2	47	SFZ-282525	8
20	HG70-0lnderfid stat	4	48	SF2-403660	8
21	HG71-30-ine sher shat	8	49	GB8941-86 Shaft RetainingRing Type A 25	12
22	HGTJ0-41Hgisafied shl	8	50	GB8941-86 Shatt Retaining Ring Type A30	8
23	HGTJJ-90-1bhingpe	16	51	GB8941-86 Shaft Retaining Ring Type A32	4
24	HGT70-0-2-ARdrnerkee	2	52	GB89416Shaft RetainingRing Type A12	16
25	HGTTJ0-0-11And	4	53	oil pipe	2
26	HGTJ)-3-ntrshtt	2	54	Limit switch	1
27	HGT20-0-15Amefon bnghl	2	55	SF2-343030	4
28	HCHJ-0-134Alampotnshngsh	8	56	SFZ-363252	4