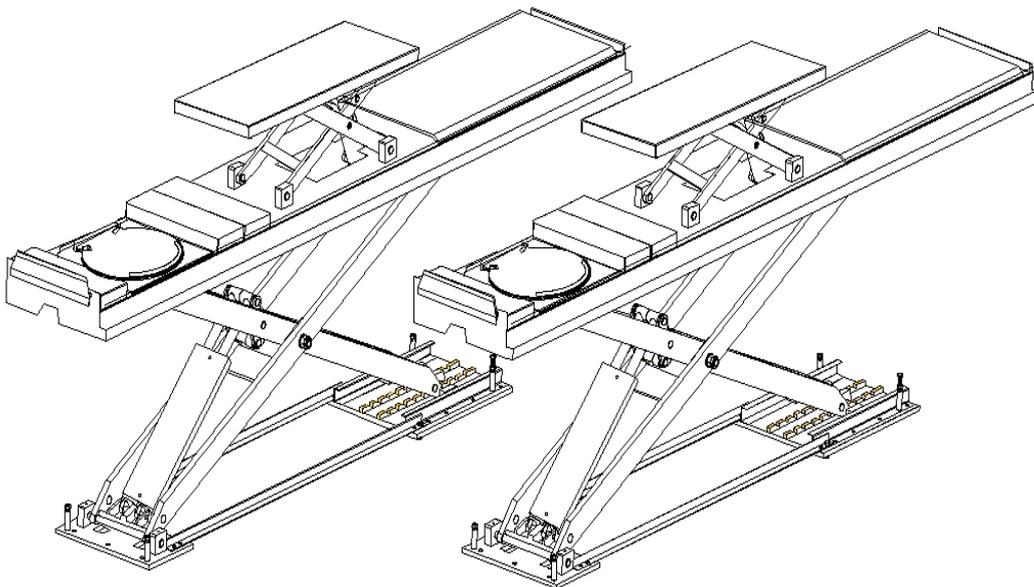


FC-40CBD

Scissors double four-wheel positioning lift



User Manual

The reference picture is different from the object, please adhere to the actual product.

All designs and specifications are subject to change, the manufacturer will not give advance notice.

Statement

- This manual is designed for the use of FCAR car lift. Without the written consent of FCAR Technology Co. Ltd. No company or individual may use any form (electronic, mechanical, photocopying, recording or other forms) to copy and backup this manual.
- This manual is for professional car repair technicians only.
- This manual only provides the operation method of FCAR products. The company does not assume any responsibility for the consequences caused by using the operation methods for other equipment operations.
- Accidents caused by the use of the user or a third party; or the user's abuse, misuse, unauthorized alteration, repair, or failure to perform the operation and equipment maintenance requirements of the manual, resulting in equipment damage, loss, etc. FCAR does not assume any responsibility for expenses and expenses.
- This manual is written according to the existing configuration and functions of the product. If new configurations and functions are added to the product, this manual will be changed without prior notice.

If you have any questions, please contact us by the following ways:

Headquarters: 8F, Chuangyi Bldg., No. 3025 Nanhai Ave., Nanshan, Shenzhen, China 518060

Tel: 0086-755-82904730

Fax: 0086-755-83147605

E-mail: marketing@szfcar.com

Website: <http://www.fcar.com>

Trademark

FCAR has registered trademarks in several countries in China and overseas, and its logo is

. In countries where the company's trademarks, service marks, domain names, icons and company names have not yet been registered, FCAR declares that it still holds ownership of its unregistered trademarks, service marks, domain names, icons and company names. The trademarks of other products and other company names mentioned in this manual are still owned by the original registered company. No one may use the FCAR trademark, service mark, domain name, icons and company name without the prior written consent of FCAR.

Contents

1 Uses and features	4
2 Main technical parameter	4
3 Installation and adjustment	6
4 Care and maintenance	7
5 Operating attention	7
6 Electrical operating instructions	8
7 Blackout emergency manual fall	10
8 Control parts name	11
9 Faults and troubleshooting	14
10 Oil hydraulic connection diagram (attached)	14

1 Uses and Features

1.1 Machine use:

FC-40CBD hydraulic car hoist can lift all kinds of weight of not more than 4000kg of small cars for automotive repair business, tire dealers detect various grades of automotive wheel alignment and vehicle maintenance, repair and maintenance.

1.2 Structural Features:

- Scissors with hidden structure, small footprint
- Hydraulic cylinder volume synchronization, synchronized platform running smoothly
- A hydraulic lock and mechanical dual-gear safety claw double safety device, automatic opening when lowering operation by locking pawl can achieve anti-insured by positioning, safe and reliable
- A hydraulic valve failure and overload protection
- With anti-burst tube means when the machine will not quickly fall pipe burst
- Using fuel-free ultra-wear-resistant materials slider
- The use of Italy, Germany, Japan and other high-quality hydraulic, electrical components
- Leveling ability, level of precision adjustable precision, especially for wheel alignment detection
- Having blackouts manual lowering device

2 Main technical parameter

Dimensions:

Model	FC-40CBD
Drive mode	Electric hydraulic
Mainframe rated lifting capacity	4000kg
Secondary rated lifting weight	3000kg
Mainframe lifting height	1750mm
Secondary lifting height	400mm
Platform initial height	150mm
Mainframe platform length	4500mm
Secondary platform length	1400mm
Mainframe platform width	635mm
Secondary platform width	540mm
Mainframe rising time	≤50s
Mainframe falling time	≤60s
Secondary rising time	≤20s
Secondary falling time	≤30s
The platform whole width	About 2090mm
Whole length	5400mm
Whole weight	2200kg
Motor	AC 380 or 220V ± 5% 50Hz
Power	2.2kw
Hydraulic oil	68# or 46#Wear-resistant hydraulic oil (The user purchased)
Air pressure	5-6kg/cm ²
Working environment temperature	5-40℃
Working environment humidity	30-95%
Noise	< 76db
Machine installation height	Altitude ≤ 1000M
Machine storage temperature	-25℃ ~ 55℃

Specification parameter:

3 Installation and adjustment

Installation

Air extraction:

1. Synchronously open two filling oil valve (on the left side of the two valves), press the “up” button to let two platform synchronously raise, then synchronously close two filling oil valve, and then lifter automatically stop when it lifted up to the travel switch position.
2. The upper of main cylinder of every machine rack has a 5mm inner six angle screw. First, the main cylinder of left machine rack take out the inner six angle screw (must take out the 5mm screw), put it back when the oil did not flow. Then, the main cylinder of right machine rack take out the inner six angle screw, it also put it back when the oil did not flow. And then put the lifter down. Repeat the above action three times, until leveling. (Attention: never try without air extraction)
3. Secondary rising
4. Open the child type valve of the control cabinet (the last valve of most the right side). Pressing the up button, the child type valve is closed after the sub scissor rising 5mm, continue to rise until the travel switch automatically stop and press the green button on the right side of the control cabinet and the “up” button for 30 seconds, (this time it will be discharge of oil and eliminate air from the 10mm transparent tube) loosen the green button, it would start to drop after press the down button about 2 seconds, and adjust the synchronization then it can use.(Attention: never try without air extraction)

Adjustment

When the air extraction finished let the lifter drop the lowest. Synchronously open two filling oil valve to fill oil, press “up” button to let two platform synchronously raise, and then synchronously close two filling oil valve. Repeat the operation about ascend and descend to see if synchronization. When confirmed the operation is synchronous, it could start to operate.

4 Care and Maintenance

1. The upper and the under slider moving place not allow to have sundries, taking attention to keep cleaning and add grease.
2. All the hinge shaft of local machine should use the oilcan to add engine oil once every week.
3. Lateral slider should decompose once every year and add grease.
4. The hydraulic oil should change once every year. When renewed oil it should clean the fuel tank and oil filter. The oil position should keep the upper limit.
5. Compressed air is used in the pneumatic safety insurance, it must be treated with oil and water filtration (the user bring their own oil-water separator), to ensure that the air cylinder and the solenoid valve DQ1 or DQ2 work reliably for long-time.
6. Every class check limit switch, paw up valve action and reliability.

5 Operating attention

1. Before working, it should eliminate surrounding obstacles.
2. When the lifter up or down, the machine left, right and under cannot have anyone. The platform also cannot have anyone.
3. Can't lift up overweight vehicles.
4. When lifting a car, the manual control of the vehicle should be pulled well, and the anti-slip triangle wood should be cushioned.
5. Attention the up and down whether synchronous, when found abnormal, timely stop, check it and troubleshooting.
6. When the mainframe locked, two platforms should keep a horizontal height.
7. When the mainframe (the child machine) dropped, it should press the down button SB2, the machine would raise about one to two seconds (to guarantee the insurance claw whether totally separate with the cutter tooth). Then it would drop and take attention to observe the insurance claw and cutter tooth whether totally separate, otherwise timely stop decline.
8. When the mainframe (the child machine) raised the limit position, (mainframe limit switch

SQ1 or the child machine limit switch SQ2 start) it press the “down” button SB2, the mainframe (the child machine) don’t rise first then fall, it would static about one to two seconds and then it start to drop.

9. When the car set up maintenance or four-wheel positioning test, it should take attention to keep the lifter “lock” at a horizontal cutter tooth. (Attention: the platform level is critical)

10. When the device overtime does not working or stay overnight, it should put it down to the lowest position and drive away the vehicle, and then cut off the power supply.

6 Electrical operating instructions



1. Mainframe (SUB) (or the mother type machine), the child machine (MAIN) option:

The “mainframe” and “the child machine” selecting switch SAI of the control box operating face-plate convert to the “mainframe” or “the child machine” position, then it can select mainframe or the child machine’s up and down action.

2. UP:

When pressed the “up” button SB1, the mainframe or the child machine would rise immediately. At this time, the motor M is up and running, after 1 to 2 seconds, the actuated claw would be lifted because the solenoid valve DQ1 or DQ2 power on and open the gas path. When loosened the “up” button SB1, the mainframe or the child machine would stop immediately. At this time, the motor M stops running, and the actuated claw would fall on the insurance rack because the

power of solenoid valve DQ1 or DQ2 cut off and the gas circuit.

3.LOCK:

When the mainframe (especially the mainframe) or the child machine raise to the cutter tooth, pressing the “lock” button SB3, at this time, the mainframe or the child machine would down and the insurance claw would not lift up. As the mainframe or the child machine dropping, when the insurance claw slips inside the insurance rack to resist the cutter tooth, the mainframe or the child machine is locking the motionless, at this time, it can conduct to vehicle maintenance or four-wheel positioning detection and alignment.

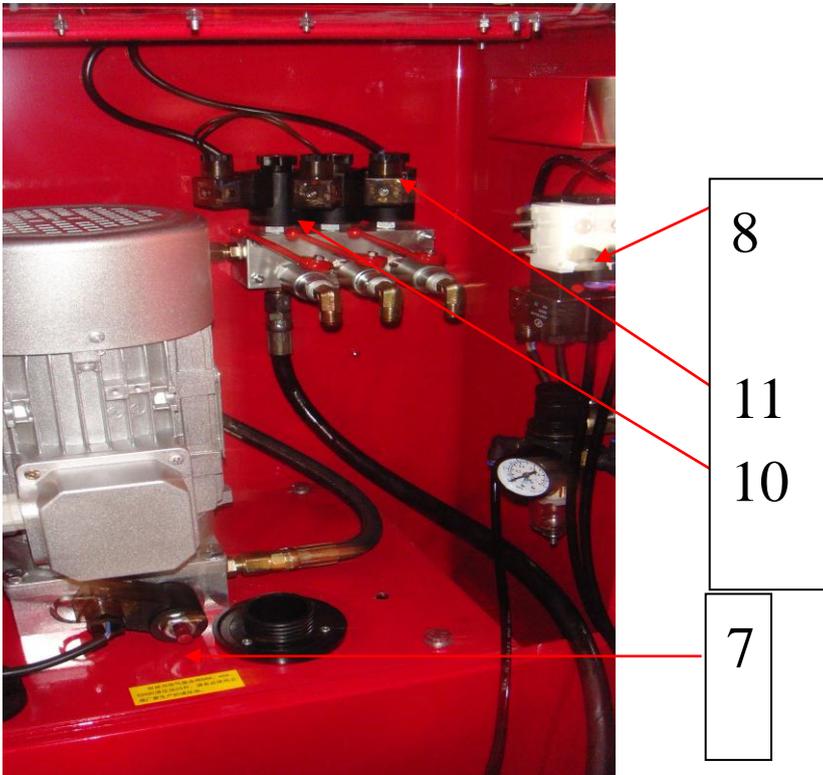
4.DOWN:

When pressed the “down” button SB2, the mainframe or the child machine would rise immediately, waiting for 1 to 2 seconds, then it would automatically turn to down (this is to guarantee the insurance claw lift up without getting stuck from cutter tooth before dropping). When it dropped, the insurance claw automatic lifted up because the solenoid valve DQ1 or DQ2 has electricity to open the gas path. At this time, the motor M also synchronously stop working.

5.Attention:

When the mainframe or the child machine raised to the setting limit height, it would stop because the limit switch SQ1 or SQ2 action. At this time, if want to the mainframe or the child machine dropped, it should press the “down” button SB2 and not loosen, waiting for 1 to 2 seconds then it would turn to automatically down.

7 Blackout emergency manual fall

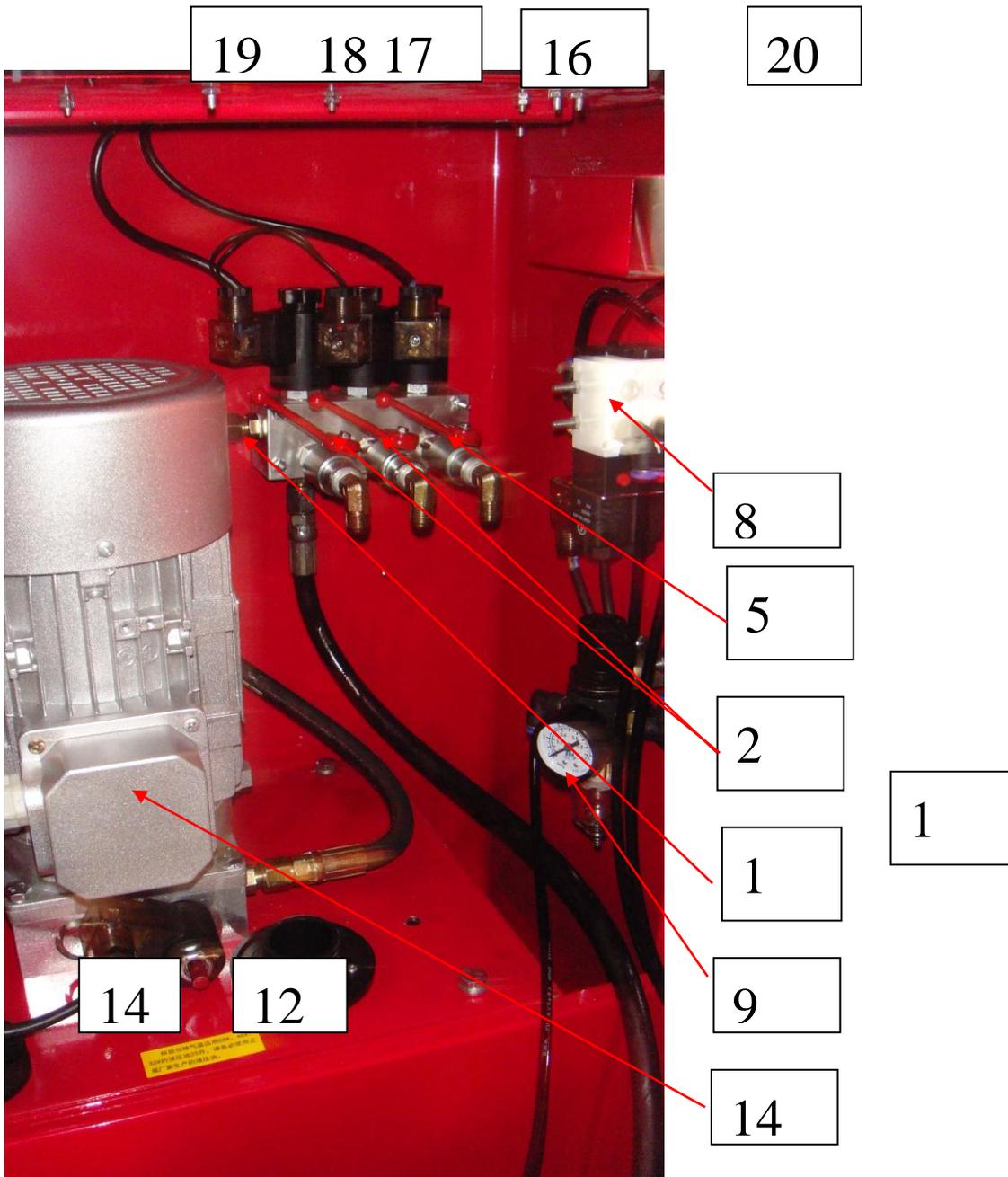


1. Please use the sub type drop: No.7, No.11, and the mother type drop: No.7, No.8, No.10.

2. Sub type fall: No.7 push inside, after turn left, it loosen and automatically bounce off, then press No.11, the valve core center with 3mm Allen wrench press down hard, still immobility can drop, then No.7 push inside and turn right, and then it can return to normal work.

3. Decline of type mother: No.7 push inside, after turn left, it loosen and automatically bounce off, then press No.8 unlock to keep immobility, then press the No.10 valve core center with 3mm Allen wrench press down hard, still immobility can drop, then No.7 push inside and turn right and it can return to normal work. If the insurance tooth is stuck, first it can lift up the platform and insurance is unlocked then the manual automatic descent can be done automatically.

8 Control parts name



1 The mother type main oil pipe.

2 The mother type main filling oil valve.

5 The child type main filling oil valve.

8 Pneumatic solenoid valve.

9 Inlet pressure regulating valve.

14 Motor

Function:

1. Decline in throttle valve can adjust the speed according to the machine up and down, open the

nut lip, it can see the “one” word to turn left quickly, turn right slow.

2.The pressure regulating valve, the heavy vehicle cannot lift up, open the nut lip, it can see the “one” word turn right to 1/3.

3.Wiring row: motor connect line, No.2 and No.14, No.2 and No.9, No.2 and No.8, No.2 and No.7, No.6 and No.10 and No.11.

No.2 and No.14 open the up valve core and down valve core of the mother type.

No.2 and No.9 open the up valve core and down valve core of the child type.

No.2 and No.8 open the drop back oil valve core of the mother type and the child type.

No.6 and No.10 the child type travel switch.

No.6 and No.11 the mother type travel switch.

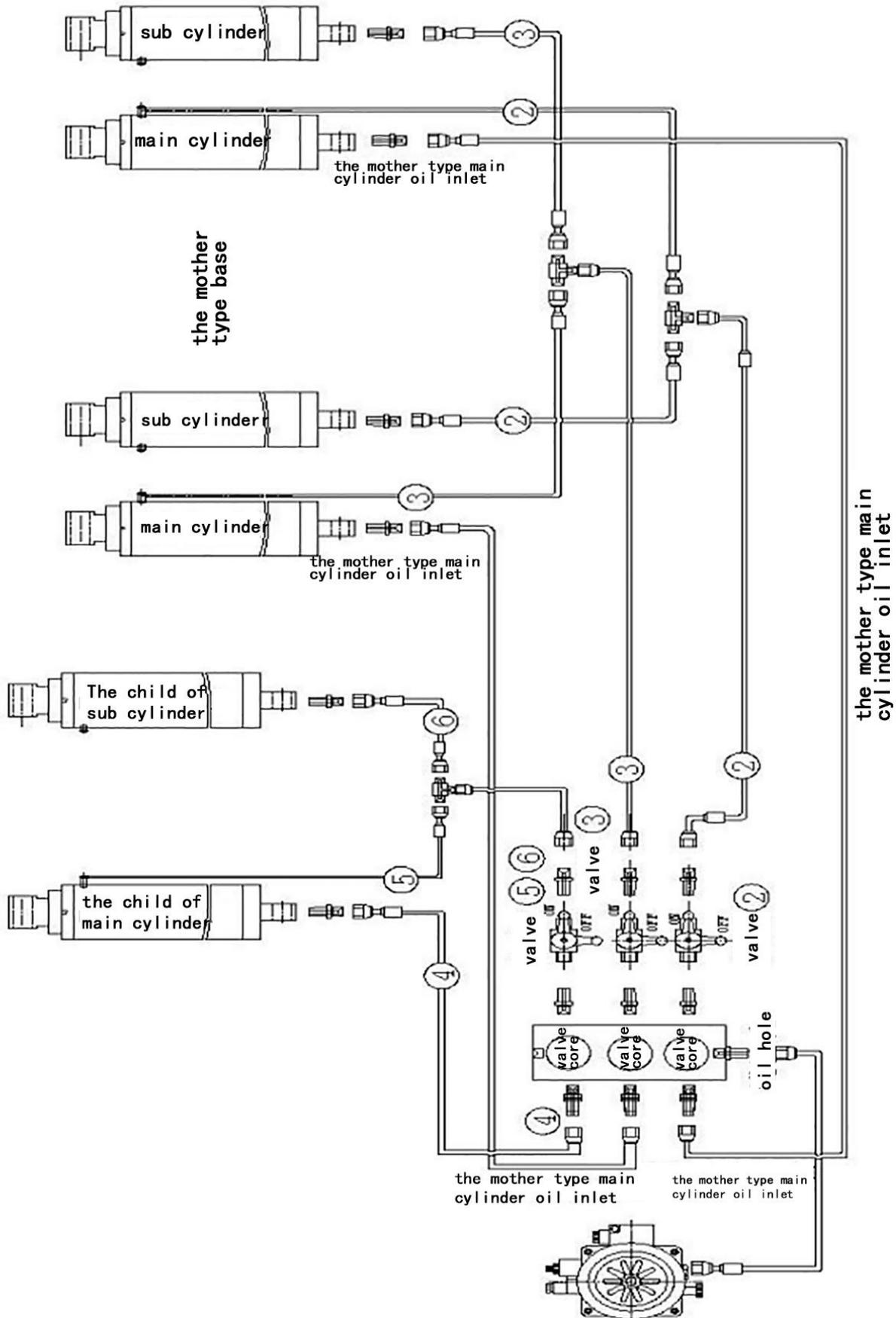
4.Time relay: the mother type falling is time delay, it can rise to unlock and then fall.

5.Transformer: transform to control electric current AC24V.

Fault	Reason and phenomenon	Elimination method
Pressing “raise” button, the motor don’t working	①The abnormal power or the zero line	Check elimination and connect the wire.
	②The pump motor primary loop AC contactor not suck	If use insulating rod to press, then the motor can work, check the control loop. If on both ends of the contactor coil voltage is normal, exchange the contactor.
	③Limit switch loop fault	If the limit switch terminals 10#6#11# use wire fault disappears after short sub, then check the limit switch, wires and adjust or exchange the limit switch.
	④Button switch fault	Check button contacts, the wire is ruled out.
Pressing “raise” button, the motor working but don’t raising	①Motor reversal	Exchange the power supply into line phase sequence.
	②Light load can lift up Overloading don’t move	A trace right-lateral raised safety relief valve pressure Settings. Decline electromagnetic valve core has dirt, clean the valve core.
	③Hydraulic oil not enough	Add the hydraulic oil.
	④Solenoid valve manual oil return, screw not close well	Tighten the mainframe oil drain screw.
	⑤Solenoid valve plug burn out	Replace the mainframe electromagnetic valve plug.
Pressing “down” button, the lifter don’t dropping	①Insurance claw not release the cutter tooth	Slightly adjust the time relay, delay time.
	②Insurance claw not lift up	Air pressure is not enough, insurance claw stuck or trachea broken. Adjust the air compressor pressure, check the trachea and ruled out.
	③Solenoid valve doesn’t work	If the solenoid valve has electricity cannot working, air road cannot pass, check or replace solenoid valve.
	④Decline solenoid valve doesn’t work	Check the declining solenoid valve plug, coil, and check the port of copper nut whether right hand tight, etc.
	⑤Explosion-proof valve blocking	Dismantling the oil inlet hole "explosion-proof valve" of the host or sub machine oil cylinder base and clean.
Normal load lifting machine down slowly	①The hydraulic oil viscosity is too large or freeze, deterioration (winter)	According to the requirements of specification, replace the hydraulic oil or improve the room temperature.
	②To prevent tubing dissolvent explosion-proof valve is blocked	Dismantling or closing the inlet pipe made lifter not to lift up and lock. Dismantling oil cylinder base oil inlet hole "explosion-proof valve" and clean.
The left platform and the right platform range out of sync and height not the same	①Cylinder air eliminate not enough	See also the filling the oil level operation.
	② Tubing or tapping oil spill	Joint tighten or replace oil seal, then fill the oil level.
	③" Filling oil cut-off valve G or H" doesn't close tightly, almost every day to fill oil	Replace fill oil cut-off valve, then fill the oil level.
Rise and fall, there was a noise	①Lack of lubrication	All articulated and activity area (including the piston rod) fill the oil lubrication.
	②Foundation distortion or machine contort	Readjust the machine level, fill (pad) in the foundation.
Pressing “down” button, always rising	Time relay is loosen or damaged	Reinsert or replace time relay.

9 Faults and troubleshooting

10 Oil hydraulic connection diagram (attached)



Warranty

Respectful FCAR User:

Welcome to choose the FCAR series. In order to better use the product, we recommend that you take care of your product and follow the instructions in the user manual every time you use it. If your use meets this requirement, you will have a product that will provide you with a longer-term quality service.

1. The following items: product manual, internal and external packaging, promotional gifts and other consumable items are not covered by the warranty.

2. Since the day that product have purchased (based on the valid purchase certificate and valid warranty card of this product), if the product has performance failure caused by non-human damage, the whole machine is guaranteed for one year.

3. In any of the following cases, your product will not be covered by the free warranty:

1) Failures, defects or defects are not caused by FCAR technology product quality: Including that you have not used the product in accordance with the product manual and improper operation of the product, such as collision, drop, self-assembly and disassembly, resulting in pressure loss, etch and rust caused by liquid or food infiltration;

2) Natural wear and tear of the product.

3) Disassembly, repair and modification without FCAR technology approval.

4. The following measures can be taken if quality problems or malfunctions occur during the warranty period.

1) You can contact the local purchased distributor or call the FCAR customer service hotline (400-1021-066) to get the correct service information.

2) After obtaining an effective reply from the distributor or company, you must send the product to the designated address of the company's factory for repair and maintenance, so as to get timely repair, maintenance and prevent further loss.

5. In the process of warranty service, you will bear the cost of product delivery or delivery related costs: including product packaging, transportation, insurance, etc.

6. The free warranty service you enjoy under this warranty is the only measure for the loss of the product due to defects in the product during the warranty period. FCAR Technology is not responsible for your direct or indirect losses.

7. All warranty information, product features and specifications of the product will be announced on the latest promotional materials and website of FCAR Technology without prior notice.