

oreiko

Movable Scissor Lift

HYCD410 with helper



Original Instruction Manual

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Safety

1 Introduction

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

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

2 Safety Instructions for Commissioning

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

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

3 Safety Instructions for Operation

Read the operating manual.

Lift operation by authorized personnel over 18 years only.

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

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

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

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

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

Do not allow anyone on lift or inside raised vehicle.

Only use the lift for its intended purpose.

Comply with the applicable accident prevention regulations.

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

Only use the vehicle manufacturer's recommended lift points.

After positioning the vehicle apply the parking brake.

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

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

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

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

4 Safety Instructions for Servicing

Maintenance or repair work by authorized service personnel only.

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

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

Work on the electrical equipment by certified electricians only.

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

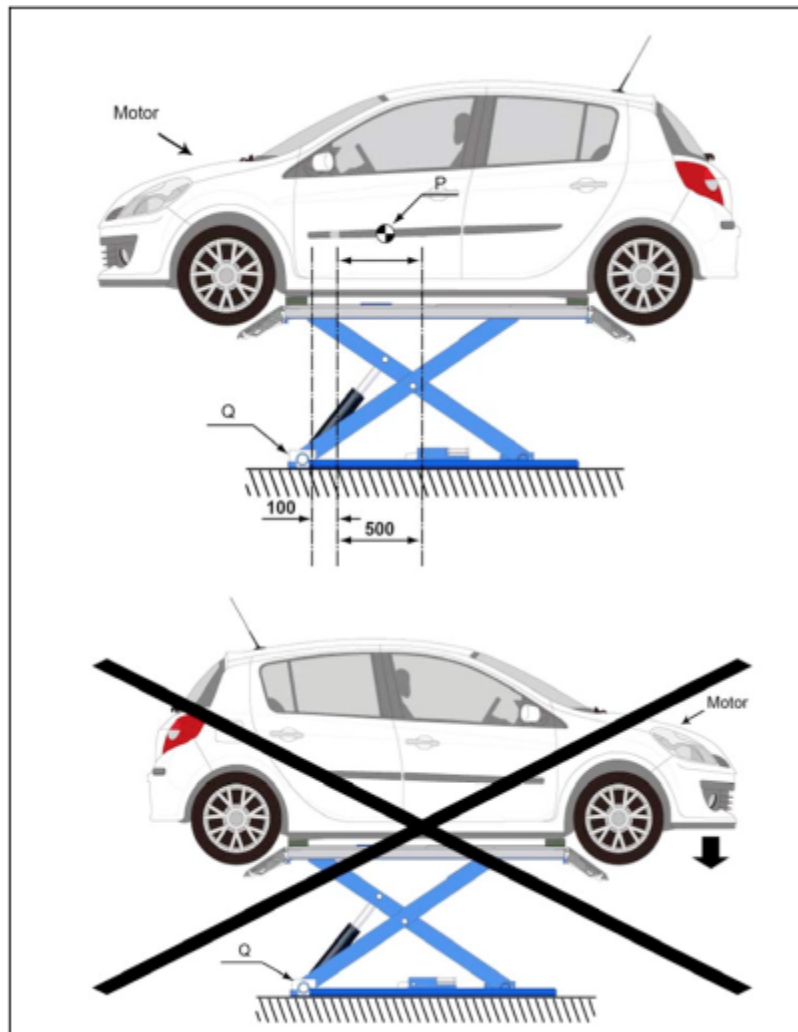
Do not use high pressure / steam jet cleaners or caustic cleaning agents. Risk of damage!

Do not replace or override the safety devices

5 Warning labels

⚠ Danger		⚠ Warning		
Inhibition to stay under the automobile during operating.	Please keep the vehicle position without obstacles to prevent the automobile sliding down, ensure personal security.	Auto lift can't be operated without well trained.	Inhibition to use a relieving timber or a pole under the automobile when the auto lift is landing.	Forbid to sway the automobile in the lifting time.
Keep your hands and feet from X position and connecting-rod toolpost during operating.	Forbid to lift automobile only one side.	Inhibition to change the secure structure of auto lift.	Be careful your feet when auto lift is landing.	Make sure one side can't be overweight too much than other side during operating. Or else the auto lift will slide down.
1. Don't ignore above instructions. Or else it is dangerous for auto lift and your security.				
2. Please check the function of auto lift regularly everyday to prevent from accident.	Keep the groove of the auto lift tidy and clean to avoid holding water and garbage.	Please read the manual carefully before use.	Ensure the balance between automobile and platform of auto lift.	Be careful of the power with high voltage, prevent from electric shock.

6 Car Head Direction



CHAPTER 1 PACKING, TRANSPORT AND STORAGE

ALL PACKING, LIFTING, HANDLING, TRANSPORT AND UNPACKING OPERATIONS ARE TO BE PERFORMED EXCLUSIVELY BY EXPERT PERSONNEL WITH KNOWLEDGE OF THE LIFT AND THE CONTENTS OF THIS MANUAL

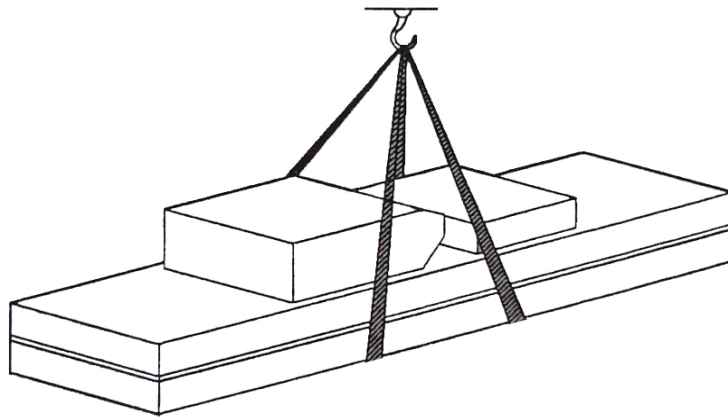
1.1 PACKING

The lift is shipped disassembled into following parts	Weight (kg)
The gross weight of the lift	560kg

1.2 TRANSPORT

During loading and unloading operation, goods must be handled by vehicles or ships. At the arrival of the goods, verify that all items specified in the delivery notes are included. If finding missing parts, possible defects or damage due to transport, one should examine damaged cartons according to 'Packing List' to verify the condition of damaged goods and missing parts, also the person in charge or the carrier must be immediately informed. The machine is heavy goods! Don't take manpower load and unload and transporting way into consideration, the safety of working is important.

Furthermore, during loading and unloading operation goods must be handled as shown in the picture



1.3 STORAGE

- The machine equipment should be stocked in the warehouse, if stocked outside should do the disposal well of waterproof.
- Use box truck in the process of transport, use container storage when shipping.
- The control box should be placed perpendicularly during the transport; and prevent other goods from extrusion.
- The temperature for machine storage: -25° C-- 55° C

The type of packing allows the possibility of stacking up to 5 cases.

Up to 5 cases may be stacked one upon the other on lorries or in containers if property positioned and provided they are restrained to prevent falling.

Manual Introduction



This manual has been prepared for workshop personnel expert in the use of the lift operator and technicians responsible for routine maintenance fitter.

Workers should read the 'Maintenance & User Manual' carefully before carrying out any operation with the lift. This manual contains important information regarding:

- The personal safety of operators and maintenance workers.
- Lift safety,
- The safety of lifted vehicles



CONSERVING THE MANUAL

This manual is an integral part of the lift.

The manual must be kept in the vicinity of the lift, so that the operator and maintenance staff must be able to locate and consult the manual quickly and at any time.

Attentively reading Chapter 3, which contains important information and safety warning, is particularly Recommended.

The lift is designed and manufactured according to European Standard



The lifting, transport, unpacking, assembly, installation, starting up, initial adjustment and testing, extraordinary maintenance, repair, overhauls, transport and dismantling of the lift must be performed by specialized personnel from the licensed dealer authorized by the manufacturer.

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



This manual indicates: the operative and safety aspects that may prove useful to the operator and maintenance worker. For better understanding the structure and operation of the lift and for best use of the same, workers must read the 'Maintenance & Use Manual' Carefully before carrying out it.

In order to understand the terminology used in this manual, the maintenance and repair activities, the ability to interpret correctly the drawings and descriptions contained in the manual and be the country in which the machine has been installed. The same applies to the maintenance and the maintenance fitter must also possess specific and specialized knowledge both in mechanical and engineering field.

- OPERATOR: person authorized to use the lift
- MAINTENANCE FITTER: person authorized for routine maintenance of the lift.



Manufacturer owns the right to make little change for the manual owing to the improvement of technology.

Chapter 2 DESCRIPTION OF THE MACHINE

2.1 Machine Application:

This lift LSL3000 can lift each kind of vehicle whose weight is less than 3000kg, and is suitable for use in vehicle tests, maintenance, and caring for automobiles, which is particularly suitable for use in the basement or on the floor, without construction and hole.

2.2 Structure Features:

- Use hidden and thin scissor structure, dispense with construction and ground hole, the occupation is small
- Independent control box, low-voltage controlling, good security
- Hydraulic cubage and in-phase cylinder, the synchronization of platform
- Own the double safety equipment of hydraulic lock and mechanical pawl, on the safe side
- Own protection of safety valve and burst-proof equipment for hydraulic failure and over loading. So when the oil pipe bursts, the machine will not fall quickly.
- Own manual lowering operation when the power is cut.

2.3 Equipment:

- Machine basement (The position and space of equipment installation)
- Machine frame (The main structure of lift and insurance institution)
- Control box (Machine-controlled part)

2.4 Basic structure

The machine basement is made of cement and concrete.

2.5 Frame

Make of steel connecting rod, main lifting platform, sliding board, pneumatic double tooth, and hydraulic oil tank.

2.6 Control box

Under the control box is hydraulic oil tank and hydraulic pump, valve and other control system. On the control box is electrical system.



Scissor lift is designed and built to lift all kinds of vehicles, all other use are unauthorized. In particular, the lift is not suitable for washing spray work. And not lift the vehicle whose weight exceeds the maximum weight.

2.7 Moving Structure

The control box can be moved easily because there is a handle for it and also with small wheels at the bottom of the control box. Please see below picture.

The lift part can be moved by the three wheels and the hook.

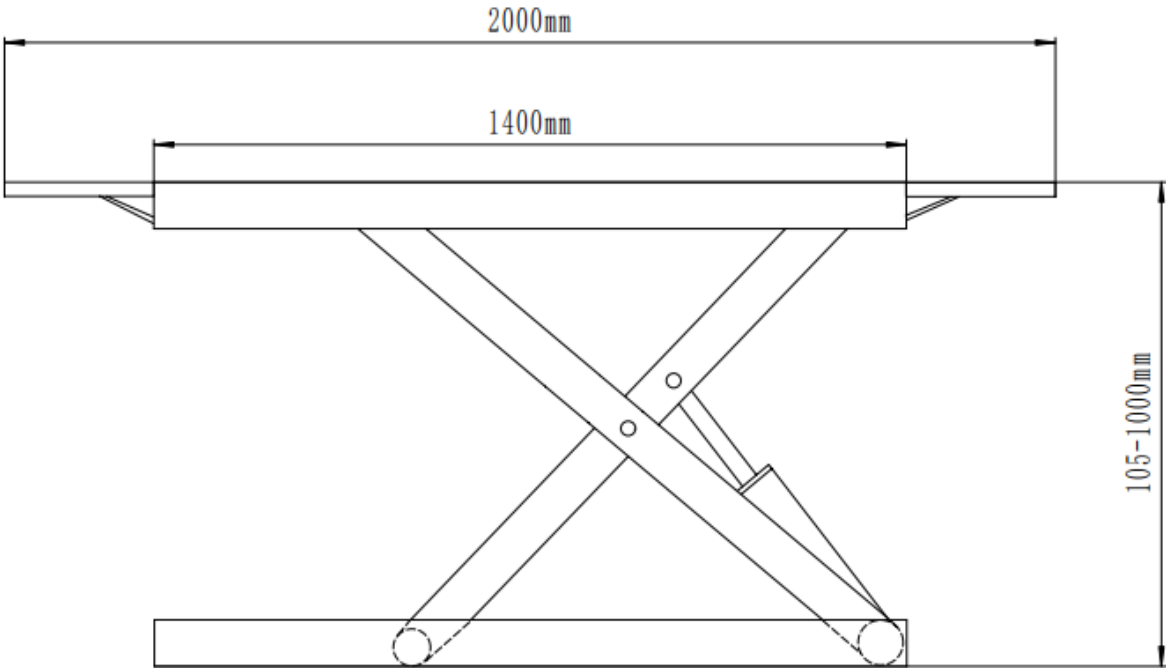
We designed the wheels like this style. If you want to move the lift please install the wheels before lower the lift to ground. If you do not want to move it then please just remove the wheels from the lift. We can only do this when there is no car on the lift. If you press down button to lower the lift then the wheels will automatically touch the ground surface and at the same time lift up the lift body. At this moment please use the hook to pull it. But please remember to move the lift and the control box together otherwise the pipe will be broken or damaged.

Chapter 3 SPECIFICATIONS

3.1 Main technical parameter

Capacity	4100kg
Car max lifting height	1100mm
Lift min stand height	105mm
Total width	1800mm
Lifting time	≤50s
Descent time	≤40s
Net weight	560kg
Noise	≤70db
Operating temperature	-25℃~55℃
Voltage	3/N/PE~AC 400V ± 5% 50Hz
Power	2.2kw

3.2 Lift layout dimension picture



Chapter 4. Installation instruction

Notes: These notes are for your guidance prior to installation

The following operations must be performed exclusively by specialized technical staff with authorization from the manufacture or licensed dealer. If the operations are performed by other persons, serious personal injury and /or irreparable damage to the lift unit may result.

4.1 Select the site

Always use architects plans when available. Check layout dimension requirements making sure that adequate space is available. The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc. Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.

Lift is designed for INDOOR INSTALLATION ONLY.

4.2 Floor Requirements

Specifications of concrete must be adhered to. Failure to do so could cause lift failure resulting in personal injury or death. The floor should be a reinforced concrete slab and flat.

DO NOT install or use this lift on any asphalt surface or any surface other than concrete.

DO NOT install or use this lift on expansion seams or on cracked or defective concrete.

4.3 Installation requisite checklist

The HYYD3000kg LIFT can work inside only. It is also considered that the place of installation must be well clear of areas destined to washing or painting, and away from solvent or paint storage areas or areas where there is a risk of potentially explosive atmosphere.

4.4 Installation

LSL-3000 lift is really simple. When transportation, just need to separate the frame, which include arms, extendable arms, safety lock and so on, from the vehicle and pack them respective. Open the packaging, check the components, and then install the lift INDOOR.

1. Lay the foundations according to the foundations drawing.
2. Connect the power incoming line, air source intake air inlet pipe, oil pump high press pipe.
The control box should be placed at a safety place and connect the earth wire.
3. Fill up the oil tank with 18L hydraulic oil
4. Connect the oil pipe and air pipe according to the hydraulic and air diagram.
5. Connect the power line and push rise switch, the motor should make a clockwise rotation.
6. Lock the machine at the same safety gear, flat the ground and fix the foundation bolt.
7. Check the electro-circuit, oil circuit, air circuit carefully. Put it into practice.

Chapter 5 Adjustment

Test and check to perform before start-up

5.1 Mechanical test

Attachment, fittings and connections

Free sliding of moving parts

Clean state of various parts of the machine

Position of the protection device

5.2 Electrical tests

Connection comply with diagrams

Machine earth connections

5.3 Operating of the following devices

5.3.1. Mechanic lock inserting pole.

5.3.2. Security device electromagnets

5.3.3. Hydraulic oil plant solenoid-valve

5.4 Hydraulic oil test

Sufficient oil in the tank

No leaks

Cylinder operation

NOTE: If oil is not present, fill the reservoir of the power unit with the necessary amount of oil

5.5 Rotation direction test

The motor should turn in the direction of the arrow located on the power unit pump; check using brief start-ups (each start-up must last a maximum of two seconds).

Chapter 6 Operation

Control box

6.1.1 UP button

When lifting vehicle, please make sure the vehicle center of gravity must be in the middle of the lift.

Please select, the compatible adapters and move the arms to catch the support point. Press down “up” button until the lift is raised to working height.

6.1.2 DOWN button

Press down button and release the safety catch, the lift will descend

6.1.3 LOCK treadle

If pressed, the safety catch will unlock.

Chapter 7 MAINTENANCE

7.1 Operation frequency

To keep the lift working at full efficiency, follow the indicated maintenance schedule. The manufacturer will not be responsible and will not honor the warranty as a result of non-compliance with the instructions indicated above. The frequency indicated refers to normal operating conditions; different frequencies will apply to particularly server conditions. *ALL MAINTENANCE OPERATIONS MUST BE PERFORMED WITH THE LIFT STOPPING OR THE MAIN SWITCH PLACED AT "O".*

When after the machine has been installed, check:

That the opposite carriages arms are at the same level

The power unit oil level. Add oil up to the right level, if necessary

7.2 Every month

Hydraulic power unit

Check the oil level in the tank, using the special dipstick, which is attached to the filler cap. If necessary, add oil through the cap to reach the required level. For the type of oil, see "TECHNICAL SPECIFICATIONS".

After the first 40 hours of operation, check the press oil contamination level. (Clean the filter and replace the oil if there is a high contamination level).

Hydraulic circuit

Check that there are no oil leaks in the circuit between the power unit and cylinder and in the cylinder itself. In this case, check the condition of the gaskets and replace them, if necessary.

Hydraulic pump

Under normal operating conditions, check that there is no change in the noise in the motor and gear pump and check that the relative bolts are properly tightened.

Safety systems

Check the operating condition and efficiency of the safety devices and the wear on the safety wedges and relative hinge pins. Oil the pins on the safety wedges. In case of excessive wear, replace the safety wedges and/or pins.

Use a torque wrench to check that the post bases anchor bolts screws are properly tightened to the ground as well as the connection bolts.

Clean and lubricate the carriage side runners and guides.

Check that all screws are tightened

Check that the arm locking system works properly.

Grease all the moving parts.

7.3 Every 6-month

Hydraulic

Check the contamination or aging level of the oil. Contaminated oil is the main cause of malfunctions of the valves and leads to a brief service life of the gear pumps.

7.4 Every 12-month

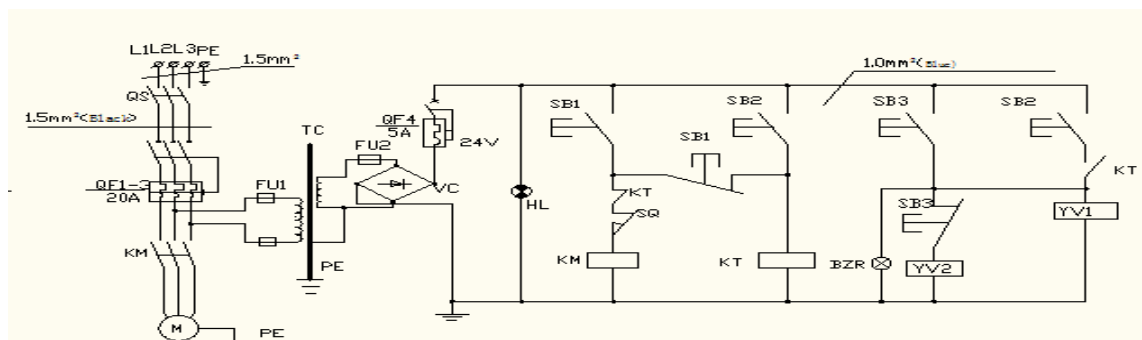
General check: visual inspection of all structural parts and mechanisms to guarantee that there are no problems or anomalies.

Electric plant: skilled electricians (contact the service center) should test the electric plant, including the motor of the power unit, cables, and limit switch and control box.

CHAPTER 8 TROUBLESHOOTING and Diagram

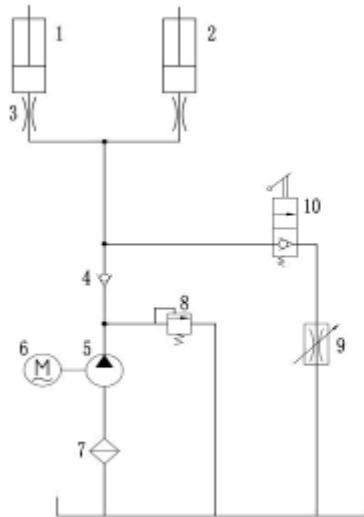
TROUBLE:	POSSIBLE	CAUSE:
The lift does not work	The main switch is not turned on	Turn the switch on
	There is no power	Check Power on to restore if necessary
	The electrical wires are disconnected	Reconnect
	Fuses are blown	Check for correct voltage Replace
The lift does not raise	The lift is overloaded	Check the vehicle weight
	The motor direction of rotation is not correct.	Interchange the two phases on the main switch
	The oil in the power unit is not sufficient.	Add some hydraulic oil
	The UP button is faulty.	Check UP button and connection for proper operation. Replace if needed
	The maximum pressure valve clogged or leaks	Check and clean if dirty, or replace if faulty
	The lowering valve does not close.	Check and clean if dirty or replace if faulty
	The suction tube or pump filter is dirty.	Check and clean if needed.
	Presence of air in the hydraulic system	Bleed the hydraulic system
	Oil leakages in hydraulic circuit	Check the circuit for any leakage
The lift does not lower when the lowering handle is pressed	The lowering valve does not work properly	Check the valve and replace if needed.
	The safety lock is not released	Release the safety lock.
	The steel cables are not in the same tension.	Readjust the steel cables.
The lift does not lower smoothly	Presence of air in the hydraulic system	Bleed the hydraulic system
	Lubrication of sliders is not enough.	Grease
	Sliders are damaged	Replace
The motor does not stop when the lift reaches it maximum height	The maximum height limit switch does not work	Check the limit switch and replace if needed

1 Circuit diagram



QS: Main switch QF: circuit breaker KM: Contactor TC: Transformer VC: ACDC converter
 FU: Fuse HL: Lamp SQ: Limit switch SB1: UP button SB2: Down button YV1: Hydraulic valve
 YV2: Pneumatic valve BZR: Buzzer KT: Timer SB3: Lock button

2 Hydraulic diagram and Pump Adjustment



10	Way Valve 4v
9	Throttle Valve
8	Pressure Control Valve
7	Filter
6	Motor
5	Gear Pump
4	Holding Valve
3	Throttle
2	Cylinder2
1	Cylinder1
Index	Design Name



Out pressure adjustment

Adaption de la pression hydraulique: plus de pression pour des voitures Lourdes

Aanpassing van de hydraulische druk om de hefcapaciteit van de brug te regelen

1. clockwise-----the output pressure will be higher

FR : sens des aiguilles d'une montre - la pression augmentera

NL : met de wijzers van het uurwerk meedraaien – de hydraulische druk wordt verhoogd

2. anti-clockwise---the output pressure will be lower

FR : contre les sens des aiguilles d'une montre - la pression diminuera

NL: tegenwijzerzin : de hydraulische druk zal verminderen



Oil volume adjustment

Adaption de volume d'huile

Aanpassen van het olievolume

1. clockwise-----the oil output will be less so lift up or down become slower

FR : sens des aiguilles d'une montre - moins d'huile → **la vitesse** de levage/descente est moin

NL : met de wijzers van de klok mee : minder olie → de **snelheid** van het stijgen/zakken zal lager zijn

2. anti-clockwise---the oil output will be more so lift up or down more fast

FR : contre les sens des aiguilles d'une montre - plus d'huile -> **la vitesse** de levage/descente sera plus

haut

NL : tegenwijzerzin : meer olie → de snelheid van het stijgen/zakken zal hoger zijn

- Please never adjust it above 20Mpa. There is oil pressure meter for check.

3 Pneumatic Diagram

