Model No. SAE-UT9000

Full Rise Ultra Thin Scissor Lift Lifting Capacity 9000 lbs

Installation & Operation & Maintenance Instructions



Important Note

- 1. This equipment can not be installed, operated or repaired without reading instructions.
- 2. Electricity must be hooked up by certified electrician.
- 3. Do not use this equipment beyond its rated capacity.

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Foreword

Notes on the operating instructions

The present ORIGINAL OPERATING INSTRUCTIONS are designed to provide sufficient instruction for the safe operation of the product. The information is provided clearly and concisely. The chapters are arranged by letter and the pages are numbered continuously.

Our products are subject to ongoing development. Our company reserves the right to alter the design, equipment and technical features of the system. No guarantee of particular features of the product should therefore be assumed from the present operating instructions.

Safety notices and text mark-ups

Safety instructions and important explanations are indicated by the following graphics:



DANGER!

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.



WARNING!

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.



CAUTION!

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

NOTE

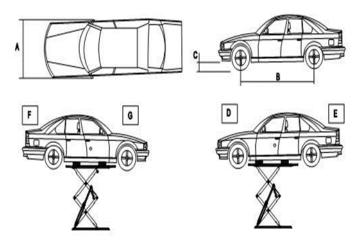
Indicates a material hazard. Failure to comply with this instruction may result in material damage.

1. Safety instructions

1.1 Important declarations

During the warranty period, any quality problem will be properly solved to the user's satisfaction. However, we will not take any responsibility for whatever bad consequence resulted from improper installation and operation, overload running or unqualified floor foundation. This lift is specially designed for lifting motor vehicles and not allowed to use it for any other purposes. Otherwise, we, as well as our sales agent, will not bear any responsibility of accidents or damages to the lift. Make sure to pay careful attention to the lifting capacity on the label attached to the lift. Never attempt to lift cars beyond its capacity. Please refer to bellow pictures and table for details.

Read this manual carefully before installation and operation of the machine so as to avoid your property loss or personnel injury and casualty incurred by the wrong operation. Without the manufacturer's consent, users are not permitted to make any modification to the control unit or other mechanical units.



Model	А	В	С	D	E	F	G
SAE-UT9000	1900mm	2000mm	120mm	2400kg	1600kg	2400kg	1600kg
	(74.8")	(78.7")	(4.7")	(5291lbs)	(3527lbs)	(5291lbs)	(3527lbs)

1.2 Qualified operator and user illustrations

- Only the professionally trained person can operate and use the lift.
- Electrical connection must be done by a competent electrician.
- Irrelevant persons are not allowed to be near the lifting area.

1.3 Danger notices

- Do not install the lift on any asphalt floor. The concrete floor should be thick enough to the requirement.
- Read and understand all the operation safety contents before operating the lift.
- The lift is not fit for outdoor use unless it is special tailor-made at the request of the customer.
- Keep hands and feet away from any moving part. To avoid clumping, put your hands and feet away from the underneath area where the lift is lowering.
- Only the professionally trained person can operate and use the lift.
- Operators are not allowed to wear oversized clothes to avoid being caught by moving parts of the lift.
- Keep the lift surrounding area clean and clear and no stacking to avoid accident happening.
- The lift is designed to lift the entire vehicle but not part of it. Never attempt to lift any cars beyond its capacity.

- Make sure the safety latches are in lock position before any attempt to work near or under the vehicle.
- Place the lifting pads to the positions suggested by vehicle makers. Operators are required to increase the
 vehicle slowly to make certain it will not slant, roll-over or fall off before lifting the vehicle to the desired
 height.1.3.11 Always keep checking the lift in case of any damage of the parts. Check the machine
 synchronization performance and the agility of moving parts. Do the regular maintenance. If any abnormal
 occurs, stop using the lift immediately and contact our dealers for help.
- When operation is finished, descent the lift to its lowest position and cut off the power source
- It is prohibited to modify or change any parts of the lift without manufacturer's consent.
- If the lift is to stop using for a long time, users are required to:
 - a. Disconnect the power source;
 - b. Empty the oil tank;
 - c. Lubricate moving parts with the hydraulic oil.

ATTENTION: car lifts belong to high risk products. It may bring injury or even death to the operator if there is any improper installation, improper operation or unauthorized modification. Read the manual carefully and follow strictly the requirement for running the lift.

1.4 Warning signs

All safety warning labels are clearly depicted on the lift to ensure that the operator is aware of and avoids the dangers of using the lift in an incorrect manner. The labels must be kept clean and they have to be replaced if detached or damaged. Please read carefully the meaning of each label and memorise them for future operation.



1.5 Noise standard

Noise Standard of the lift should be less than $75dB_{\circ}$ For your safety, it is recommended to put sound meter to your operation area.

1.6 Training

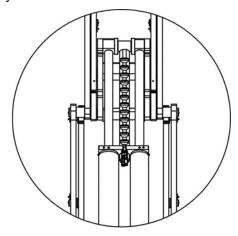
Only the professional person can operate and use the lift. If professional training from manufacturing factory, we are willing to help in this aspect.

2. Product overview

2.1 Product description

This model is on-ground design for user easy installation. Its four cylinders structure makes the lowest 120mm (4.7") clearance from ground come true. Its platform extension deign is not only used as a ramp, but also serve as an extended part of the platform for much longer vehicles. Besides, designs like, 24V working voltage of control box and limit switch, alarming buzzer from floor 500mm (19.7"), pneumatic safety lock, anti-surge valves, etc. have fully considered your personal security.

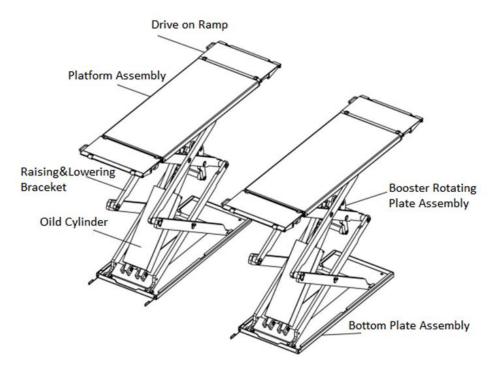
Safety structure:



2.2 Specifications

Model	Lifting capacity	Lifting time	Lifting height	Electrical requirement
SAE-UT9000	4000kg (9000lbs)	50 Sec	2040mm (80.3")	220V/240V/1Ph 380V/415V/3Ph

2.3 Construction of the Lift



3. Installation instructions

3.1 Preparations before installation

3.1.1Tools and equipment needed

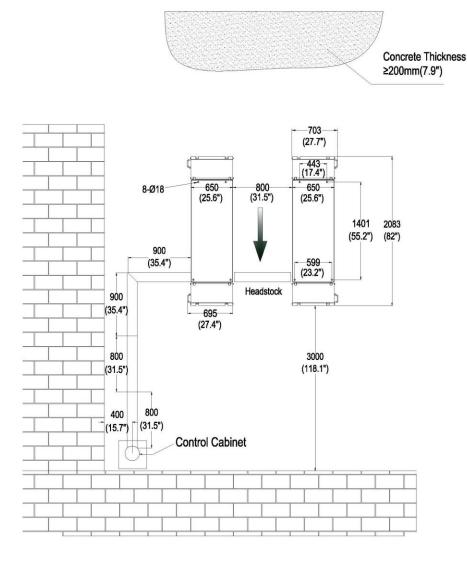
- √ Electrical drill
- √ Open wrenchesΦ17, Φ19
- √ Screw drivers
- √ Anti-wear hydraulic oil (AW32/AW46)

3.1.2 Check List of parts --- Annex 1 (Whole lift Packing list)

Open the package and check if all parts as per Annex 1 are included. Do not hesitate to contact the dealers or manufacturer in case any part is missing. But if you do not contact us and proceed with installation after knowing lack of parts, Stratus as well as our dealers will not bear any responsibility for this and will charge for any parts subsequently demanded by the buyer.

3.1.3 Ground conditions

The lift should be fixed on a smooth and solid concrete ground with its strength more than 3000psi, tolerance of flatness less than 5mm (0.2") and minimum thickness of 200mm (7.9"). In addition, newly built concrete ground must undergo more than 28days' cure and reinforcement. The ground and its installation diagram as follow.



Technical Requirement:

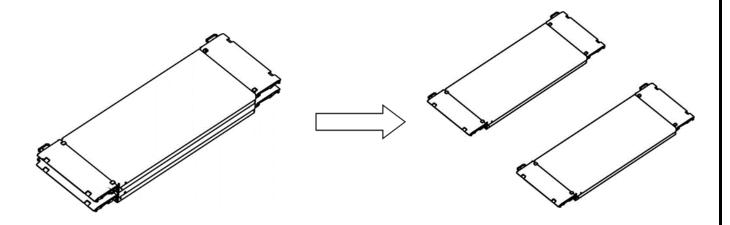
- 1.Concrete Type 425#, drying time 20 days
- 2.Clean microorganism surface in foundation pit ,concrete thickness in the pit bottom ≥200mm(7.9")
- 3.Level precision of two base pit ≤5mm(0.2")
- 4. The concrete base thickness is very crucial to the leveling.
- it cannot rely on the level adjusting ability of the machine itself too much.

3.2 Precautions during Installation

- Joints of oil hose and electric wire must be firmly connected in order to avoid leakage and wire loosing
- All bolts should be firmly screwed up.
- Do not place any vehicle on the lift in the case of trial running.

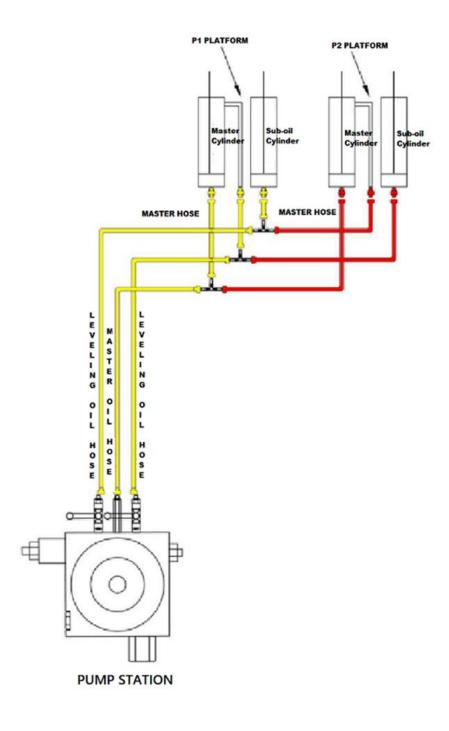
3.3 Installation steps

Step1: Remove the outer packing shown above and take the platforms out from the unpacked machine package and place them in level with a gap of 850mm (33.5") between them onto the floor foundation prepared. Uptight four pieces of screws fixed on the wood pallet and take the wood pallet away from another platform. Be careful not to smudge oil hoses.

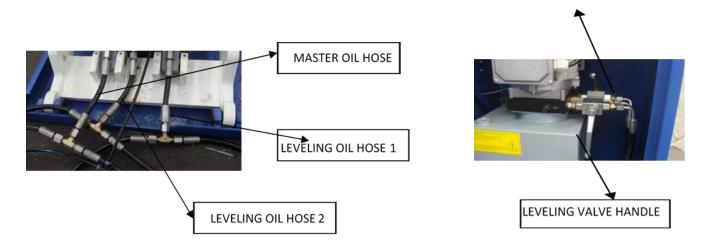


Step2: Connect oil hose (This step is extremely important, so do refer to the diagram for of oil hose connection and understand the following instructions before proceeding)

- a. Make sure there is nothing obstructed or dirty left in the hose.
- b. Installers have to distinguish where the chief oil hose to be connected by referring to the below two pictures and have the chief hose connected.
- c. See the left picture followed by; two branches of the chief oil hose are going to be respectively connected to the tie-ins for chief oil hose reserved on the hydraulic block and the other scissor. Similarly, branches of the other two leveling hoses are going to be connected to the tie-ins reserved for leveling hoses.
- d. Check if all connections are sealed well.

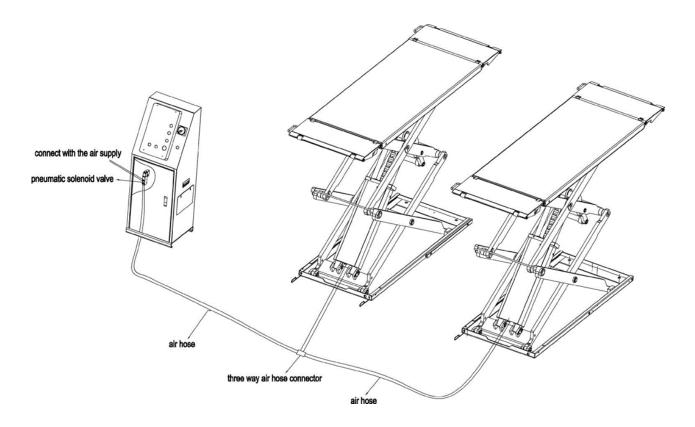


MASTER OILD HOSE JOINT IN MIDDLE WHILE LEVELING OIL HOSE JOINT AT TWO SIDES



Step3: Connect the electrical wire and air supply system

Connect exterior wires as per the wiring diagram, with the black for phase wire, the blue for null wire, and the green -yellow for grounding wire. Connect the compressed air supply (air pressure 0.6~0.8kg/cm2) to the air inlet of the air pump and then have the air hose of the pneumatic safety lock connected to the pneumatic solenoid valve outlet of the pump.



Step4: Fill up hydraulic oil Pour into the oil tank with 18 liters of anti-grinding oil.

The oil level shall be 10mm to 40mm away from the top of the tank. (Users can measure it by the feeler attached on the lid)

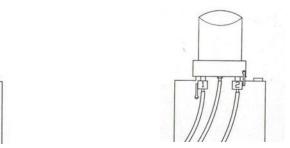
Step5: Leveling Attention:

Level the platforms before connecting height limit switch. Otherwise, platforms can not rise to the highest position. Firstly, make sure the oil hoses are correctly connected. Oil cylinders cannot work synchronously or could be damaged in result of wrong connections. Secondly, Operators can tell the platforms are controlled by which leveling valves or buttons through the oil hose connection or trial lifting.

Manual leveling

Open one leveling valve and press the UP button to fill oil to the related oil hose. Close the valve to stop filling oil. In normal working condition, both leveling valves are closed. With both valves open, the platform can still

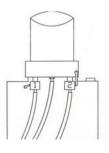
raise but not synchror



A. Both valves open

Motor

B. Both valves closed: Normal working



C



One valve open, the other closed: leveling status

D

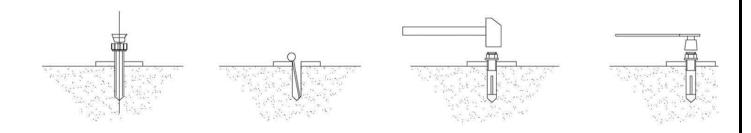
Leveling method:

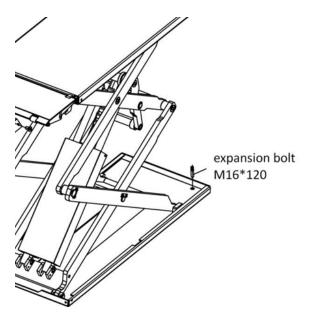
- 1. Open both leveling valves and press the UP button to have both platforms raised to the highest positions. Repeat this step for two or three t times. This step could take time because there's air in cylinders and no load on platforms.
- 2. Close both leveling valves as per drawing B.
- 3. Press the UP button to see if both platforms rise synchronously. (Normally, platforms may not rise synchronously at this point.)
- 4. If not working synchronously, one platform must rise faster than the other. (Users have to know which leveling valve controls which platform for both valves by the way of the oil hose connected.)
- 5. Open the leveling valve that controls the slower-rising platform. Press the UP button till the platform rise to the same height. (The other valve at his point should be closed.)
- 6. Close both leveling valves.
- 7. Press DOWN I button to have both platforms lower to the lowest position. In case they do not lower synchronously, open the valve that controls the slower-lowering platform and press DWON I button to have it lower to the lowest position and then close the leveling valve. If the lift is equipped with a height limit switch, press DOWN II button when platforms stop lowering at a height of 500mm from the ground.
- 8. Make sure both leveling valves are closed. Press the UP button to check the synchronization of platforms.
- 9. Repeat 5 and 8 until synchronization is achieved.

Step6: Connect the limit switch use the screw to fix the shield of the limit switch. Connect the quick connectors of the limited switch with the control cabinet. Finally screw firmly the fixing clip of the oil hose and put the oil hose, air pipe, etc. in to the clip and clamp tightly. Till now, the connection of the machine is done.

Step7: Fix expansion bolts (according to the above installation position on the floor foundation diagram).

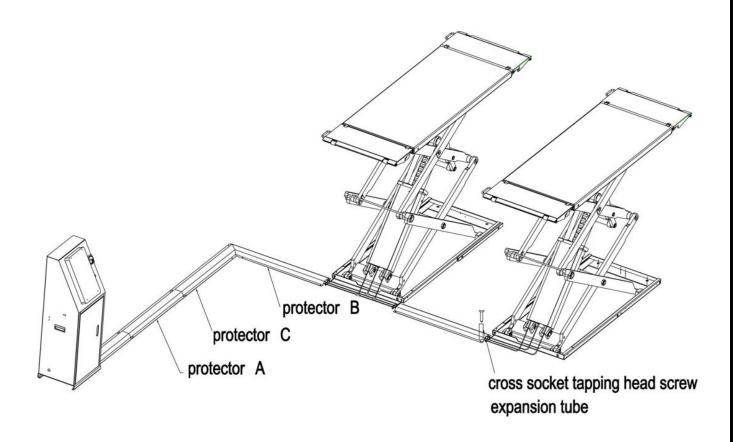
- 1. Use an electrical drill to drill anchor holes for expansion bolts. Make sure to drill vertically.
- 2. Ascertain the bottom plate align with the marked line during drilling. After drilling, remove thoroughly the debris and dust in holes
- 3. Put the expansion bolts into the drilled holes and use hammer to hit them inside and then tighten them.





Step8: Install oil hose protectors

Place oil hose guard plates according the bellow picture. There is five pieces in total. Drill installation holes for expansion plugs according to the reserved holes on protectors of the oil horse. Remove the debris and dust. Put the expansion plugs under protectors and then tighten the tapping screws on protectors.

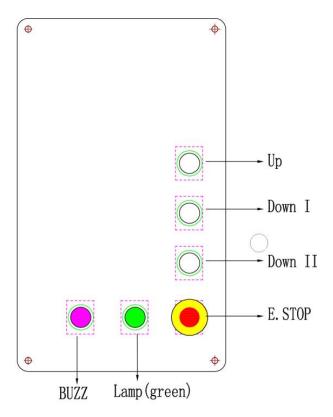


4. Operation instructions

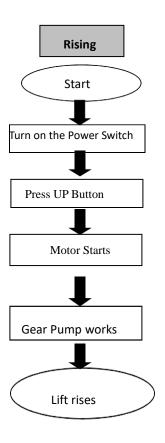
4.1 Operation precautions

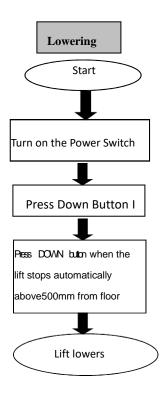
- 1. Check all the joints of oil hose. Only when there is no leakage, the lift can only be used.
- 2. If there is any problem with the safety device, the lift shall not be used.
- 3. Check if the gravity center of the vehicle is in the center of the lift platform. Otherwise, adjust it to the center and then run the lift.
- 4. Operators and other personnel concerned should stand in a safety area during lifting and lowering process.
- 5. When the operator leaves the control console after the platforms are raised to the desired height, switch off the power to prevent any wrong operation by unconcerned people.
- 6. Make sure the safety lock of the lift is engaged before start working under the vehicle and no people are under the vehicle during lifting and lowering process.

4.2 Operation control panel instructions



4.3 Flow chart for operation





4.4 Operation instructions

Raise the lift

- 1. Make sure that you have read and understood the operation manual before operation.
- 2. Park the vehicle in the middle of the platforms.
- 3. Place the four rubber pads under the prop-points of the vehicle and ensure car's gravity is on the rubber pads.
- 4. Press slightly the UP button on the control box until rubber pads have touched the prop-points of vehicle.
- 5. Keep on pressing the UP button to lift the vehicle a bit higher from the ground and check again if the vehicle is in a safe position.
- 6. Having raised the vehicle to the required height, operators must press the "Emergency stop" button until the power indicator is off and check again the stability of the vehicle before performing maintenance or repair work,

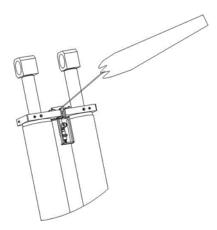
Lower the lift

- 1. Switch on emergency stop switch.
- 2. Press the DOWN I button to lower the lift. It will stop lowering when clearance between the platforms and the ground reaches to 500mm.
- 3. Press DOWN II button to continue lowering the platforms. Alarming buzz is triggered if it is equipped with safety alarm device.
- 4. Descent platform to its lowest point. Drive the vehicle away

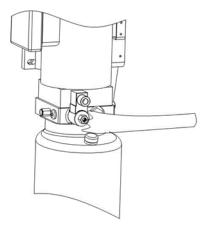
4.5 Emergency Lowering

Pneumatic lock is not engaged

1. Pull the safety lock teeth with certain tools to prevent it from engaging the teeth bar.

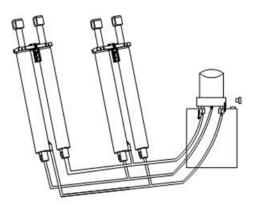


2. Use a wench to unscrew loose the spool of the solenoid unloading valve fixed on the hydraulic station.

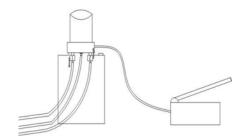


Pneumatic safety lock is engaged.

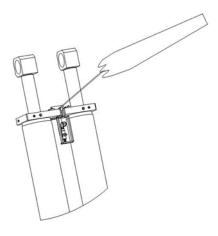
1. Take down the removable plug from the hydraulic block.



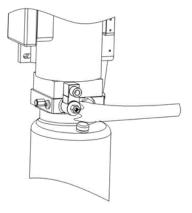
2.Connect to the upper separate jack



3. Pull the safety lock teeth with certain tools to prevent it from engaging the teeth bar.



4. Use a wench to unscrew loose the spool of the solenoid unloading valve fixed on the hydraulic station.



5. Trouble Shooting

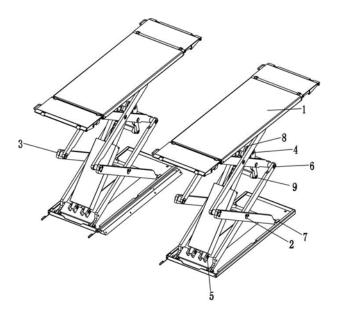
ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help. We will offer our service at the earliest time we can. By the way, your troubles will be judged and solved much faster if you could provide us more details or pictures of the trouble.

TROUBLES	CAUSE	SOLUTION
	The wire connection is loose.	Check and make a good connection.
Motor does not run and	The motor is burnt	Replace it.
will not raise	The limit switch is damaged or the wire	Connect it or adjust or replace the limit
	connection is loose. Moving not smooth.	switch.
	The motor run reversely.	Check the wire connection.
	Overflow valve is loose or jammed.	Clean or adjust it.
Motor runs but will not	The gear pump is damaged.	Replace it.
raise	Oil level is too low.	Add oil.
	The oil hose became loose or dropped off.	Tighten it.
	The cushion valve became loose or jammed.	Clean or adjusts it.
	The oil hose leaks.	Check or replace it.
	The oil cylinder is not tightened.	Replace the seal.
Platforms go down slowly	The single valve leaks.	Clean or replace it.
after being raised	The overflow valve leaks.	Clean or replace it.
	Electrical unloading valve leaks.	Clean or replace it.
	The oil filter is jammed.	Clean or replace it.
	Oil level is too low.	Add oil.
Raising too slow	The overflow valve is not adjusted to the right position.	Adjust it.
	The hydraulic oil is too hot (above 45°).	Change the oil.
	The seal of the cylinder is abraded.	Replace the seal.
	The throttle valve jammed.	Clean or replace.
	The hydraulic oil is dirty.	Change the oil.
Lowering too slow	The anti-surge valve jammed.	Clean it.
	The oil hose jammed.	Replace it.

6. Maintenance

Easy and low cost routine maintenance can ensure the lift work normally and safely. Following are requirements for routine maintenance. You may choose the frequency of routine maintenance by consulting your lift's working conditions and time.

The following parts need to be lubricated.



S/N	DESC
1	Platform slider
2	Joint shaft C
3	Joint shaft B
4	Driving rotor shaft
5	Rotor shaft of base plate
6	Joint shaft D
7	Base plate slider
8	Rotor shaft sheave
8	Rotor shaft

- 1. Daily checking items before operation the user must perform once daily check. Daily check of safety system is very important-the discovery of device failure before action could save your time and prevent you from great loss, injury or casualty.
- Check if safety teeth and safety block is engaged well or not.
- Check whether oil hose well connected. No leakage is allowed.
- Check the electric connections. Making sure all connections are in good condition.
- Check whether the expansion bolts well anchored.
- Check the connection of the supporting frames.
- 2. Weekly checking items
- Check the flexibility of moving parts.
- Check the working conditions of safety parts.
- Check the amount of oil left in the oil tank. Oil is enough if the carriage can be raised to highest position. Otherwise, oil is insufficient and needs refill.
- Check whether the expansion bolts well anchored.

- 3. Monthly checking items
- Check whether the expansion bolts well anchored.
- Check the sealing of the hydraulic system and screw firm the joints if it leaks.
- Check the lubrication and abrasion condition of moving parts. Replace them if any damage.
- 4. Yearly checking items
- Empty the oil tank and check the quality of hydraulic oil.
- Check the lubrication and abrasion condition of moving parts. Replace them if any damage.

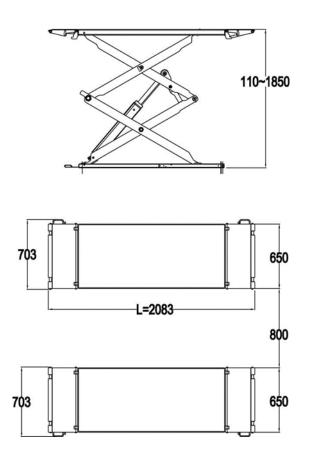
Warning: If users strictly follow the above maintenance requirements, the lift will keep in a good working condition and meanwhile accidents could be avoided to a large extent.

7. Annex

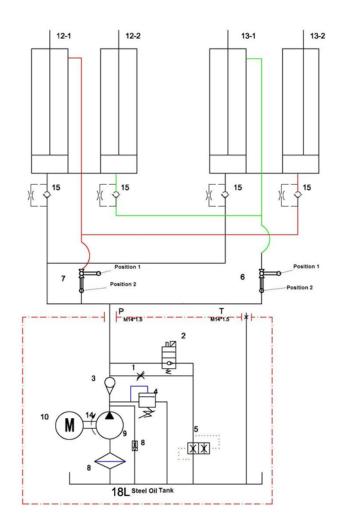
Annex 1. Packing List of the whole lift

S/N	Name	Drawing#/Size	Material#	Description	Qty	Note
1	Low-profile scissor lift	ON-7801/4		Assembly	1	A pack
2	Protection cover A	ON-7801-A9		Q235A	3	
3	Protection cover B	ON-7801-A10		Q235A	1	
4	Protection cover C	ON-7801-A11		Q235A	1	
5	Oil hose fixer	ON-7801-A1-B7		Zinc-plating	3	
6	Expansion bolt	M16*160		Standard	8	
7	Cross socket cap head tapping screw	ST4.8*34		Standard	20	A pack
8	Control cabinet	FL-8802-A10		Assembly	1	
9	Plastic expansion tube	M10*40		Standard	20	
10	Rubber pad	ON-7801-A14		Rubber	4	

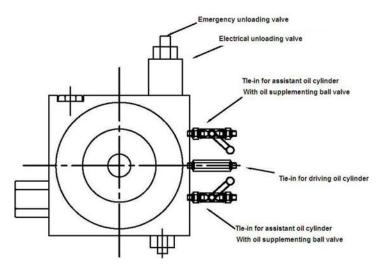
Annex 2. Overall diagram



Annex 3. Hydraulic working system

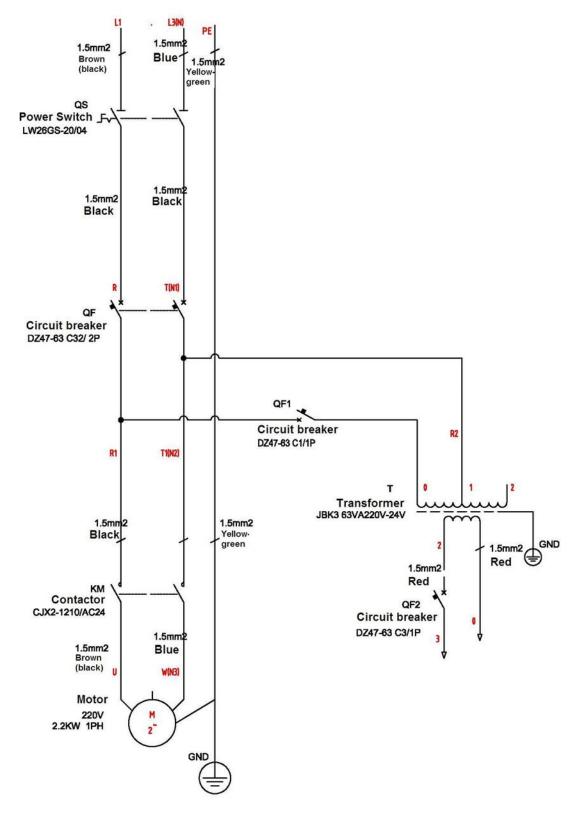


- 1. Emergent unloading valve
- 2. Electrical unloading valve
- 3. One-way valve
- 4. Overflow valve
- 5. Lowering throttle valve
- 6. Oil supplementing ball valve
- 7. Oil supplementing ball valve
- 8. Cushion valve
- 9. Gear pump
- 10. Oil pump motor
- 11. Oil filter

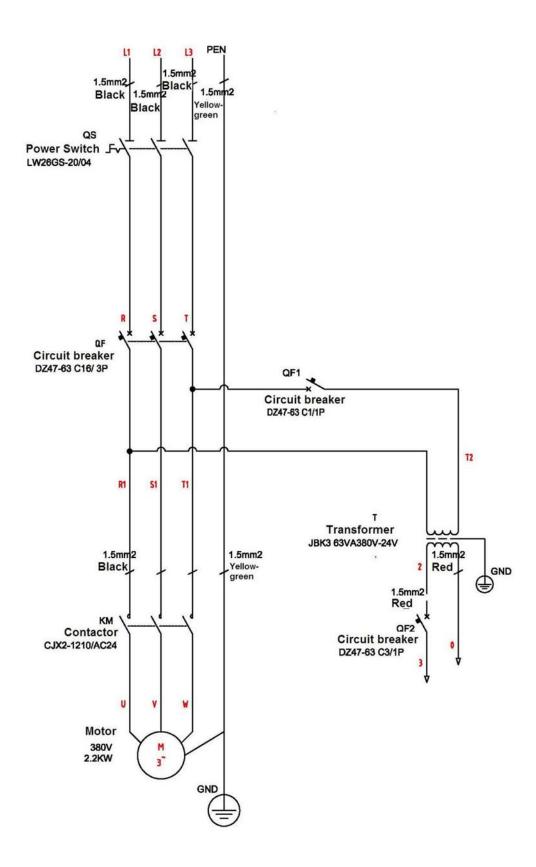


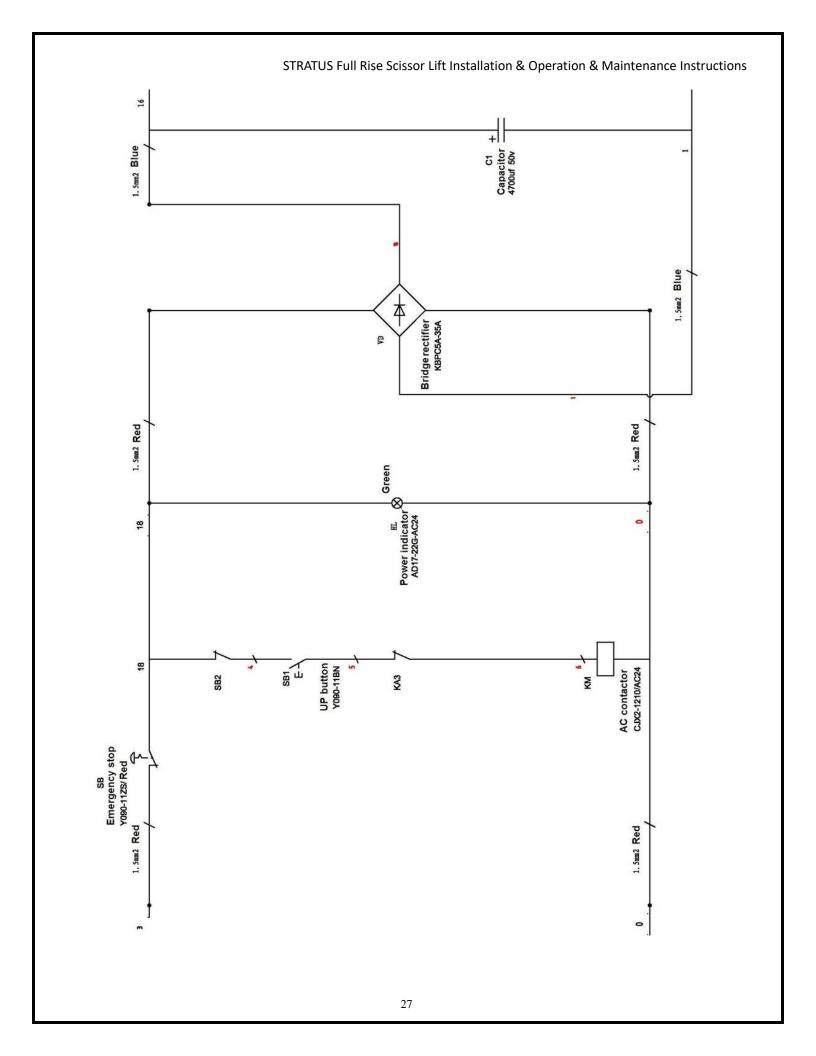
Annex 4. Wiring diagram

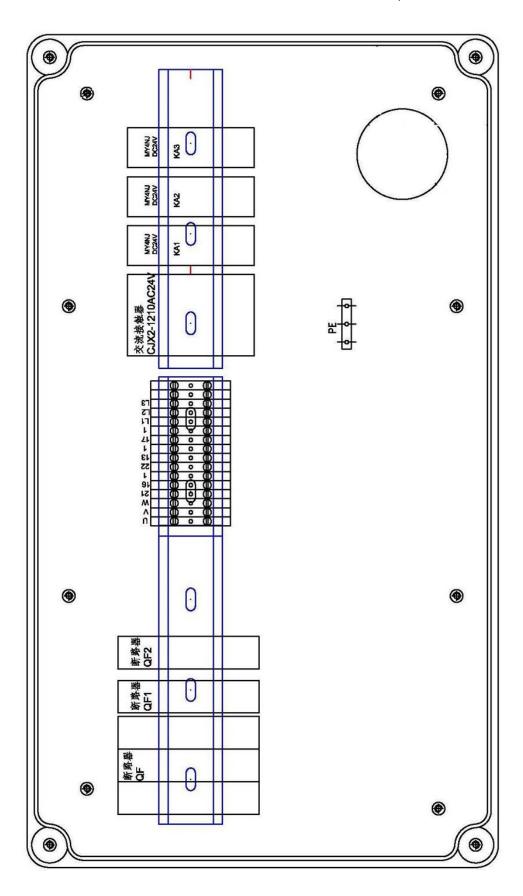
Single phase



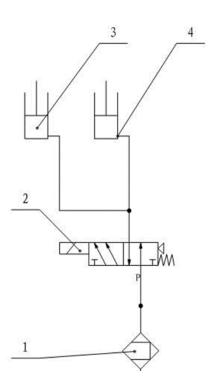
Three phase







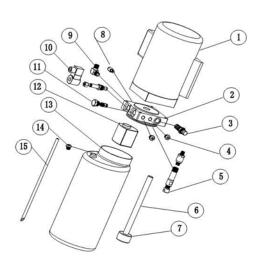
Annex 5. Diagram for air supply connection



1.	Air Filter
2.	Solenoid Unloading Valve
3.	Driving Cylinder Locking
4.	Assistant Cylinder Locking

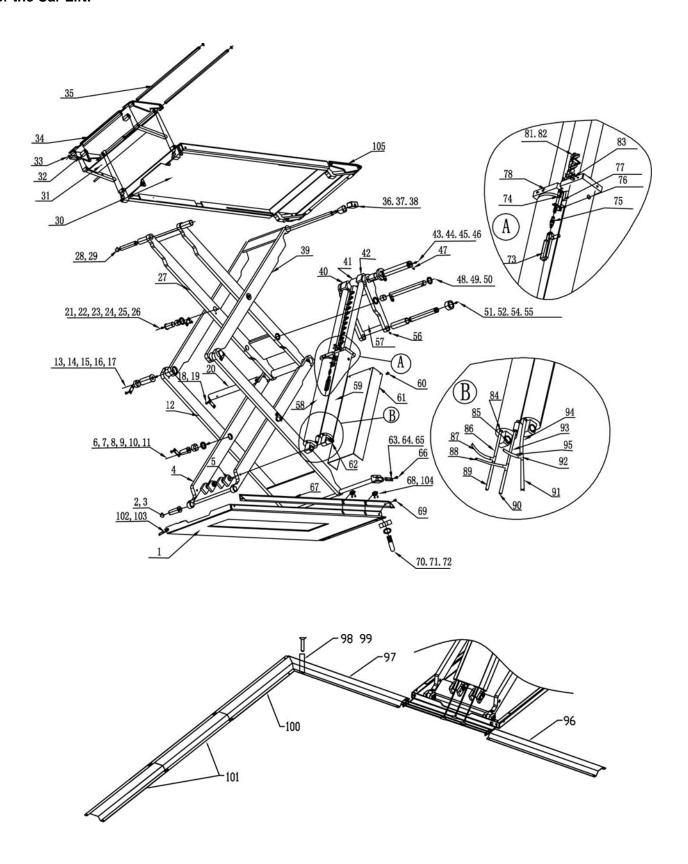
Annex 6. Exploded view of the whole lift

For the pump:



S/N	DESCRIPTION	QTY
1	Motor	1
2	Hydraulic block	1
3	Overflow valve	1
4	Fitting	2
5	Cushion valve	1
6	Absorbing oil hose	1
7	Oil filter	1
8	Throttle valve	1
9	Oil hose tie-in	1
10	Electrical unloading valve	1
11	One-way valve	1
12	Gear pump	1
13	Oil tank	1
14	Oil tank cover	1
15	Oil back hose	1

For the Car Lift:



S/N	Material#	Name	Drawing#	Qty	Property	Note
1		Base plate A	ON-7801-A1-B1	1	Welded	
3		Rotor shaft	ON-7801-A1-B5	4	45#	
4		Movable arm C	ON-7801-A2-B3	2	Welded	
5		Hex head cone screw M6*10	GB/T78-2000	16	Standard	Total qty
6		Self-lock screw	M27*3	4	Standard	
8		Joint shaft C	ON-7801-A2-B6	4	45#	
9		Bearing 3025	SF-1	8	Standard	Total qty
10		Thick spacer	ON-7801-A2-B7	8	Q235A	
11		Oil nozzle M8*1	JB/T7940.1-1985	32	Standard	Total qty
12		Movable arm B	ON-7801-A2-B1	2	Welded	
13						
14		Self-lock screw	M36*3	4	Standard	
15		Bearing 4050	SF-1	4	Standard	
16		Joint shaft BB	ON-7801-A2-B9	4	45#	
17		Oil nozzle M8*1	JB/T7940.1-1985		Standard	Same as item 11
18		Oil nozzle M8*1	JB/T7940.1-1985		Standard	Same as item 11
19						
20		Joint shaft D	ON-7801-A2-B12	2	45#	
21		Oil nozzle M8*1	JB/T7940.1-1985		Standard	Same as item 11
22		Joint shaft C	ON-7801-A2-B6	4	45#	
23		Bearing 3025	SF-1		Standard	Same as item 9
24		Thin spacer	ON-7801-A2-B8	4	Q235A	
25						
26		Self-lock screw	M27*3	4	Standard	
27		Movable arm A	ON-7801-A2-B2	2	Welded	
28		Circlip 25	GB/T894.1-2000	8	Standard	
29		Rotor shaft	ON-7801-A5-B2	4	45#	
30		Platform	ON-7801-A5-B3	2	Welded	
31		Supporting rod	ON-7801-A5-B1-C6	1	Welded	
32		Small wheel	MR30-A22-B5	4	Nylon1010	
33		Circlip 25		8	Standard	
34		Ramp A	ON-7801-A5-B1	2	Welded	
35		Ramp shaft	ON-7801-A5-B1-C4	4	45#	

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36	Rotor shaft	ON-7801-A2-B15	2	45#	
37	Wheel	ON-7801-A2-B16	4	Q235A	
38	Pad	ON-7801-A2-B17	4	Nylon1010	
39	Movable arm B	ON-7801-A2-B1	2	Welded	
40	Cylinder connector A	ON-7801-A4-B11	2		
41	Safety teeth	ON-7801-A4-B2	2	Welded	
42	Oil connector B	ON-7801-A4-B1	2		
43	Oil nozzle M8*1	JB/T7940.1-1985		Standard	Same as item 11
44	Cylinder shaft	ON-7801-A3-B1	2	Welded	
45	Cylinder wheel	ON-7801-A4-B12	4	45#	
46	Bearing 4040	SF-1	4	Standard	
47	Inside hex cap screw M8*12	GB/T78-2000	16	Standard	Same as item 5
48	Thin spacer	ON-7801-A2-B8	4	Q235A	
49	Rotor shaft	ON-7801-A3-B6	2	Welded	
50	Bearing 3025	SF-1	4	Standard	
51	Oil nozzle M8*1	JB/T7940.1-1985		Standard	Same as item 11
52	Start wheel	ON-7801-A3-B4	4	Q235A	
54	Start rotor shaft	ON-7801-A3-B3	2	45#	
55	Wheel retaining ring	ON-7801-A3-B5	2	Q235A	
56	Inside hex cone screw M6*10	GB/T78-2000	16	Standard	Same as item 5
57	Start plate	ON-7801-A3-B2	2	Welded	
58	Drive oil cylinder	ON-7801-A4-B8	2	Assembly	
59	Oil cylinder	ON-7801-A4-B7	2	Assembly	
60	Cross cap screw M5*10	GB/T78-2000	4	Standard	
61	Oil cylinder sheath	ON-7801-A4-B14	2	Q235A	
62	Cylinder shaft	ON-7801-A4-B9	4	Welded	
63	Position limit plate	ON-7801-A2-B19	1	Q235A	
64	Position limit slider	ON-7801-A2-B18	1	Nylon1010	
65	Down shaft	ON-7801-A2-B11	2	45#	
66	Cross flat head screw M8*16	GB/T78-2000	2	Standard	
67					
68	Proximity switch		2	Assembly	Optical limit switch
69	Cross cap screw M6*10	GB/T818-2000	4	Standard	
1					

Expansion bolt M16*160	nsion bolt
74 Cross cap screw M5*10 GB/T78-2000 2 Standard 75 Air cylinder CJPB 6*15* Swivel 2 Assembly 76 Air hose connector PL6-M5 2 Assembly 77 Air cylinder fix plate ON-7801-A4-B15 2 Welded 78 Oil cylinder flange ON-7801-A4-B3 2 45# 79 Cylinder pin Q4*14 GB/T119.1-2000 2 Standard 80 Safety block ON-7801-A4-B5 2 45# 81 Cross cap screw M4*8 GB/T818-2000 14 Standard 82 Safety block pressure plate ON-7801-A4-B4 4 Q235A 83 Inside hex cone screw M8*20 GB/T78-2000 4 Standard 84 Connector B 4 45# 85 Bearing 2840 SF-1 4 Standard 86 Oil hose ON-7801-A8 1 Assembly 0.27m 87 Oil hose ON-7801-A8 1 Assembly	
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76 Air hose connector PL6-M5 2 Assembly 77 Air cylinder fix plate ON-7801-A4-B15 2 Welded 78 Oil cylinder flange ON-7801-A4-B3 2 45# 79 Cylinder pin Ф4*14 GB/T119.1-2000 2 Standard 80 Safety block ON-7801-A4-B5 2 45# 81 Cross cap screw M4*8 GB/T818-2000 14 Standard 82 Safety block pressure plate ON-7801-A4-B4 4 Q235A 83 Inside hex cone screw M8*20 GB/T78-2000 4 Standard 84 Connector B 4 45# 85 Bearing 2840 5F-1 4 Standard 86 Oil hose ON-7801-A8 1 Assembly 0.27m 87 Oil hose ON-7801-A8 1 Assembly 1.65m 89 Oil hose ON-7801-A8 1 Assembly 4.2m 90 Oil hose ON-7801-A8 1 <td< td=""><td></td></td<>	
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78 Oil cylinder flange ON-7801-A4-B3 2 45# 79 Cylinder pin Ф4*14 GB/T119.1-2000 2 Standard 80 Safety block ON-7801-A4-B5 2 45# 81 Cross cap screw M4*8 GB/T818-2000 14 Standard 82 Safety block pressure plate ON-7801-A4-B4 4 Q235A 83 Inside hex cone screw M8*20 GB/T78-2000 4 Standard 84 Connector B 4 45# 85 Bearing 2840 SF-1 4 Standard 86 Oil hose ON-7801-A8 1 Assembly 0.27m 87 Oil hose ON-7801-A8 1 Assembly 1.65m 89 Oil hose ON-7801-A8 1 Assembly 4.2m 90 Oil hose ON-7801-A8 1 Assembly 4.2m 91 Oil hose ON-7801-A8-B1 1 Assembly 4.2m 92 Three-way connector G1/4 ON-7	
79 Cylinder pin Φ4*14 GB/T119.1-2000 2 Standard 80 Safety block ON-7801-A4-B5 2 45# 81 Cross cap screw M4*8 GB/T818-2000 14 Standard 82 Safety block pressure plate ON-7801-A8-B4 4 Q235A 83 Inside hex cone screw M8*20 GB/T78-2000 4 Standard 84 Connector B 4 45# 85 Bearing 2840 SF-1 4 Standard 86 Oil hose ON-7801-A8 1 Assembly 0.27m 87 Oil hose ON-7801-A8 1 Assembly 1.65m 88 Oil hose ON-7801-A8 1 Assembly 1.65m 89 Oil hose ON-7801-A8 1 Assembly 4.2m 90 Oil hose ON-7801-A8 1 Assembly 4.2m 91 Oil hose ON-7801-A8 1 Assembly 4.2m 92 Three-way connector G1/4	
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83	
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88 Oil hose ON-7801-A8 2 Assembly 1.65m 89 Oil hose ON-7801-A8 1 Assembly 4.2m 90 Oil hose ON-7801-A8 1 Assembly 4.2m 91 Oil hose ON-7801-A8 1 Assembly 4.2m 92 Three-way connector G1/4 ON-7801-A4-B7 3 45# 93 Oil hose ON-7801-A8 1 Assembly 0.25m 94 Oil hose ON-7801-A8 1 Assembly 0.23m 95 Oil hose ON-7801-A8 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
89 Oil hose ON-7801-A8 1 Assembly 4.2m 90 Oil hose ON-7801-A8 1 Assembly 4.2m 91 Oil hose ON-7801-A8 1 Assembly 4.2m 92 Three-way connector G1/4 ON-7801-A4-B7 3 45# 93 Oil hose ON-7801-A8 1 Assembly 0.25m 94 Oil hose 1 Assembly 0.23m 95 Oil hose 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
90 Oil hose ON-7801-A8 1 Assembly 4.2m 91 Oil hose ON-7801-A8 1 Assembly 4.2m 92 Three-way connector G1/4 ON-7801-A4-B7 3 45# 93 Oil hose ON-7801-A8 1 Assembly 0.25m 94 Oil hose 1 Assembly 0.23m 95 Oil hose 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
91 Oil hose ON-7801-A8 1 Assembly 4.2m 92 Three-way connector G1/4 ON-7801-A4-B7 3 45# 93 Oil hose ON-7801-A8 1 Assembly 0.25m 94 Oil hose 1 Assembly 0.23m 95 Oil hose 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
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93 Oil hose ON-7801-A8 1 Assembly 0.25m 94 Oil hose 1 Assembly 0.23m 95 Oil hose 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
94 Oil hose 1 Assembly 0.23m 95 Oil hose 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
95 Oil hose ON-7801-A8 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	
95 Oil hose 1 Assembly 1.65m 96 Protection cover plate A ON-7801-A9 3 Q235A	-
97 Protection cover plate B ON-7801-A10 1 Q235A	
98 Cross cap screw ST4.8*34 ST4.8*34 20 Standard	
99 Plastic expansion pipe M10*40 20 Standard	
100 Protection cover plate C ON-7801-A11 1 Q235A	
101 Protection cover plate A ON-7801-A9 2 Q235A	
102 Oil hose fixer ON-7801-A1-B7 3 65Mn	
103 Hex head full swivel bolt M8*15 GB/T5781-2000 1 Standard	
105 Guiding plate B ON-7801-A5-B4 2 Welded	

Annex 7. Common spare parts list

Mechanical part:

S/N	Material#	Name	Drawing#	Qty/set	Description Note	
1		Straight oil cup M8*1	JB/T7940.1-1985	32	Standard	
2		Pad block	ON-7801-A2-B17	4	Nylon	
3		Positioning slider	ON-7801-A2-B13	4	Nylon 1010	
4		Protector weldment	ON-7801-A6-B2	1	Weldment	
5		Safety block connection	ON-7801/4-A4-B5	2	ZG270	
6		Air cylinder	CDJ2B10-30-S	2	Assembly	
7		Fixing plate for air cylinder	ON-7801-A4-B15	2	Q235A	
8		Coverage plate for safety block	ON-7801/4-A4-B5	4	Q235A	
9		Cover A	ON-7801-A9	3	Q235A	
10		Cover B	ON-7801-A10	1	Q235A	
11		Cover C	ON-7801-A11	1	Q235A	
12		Y- seal ring	B7-80*65*9	1	For Master Oil Cylinder Piston	
13		Y-seal ring	BS38*48*6	1	For Master Oil Cylinder End Cap	
14		Anti-dust ring	BH38*46*6	2	For Master and Leveling Cylinder	
15		Y-seal ring	B7-70*55*9	1	For Leveling Oil Cylinder Piston	

Electrical system part:

S/N	Material #	Name	Spec.	Unit	Qty/set	Remark
1		Power switch	LW26GS-20/04	Pcs	1	
2		Button	Y090	Pcs	3	
3		Power indicator	AD17-22G-AC24	Pcs	1	
4		Transformer	JBK-63VA220V-24V	Pcs	1	
5		Transformer	JBK-63VA230V-24V	Pcs	1	
6		Transformer	JBK-63VA240V-24V	Pcs	1	
7		Transformer	JBK-63VA380V-24V	Pcs	1	
8		Transformer	JBK-63VA400V-24V	Pcs	1	
9		Transformer	JBK-63VA415V-24V	Pcs	1	
10		AC contactor	CJX2-1210/AC24	Pcs	1	
11		Circuit breaker	DZ47-63 C16 /3P	Pcs	1	
12		Circuit breaker	DZ47-63 C32 /2P	Pcs	1	
13		Circuit breaker	DZ47-63 C3 /1P	Pcs	1	
14		Pneumatic valve	3V210-08/DC24	Pcs	1	
15		Limit switch	ME8104	Pcs	1	
16		Bridge rectifier	KBPC5A-35A	Pcs	1	
17		Capacitor	4700UF/50V	Pcs	1	
18		Control box	Bigger	Pcs	1	
19		Relay	MY4NJ/DC24	Pcs	3	
20		Relay holder	PYF14AE	Pcs	1	
21		Limits switch	8108 (TZ8108)	Pcs	1	