



Ever-Eternal

EE-6603 B

Full Rise Scissor Lift Electrical Leveling

**INSTALLATION, OPERATION
AND MAINTENANCE MANUAL**



Read this entire manual carefully and completely before installation or operation of the lift.

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1. Important safety instructions

1.1 Important notices

We will offer one-year's quality warranty for the whole machine , during which 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 ground condition.

This model is specially designed for lifting motor vehicles that weighs within its outmost lifting capacity. Users are not allowed to use it for any other purposes. Otherwise, we, as well as our sales agency, will not bear any responsibility for accidents or damages of the lift.

Make sure to pay careful attention to the label of the lifting capacity attached on the lift and never try to lift cars with its weight beyond.

Read this manual carefully before operating the machine so as to avoid economic loss or personnel casualty incurred by wrong operation.

Without our professional advice, users are not permitted to make any modification to the control unit or whatever mechanical unit.

1.2 Qualified personnel

1.2.1 Only these qualified staff, who have been properly trained, can operate the lift.

1.2.2 Electrical connection must be done by a competent electrician.

1.2.3 People who are not concerned are not allowed in the lifting area.

1.3 Danger notices

1.3.1 Do not install the lift on any asphalt surface.

1.3.2 Read and understand all safety warnings before operating the lift.

1.3.3 Do not leave the controls while the lift is still in motion.

1.3.4 Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.

1.3.5 Only these properly trained personnel can operate the lift.

1.3.6 Do not wear unfit clothes such as large clothes with flounces, tires, etc, which could be caught by moving parts of the lift.

1.3.7 To prevent evitable incidents, surrounding areas of the lift must be tidy and with nothing unconcerned.

1.3.8 The lift is simply designed to lift the entire body of vehicles, with its maximum weight within the lifting capacity.

1.3.9 Always insure the safety locks are engaged before any attempt to work near or under the vehicle. Never remove safety related components from the lift. Do not use if safety related components are damaged or missing.

1.3.10 Do not rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.

1.3.11 Check at any time the parts of the lift to ensure the agility of moving parts and the performance of synchronization. Ensure regular maintenance and if anything abnormal occurs, stop using the lift immediately and contact our dealers for help.

1.3.12 Lower the lift to its lowest position and do remember to cut off the power source when service finishes.

1.3.13 Do not modify any parts of the lift without manufacturer's advice.

1.3.14 If the lift is going to be left unused for a long time, users are required to:

- a. Disconnect the power source;
- b. Empty the oil tank;

c. Lubricate the moving parts with hydraulic oil.

Attention: For environment protection, please dispose the disused oil in a proper way.

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 memorize them for future operation

CAUTION		WARNING		
				
Never stand, work or be under the lift while it is being operated.	The operator should not stand too close to the lift but in a safe position away from moving parts.	When the lift is lowered, no auxiliary stand or other blocking objects should be near the lift.	Do not shake or push the vehicle whilst it is on the lift.	Only trained technicians are permitted to operate this lift.
				
Ensure feet and other parts of your body are well clear of the lift when it is being lowered or when lifting.	Never try to lift or lower only 1 platform.	Do not change, tamper or interfere with the safety mechanisms of this lift.	Ensure that the lifting weight of the vehicle is balanced on both platforms to avoid tilting or sliding.	
				
Always keep the lifts pit clean and clear of any objects or contaminants.	Please read and study the operation manual carefully before operating this lift.	Keep the vehicle parallel with the platform lifts at all times.	High voltage in control box, take extreme caution here.	

1.5 Sound Level

The sound emitted from the lift should not exceed 75DB. For the sake of your health, we suggest putting a noise detector in your working area.

1.6 Training

Only these qualified people, who have been properly trained, can operate the lift. We are quite willing to provide professional training for the users when necessary.

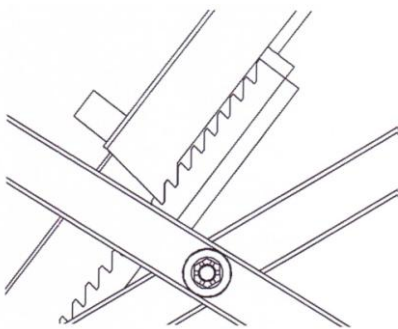
2. Overview of the lift

2.1 General descriptions

This model is in-ground mounted and is mainly composed by two lifting platforms, two base plates, two oil cylinders and a set of power unit. The gear pump works when power supply is connected and meanwhile oil in the pump will push upwards the pistons of oil cylinders. Thus, scissor brackets of the lift rise accordingly. In the process of rising, the mechanical lock will automatically engaged so as to avoid sudden drop down caused by failure of hydraulic system.

Besides, designs like, 24V working voltage of control box and limit switch, low-height alarming buzzer, anti-surge valves, etc have fully considered your personal security.

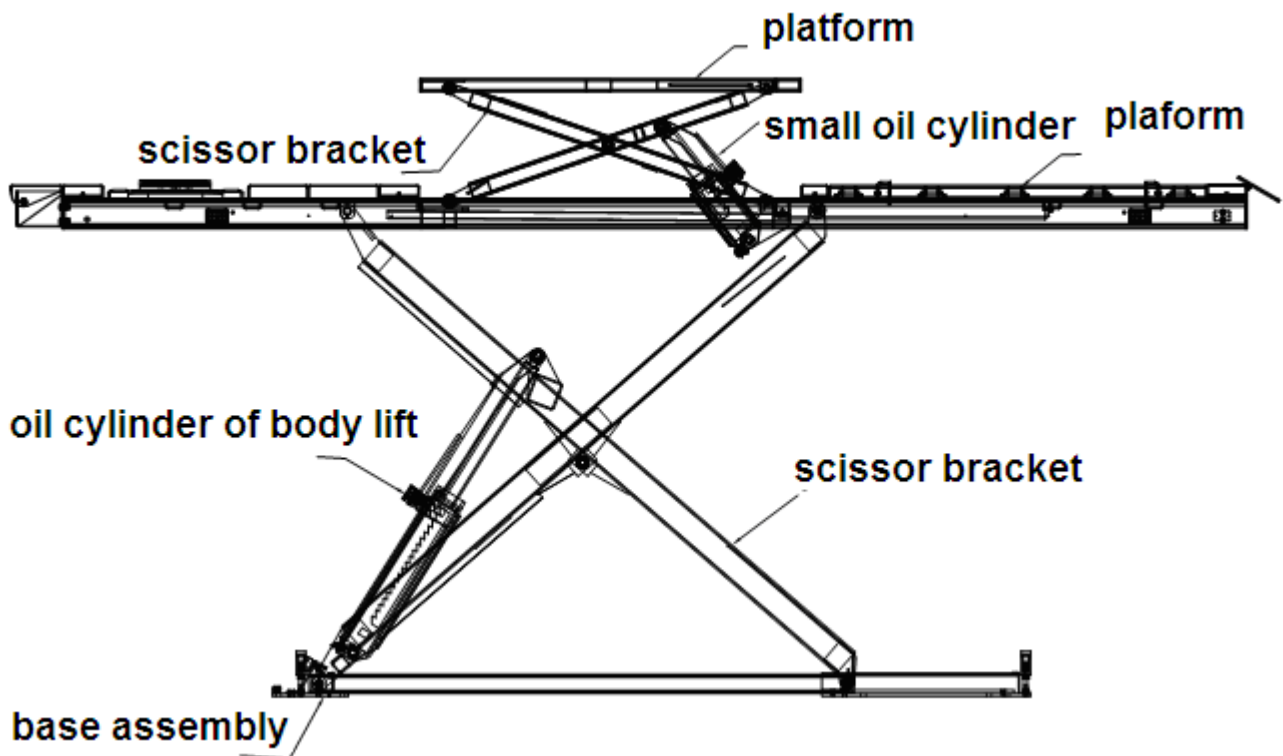
Safety structure:



2.2 Technical data

Model	Lifting capacity	Lifting time	Lifting height	Electrical requirement
EE-6603B	3.5T、4.2T、5.0T	50S	1800mm	220V/240V, Single Phrase 380V/415V, Three Phrase

2.3 Construction of the lift



3. Installation instructions

3.1 Preparations before installation

3.1.1 Tools and equipments needed

- √ Electrical drill
- √ Open wrenches
- √ Screw drivers
- √ Adjustable spanner

3.1.2 List for parts checking ---Annex 1 (Packing list)

Unfold the package and check if any parts missed as per Annex 1. Do not hesitate to contact us in case any parts missed, but if you do not contact us and insist installing upon the lack of some parts, we 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 and minimum thickness of 200mm. In addition, newly built concrete ground must undergo more than 28days' cure and reinforcement.

3.2 Precautions for installation

3.2.2 Joints of oil hose and wiring must be firmly connected in order to avoid leakage of oil hose and looseness of electrical wires.

3.2.3 All bolts should be firmly screwed up.

3.2.4 Do not place any vehicle on the lift in the case of trial running.

3.3 Installation

Step1: Use a fork lift to place the machine at installation site as required. See **Annex 3** for space requirements on the installation site.

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Step 2: Connect the oil hose as per the diagram for oil hose connection .(This step is very important and it is quite necessary to understand the diagram of oil hose connection in Annex 4 before operation)

Step 3: Connect the pneumatic release system by the diagram of air hose connection in Annex 7.

Step 4; Connect the power supply and the two quick plugs of the limit switch.

Step 5: Pour 16 liters of anti-abrasion hydraulic oil into the oil tank. The level of oil shall be 10mm to 40mm distance from the top of the tank.(you may measure by the feeler attached on the cover of the tank)

Step 6: Leveling

Electrical leveling of platforms of body lift

1)Connect the power supply and switch on the power button on the control panel until the green indicator light shines.

2) Switch the option switch in the control unit to working condition and press the “UP”button for 30 seconds. Normally at least one of the platforms will rise at this movement. **(In the case the machine is equipped with three phase power supply and the motor works but the platform does not move upwards after the “UP”button has been pressed for 30 seconds, the operators needs to change the phase order of the motor’s wiring)**



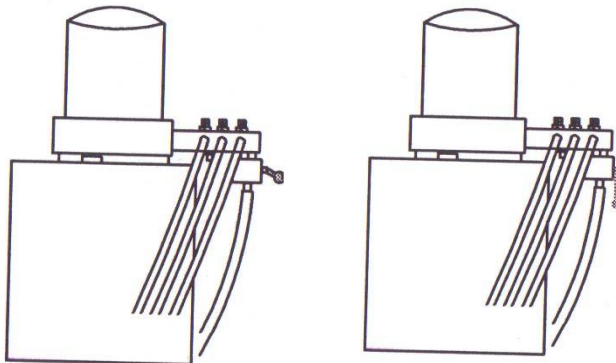
3)Switch the option switch to leveling condition

and now you can press “UP” or “DOWN” button to adjust the height of the assistant platform until it reaches the same height as the main platform.

Switch the option switch to working condition and press the “UP” and “DOWN” button to check the synchronization of the two platforms.

If synchronization is still not achieved, repeat the above leveling steps until synchronization reached.

Manual leveling of jacking beams



a. ball valve open

b. ball valve closed.

1) Turn switch on control panel, to JACK.

2) Open the manual ball valve.

3) Press UP button until both platform of the jack go utmost top to drive air out of cylinders.

4) Close the ball valve.

5) Press DOWN I, until jacks lower to the lowest position.

PRESS UP BUTTON TO CHECK. THE JACKS SHOULD BE SYNCHRONIZED BY THIS STEP.

IF STILL NOT,

Open again the ball valve, and press UP button.

Stop pressing, when two platforms are at same level.

Close the ball valve.

Press UP button and the two jacks should be synchronized.

3.4 Items to be checked after installation.

S/N	Check items	YES	NO
1	Are two platforms adjusted with the same level?		
2	Are oil hose tightly connected?		
3	Are all electric connections correct?		
4	Are valves of the pump unit oil tight?		

4. Operation instructions

4.1 Precautions

4.1.1 Check all the joints of oil hose. Only when there is no leakage, the lift can start work.

4.1.2 The lift, if its safety device malfunctions, shall not be used.

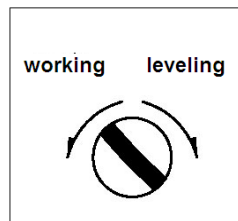
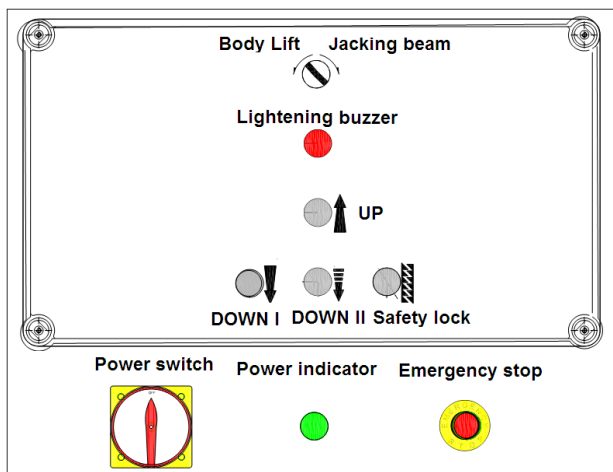
4.1.3 The machine shall not lift or lower an automobile if its center of gravity is not positioned midway of the rising platforms. Otherwise, we as well as our dealers will not bear any responsibility for any consequence resulted thereby.

4.1.4 Operators and other personnel concerned should stand in a safety area during lifting and lowering process.

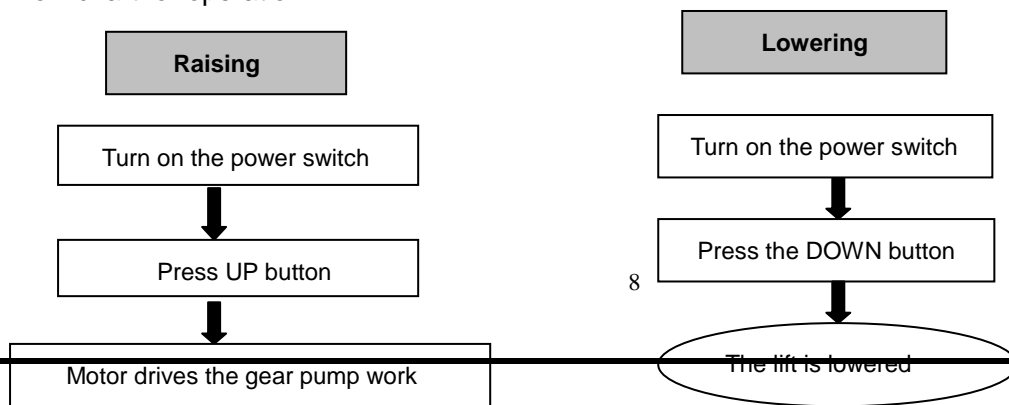
4.1.5 When platforms being raised to the desired height, switch off the power at once to prevent any wrong operation done by unconcerned people.

4.1.6. Make sure the safety lock of the lift is engaged before start working under the vehicle and no people under the vehicle during lifting and lowering process.

4.2 Descriptions of control box



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. Drive and park the vehicle midway between two platforms.
3. Place the four rubber pads under the prop-points of the vehicle and ensure car's gravity have fallen on the rubber pads.
4. Press 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 down the safety lock button to ensure the mechanical safety lock is engaged. Press the "Emergency Stop " and check again the stability before performing maintenance or repair work,

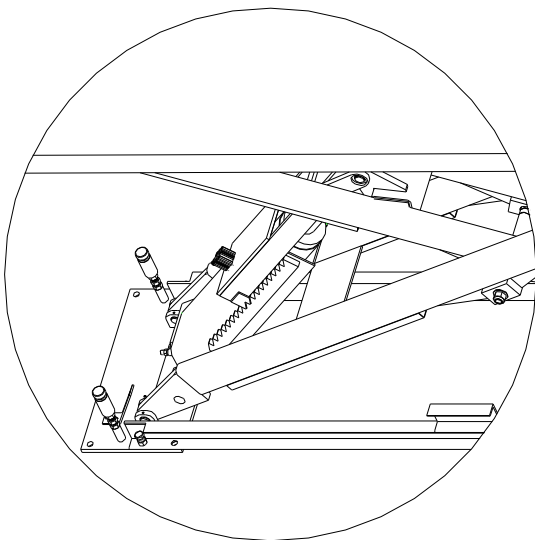
Lower the lift

1. Switch on.
2. Press the DOWN I button to lower the lift. It will stop lowering when clearance between the platforms and the ground reached to 500mm.
3. Press DOWN II button to continue lowering the platforms. Alarming buzz will be heard unless you stop pressing DOWN II.
4. Drive the vehicle away

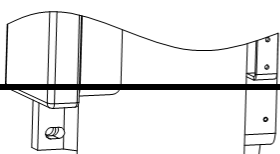
4.5 Emergency lowering in case of no power

Pneumatic lock is not engaged

1. Pull up the safety teeth with steel rope to release the safety lock.

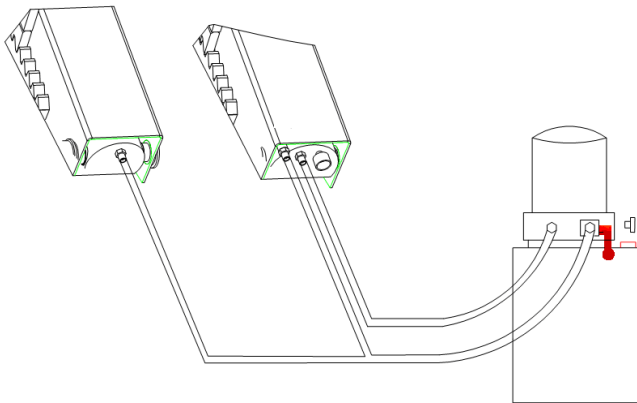


2. Screw loose the core of the solenoid unloading valve fixed on the hydraulic block.

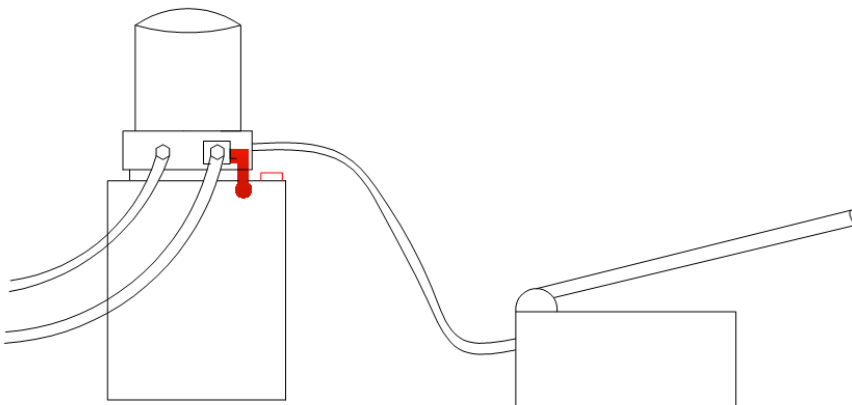


Pneumatic safety lock is engaged.

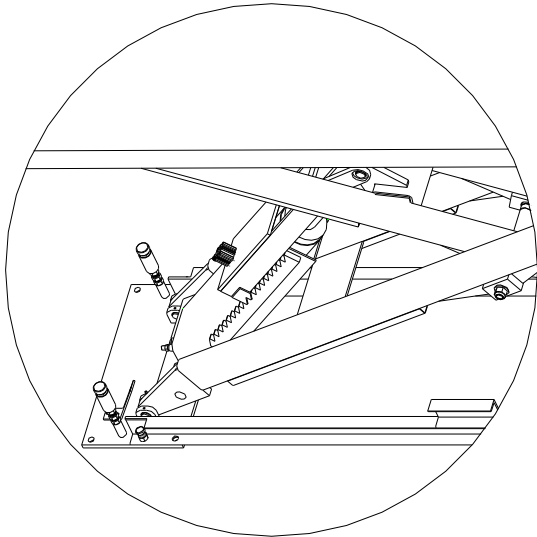
1. Take down the removable plug from the hydraulic block.



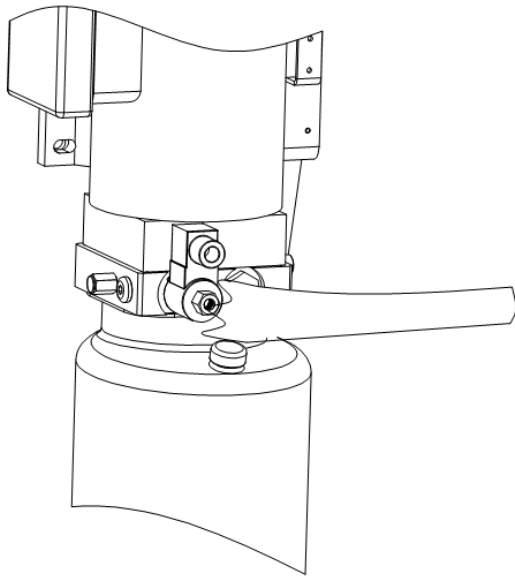
2. Connect the optional hand pump to hydraulic block at the point where the removable plug used to be fitted.



3. Press the handle of the optional hand pump to raise the platform to have the safety teeth unlocked. Then, pull up the safety teeth with steel rope to release the safety lock.



4. Screw loose the core of solenoid unloading valve fixed on the hydraulic block.



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
Motor does not run and will not raise	The wire connection is loose.	Check and make a good connection.
	The motor is burnt	Replace it.
	The limit switch is damaged or the wire	Connect it or adjust or replace the limit
Motor runs but will not raise	The motor run reversely.	Check the wire connection.
	Overflow valve is loose or jammed.	Clean or adjust it.
	The gear pump is damaged.	Replace it.

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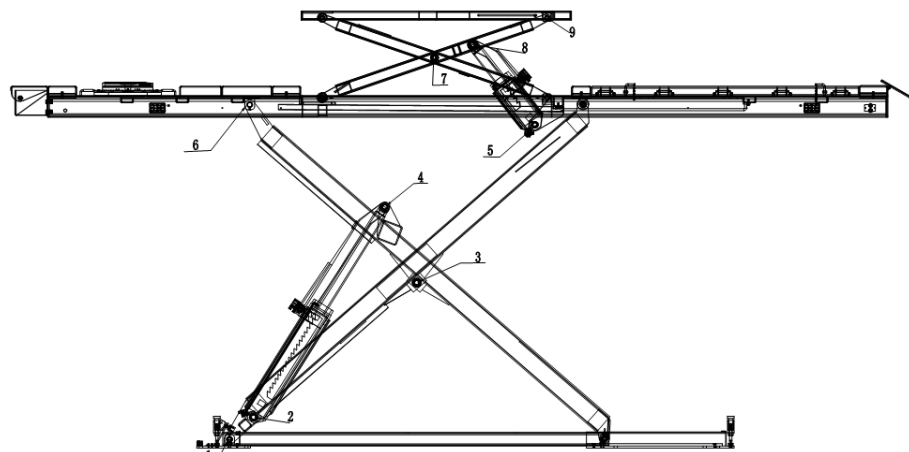
	Oil level is too low.	Add oil.
	The oil hose became loose or dropped off.	Tighten it.
	The cushion valve became loose or jammed.	Clean or adjusts it.
Platforms go down slowly after being raised	The oil hose leaks.	Check or replace it.
	The oil cylinder is not tightened.	Replace the seal.
	The single valve leaks.	Clean or replace it.
	The overflow valve leaks.	Clean or replace it.
	Electrical unloading valve leaks.	Clean or replace it.
Raising too slow	The oil filter is jammed.	Clean or replace it.
	Oil level is too low.	Add oil.
	The overflow valve is not adjusted to the right	Adjust it.
	The hydraulic oil is too hot (above 45°).	Change the oil.
	The seal of the cylinder is abraded.	Replace the seal.
Lowering too slow	The throttle valve jammed.	Clean or replace.
	The hydraulic oil is dirty.	Change the oil.
	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	Name
1	Shaft
2	Rotor shaft
3	Rotor shaft
4	Rotor shaft
5	Rotor shaft
6	Rotor shaft
7	Pin shaft
8	Rotor shaft



6.1. Daily checking items before operation

The user must perform 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 whether oil hose well connected. No leakage is allowed.
- Check the electric connections .Make sure all connections are in good condition.
- Check whether the expansion bolts well anchored .
- Check if safety teeth and safety block matched well or not.

6.2. 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.
- Check whether the expansion bolts well anchored.

6.3. Monthly checking items

- Check whether the expansion bolts well anchored.
- Check the tightness of the hydraulic system and screw firm the joints if it leaks.
- Check the lubrication and abrasion circumstance of moving parts.

6.4. Yearly checking items

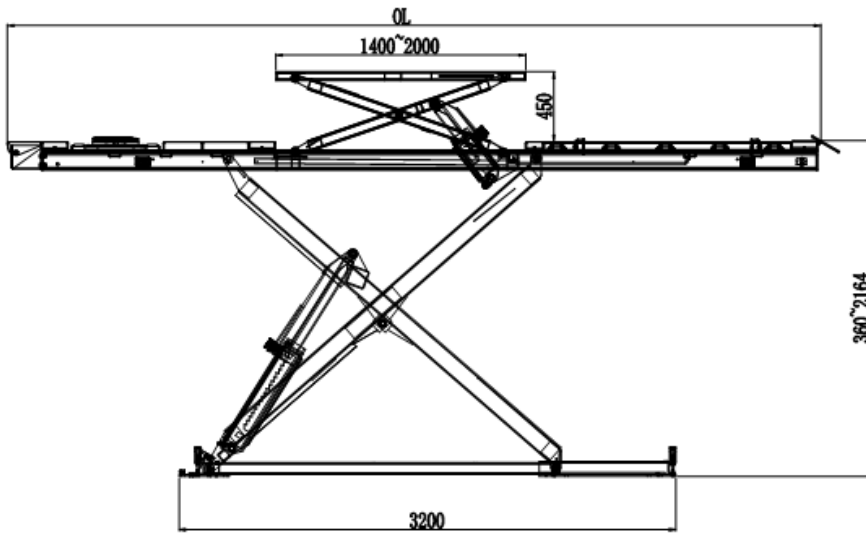
- Empty the oil tank and check the quality of hydraulic oil.
- Wash and clean the oil filter.

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**

1	6603B vehicle lift	6603-00	Assembly	1
2	Expansion bolt M16*120		Standard	12
3	Control unit		Assembly	1

Annex2, Overall diagram

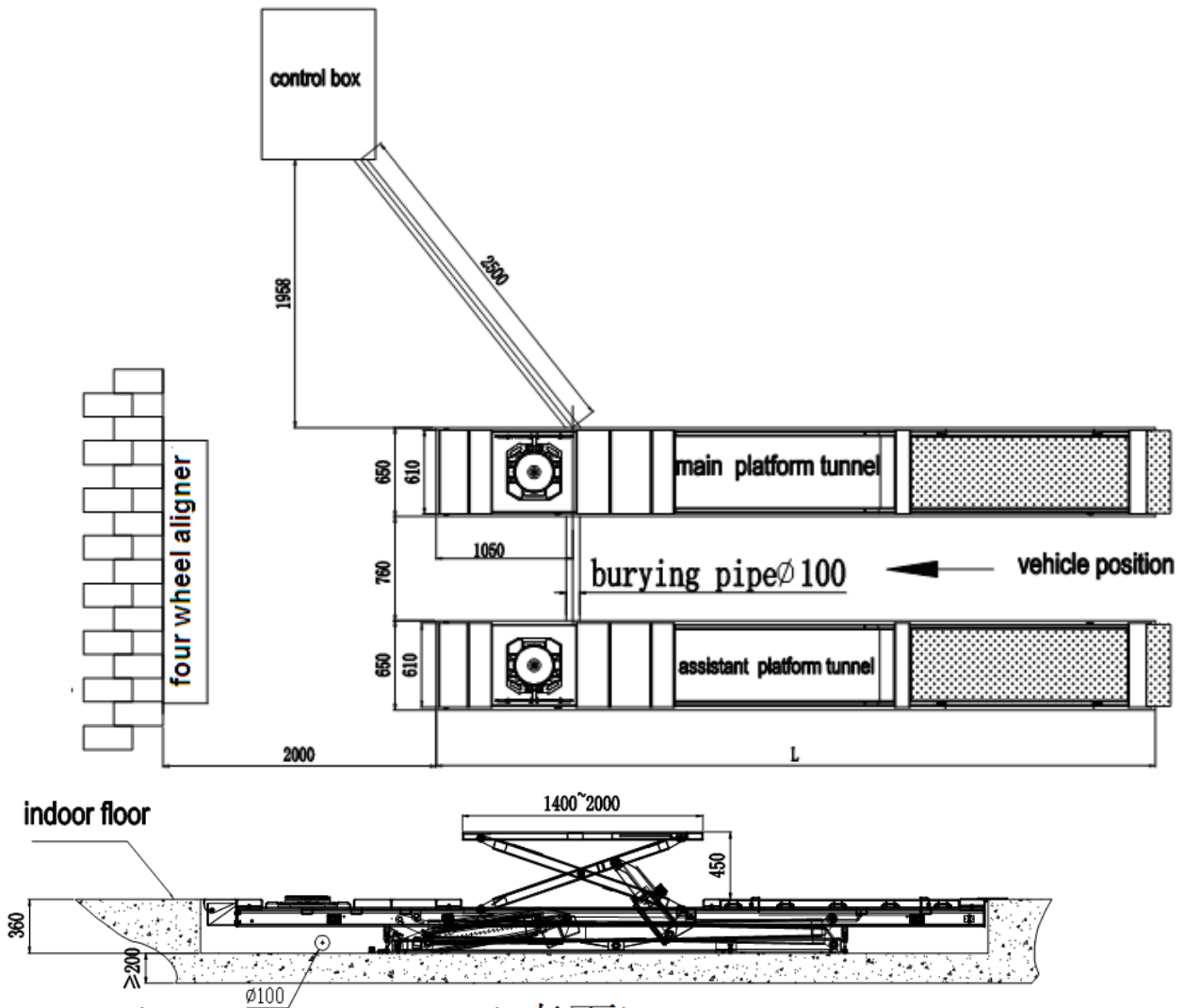


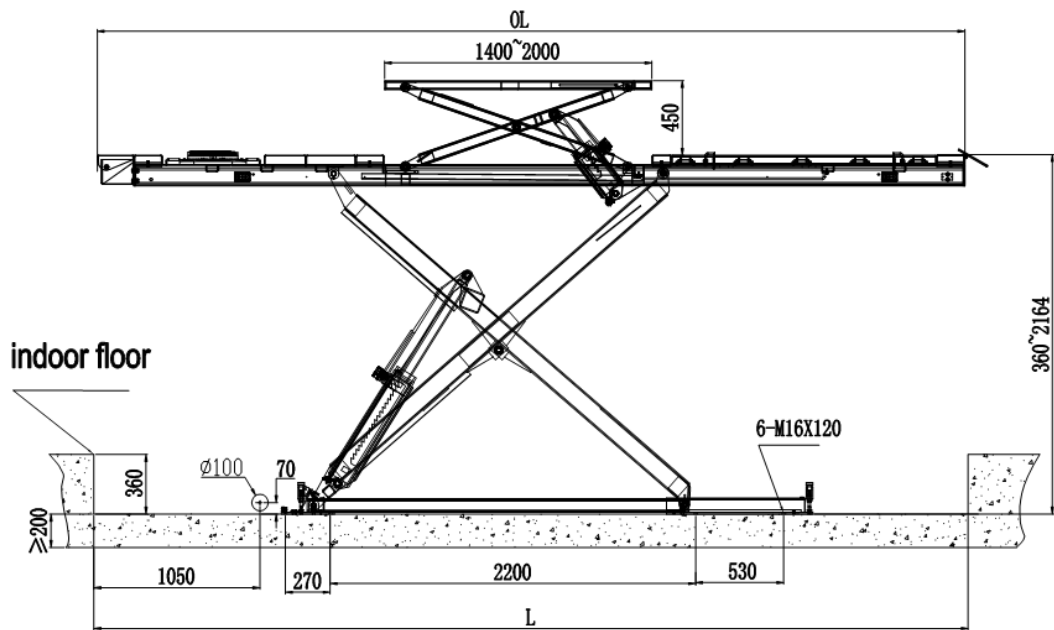
Specification	Lifting capacity	PW	RL	OL	L	Length of Jack
EE-6603B.42L	3500KG	600	4200	4440	4480	1400~2000
EE-6603B.46L			4600	4840	4880	
EE-6603B.46L	4200KG		4600			

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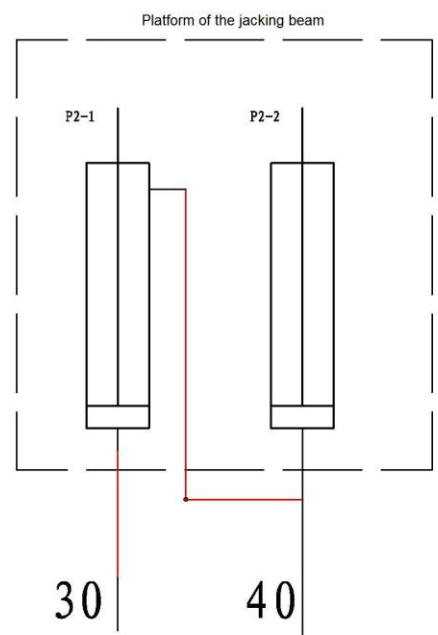
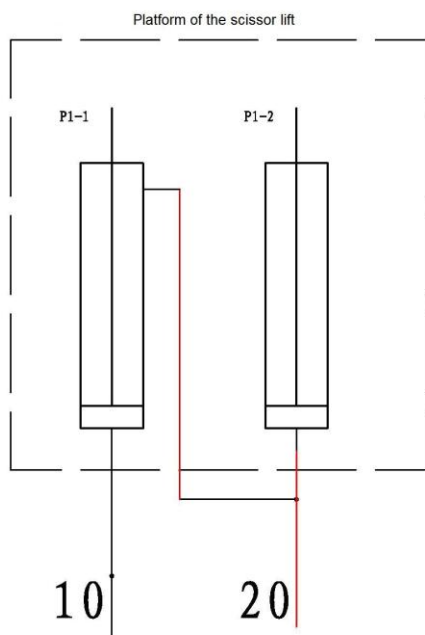
EE-6603B.48L		4800	5040	5080
EE-6603B.51L		5100	5340	5380
EE-6603B.51L	5100KG	5100		

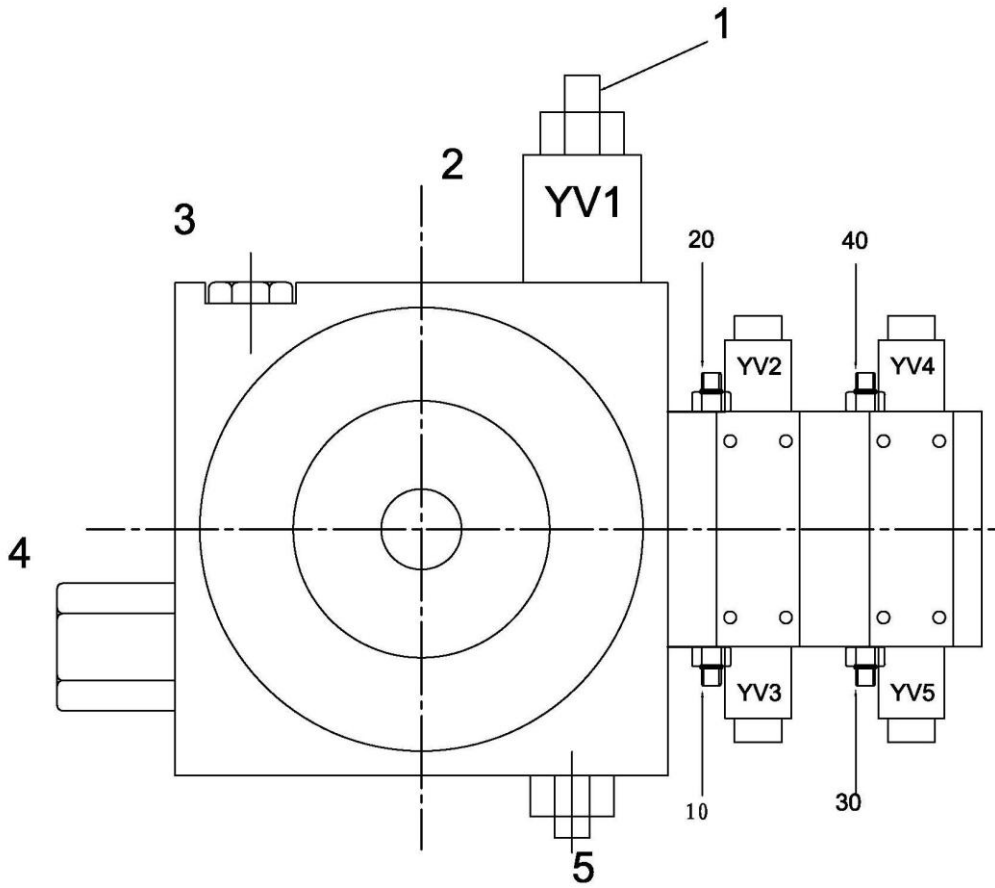
Annex3, Diagram for ground fixing





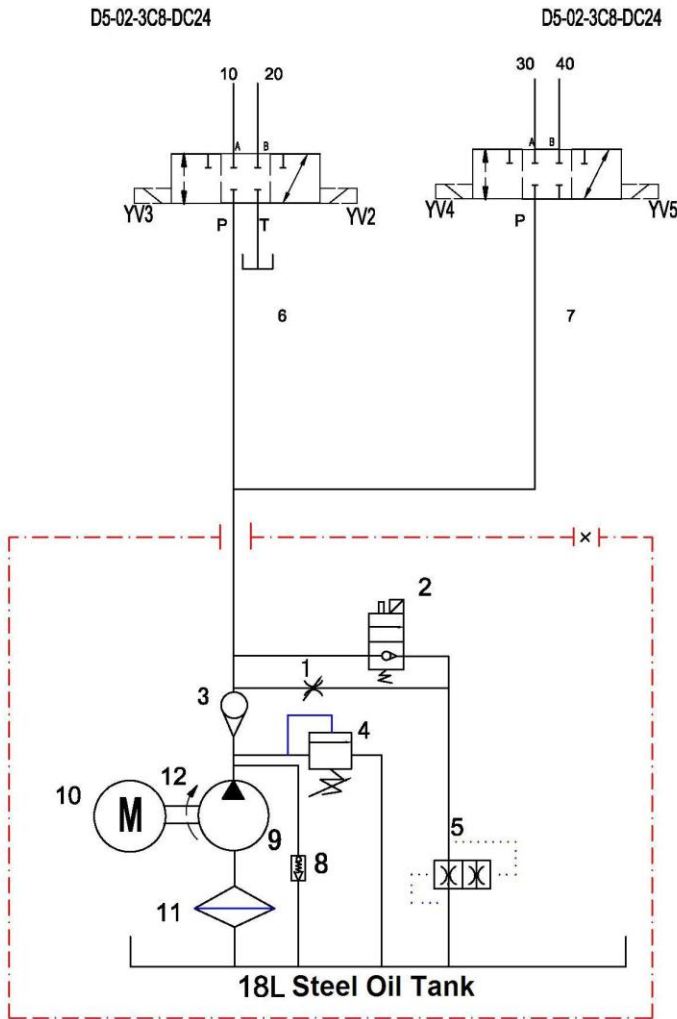
Annex 4, Diagram for oil hose connection



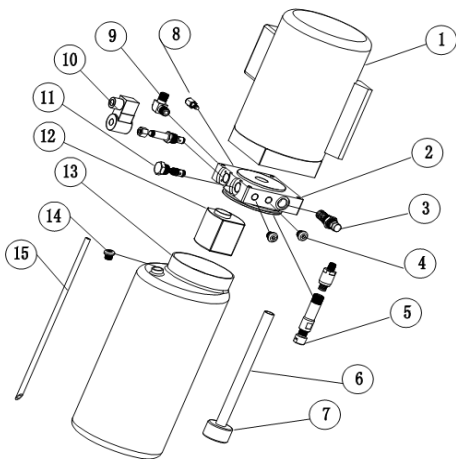


Annex 5, Hydraulic working system

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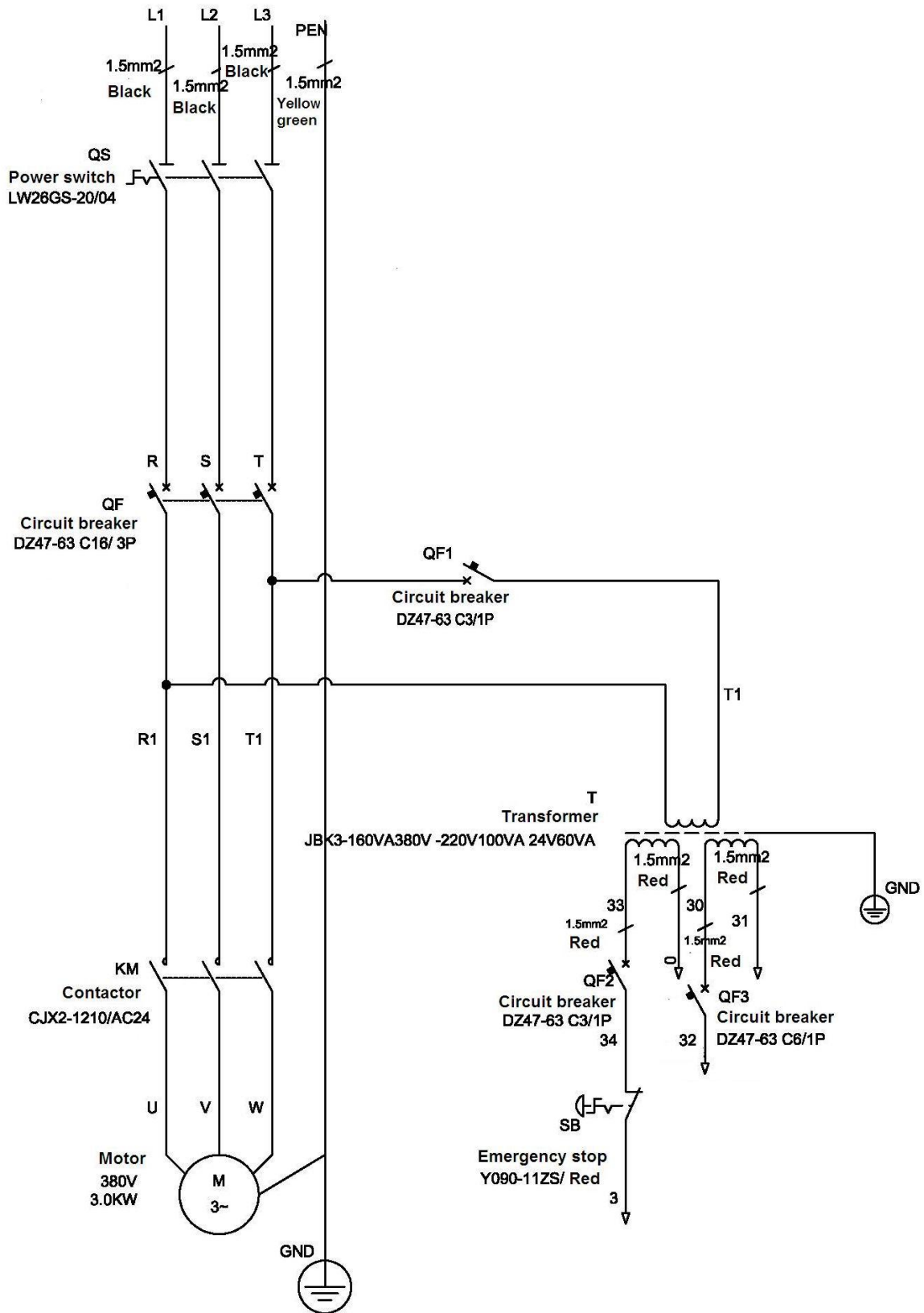


1. Emergent unloading valve
2. Electrical unloading valve
3. Single-way valve
4. Overflow valve
5. Lowering throttle valve
6. Solenoid valve
7. Solenoid valve
8. Cushion valve
9. Gear pump
10. Motor
11. Oil filter
12. Coupling

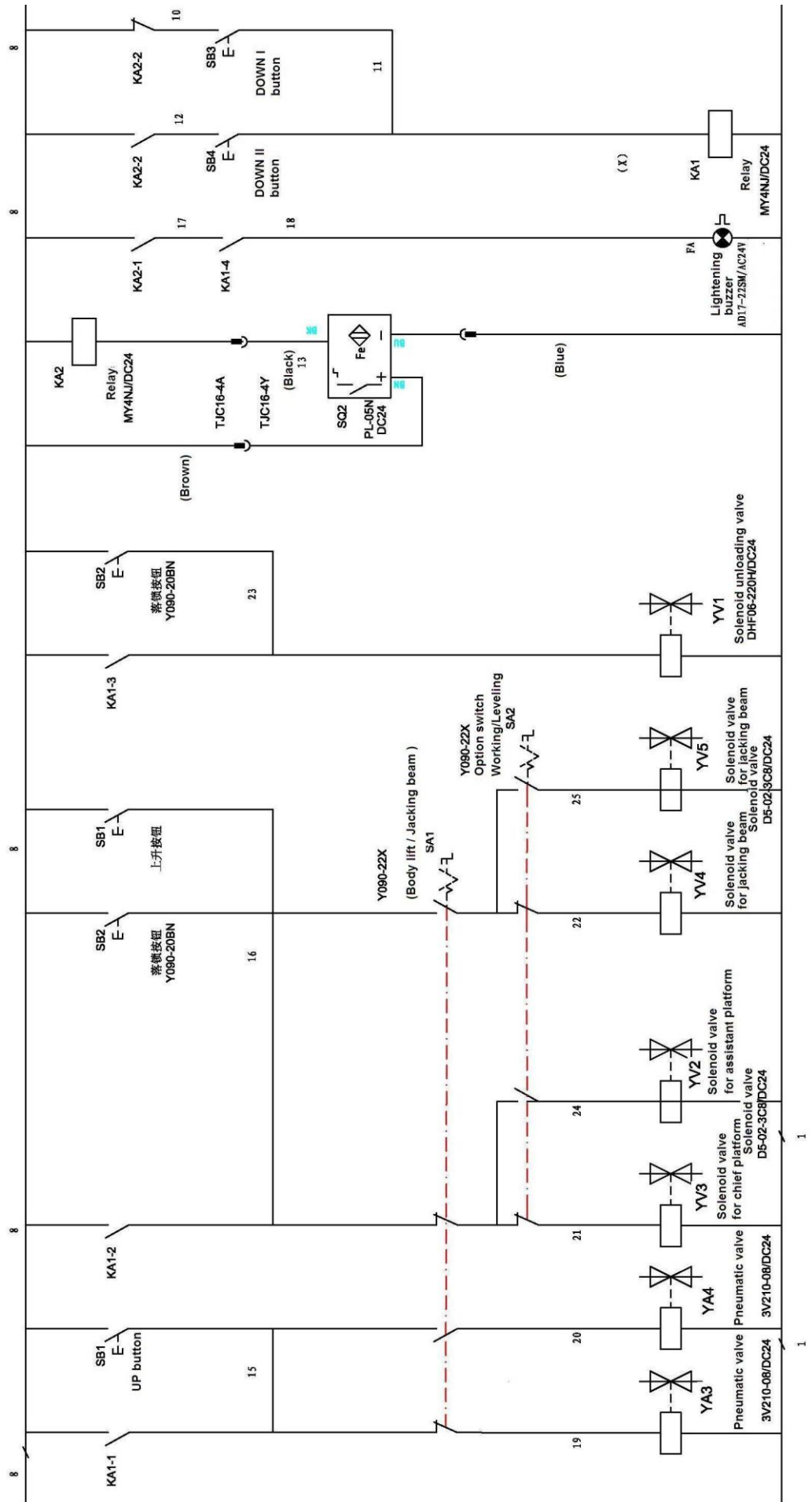


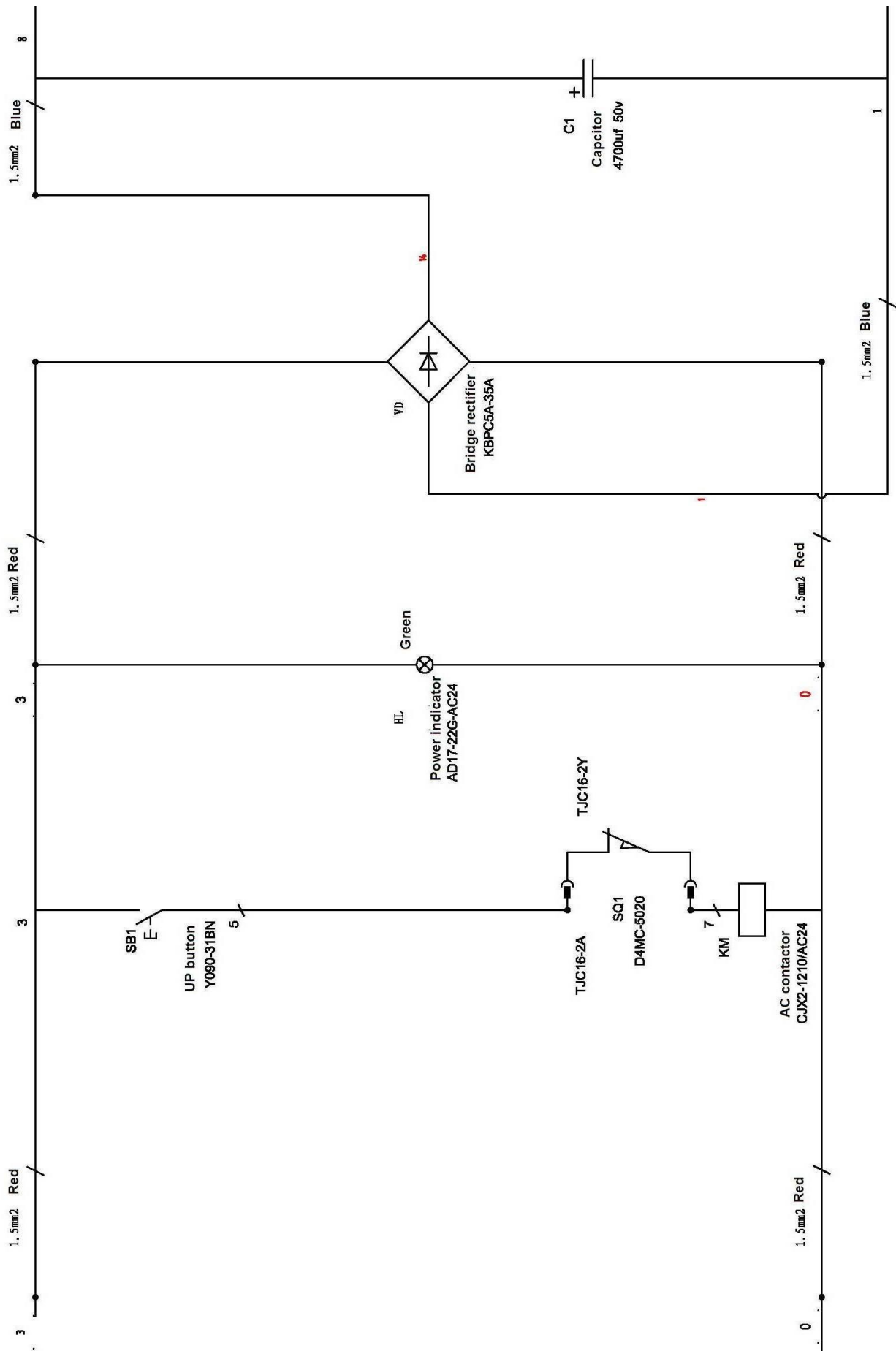
S/N	DESCRIPTION	QTY
1	Motor	1
2	Hydraulic block	1
3	Overflow valve	1
4	Fitting	2
5	Cushion valve	1
6	Absorbing oil hose	1
7	Oil filter	1
8	Throttle valve	1
9	Oil hose tie-in	1
10	Electrical unloading valve	1
11	One-way valve	1
12	Gear pump	1
13	Oil tank	1
14	Oil tank cover	1
15	Oil back hose	1

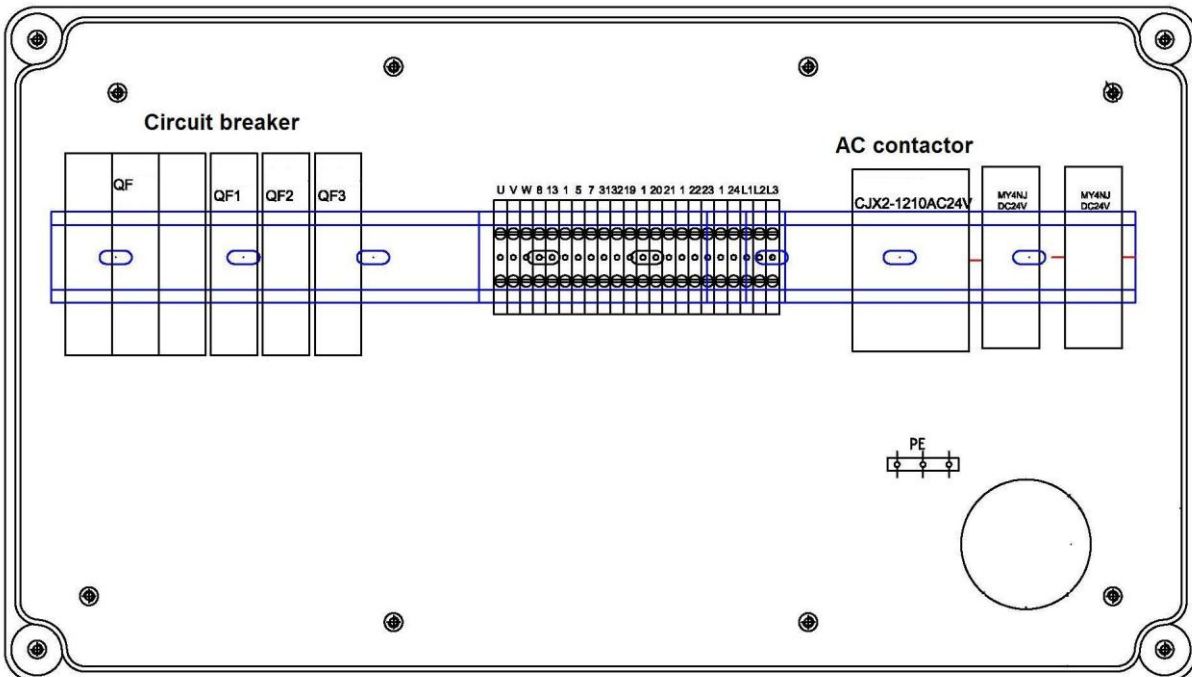
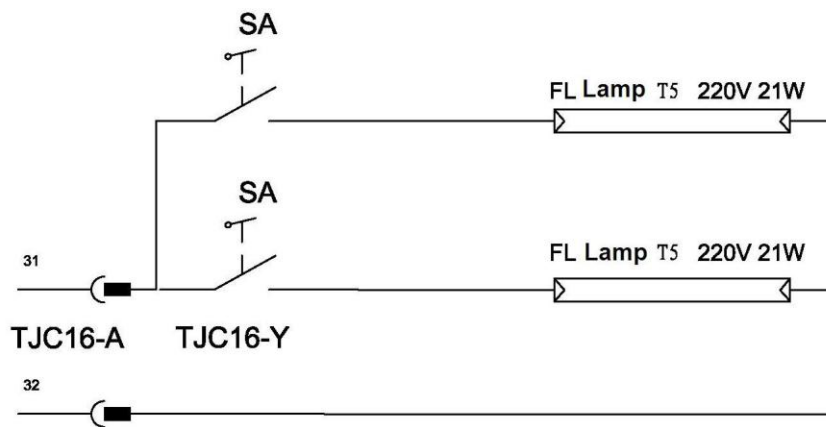
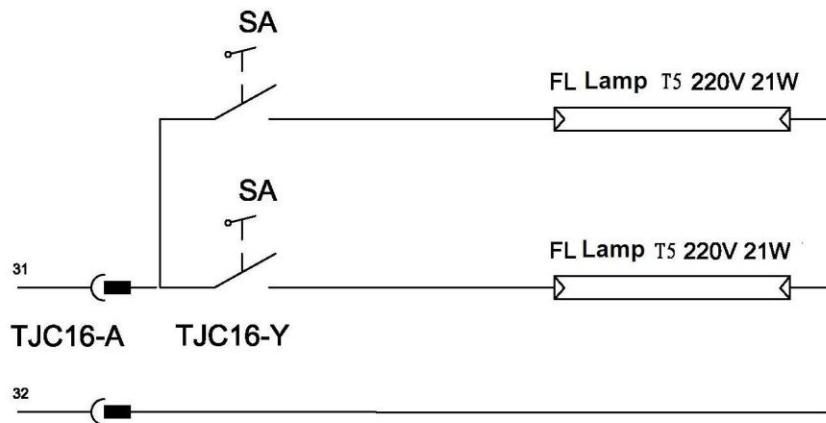
Annex6, Wiring diagram



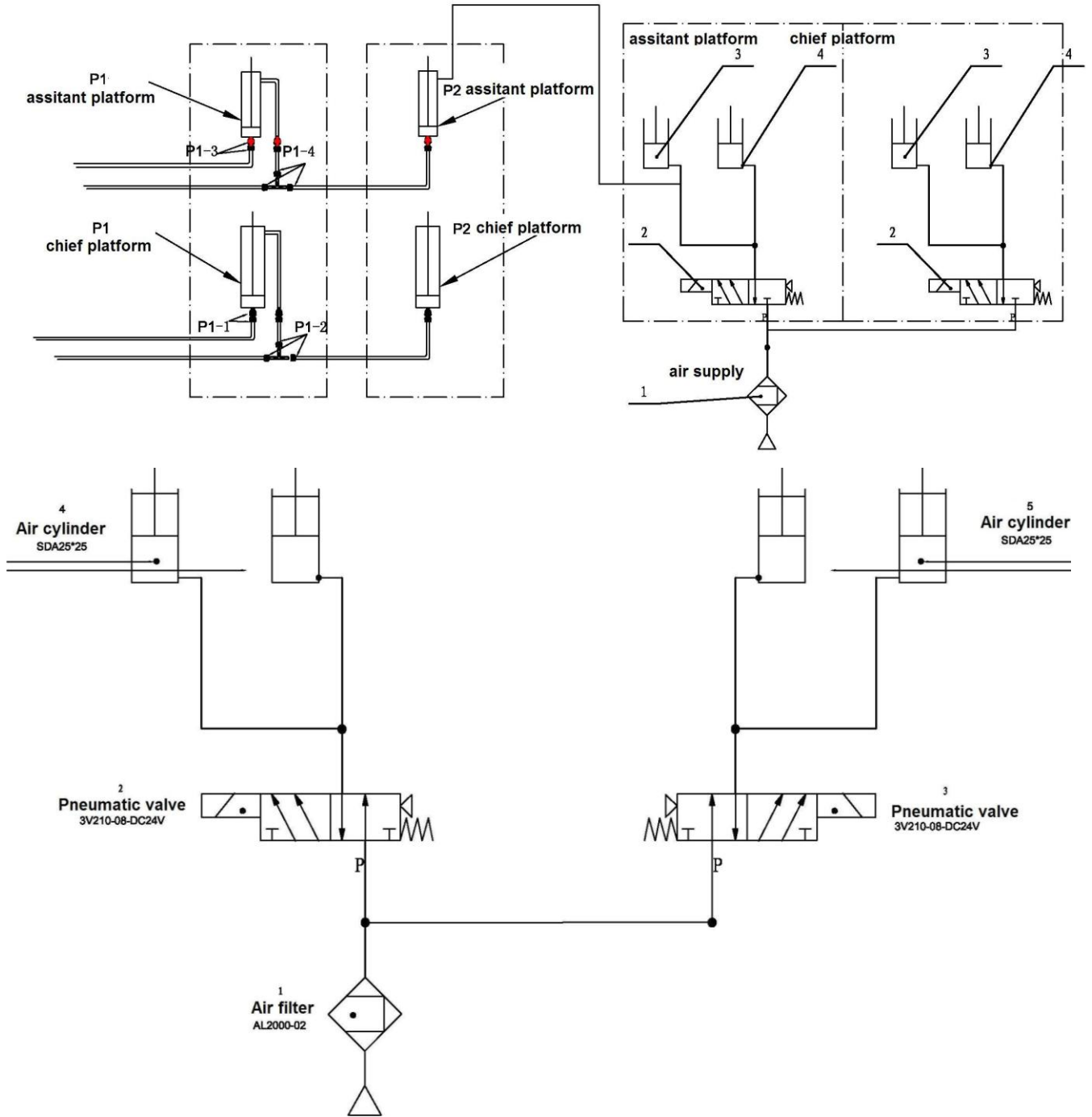
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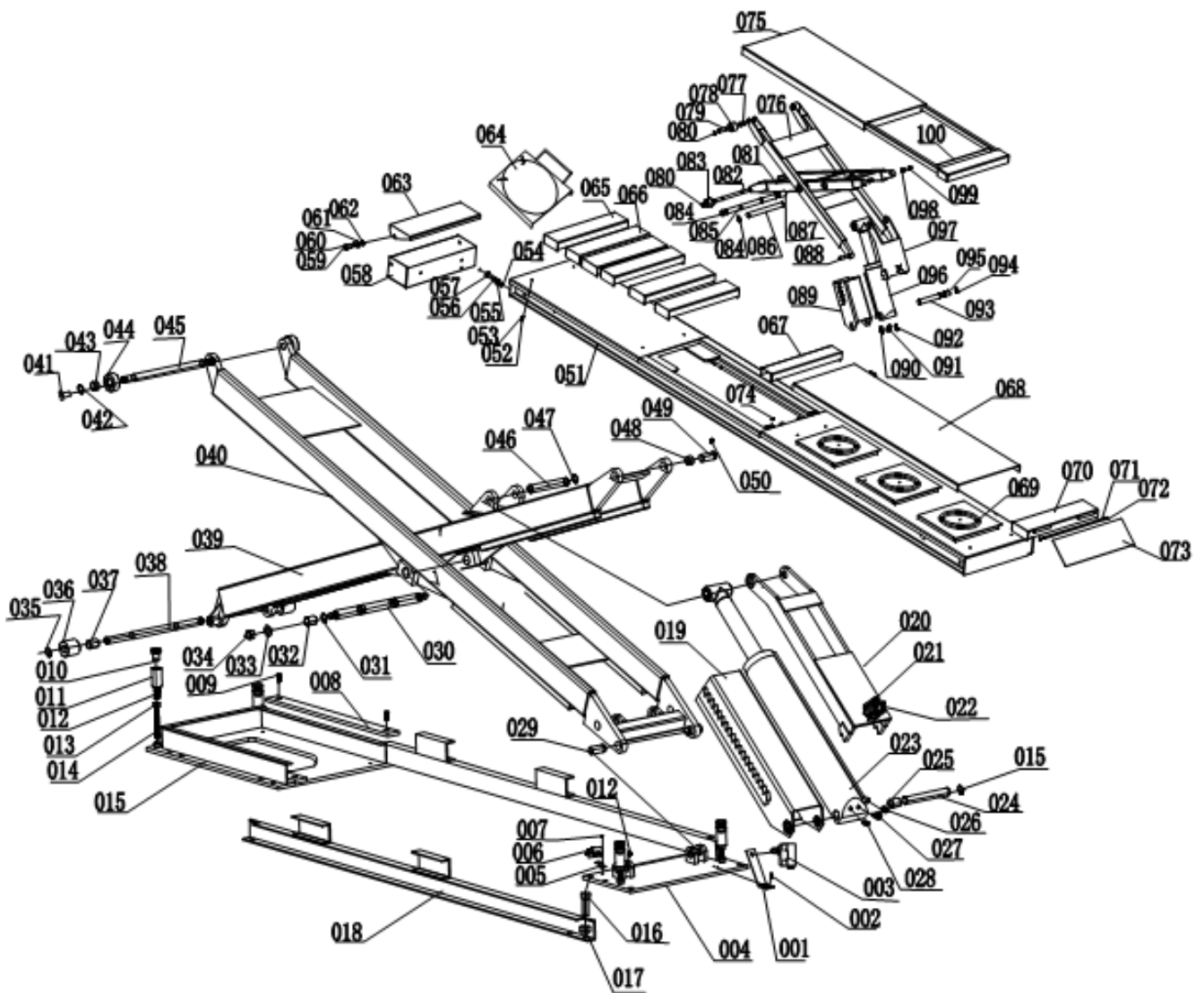




Annex7, Diagram for air supply connection



Annex 8, Separate diagrams for the lift



S/N	Material#	Name	Drawing#/Size	Qty	Note
001	426117	Bracket A for limit switch	6603-A7-B11	1	
002	211043	Inside hex bolt	M5*20	2	
003	321004	Limit switch	D4MC-5020	1	
004	626017	Base plate A	6603-A7-B9	2	
005	426118	Fixing plate for limit switch	6603-A7-B12	1	
006	321016	Proximity switch	PL-05N	1	
007	215016	Cross round headed bolt	M6*10	2	
008	250060	Guiding track	6603-A7-B7	4	
009	214014	Cross sunken headed bolt	M10*25	8	
010	250032	Cushion head	6603-A7-B1-C3	8	
011	250027	Cushion holder	6603-A7-B1-C1	8	
012	250037	Spring	6603-A7-B1-C2	8	
013	216023	Nut	M16	8	
014	230004	Stud	M16*120	8	

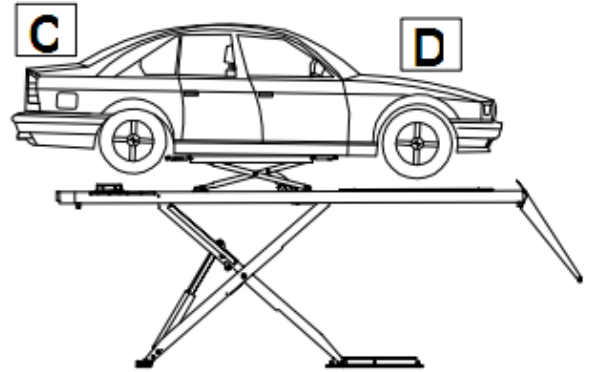
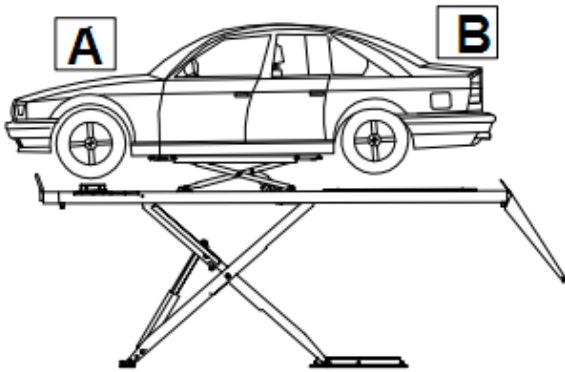
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S/N	Material#	Name	Drawing#/Size	Qty	Note
015	626016	Left base plate	6603-A7-B6	2	
016	212014	Outside hex bolt	M16*50	8	
017	216023	Nut	M16	8	
018	426115	Steel slot B of base holder	6603-A7-B8	4	
019	626012	Sheath of driving oil cylinder	6603-A6-B3	2	
020	626023	Safety lock	6603-A6-B5	2	
021	211017	Inside hex bolt	M5*45	8	
022	223003	Air cylinder	CQ2B32*20	2	
023	250009	Driving cylinder	6603-A6-B1	2	
024	250047	Down shaft	6603-A6-B6	2	
025	220016	Bushing 3040	SF-1	4	
026	250007	Connector B	6603-A9-B8	2	
027	246039	Connector of handle pump	6603-A9-B5	1	
028	221004	Throttle valve	EEB-QJT-002	1	
029	250012	Rotor shaft	6603-A5-B1	4	
030	250053	Pin shaft	6603-A5-B5	2	
031	219008	Circlip		4	
032	220019	SF-1	Bushing 3560	4	
033	217009	Flat washer	M24	4	
034	216024	Self-lock nut	M24	4	
035	219002	Circlip		4	
036	250002	Down rotor wheel	6603-A5-B8	4	
037	220033	Bushing 2560	SF-1	4	
038	250049	Down shaft	6603-A5-B4	2	
039	626011	Scissor bracket A	6603-A5-B2	2	
040	626018	Scissor bracket B	6603-A5-B3	2	
041	251041	Padding block	6603-A5-B6	4	
042	219002	Circlip		4	
043	220021	Bushing 2525	SF-1	4	
044	250001	Up rotor wheel	6603-A5-B4	4	
045	250051	Up rotor wheel	6603-A5-B7	2	
046	251014	Up shaft of oil cylinder	6603-A4-B12	2	
047	219005	Circlip		18	
048	220005	Bushing 3025	SF-1	4	
049	250012	Rotor shaft	6603-A5-B1	4	
050	227003	Inside hex tightening bolt	M6*10	16	
051	626020	Left platform	6603-A4-B11	2	
052	211033	Inside hex bolt	M8*25	16	
053	217002	Flat washer	M8	16	
054	212012	Outside hex bolt	M12*30	8	
055	218005	Spring washer	M12	8	
056	217005	Flat washer	M12	8	
057	216006	Nut	M12	8	
058	626004	Box A	6603-A04-B01	2	
059	212032	Outside hex bolt	M16*30	4	
060	218001	Spring washer	M16	4	
061	217011	Flat washer	M16	4	
062	216008	Nut	M16	4	
063	626005	Box B	6603-A4-B2	2	

VEHICLE LIFT SPECIALIST

S/N	Material#	Name	Drawing#/Size	Qty	Note
064	250501	Turn table	400*400	2	
065	626006	Box C	6603-A4-B3	4	
066	626008	Box E	6603-A4-B5	8	
067	626009	Box F	6603-A4-B6	2	
068	626024	Side slip assembly	6603-A4-B7	2	
069	262011	Rotor ball holder		6	
070	626031	Box I	6603-A04-B14	2	
071	250030	Rotor shaft	6603-A04-B09-C04	2	
072	219004	Circlip Φ 12		2	
073	626025	Trans- plate	6603-A04-B09	2	
074	227003	Tightening bolt M6*10		8	
075	626002	Small platform (welding)	6603-A1-B2	2	
076	626015	Rotor arm B of the jack	6603-A2-B2	2	
077	220032	Bushing 2038	SF-1	4	
078	250042	Rotor wheel of the jack	6603-A02-B04	4	
079	250045	Rotor shaft A	6603-A02-B05	4	
080	219006	Circlip Φ 20		8	
081	626014	Rotor shat A	6603-A2-B1	2	
082	250046	Shaft B	6603-A02-B07	2	
083	250028	Down sheave	6603-A02-B06	4	
084	219005	Circlip Φ 30		4	
085	250048	Pin shaft	6603-A02-B10	2	
086	250052	Shaft of oil cylinder	6603-A02-B03	2	
087	220041	Bushing 3055	SF-1	4	
088	251056	Rotor shat B	6603-A02-B08	4	
089	626030	Driving cylinder of the jack	6603-A03-B03	2	
090	250006	Right-angle tie-in	EEB-WJT-002	2	
091	221004	Right angle tie-in of the hand	EEB-QJT-002	1	
092	250006	Right angle tie-in	EEB-WJT-002	1	
093	250054	Down shaft of small oil cylinder	6603-A03-B07	2	
094	219005	Circlip Φ 30		4	
095	220016	Bushing 3040	SF-1	4	
096	250011	Driving cylinder of the jack	6603-A03-B01	2	
097	626003	Safety lock of the jack	6603-A03-B06	2	
098	220031	Bushing 2022	SF-1	4	
099	250055	Rotor shaft A	6603-A02-B09	4	
100	626001	Platform	6603-A1-B1	2	

Annex9 , Weight distribution requirements on the vehicles



Model	A (T)	B (T)	C (T)	D (T)
EE-6603B.35T	2.1	1.4	1.4	2.1
EE-6603B.4.0T	2.4	1.6	1.6	2.4
EE-6603b.5.0T	3.0	2.0	2.0	3.0