

Model No. RLX4.2EXS/RLX5EXS/RLX5EXA

Long platform scissor lift,

Recessed Installation

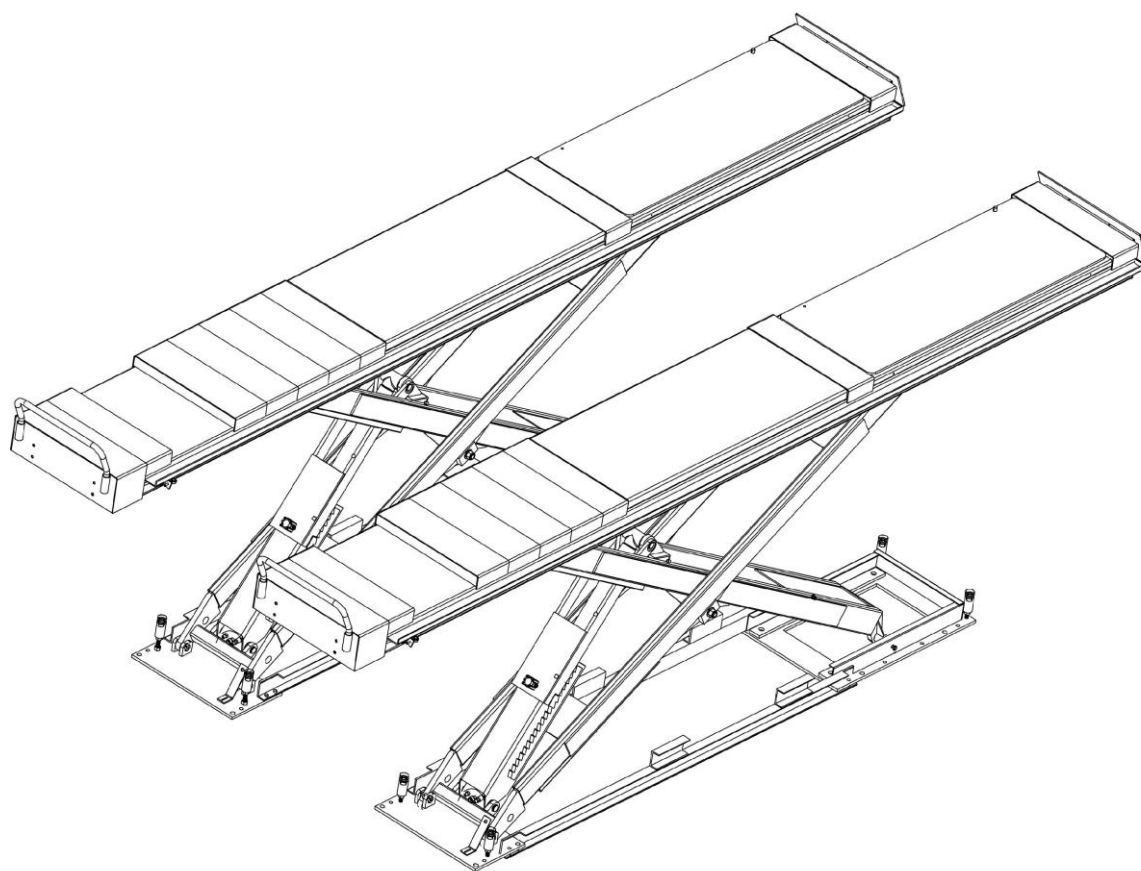
Manual Levelling

With synchronization protection

Lifting Capacity 4200KG/ 5000KG

**Installation, Operation
and Parts Manual**

ROVER LIFTS



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

Date: 20/11/2024

IMPORTANT NOTES

Before start up, connecting and operating ROVER LIFTS products, it is absolutely essential that the operating instructions/owner's manual and, in particular the safety instructions are studied carefully. By doing so you can eliminate any uncertainties in handling ROVER LIFTS products and thus associated safety risks up front; something which is in the interest of you own safety and will ultimately help avoid damage to the device, When an ROVER LIFTS product is handed over to another person, not only the operating instructions but also the safety instructions and information on its designated use must be handed over to the person.

By using the product you agree the following conditions:

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It is not permissible to make any changes to our products and these are not only to be used together with genuine accessories and genuine replacement parts. Otherwise any warranty claims will be invalid.

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The liability of ROVER LIFTS is limit to the amount that the customer has actually paid for this product. This exclusion of liability does not apply to damages caused through willful misconduct or gross negligence on the part of ROVER LIFTS.

All information in this manual is believed to be correct at time of publication.

ROVER LIFTS reserves the right to amend and alter technical data and composition without prior notice.

Please confirm at time of ordering.

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SAFETY NOTES

1.1 Operation of lifting platforms

This lift is specially designed for lifting motor vehicles. Users are not allowed to use it for any other purposes. The applicable national regulations, laws and directives must be observed.

Only users aged 18 or above who have been instructed on how to operate the lifting platform and have proven their ability to do so to the owner are to be entrusted with unsupervised operation of lifting platforms. The task of operating the lifting platforms must be granted in writing.

Before loading a vehicle onto the lifting platform, users should study the original operation instructions and familiarize themselves with the operating procedures in several trial runs.

Lift vehicle within the rated load. Don't attempt to raise vehicles with excessive weight.

1.2 Checking of the lifting platforms

Checks are to be based on the following directives and regulations:

- Basic principles for testing lifting platforms
- The basic health and safety requirements stipulated in the directive 2006/42/EC
- Harmonized European standards
- The applicable accident prevention regulations

The checks are to be organized by the user of the lifting platform. The user is responsible for appointing an expert or qualified person to perform checking. It must be ensure that the person chosen satisfies the requirements.

The user bears special responsibility if employees of the company are appointed as experts or qualified persons.

1.2.1 Scope of checking

Regular checking essentially involves performing a visual inspection and a functional test. This includes checking the condition of the components and equipment, checking that the safety systems are complete and functioning properly and that the inspection log book is completely filled in. The scope of exceptional checking depends on the nature and extent of any structural modification or repair work.

1.2.2 Regular checking

After initial commissioning, lifting platforms are to be checked by a qualified person at intervals of not longer than one year.

A qualified person is somebody with the training and experience required to possess sufficient knowledge of lifting platforms and who is sufficiently familiar with the pertinent national regulations, accident prevention regulations and generally acknowledged rules of engineering to be able to assess the safe operating condition of lifting platforms.

1.2.3 Exceptional checking

Lifting platforms with a lift height of more than 2 meters and lifting platforms intended for use with people standing under the load bearing elements of the load are to be checked by an expert prior or reuse following structural modifications and major repairs to load bearing components.

An expert is somebody with the training and experience required to possess specialist knowledge of lifting platforms and who is sufficiently familiar with the pertinent national work safety regulations, accident prevention regulations and generally acknowledged rules of engineering to be able to check and give an expert opinion on lifting platforms.

1.3 Important safety notices

1.3.1 Recommend for indoor use only. DO not expose the lift to rain, snow or excessive moisture.

1.3.2 Only use this lift on a surface that is stable and capable of sustaining the load. Do not install the lift on any asphalt surface.

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

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

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

1.3.6 Only these properly trained personnel can operate the lift.

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

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

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

1.3.10 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.

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

1.3.12 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.

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

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

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

- a. Disconnect the power;
- b. Empty the oil tank;
- c. Lubricate the moving parts with hydraulic oil.

WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

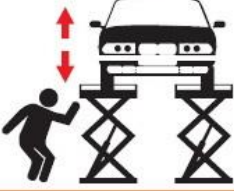
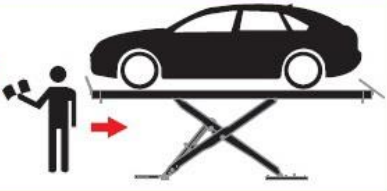
Attention: For environment protection, please dispose the disused oil properly.

1.4 Warning labels

All safety warning labels are clearly depicted on the lift to ensure that the operator is aware of and avoid 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 memories them for future operation.

SAFETY ADVICE

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	Only trained personnel are allowed to operate the lift.	
	Do not try to raise a vehicle exceeds the rated capacity.	
	Watch closely the vehicle during raising or lowering.	
	Make sure that two platforms are of equal height from the floor when safety teeth engaged.	
	Do not climb onto the lift platforms or raised vehicle during lifting or lowering.	
	Do not change the safety mechanism.	

1.5 Potential safety risks

1.5.1 Mains voltage



Insulation damage and other faults may result in accessible components being live

Safety measures:

- Only ever use the power cord provided or a tested power cord.
- Replace wires with damaged insulation.
- Do not open the operating unit.

1.5.2 Risk of injury, danger of crushing



In the event of excessive vehicle weight, incorrect mounting of the vehicle or on removing heavy object, there is a risk of the vehicle falling off the lifting platform or tipping up.

Safety measures:

- The lifting platform is only ever to be employed for the intended purpose.
- Carefully study and heed all the information given in Section 1.4.
- Observe the warning notices for operation.

1.6 Noise level

Noise emitted during operating the lift should be less than 70dB (A). For your health consideration, it is suggested to place a noise detector in your working area.

PACKING, STORAGE AND TRANSPORTATION

Packing, lifting, handling, transporting operations must be performed only by experienced personnel with appropriate knowledge of the lift and after reading this manual.

2.1 The lift was dismantled into 3 parts for transportation

Name	Packed by	Model	Dimension(cm)	Weight (kg)	Quantity
Control cabinet	Wooden case	Control cabinet	51*48*130	84	1
Power side platform	Carton with wooden base	*.42L.42T	463*65*46	900	1
		*.48L.42T	520*65*46	1000	
		*.51L.50T	550*65*46	1100	
The opposite platform	Carton with wooden base	*.42L.42T	463*65*46	900	1
		*.48L.42T	520*65*46	1000	
		*.51L.50T	550*65*46	1100	

2.2 Storage

The packs must be kept in a covered and protected area in a temperature range of -10°C to $+40^{\circ}\text{C}$. They must not be exposed to direct sunlight, rain or water.

Stacking the packs

We advise against stacking because the packs are not designed for this type of storage. The narrow base, heavy weight and large size of the packs make stacking difficult and potentially dangerous.

If stacking is unavoidable, use all appropriate precautions:

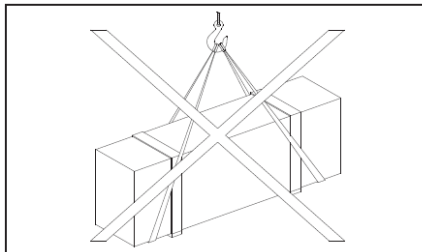
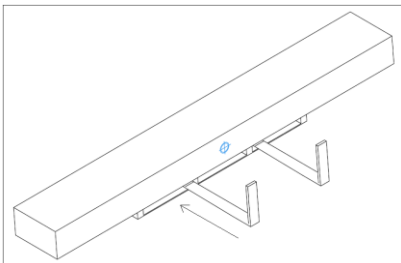
-never stack to more than 2 meters in height.

-never make stacks of single packs. Always stack pairs of packs in a cross pattern so that the base is bigger and the resulting stack is more stable. Once the stack is complete, restrain it using straps, ropes or other suitable methods.

A maximum of two packs can be stacked on lorries, in containers, and in railway wagons, on condition that the packs are strapped together and restrained to stop them falling.

2.3 Lifting and handling

The packs can be lifted and transported only by using lift trucks. The center of gravity and lashing points are marked on the packaging. Never attempt to hoist or transport the unit using lifting slings.



Opening the packs

When the lift is delivered make sure that it has not been damaged during transportation and that all the parts specified on the packing list are present.

Packs must be opened adopting all the precautions required to avoid injury to persons (keep at a safe distance when cutting the straps) or damage to parts of the machine (be careful that no parts are dropped while you are opening the packing)

Take special care with the hydraulic power unit, the control panel and the platform cylinder.

PRODUCT DESCRIPTIONS

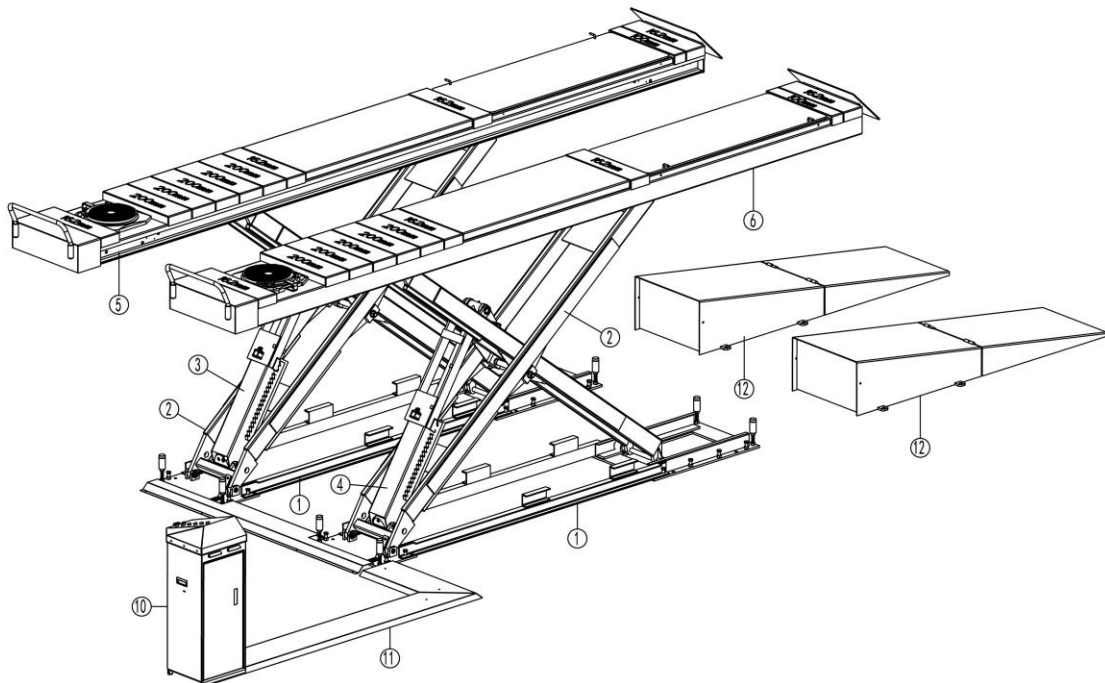
3.1 General descriptions

This is wheel support vehicle lift. It is preferably for recessed mounting and is mainly composed by two lifting platforms and a set of power unit. The gear pump works making oil in the pump push upwards the cylinder plunger and thus scissor brackets of the lift rise accordingly. The safety valve in the hydraulic line together with the mechanical safety locking device reduce maximally the hazard of sudden decline of the wheel supporting platform in case of hydraulic leakage. In addition, there safe designs like 24V control voltage, switch for maximum rising height and low-height alarming buzzer which make the lift be safer to work with.

3.2 Construction of the lift

Model S, smooth platform.

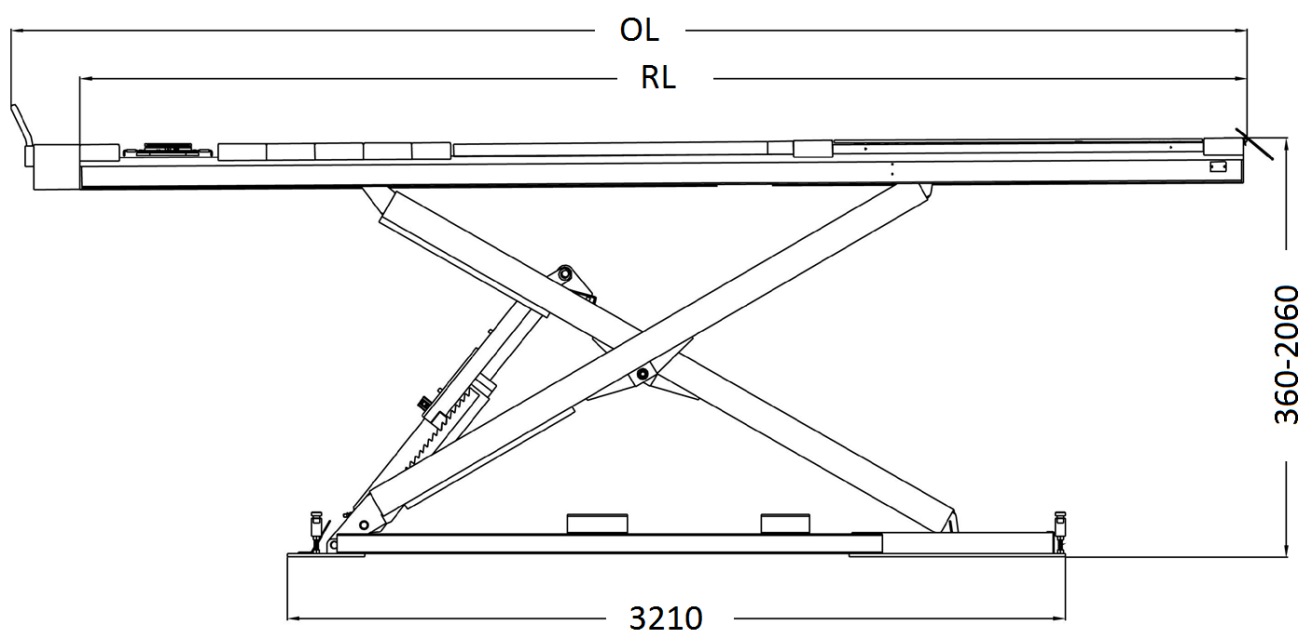
Model B, platform with flexible turntable positions and side slip plates.



Pos.	Descriptions
1	Base frame assembly
2	Support arm assembly
3	Drive cylinder and mechanical lock assembly
4	Slave cylinder and mechanical lock assembly
5	Wheel-support platform A
6	Wheel-support platform B
10	Control cabinet
11	Oil hose covers (optional, for surface mount)
12	Drive-on ramp (optional, for surface mount)

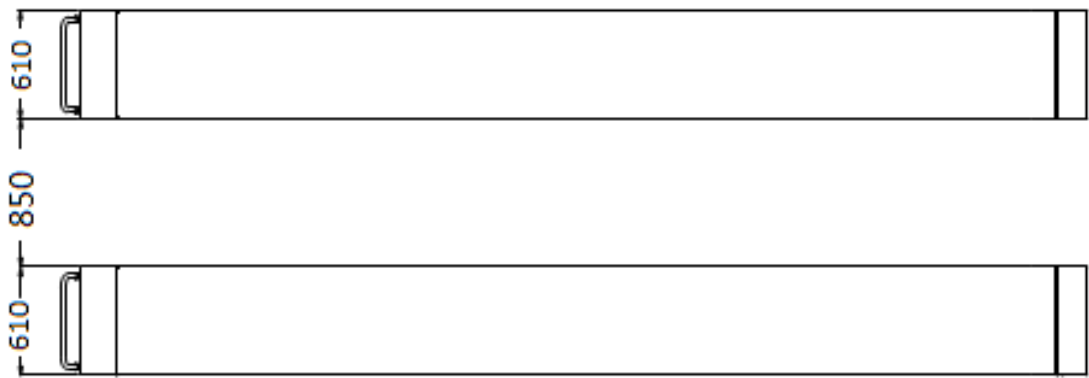
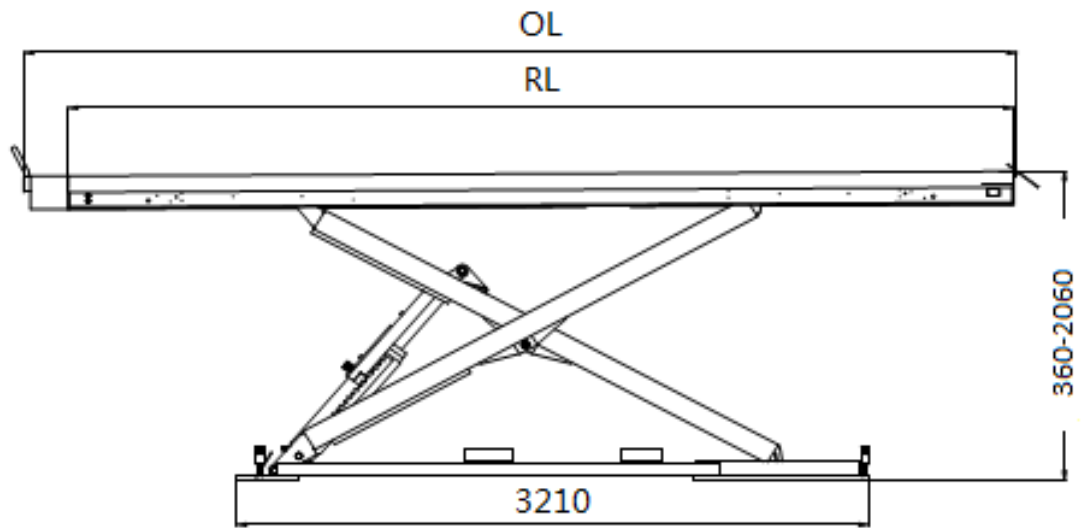
3.3 Dimensions

RLX4.2EXS/ RLX5EXA



Specification	RL	OL	L1	L2
RLX4.2EXS	4800	5042	1520	1370
RLX5EXA	5100	5342	1520	1570

RLX5EXS



Specification	RL	OL
RLX5EXS	5100	5342

3.4 Technical data

Model	*.42L.42T	*.48L.42T/50T
Rated capacity of the main lift (kg)	4200	4200/5000
Applicable wheel track of the main lift (mm)	1100~1800	1100~1800
Applicable wheel base of the main lift (mm)	≤4000	≤4600
Full raised height (mm)	2060	
Full lowered height (mm)	360	
Full raised time with rated load (s)	≤75	
Full lowered time with rated load (s)	≤50	
Hydraulic working pressure (MPa)	24	
Pneumatic working pressure (Bar)	6-8	
Oil tank volume (L)	18	

INSTALLATION INSTRUCTIONS

4.1 Preparations before installation

4.1.1 Space requirements.

Refer to 3.3 for the dimensions of the lift. There must also be a clearance of at least 1 meter between the lifting platform and fixed elements (e.g. wall) in all lifting positions. There must be sufficient space at the ends of the lifting platform for driving vehicles on and off.

To stop vehicles colliding with the ceiling, it is advisable to fit an overhead light barrier in low ceiling buildings.

4.1.2 Foundations and connections

The user must have the following work performed before erecting the lift.

- Construction of the foundation following consultation with the manufacturer's customer service or an authorized service agent. Routing of the wiring to the installation location. **The user must provide fuse protection for the connection. *Electrical system connection must be done by qualified electricians.*** Requirements for power supply cable of the installation site: at least 2.5mm² wire core for 3Ph power and 4.0mm² wire core for 1Ph power.
- Refer also to the corresponding information on the name plate and in the operation instructions. Before doing electrical connection, make sure the lift is electrically adapt to the local power supply.
- Routing of the compressed air connection to the installation location.

4.1.3 Foundations preparations

Please refer to Annex 1 for floor dimensions.

4.1.4 Tools and equipment for installation

Tool name	Specification	Quantity
Electrical drill	With D16 and D18 drill bit.	1
Open spanner	D17-19mm	2
Adjustable spanner	bigger than D30mm	1
Cross socket screw driver	PH2	1
Quick spanner handle adapter/ Ratchet		1
Socket spanner	D24mm	1
Levelling device		1
Hammer	10 pounds	1
Truck lift	Capacity more than 2500 kg	1
Lifting strap	Capacity, 1000 kg	2
Lifting strap	Capacity, 2000 kg	1

4.1.5 Checking parts

Unfold the package and check if any parts missed as per the following list. 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.

No.	Name	Specification	Qty
1	Power side lifting platform assembly	6603B-01	1
2	Secondary lifting platform assembly	6603B-02	1
3	Control cabinet	6603BM	1
4	Expansion bolt	M16*120	16
5	Air hose	D=8	2m
6	Air hose connector	PP-20 5*8	1
7	User's Manual		1
8	Key		1
9	Oil tank label		1

4.2 Installation attentions

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

4.2.2 All bolts should be firmly screwed up.

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

4.3 General installation steps

Step 1: Dismantle the package and place lifting platforms into recessed pits with a forklift and lifting straps.

Raise the platform by using a forklift and 2 lifting straps until the mechanical lock is engaged. Dismantle the bolts that fix the platform and its wooden package and then hoist the platform onto the expected installation site.

Attention 1: Avoid scratching the painting surface and hoses.

Attention 2: Before hoisting, make sure the hoses and wires are well protected against damage.

Attention 3: It is necessary to hold the platform during the hoisting process. Irrelevant person is not allowed in installation area.

Step 2: Connect hydraulic system.

Connect the oil hoses fittings to the power unit as per the diagram for oil hose connection. Annex 3.

Attention: Connect as per the marks on the hoses and do not contaminate the hydraulic components during the connection.

It must be taken adequate care that all fittings are securely tightened. Severe leaking will occur if the hose fittings are not properly tightened.

Step 3: Connect the pneumatic release system

Connect the pneumatic release system by the diagram of air hose connection in Annex 4.

Attention: Do not contaminate the pneumatic components during the connection.

Set the pneumatic pressure between 6-8 bars.

Push upward the button indicated in the following fig and turn the button until the hand of the pressure meter points to the NUMBER "6". Push the button down thereafter.



It is suggested to add ISO VG32 mechanical oil into the oil tank.

Adjust the oil dripping quantity using the button on top of the oil cup.



Step 4: Connect electrical wires.

Electrical connection must be done by qualified electricians.

Refer to Annex 2 when fix the electrical system.

Connect the wire connectors for raising and lowering limit switches

Connect the power supply cable to external electricity supply.

(For three phase power supply, if the lift doesn't raise and the motor may turn in the wrong direction, in such event, interchange wires U, V in the control cabinet).

Step 5: Fill with hydraulic oil.

ONLY CLEAN AND FRESH OIL ONLY .Lift must be fully lowered before changing or adding hydraulic oil.

Pour 16 liters anti-abrasion hydraulic oil into the oil tank. The level of oil shall reach the tippets volume mark of the tank.

Run the lift for several cycles and add more oil until the lifting platform can reach its maximum height.

Note: It is suggested to use HM NO.46 hydraulic oil. Use HM NO.32 hydraulic oil when temperature is below 10 degree Celsius.

Change the oil 6 months after initial use and change once per year thereafter.

Step 6: Levelling

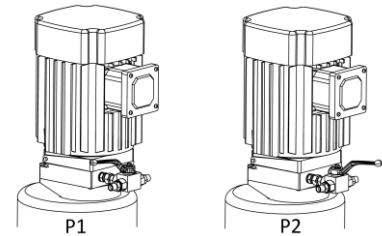
Check the connection of the hydraulic and electrical system before levelling operation Review operation instructions and get familiar with lift controls.

Attention: Level the platforms before connecting max height limit switch because if not, platforms may not rise to the highest position. The operator needs to know clear which levelling valve controls which platform. This could be judged by the way that the oil hose was connected or by trial raising or lowering.

Main platform is the platform which stay farther from the control unit.

Secondary platform is the platform which stay next to the control unit.

- 1) Open the door of the control cabinet. Check if the handle for the manually operating ball valve is at its default position P1. Should it be not at P1, turn the handle to P1 and push the UP button until the main platform rises about 20 CM above the floor.
- 2) Turn the handle to P2 and push the UP button until the secondary platform rises about 20CM higher than the main platform. Push the LOCK button to make secondary platform descend to its lowest position and don't release the button until 5 more seconds later. Repeat doing this for two cycles. After that push the UP button until the secondary platform rises to the same height as that of the main platform (about 20CM above the floor).
- 3) Turn the handle to P1 and push the UP button to check the synchronization.



4.4 Items to be checked after installation.

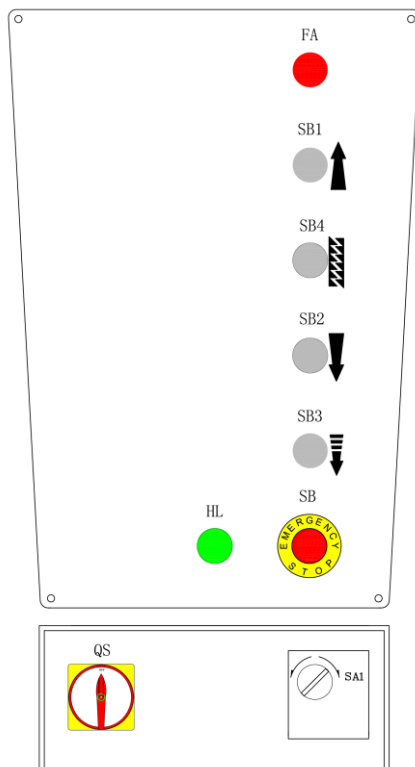
S/N	Check items	YES	NO
1	Screw torque of expansion bolts : 60-80Nm;	√	
2	Rising speed $\geq 20\text{mm/s}$;	√	
3	Noise with rated load $\leq 75\text{dB(A)}$;	√	
4	Grounding resistance: not bigger than 4Ω ;	√	
5	Height difference of the two platform $\leq 5\text{mm}$;	√	
6	Mechanical locks are robust and synchronized when running with rated load ;	√	
7	If the control button works as "hold to run"?	√	
8	If limit switches work well?	√	
9	If grounding wire is connected?	√	
10	If the lift rises and lowers smoothly?	√	
11	If there is no abnormal noise during running with rated load?	√	
12	If there is no oil leakage when running with rated load?	√	
13	If there is no air leakage when running with rated load?	√	
14	If expansion bolts, nuts or circlips are well secured?	√	
15	If max lifting height is 1700mm (above ground)?	√	
16	If safety advices, name plate and logos are clear?	√	

OPERATION INSTRUCTIONS

5.1 Precautions

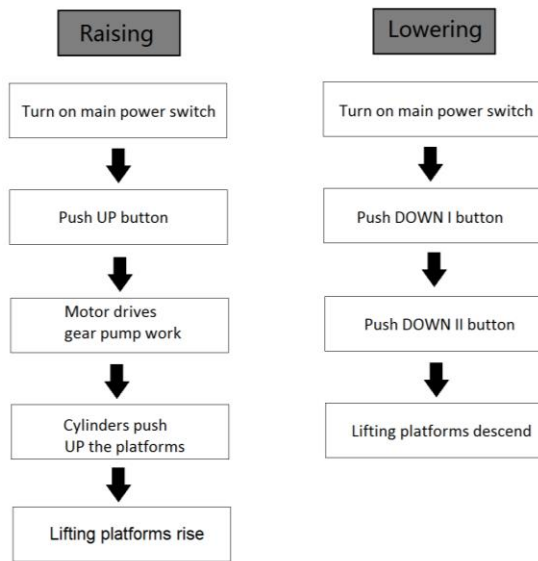
- 5.1.1. Read and digest the complete operation instructions before operating the lift.
- 5.1.2. Only authorized persons are permitted to operate the lift.
- 5.1.3. Do not try to raise the vehicle with excessive length or width.
- 5.1.4. The space above and below the load as well as of the loading carrying devices shall be free of obstructions.
- 5.1.5. Position supporting pads to pick-up positions recommended by vehicle manufacturers.
- 5.1.6. Check the vehicle after raising a short distance to ensure that it is corrected and safely positioned.
- 5.1.7. The load carrying device shall be observed by the operator throughout the motion of the lift.
- 5.1.8. Engage the safety locking mechanism before entering under the raised vehicle.
- 5.1.9. Avoid excessive rocking of vehicle while on the lift
- 5.1.10. It is forbidden for people to stand in the field of motion during raising or lowering movement.
- 5.1.11. Do not climb onto the load or load carrying device when they are raised.

5.2 Control panel descriptions



Pos.	Name	Function
FA	Alarm buzzer	Safety descent warning
SB1	UP button	Control the rising movement
SB2	DOWN I button	Control the initial lowering movement
SB3	DOWN II button	Control the final lowering movement
SB4	Safety lock button	Engage the safety locks
SB	Emergency stop	Stop power in emergency cases
HL	Power indicator	Show if power is on
SA1	Selection switch	Turn on or off for synchronization protection device
QS	Main switch	Power on /off

5.3 Working flow chart



5.4 Operation instructions

The lift must be only used in a static position for lifting and lowering vehicles.

Only use this lift on a surface that is stable and capable of sustaining the load. Do not install the lift on any asphalt surface.

To avoid personal injury and/or property damage, permit only trained personnel to operate the lift. After reviewing these instructions, get familiar with lift controls by running the lift through a few cycles before loading vehicle on lifting platform.

Always lift the vehicle using all four adapters. Never raise just one end, one corner or one side of vehicle.

Turn on SA1 before normal use. The normal users are not allowed to open the door of control cabinet.

Raise the lift

Make sure vehicle is neither front nor rear heavy and center of balance should be centered over 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. Push the “UP” button to raise the lifting platform a little bit off the ground and check the stability of the lifted vehicle.
4. Having raised the vehicle to the expected height, push the “Safety Lock” button to ensure the mechanical safety lock is engaged. Check again the stability before performing maintenance or repair work.

Lower the lift

When lowering the lift pay careful attention that all personnel and objects are kept clear.

1. Turn on the power switch.
2. Push “DOWN I” button to lower the lift. It will stop lowering at proper height off the ground.
3. Push “DOWN II” button to continue lowering the platforms which accompanies with safety alarming buzz.

Attention: In the case the height deviation of the two platforms have been more than 6 cm during lifting or lowering process, the synchronization protection device will be activated to stop any raising or lowering movement. In this case, the normal operator needs to ask professional help from the maintenance operator to restore the lift to normal working condition.

HOW to restore to the normal working status?

Open the door of the control cabinet and turn SA1 to OFF status;

PUSH DOWN I and DOWN II button to fully lower both lifting platforms;

Level until both platforms are synchronized. (Refer to step 6)

Turn SA1 to ON status.

SA1 Control "ON" or "OFF" for synchronization protection device

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.

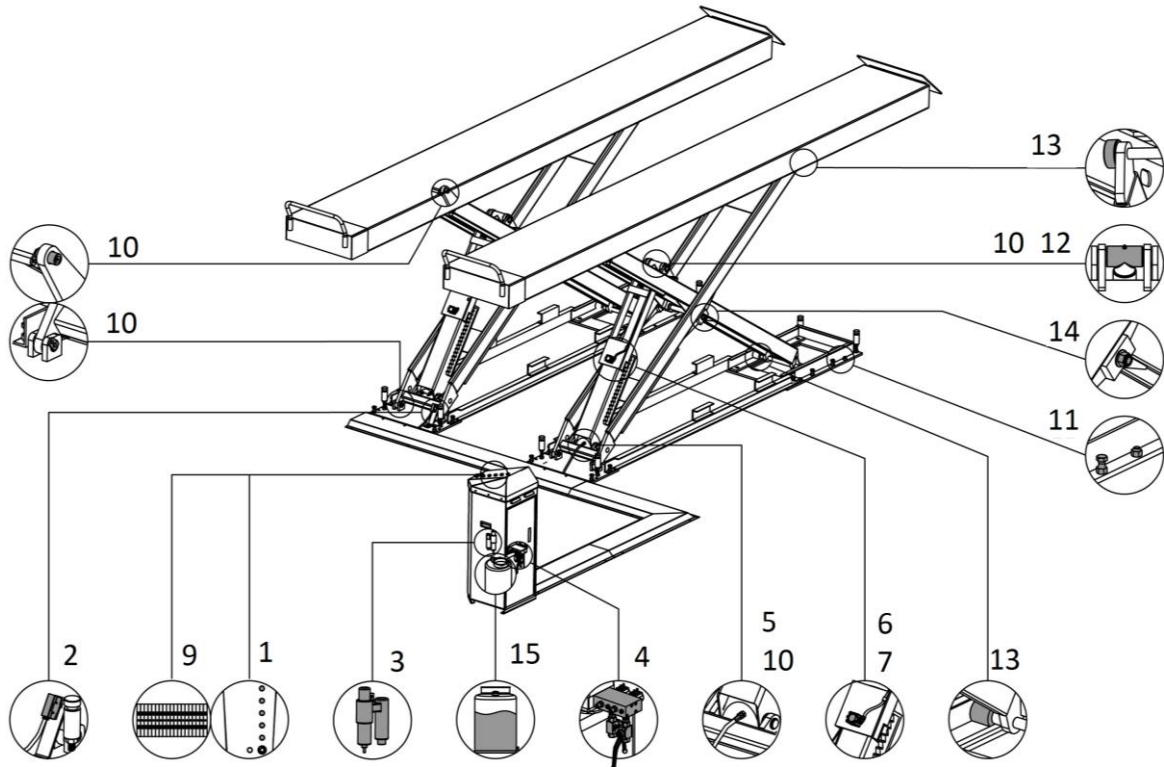
TROUBLES	POSSIBLE CAUSES	SOLUTIONS
Motor does not run and will not raise.	Loose wire connection	Check and make a good connection.
	Burnt motor.	Replace it.
	Damaged limit switch or its wire connection is loose.	Adjust or replace the limit switch.
Motor runs but will not raise.	The motor run reversely.	Check the wire connection.
	Overflow valve is not well screwed up or jammed.	Clean or make adjustment
	Damaged gear pump.	Replace it.
	Too low oil level.	Add oil.
	The hose connection is loose.	Tighten it.
	The cushion valve is not well screwed up or jammed.	Clean or make adjustment
Platforms go down slowly after being raised.	The oil hose leaks.	Check or replace it.
	Untightened oil cylinder.	Replace the seal.
	The single way valve leaks.	Clean or replace it.
	Solenoid valve fails to work well.	Clean or replace it.
	Unloading valve leaks.	Check and adjust the tightness.
Raising too slow.	Jammed oil filter	Clean or replace it.
	Too low oil level.	Add oil.
	The overflow valve is not adjusted to the right position.	Make adjustment.
	Too hot hydraulic oil (above 45°) .	Change the oil.
	Abraded seal of the cylinder	Replace the seal.
Lowering too slow.	Jammed throttle valve	Clean or replace it.
	Dirty hydraulic oil	Clean or replace it.
	Jammed anti-surge valve	Change the oil.
	Jammed oil hose	Clean it.

MAINTENANCE

Easy and low cost routine maintenance can ensure the lift work normally and safely.

Follow the below routine maintenance schedule with reference to the actual working condition and frequency of your lift.

Lubricate with No.1 lithium base grease.



S/N	Components	Methods	Period
1	Control buttons	Check if control buttons work as "hold- to -run " and check if they work as the function indicated.	Every day
2	Max height limit switch	Push the UP button and inspect and ensure the lifting platform stops rising at maximum lifting height.	Every day
3	Pneumatic filter	Listen and inspect the filter to ensure no leakage. Inspect and ensure the water level is below its max limit mark and the oil level is above the minimum limit mark.	Every day
4	Hydraulic block and valves	Inspect if the valves leak or not. Clean or change the valve if any leakage.	Every day
5	Oil hoses and connectors	Inspect to ensure no leakage before using the lift.	Every day
6	Pneumatic hoses and connectors	Inspect to ensure no leakage before using the lift.	Every day
7	Mechanical safety catch	Check if both mechanical catches can engage and disengage simultaneously by pushing control buttons.	Every day
8	Lifting platform	Check the synchronization of both lifting platforms. Ensure both platforms ascend and descend synchronously.	Every day

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S/N	Components	Methods	Period
9	Wire terminals in the control unit	Open the control unit, inspect the wire terminals, screw firm if any terminals become loose.	Every 3 months
10	Joint shafts	Add grease to the oil cups	Every 3 months
11	Anchored expansion bolts	Check with torque spanner. For M18 bolt ,the torque is no less than 80N.m / For M16, the torque is no less than 60N.m	Every 3 months
12	Circlips of oil cylinder shaft	Inspect if any circlip goes off its groove. Make sure they are positioned in the grooves.	Every 3 months
13	Rolling wheels and their running routes	Push the UP and DOWN button to check if the wheel is over-worn or cannot roll. Add grease to ensure smooth running. Change over-worn wheels.	Every 3 months
14	Self-locking nut	Check with torque spanner. The torque should be no less than 330N.m.	Every 3 months
	Whole Lift	Running the lift for several cycles with and without rated load. The lift can run steadily and smoothly with no abnormal noise.	Every 3 months
15	Hydraulic oil	Change the oil 6 months after initial use and once per year thereafter. Inspect the hydraulic oil and change the oil if the oil becomes black or there is dirt in the oil tank.	Every year

If users stick to the above maintenance requirements, the lift will always keep a good working condition and its service life could be extended.

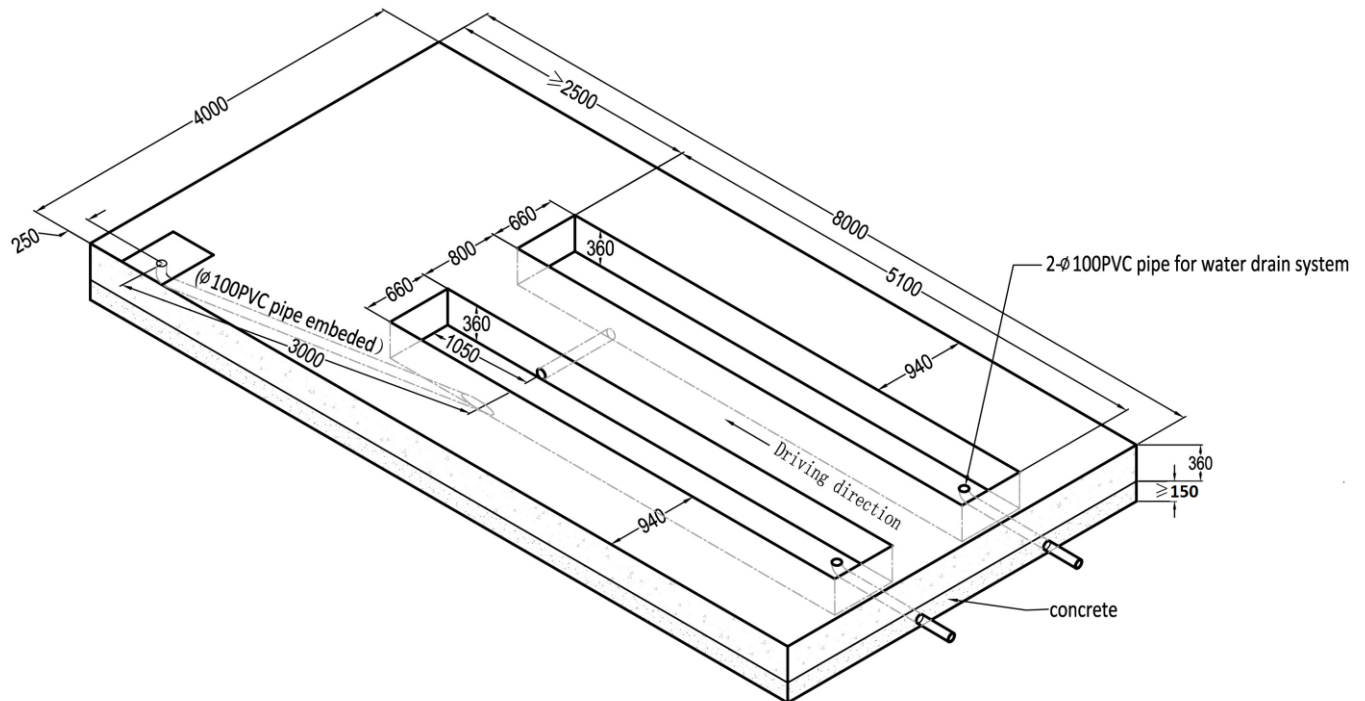
Annex 1, Floor Plan for recessed installation

Requirements:

- ① **Indoor installation only.** There must be a clearance of at least 1 meter between the lifting platform and fixed elements (e.g. wall) in all lifting positions. There must also be sufficient space for driving vehicles on and off.
- ② C25 concrete foundation with a minimum thickness of 150mm. Concrete Surface under the base plates: Horizontal and even (Gradients max. 0.5 %).
- ③ Embedded L40 angle iron around the pit for edging.
- ④ Newly built concrete ground must be older than 20days.
- ⑤ In case drain pipes are not available, it is necessary to reserve a water collection pit.
- ⑥ All dimensions are in millimeters.

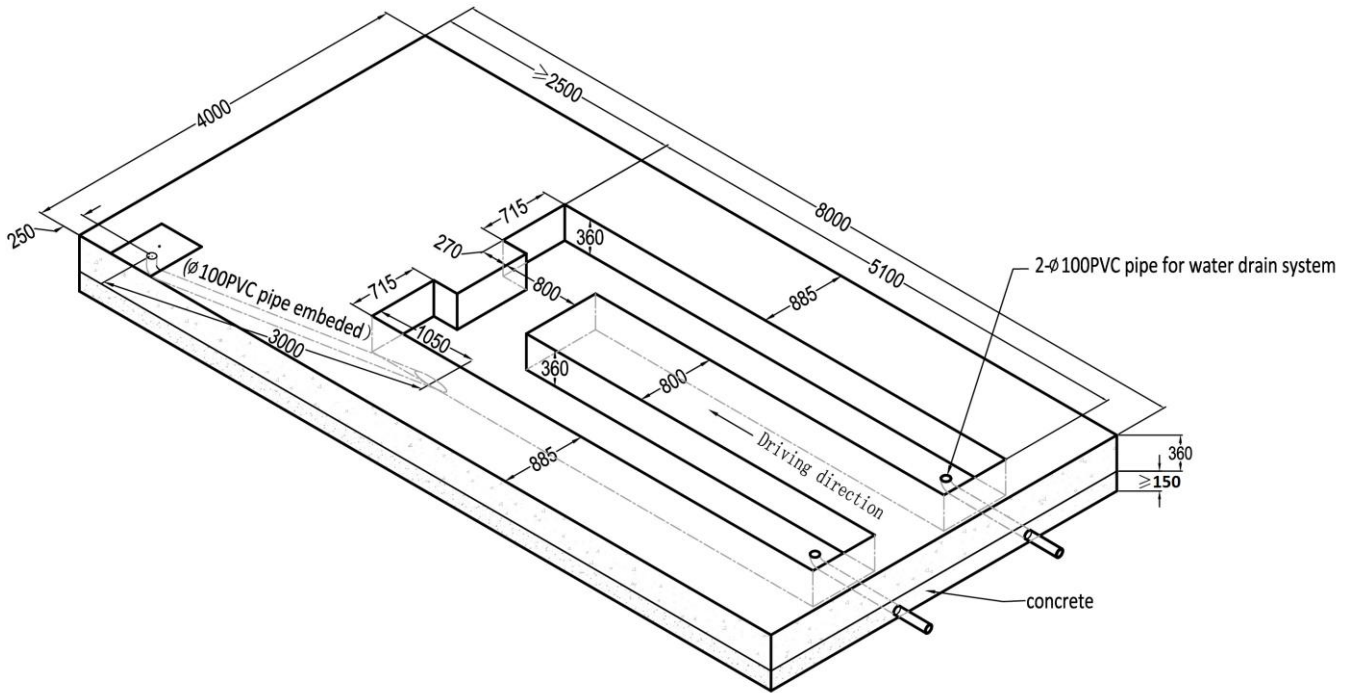
Attention: Please refer to floor plan 48LC and 51LC in case rolling wheel free jacks need to be mounted.

48L:

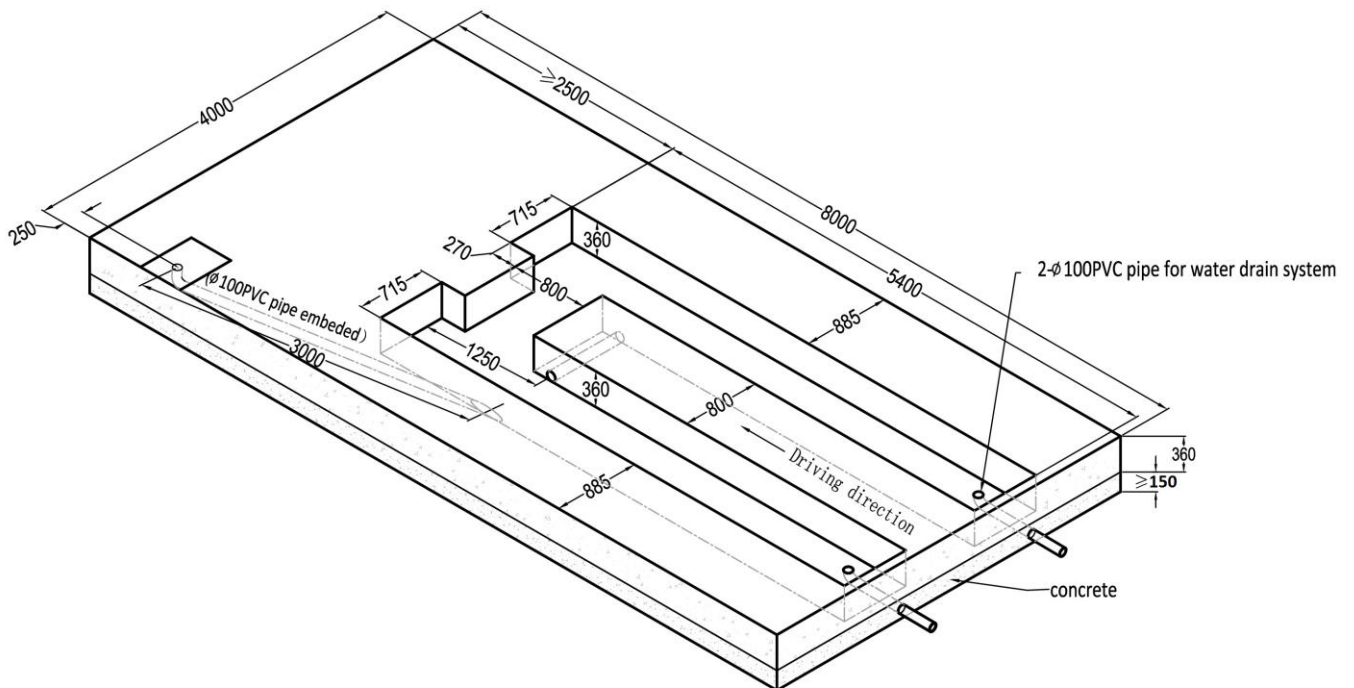




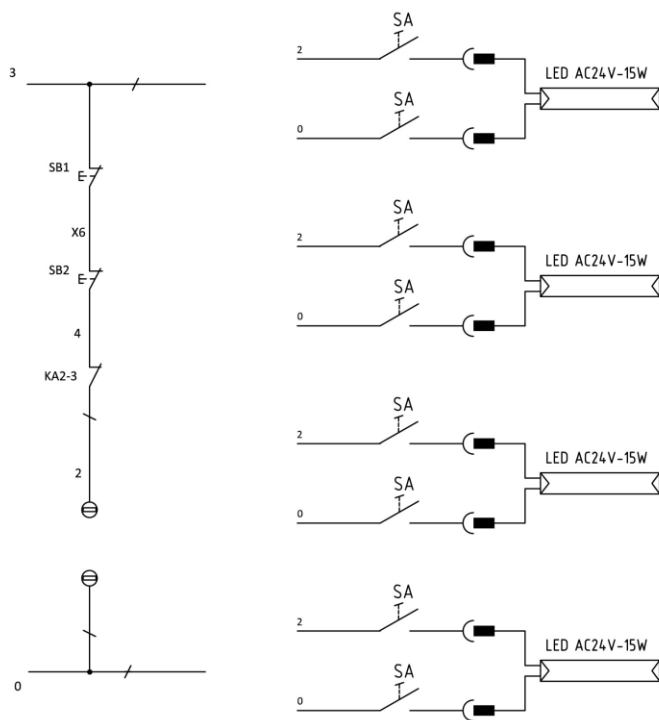
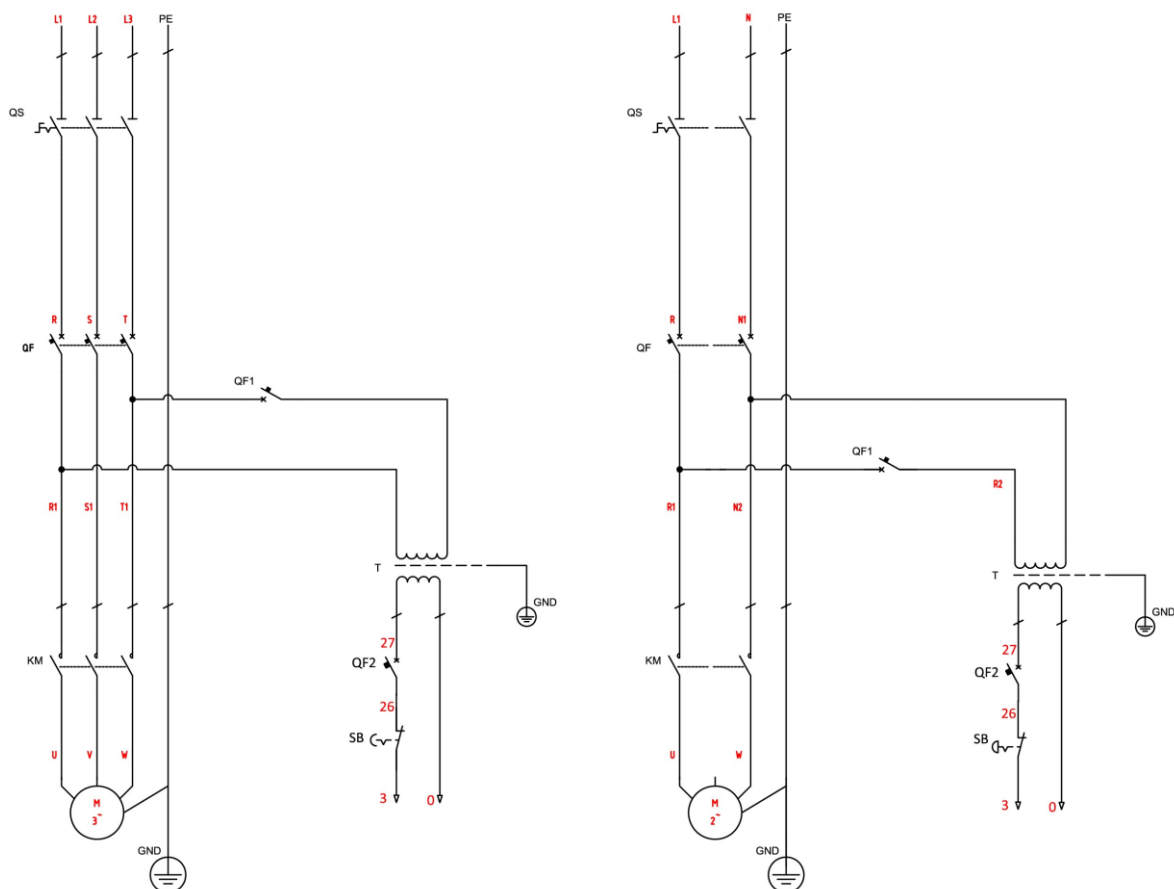
48LC:

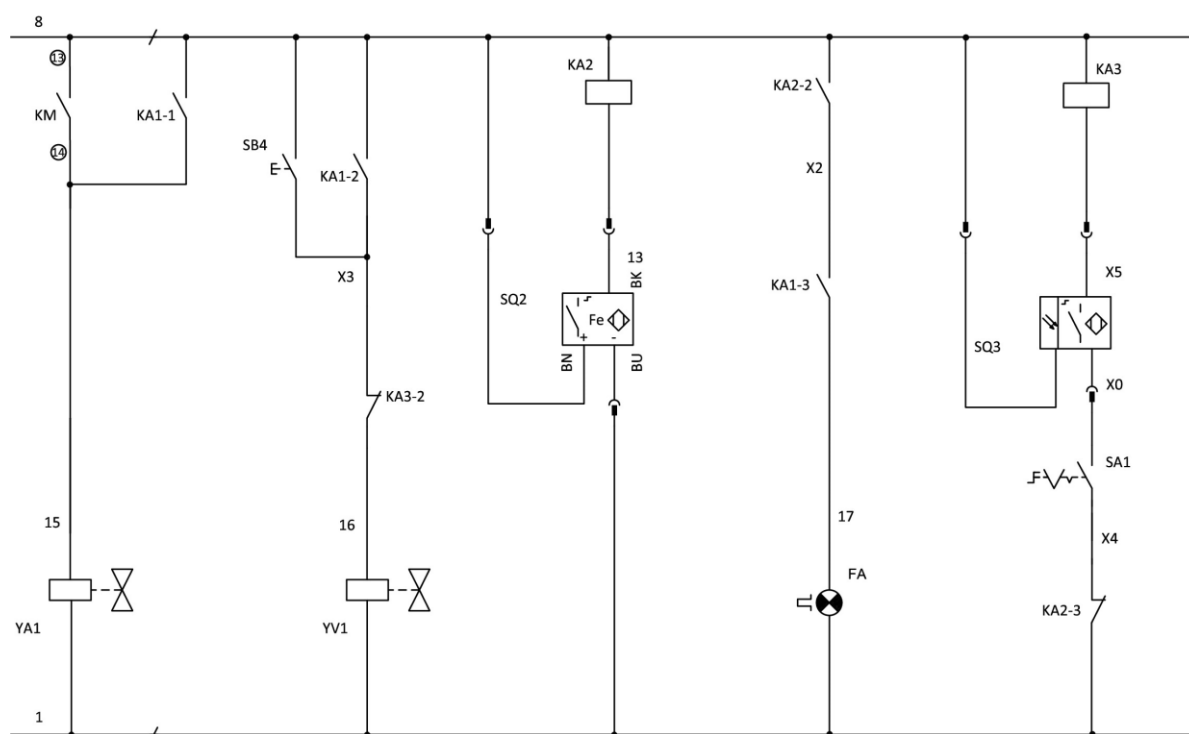
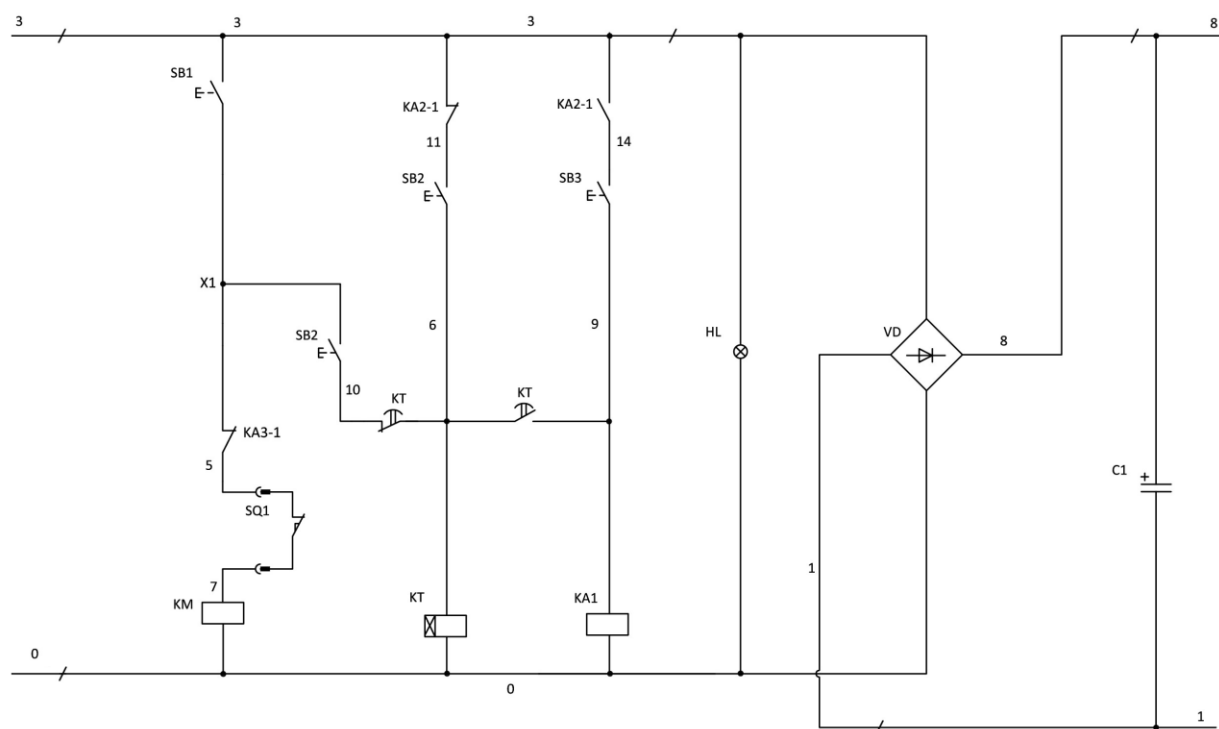


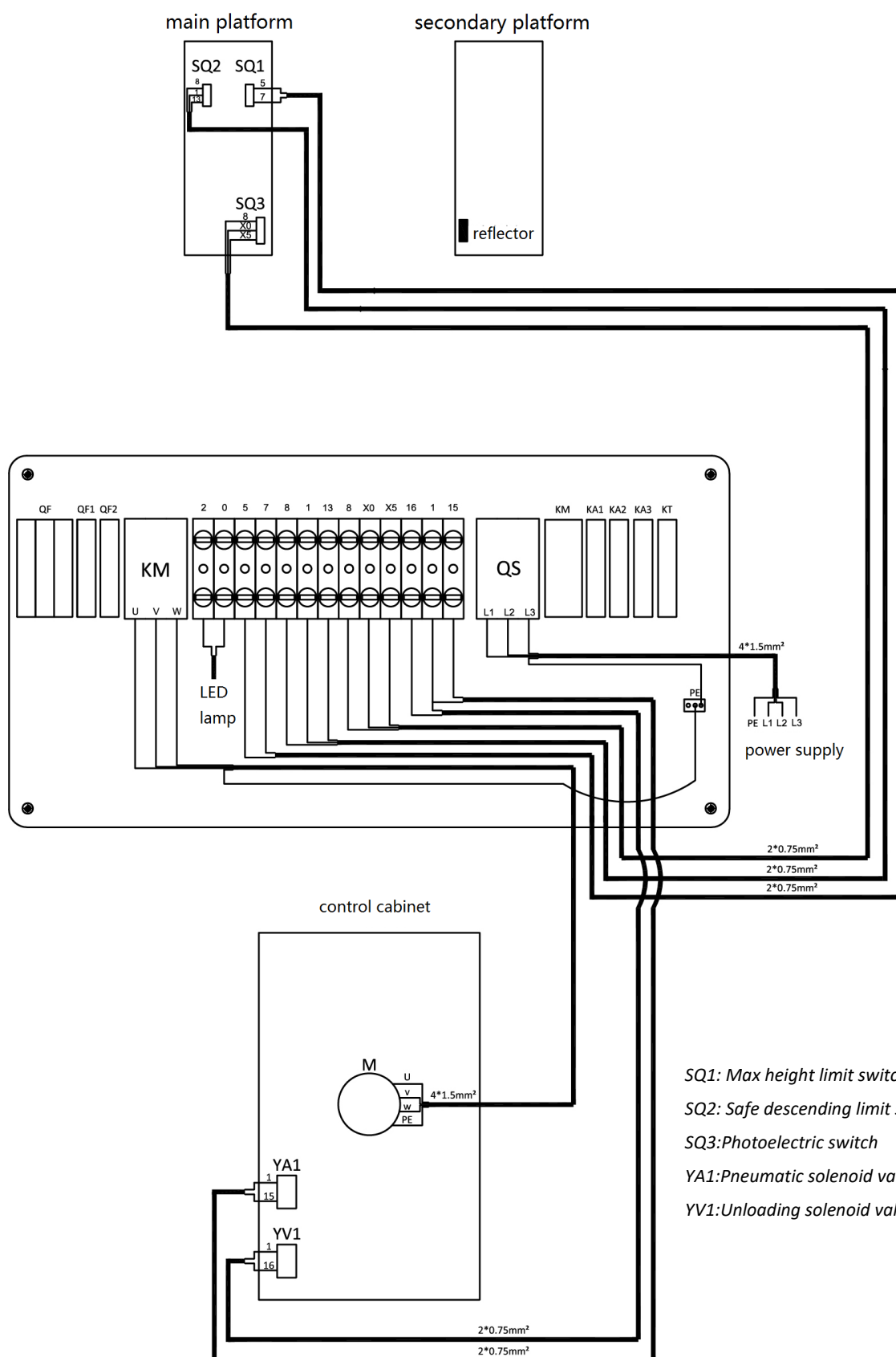
51LC:



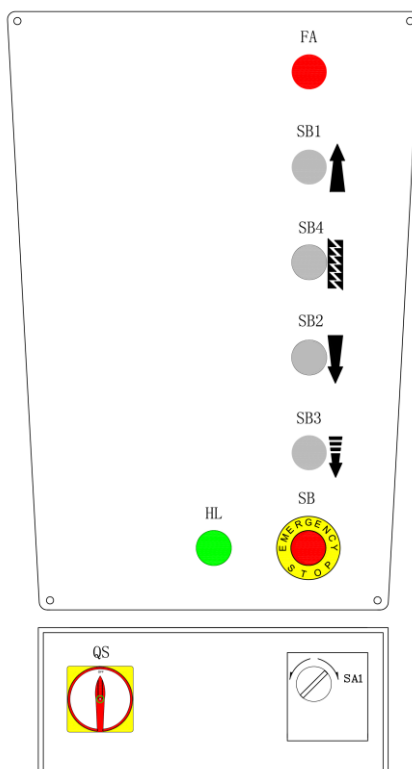
Annex 2, Electrical diagrams and parts list







SQ1: Max height limit switch
SQ2: Safe descending limit switch
SQ3: Photoelectric switch
YA1: Pneumatic solenoid valve
YV1: Unloading solenoid valve



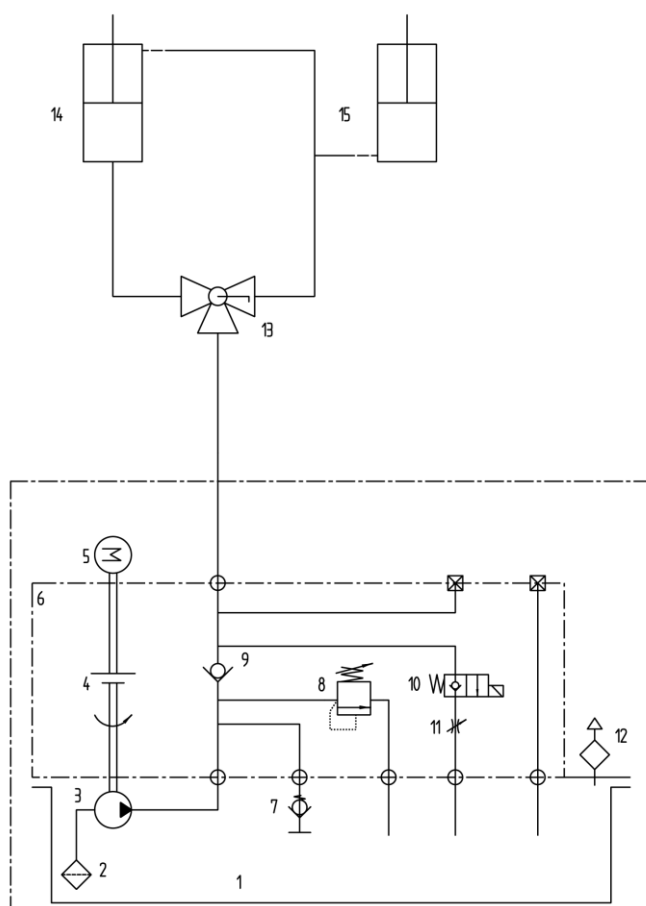
POS.	CODE	Description	QTY
T	320101128	Transformer (380/400/415V-24V)	1
	320101127	Transformer (220/230/240V-24V)	1
	320102005	Transformer (dual 400V230V-24V)	
QF	320801001	Circuit breaker (3Ph)	1
	320802001	Circuit breaker (1Ph)	1
	320801003	Circuit breaker (dual)	1
QF1	320803001	Circuit breaker	1
QF2	320803005	Circuit breaker	1
KM	320901011	AC contactor(3.0kW/3.5kW,3Ph ;2.2kW,1Ph)	1
	320901001	AC contactor(2.2kW,3Ph)	1
SQ1	320301003	Limit switch	1
SQ2	320302002	Proximity switch	1
SQ4	320307062	Photoelectric switch	1
SA1	320303019	Selection switch	2
QS	320304001	Power switch	1
SB1,SB2	320401044	Push button	2
SB3,SB4	320401038	Push button	2
SB	320402002	Emergency stop	1
	320503002	Ground terminals	1
	320505006	Wire terminal	13
	320505011	Retaining chip	2
KA2,KA3	320601001	Relay	2

POS.	CODE	Description	QTY
KA1	320601002	Relay	1
	320601011	Relay holder	3
	320601018	Relay feet fixer	6
KT	320602009	Integrated time relay	1
C	321001004	Capacitor	1
VD	321002001	Bridge rectifier	1
HL	321201001	Power indicator	1
FA	321202001	Alarm buzzer	1
SA	320305002	Rocker switch	4
	321201021C	LED lamp	4

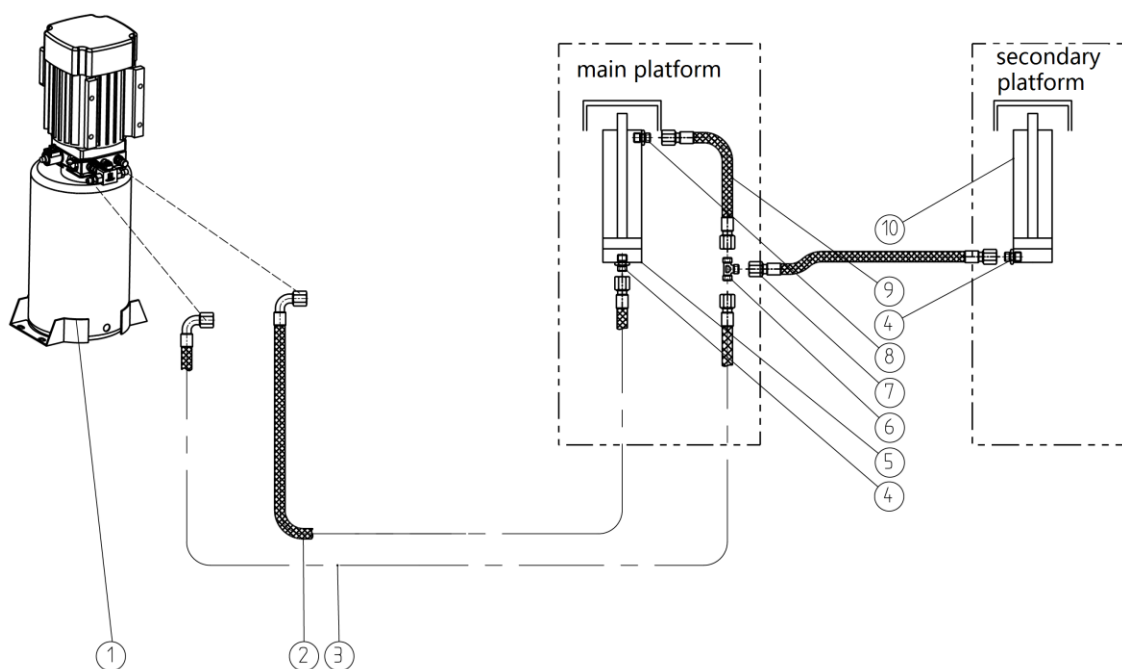
NOTE: For power supply of other voltages, the transformer is different.

Please check with our customers service people when order spare parts.

Annex 3, Hydraulic diagrams and parts list



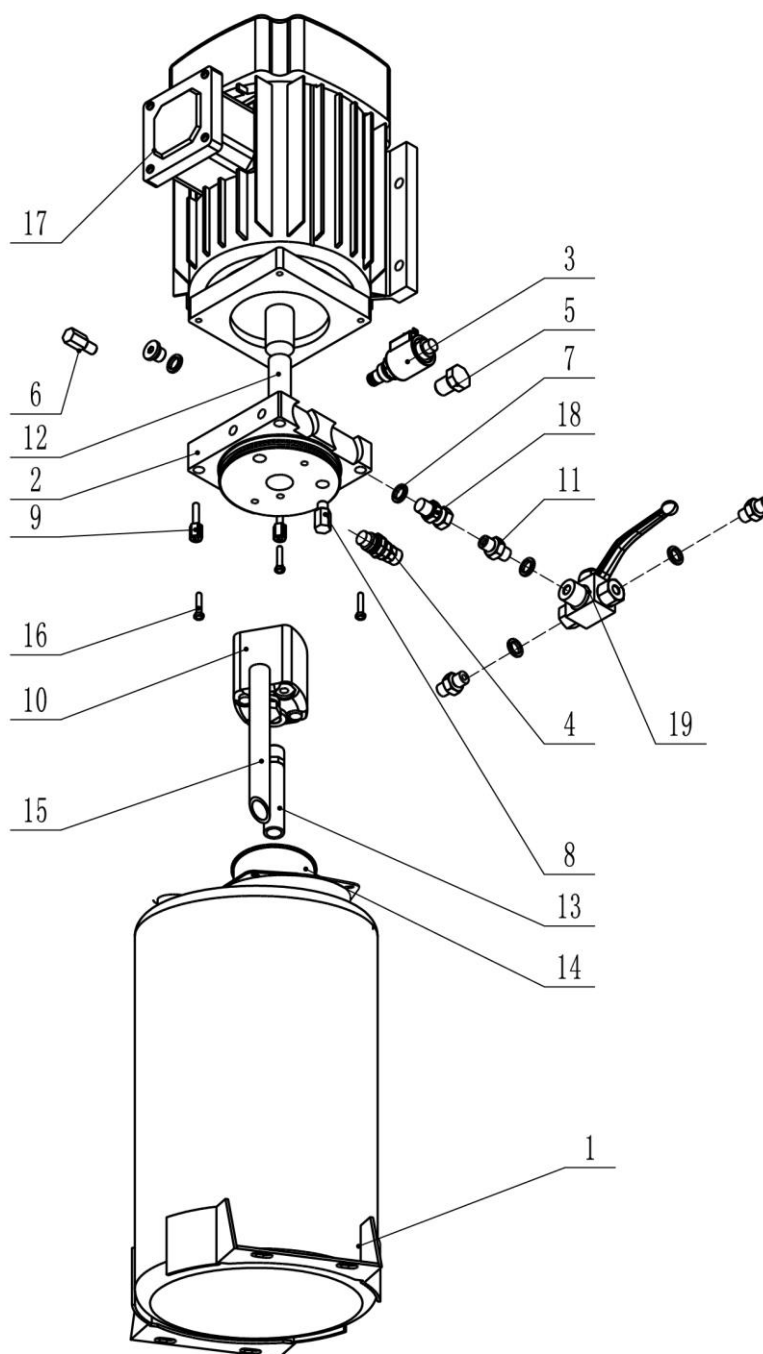
- 1.Oil reservoir
- 2.Oil filter
- 3.Gear pump
- 4.Coupling
- 5.Motor
- 6.Hydraulic block
- 7.Cushion valve
- 8.Overflow valve
- 9.Single way valve
- 10.Unloading solenoid valve
- 11.Flow control valve
- 12.Breather
- 13.Manually operating three way valve
- 14.Main oil cylinder
- 15.Secondary oil cylinder



POS.	CODE	Description	Specification	Qty
1		Power unit		1
2	624001053B	Oil hose	L=6000	1
3	624001944	Oil hose	L=4500	1
4	330305009	Straight connector with restrictive valve	BDPF-G14-G14-I60	2
5	615021012	Main cylinder	6603B-A6-B1	1
6	410210181	Three way fitting	6603B-A9-B7	2
7	624001055	Oil hose	L=2000	1
8	310101010	Straight connector	G1/4---G1/4	1
9	624001056	Oil hose	L=350	1
10	615021013	Secondary oil cylinder	6603B-A6-B2	1

Seal rings for cylinders

Cylinder code	Cylinder description	Seal ring	Seal ring code	Spefication	Qty
615021012	Main cylinder	Composite seal ring	207103009	KGD120*95*22.4*6.35	1
		Type O seal ring	207101005	53*3.55	1
		Type O seal ring	207101010	109*5.3	1
		Type O seal ring	207101011	118*3.55	1
		Type Y seal ring	207102004	SD67*77*6	1
		Dust proof ring	207105018	DH67	1
615021013	Secondary cylinder	Composite seal ring	207103010	KGD100*75*22.4*6.35	1
		Type O seal ring	207101012	38.7*3.55	1
		Type O seal ring	207101013	92.5*3.55	1
		Dust proof ring	207105007	DH50	1



Pos.	CODE	Description	Specification	Qty
1	330405027	Oil tank	18L	1
2	330101063B	Composite hydraulic block	YF-2D	1
3	330308006	Solenoid unloading valve	DHF06-220H/DC24	1
4	330304001	Over flow valve	EYF-C	1
5	330302001	Single way valve	DYF-C	1
6	330305002	Throttle valve	TC-VF	1
7	207103019	Composite washer	M14	5
8	330301001	Cushion valve	HZYF-C1	1
9	202109064	Hex socket cylinder head screw	M6*30	4

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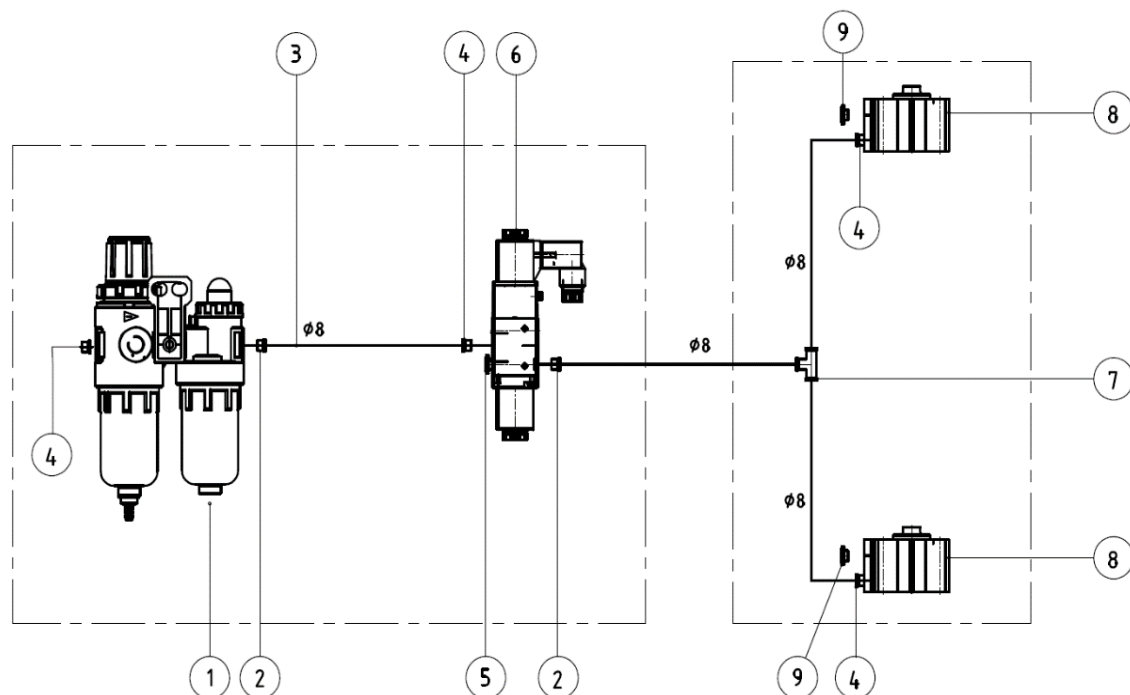
RLX4.2EXS/RLX5EXS/RLX5EXA

Pos.	CODE	Description	Specification	Qty
10	330201005	Gear pump (for 2.2kW/3Ph motor)	CBK-F220/CBK-2.1F	1
	330201004	Gear pump (for 2.2kW/1Ph motor)	CBK-F216	1
	330201007	Gear pump (3.0kW)	CBK-F233	1
	330201001	Gear pump (3.5kW)	CBK-F225-G	1
11	310101010	Straight fitting	G1/4---G1/4	3
12	330404001	Coupling	YL-A	1
13	330401005	Oil sucking tube	XYGN-L293	1
14	330403001	Oil sucking filter	YG-C	1
15	330402001	Oil back tube	YH-D	1
16	201102002	Hex head full swivel screw	M5*10	4
17	320201001	Motor	220V-2.2KW -1PH-50HZ-2P	1
	320201002	Motor	230V-2.2KW -1PH-50HZ-2P	1
	320201003	Motor	240V-2.2KW -1PH-50HZ-2P	1
	320201004	Motor	380V-2.2KW -3PH-50HZ-2P	1
	320201005	Motor	400V-2.2KW --3PH-50HZ-2P	1
	320204016	Motor	380V-3.0KW-3PH-50HZ-2P	1
	320203001	Motor	380V-3.5KW -3PH-50HZ-2P	1
	320203005	Motor	400V-3.5KW -3PH-50HZ-2P	1
	320203006	Motor	415V-3.5KW -3PH-50HZ-2P	1
18	310101044	Straight fitting	6604-BJMSC-M1415-G14-L36	1
19	330306001	Three way ball valve	GE3L-G1/4-DN6	1

NOTE: The motor is different for different voltage or capacity.

Please check with our customers service people when order spare parts.

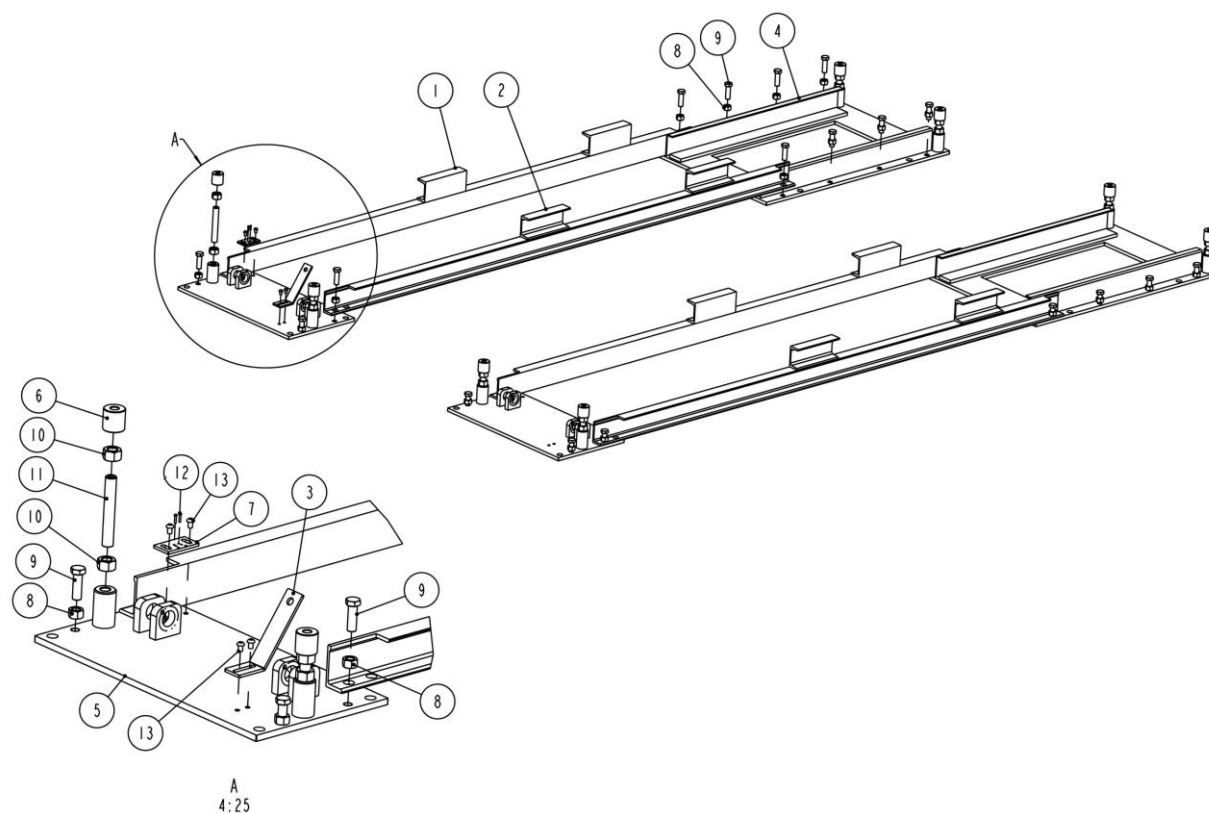
Annex 4, Pneumatic connections and parts list



Pos.	CODE	Description	Specification	Qty
1	321004006	AFC Air filter combination	AFC2000	1
2	310101015	Pneumatic connector	KLC8-02	2
3	123010201	Air hose	DE8	1
4	310102024	Quick pneumatic connector	KLL8-01	2
4	310302001	Right angle pneumatic connector Replace 310102024 since 20 th .Oct,2024	TKN-PH8-01	2
5	310201002	Silencer	SLM02 R1/8 (M8)	1
6	310401001	Pneumatic directional valve	3V210-08DC24V	1
7	310103006	Quick three way pneumatic connector	KLE-8	1
8	310501001	Pneumatic cylinder	CQ2B32*20	1
9	310201003	Silencer	SLM01 R1/8 (M8)	2

Annex 5, Mechanically exploded drawings and parts list

New Base frame assembly , effective since 2024/10/27

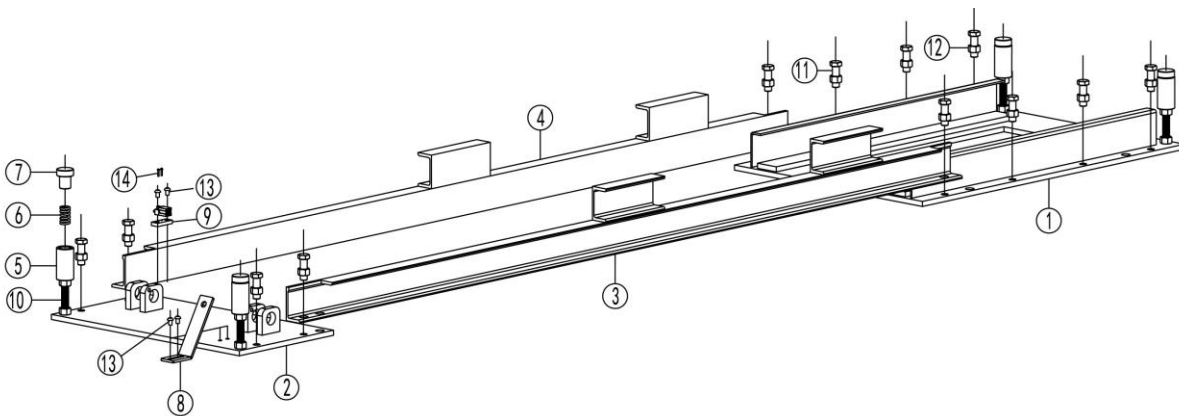


Pos.	CODE	Description	Specification	Qty
1	614021029	Weled Base slot A (For model with type B platform)	6603B-A7-B2	2
2	614021031	Weled Base slot B (For model with type B platform)	6603B-A7-B8	2
1	614021559	Weled Base slot A (For model with type S platform)	6603S-A7-B2	2
2	614021560	Weled Base slot B ((For model with type S platform)	6603B-A7-B2	2
3	410210013	Bracket A for limit switch	6603B-A7-B11	1
4	614901908	Large welded baseframe	6603B-A7B-B6	2
5	614901909	Small welded baseframe	6603B-A7B-B9	2
6	420260010	Nylong cap	6605B-A1-B8	8
7	410310361	Base for the proximity switch	GEG-PD-A1-B8	1
8	203101009	Hex nut	M16-GB6170	24
9	201102041	Hex head full swivel screw	M16X50-GB5783-2000	24
10	203101012	Hex nut	M20-GB6170	16
11	202205005	Hex socket flat head tapping screw (For model with type B platform)	M20X140-GB77	8

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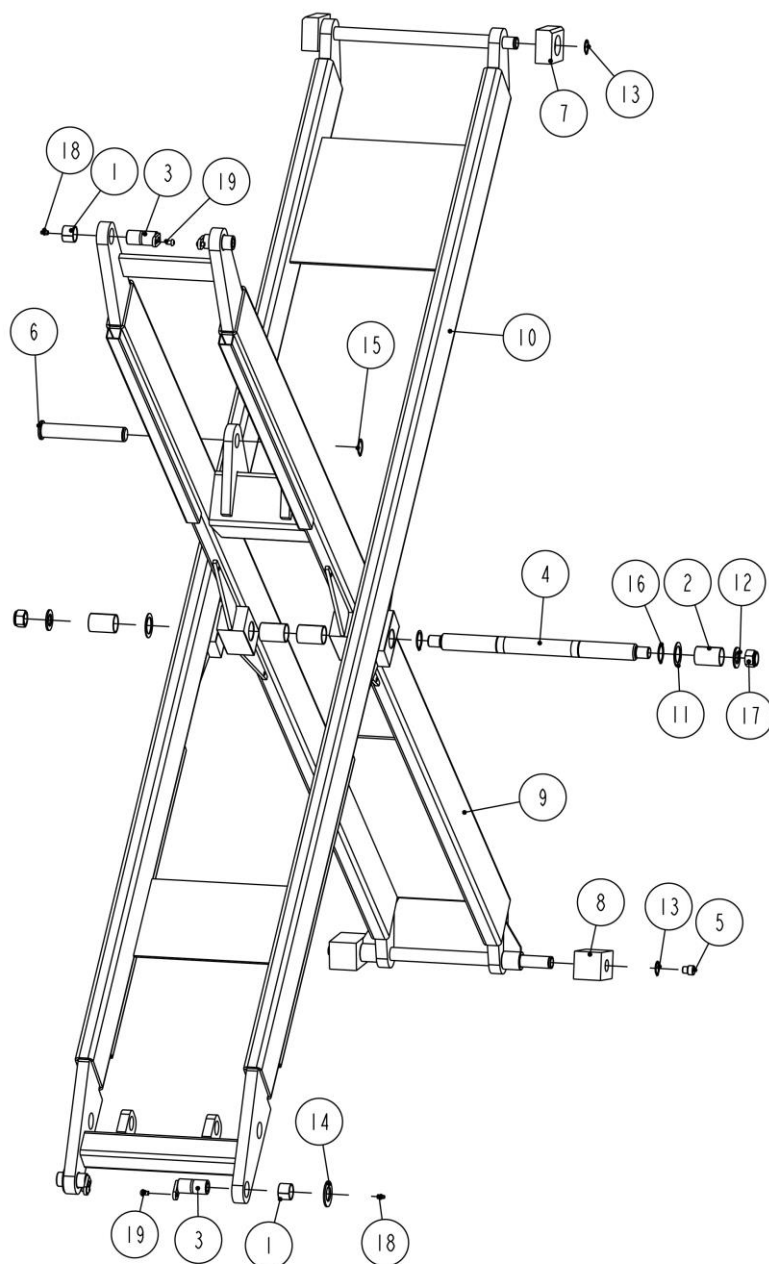
Pos.	CODE	Description	Specification	Qty
11	202205015	Hex socket flat head tapping screw (For model with type S platform)	M20X180-GB77	8
12	202101002	Cross socket cap head screw	M3X15-GB818	2
13	202110004	Hex socket button head screw	M8X12-GB70_2	4

Old Base frame assembly manufactured before 2024/10/27



Pos.	CODE	Description	Specification	Qty
1	614021030B	Large base plate -model B	6603B-A7-B6	2
2	614021032	Small Base plate- model B	6603B-A7-B9	2
1	614021504B	Large Base plate (left)- model S	6603S-A7-B6	2
2	614021505	Small Base plate (right) - model S	6603S-A7-B9	2
3	614021029	Base slot A -model B	6603B-A7-B2	2
4	614021031	Base slot B -model B	6603B-A7-B8	2
3	614021559	Base slot A -model S	6603S-A7-B2	2
4	614021560	Base slot B -model S	6603S-A7-B2	2
5	410210151	Cushion holder	6603B-A7-B1-C1	8
6	410211390	Spring	6603B-A7-B1-C2	8
7	410210161	Cushion head	6603B-A7-B1-C3	8
8	410210013	Bracket A for limit switch	6603B-A7-B11	1
9	410310361	Base for the proximity switch	GEG-PD-A1-B8	1
10	208103001	Swivel bolt	M16X120	8
11	201102041	Hex head full swivel screw	M16X50-GB5783	24
12	203101009	Nut	M16-GB6170	40
13	202110004	Hex socket button head screw	M8X12-GB70_2	6
14	202101002	Cross socket cap head screw	M3X15-GB818	2

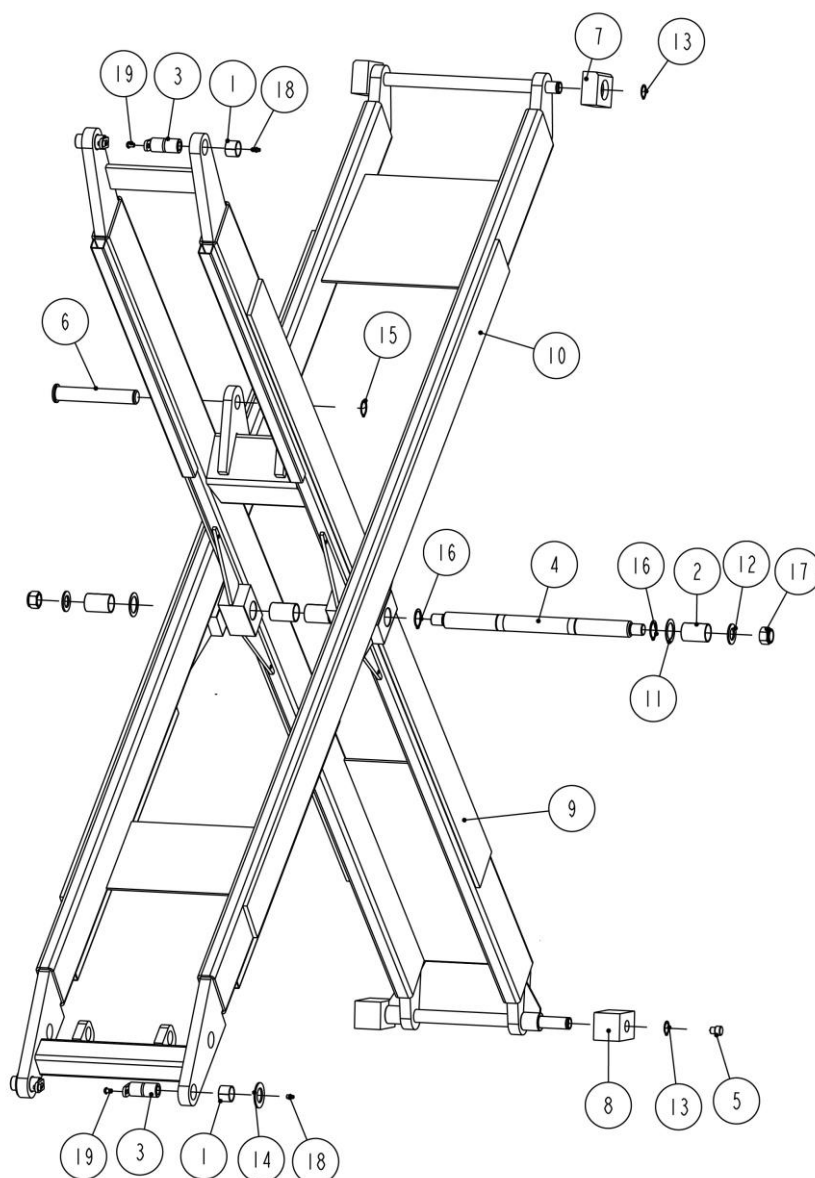
Support arm assembly-4.2T



Pos.	Code	Description	Specification	Qty
1	205101018	Bearing	3025-SF-2X	4
2	205101059	Bearing	3556-SF-2X	4
3	612021003B	Rotation shaft of the main lift	6603B-A5-B1	4
4	410210121	Pin shaft of the main lift	6603B-A5-B5	1
5	420210060B	Pad block	6603B-A5-B6	2
6	410210131B	UP shaft	6603B-A5-B12	1
7	420680169	Up slider	6603B-A5-B13	2
8	420680168	Downside slider	6603B-A5-B14	2
9	614021024	Arm A (4.2T)	6603B-A5-B2-4T	2

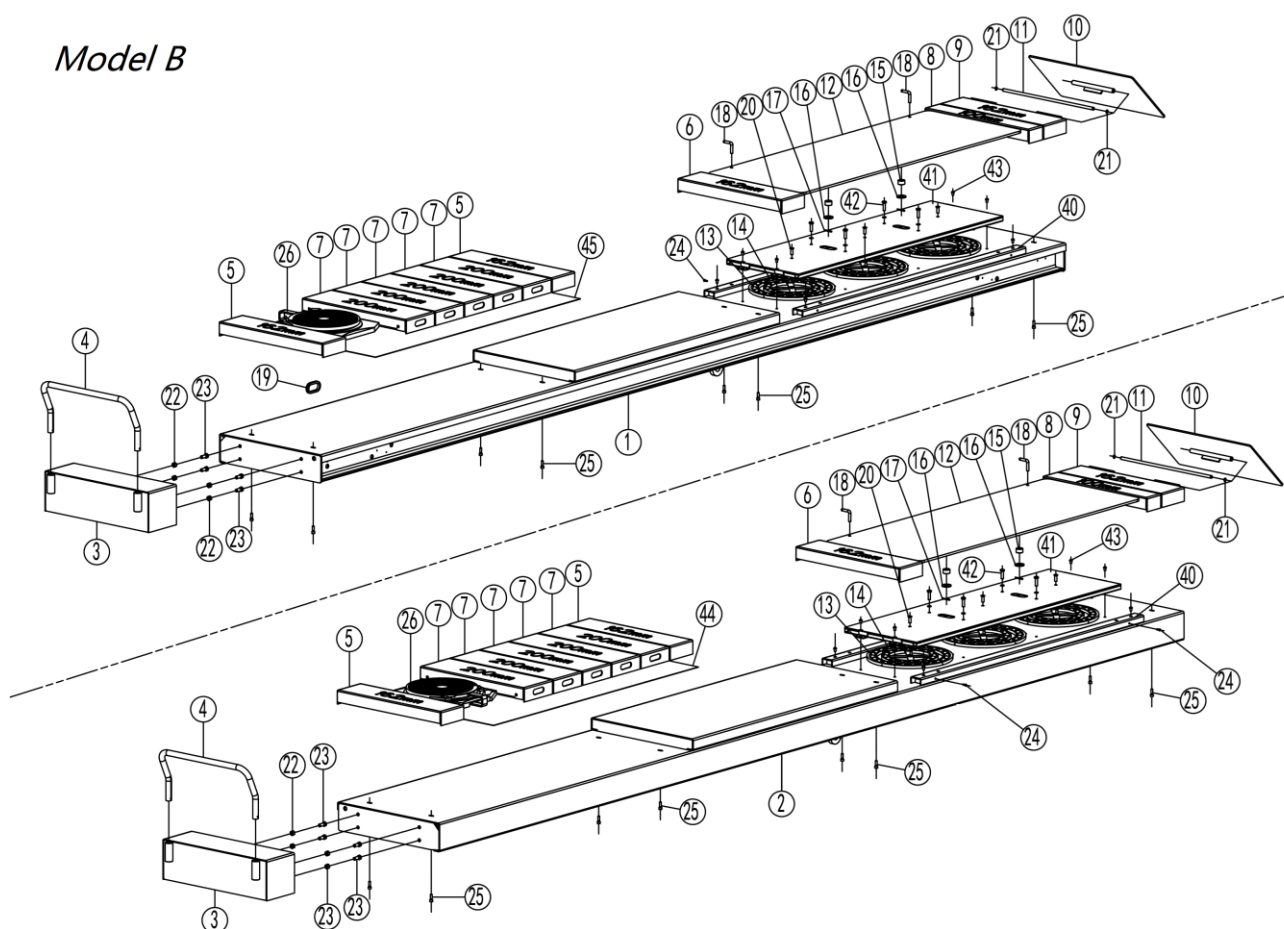
Pos.	Code	Description	Specification	Qty
10	614021025	Arm B (4.2T)	6603B-A5-B3-4T	2
11	410240031	Washer	6603GN-A10	2
12	204101012	Class C flat washer	D24-GB95	2
13	204301009	Circlip	D25-GB894_2	4
14	204101015	Class C flat washer	D30-GB95	2
15	204301011	Circlip	D30-GB894_2	1
16	204301012	Circlip	D35-GB894_2	2
17	203103011	Non-metallic lock nut	M24-GB889_1	2
18	208106001	Straight oil cup	M8X1-JB9740_1	4
19	202110004	Hex socket button head screw	M8X12-GB70_2	4

Support arm assembly-5T



Pos.	Code	Description	Specification	Qty
1	205101018	Bearing	3025-SF-2X	4
2	205101059	Bearing	3556-SF-2X	4
3	612021003B	Rotation shaft of the main lift	6603B-A5-B1	4
4	410210121	Pin shaft of the main lift	6603B-A5-B5	1
5	420210060B	Pad block	6603B-A5-B6	2
6	410210131B	UP shaft	6603B-A5-B12	1
7	420680169	Up slider	6603B-A5-B13	2
8	420680168	Downside slider	6603B-A5-B14	2
9	614021050	Arm A (5T)	6603B-A5-B2-5T	1
10	614021051	Arm B (5T)	6603B-A5-B3-5T	1
11	410240031	Washer	6603GN-A10	2
12	204101012	Class C flat washer	D24-GB95	2
13	204301009	Circlip	D25-GB894_2	4
14	204101015	Class C flat washer	D30-GB95	2
15	204301011	Circlip	D30-GB894_2	1
16	204301012	Circlip	D35-GB894_2	2
17	203103011	Non-metallic lock nut	M24-GB889_1	2
18	208106001	Straight oil cup	M8X1-JB9740_1	4
19	202110004	Hex socket button head screw	M8X12-GB70_2	4

Model B



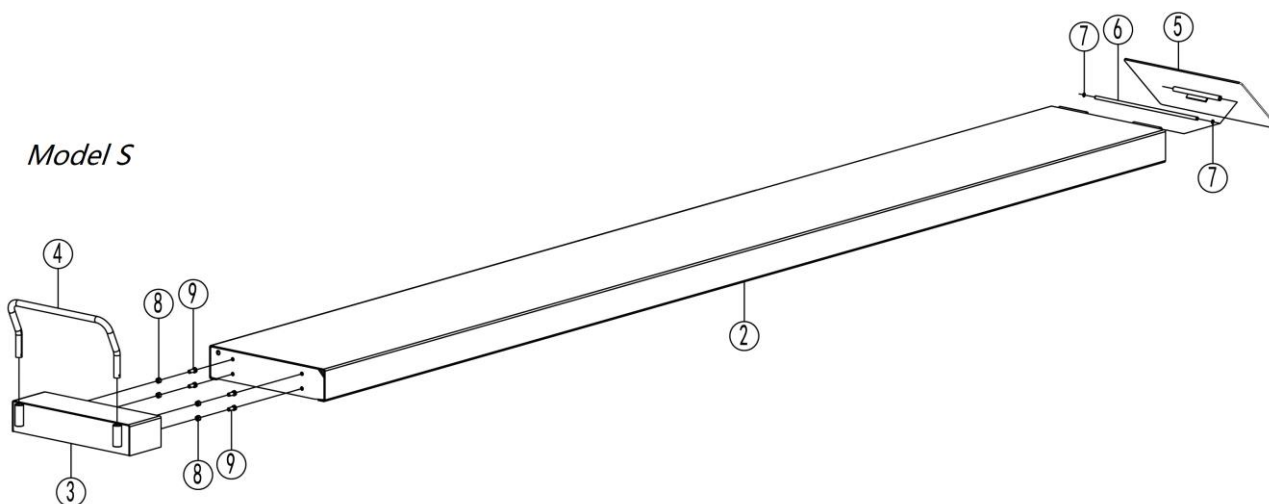
Pos.	CODE	Description	Specification	Qty
1	614901215	Wheel-support platform A (48L,left, main, no track for rolling jacks)	6603B-A4-B11-48LA	1
	614901217	Wheel-support platform A (51L,left, main, no track for rolling jacks)	6603B-A4-B11-51LA	1
2	614901216	Wheel-support platform B (48L,right,secondary,no track for rolling jacks)	6603B-A4-B11-48LB	1
	614901218	Wheel-support platform B (51L,right,secondary,no track for rolling jacks)	6603B-A4-B11-51LB	1
1	614901223	Wheel-support platform A (48L,left, main, with track for rolling jacks)	6603B-A4-B11-48LCA	1
	614901225	Wheel-support platform A (51L,left, main, with track for rolling jacks)	6603B-A4-B11-51LCA	1
2	614901224	Wheel-support platform B (48L,right,secondary,with track for rolling jacks)	6603B-A4-B11-48LCB	1
	614901226	Wheel-support platform B (51L,right,secondary,with track for rolling jacks)	6603B-A4-B11-51LCB	1
3	614021009	Box A	6603B-A4-B1	2
4	410210173	Wheel retainer	6603B-A4-B2	2

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Pos.	CODE	Description	Specification	Qty
5	614021010	Box C	6603B-A4-B3	4
6	614021011	Box D	6603B-A4-B4	2
7	610801611	Box-200 (51L)	6603B-A4-B51-00	10
7	610801611	Box -200 (48L)	6603B-A4-B51-00	8
8	410210053	Box B-100mm(only for 51L.50T)	6603B-A4-B6	2
9	614021023	Box F -162mm	6603B-A4-B14	2
10	614042008	Drive-on ramp	66035-A03-B02	2
11	410210111	Shaft A	6603B-A4-B9-C4	2
12	614021017	Side slip plate (48L/51L)	6603B-A4-B7-48L	2
13	420270100	Rotor ball holder	6435B-A4-B20	6
14	420270110	Rotor ball	6435B-A4-B21	240
15	420210030	Nylon sheath	6603B-A4-B7-C4	4
16	410250011	Washer	6604B-A1-B5	4
17	206201004	Cotter pin	D3X45-GB91	4
18	410250221B	Bolt	6604B-A16	4
20	202103024	Cross socket flat head screw	M10X25-GB819-1	6
21	204301002	Circlip	D12-GB894_1	4
22	203101007	Hex nut	M12-GB6170	8
23	201102027	Hex head full swivel screw	M12X30-GB5783	8
24	202110003	Hex socket button head screw	M6X16-GB70_2	4
25	202109030	Hex socket cylinder head screw	M8X25-GB70_1	16
26	615027049	Turn table (optional)	615027049	2
40	614901667	Plate (48L/51L)	6603B-A4-B11-C36	4
41	614901261	Pad plate(48L/51L)	6603B-A4-B12-48L	2
42	201102015	Hex head full threaded screw	M8X40	8
43	202110005	Hex socket button head screw	M8X20	8
44	420680092	Magnetic pad (570*1205*1) (48L)	6603B-A4-B42	2
	420680093	Magnetic pad (570*1405*1) (51L)	6603B-A4-B43	2

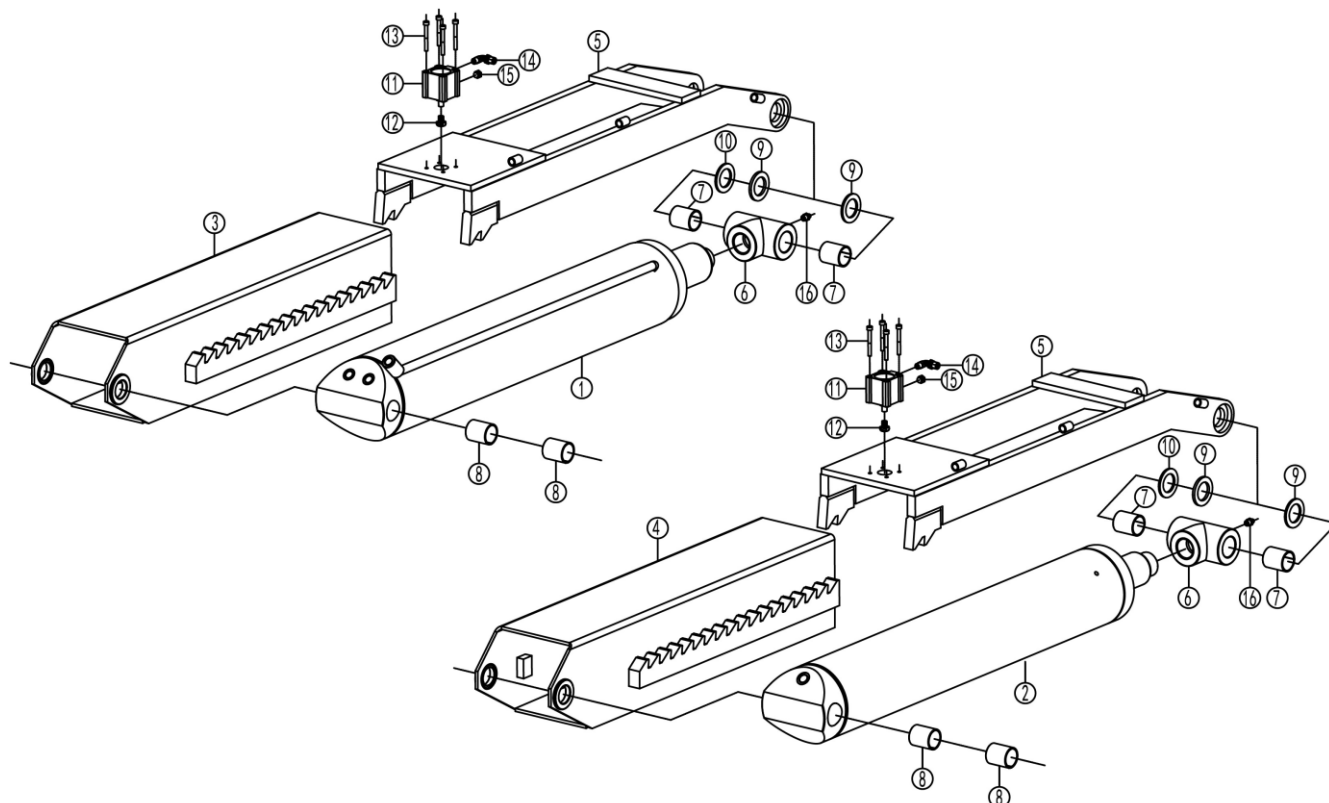
Model S



Remark: for model S the two platforms are entirely the same.

Pos.	CODE	Description	Specification	Qty
1	614021501	Platform(48L,no track)	6603S-A4-B11	1
	614021506	Platform(48L, with track for rolling jacks)	6603S-A4-B11	1
	614021502	Platform(51L.50T,no track)	6603S-A4-B11	1
	614021509	Platform(51L, with track for rolling jacks)	6603S-A4-B11	1
3	614021503	Box A	6603S-A4-B1	2
4	410210173	Wheel retainer	6603B-A4-B2	2
5	614042008	Drive-on ramp	6603S-A03-B02	2
6	410210111	Shaft A	6603B-A4-B9-C4	2
7	204301002	Circlip	D12-GB894_1	4
8	203101007	Hex nut	M12-GB6170	8
9	201102027	Hex head full swivel screw	M12X30-GB5783	8

cylinders and locks for the main lifting system



Pos.	CODE	Description	Specification	Qty
1	615021012	Drive oil cylinder	6603-A6-B1	1
2	615021013	Assistant oil cylinder	6603-A6-B2	1
3	614021026	Drive cylinder sheath	6603B-A6-B3	1
4	614021027	Slave cylinder sheath	6603B-A6-B4	1
5	614021028B	Mechanical safety lock	6603B-A6-B5	2
6	410212100	Three way connector	6603B-A6-B8	2
7	205101021	Bearing	3040-SF-2X	4
8	205101023	Bearing	3050-SF-1X	4
9	410200181	Washer	6503-A5-B7	4
10	410190101	Thin space washer	6501-A2-B8	2
11	310501001	Air cylinder	CQ2B32X20	2
12	420420010	Adjustable head	66035-A03-B09	2
13	202109014	Hex socket cylinder head screw	M5X45-GB70_1	8
14	310102024	Bending pneumatic connector	KLL8-01	2
	310302001	Right angle pneumatic connector Replace 310102024 since 20 th .Oct,2024	TKN-PH8-01	2
15	310201003	Muffler	SLM01-R1-8	2
16	208106001	Straight oil cup	M8X1-JB9740_1	2