Original



Installation And Service Manual

SINGLE POST PARKING LIFT

MODEL: SPL-6

Cargo Claims

If there is any missing or damaged product during transportation, the buyer must notate on the shipping paperwork or refuse the shipment. NOTATE ALL DAMAGE OR REFUSE DAMAGED SHIPMENT! 🛆 DANGER

Read the entire contents of this manual before using this product. Failure to follow instructions and safety precautions could result in serious injury or even death. Make sure all other operators also read this manual. Keep this manual near the machine so that it can be seen by all users. By proceeding with installation and operation, you agree that you are fully understand the contents of this manual and take full responsibility for the use of the product.

Address:

SC Division: 1931 Joe Rogers Jr Blvd, Manning, SC 29102, USA TX Division: 4310 Adler Dr., Suite #200, Dallas, TX 75211, USA

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Explanation o	of the safety warning symbols used in this manual
	Risk of death or injury.
	Dangerous or unsafe practices that may result in death or injury.

- ACAUTION Dangerous or unsafe practices that may result in personal injury, product damage or property damage.
 - ATTENTION Conditions that may result in damage to products or property.

PROFILE

This instruction manual is specially prepared for you. Your new lift is the product of over a decade of continuous research, testing and development. AMGO lifts are one of the best lifts you can purchase!

Please make sure to read through this manual before operating the lift.

Record the information on the nameplate label here:

Model No.:

Serial No.:

Manufacturer date:

WARRANTY

The warranty period for the steel structure part of new car lift is 5 years, hydraulic components, bronze bushings, sliders are under warranty for 3 years, and electrical components warranty for 2 years. Rubber pads are without warranty. During the warranty period, the manufacturer will repair or replace the defective parts free of charge including shipping costs.

This warranty does not cover damage caused by normal wear and tear, improper use, damage in transit, or damage caused by lack of maintenance.

This warranty is unique and supersedes what is expressed and implied in all other warranties. The manufacturer shall not be liable for any particular, indirect or accidental damage resulting in breach of or delay in the execution of the warranty. The manufacturer reserves the right to design and improve the product and has no obligation to make notice of the changes in advance.

The product warranty based on the above clause is based on the model number and serial number of the equipment. This information must be provided in conjunction with all warranty information at the time of service and warranty.

1

SAFETY WARNING LABEL

WARNING



Never allow unauthorized personnel near the equipment



Always wear protective shoes and mind your feet during lowering



Don't lower the lift when there is vehicle underneath.



Don't stand on or under the lifting platform during lift operating.



Keep away from the equipment during operation



Please mind your hands during operation.



Please run away quickly from any falling objects.



before repairing the vehicle.

No.71030140

Fig. 1

PLEASE READ THE PRECAUTIONS CAREFULLY

IMPORTANT SAFETY INSTRUCTIONS

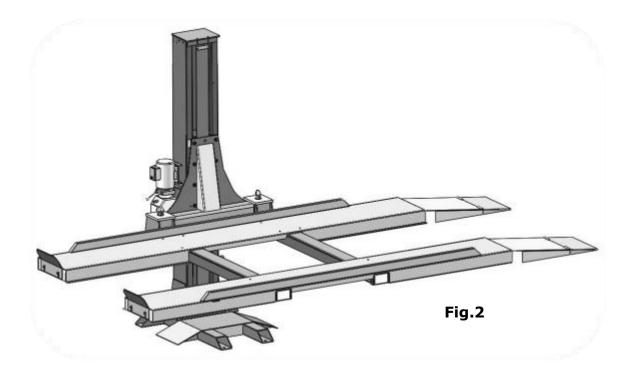
In order to properly maintain your product and ensure operator safety, it is the responsibility of the product owner to read and follow these instructions!

- 1. Ensure product installation complies with all applicable local regulations and rules, such as Occupational Safety and Health Administration regulations and electrical codes.
- 2. Ensure that all operators are properly trained, know how to operate the unit safely, and are properly supervised.
- 3. Do not operate the lift until you are sure all parts are in place and operating correctly.
- 4. Keep your hands and feet away from the machine. Keep hands and feet away from any moving parts. Keep your feet away from the lift as it descends to avoid pressing on pointed objects.
- 5. Keep the work area clean. A cluttered workspace can lead to injuries.
- 6. The machine is only approved for indoor installation and use. Outdoor installation is prohibited.
- 7. Only trained operators are allowed to handle the lift machine. All untrained persons must stay away from the workplace. Never allow untrained persons to handle or operate the machine.
- 8. Use the lift properly. Use the lift in the correct way.
- 9. Warning! Keep persons and objects from the lift when lifting the a vehicle.
- 10. If the vehicle is at risk of falling, make sure no one is around the lift.
- 11. Before preparing to approach or service the vehicle, ensure that the safety device is in effect.
- 12. Dress appropriately when operating machines, and wear non-slip steel-toe shoes for safety consideration.
- 13. Beware of electric shock. In order to protect the operator from electric shock, the lift in use must be grounded. Do not connect the green wire to the terminal. This is the ground wire.
- 14. Danger! The power supply used in this type of lift has high voltage. Please disconnect the power supply before any circuit repair. Unplug in case the power supply is accidentally switched on during maintenance.
- 15. Warning! There is a risk of explosion. There are parts in the equipment that produce arc light and spark. Do not operate near flammable gas. This machine should not be placed in the lounge or basement.
- 16. Maintain with care. Keep the machine clean for better and safer operation. Perform proper lubrication and maintenance procedures according to the manual. Keep handles or buttons clean, dry, and free of oil.

- 17. Stay alert. Use common sense to observe what you are doing and stay alert.
- 18. Check for damaged parts. Check for adjustments to moving parts, damage to parts, or anything that may affect their operation. Do not use the machine if the parts are damaged.
- 19. Do not remove relevant safety parts from the machine. Do not use a lift if it is damaged or missing.
- 20. Operate the lift only at temperature between 41°F to 104°F (5°C to 40°C)

CANGER Be very careful when installing, operating, maintaining or repairing this equipment. Failure to comply may result in property damage, product damage, injury or (in very rare cases) death. Ensure that only authorized personnel operate the equipment. All repairs must be carried out by an authorized technician. Do not modify the machine, this voids the warranty and increases the probability of personal injury or property damage.

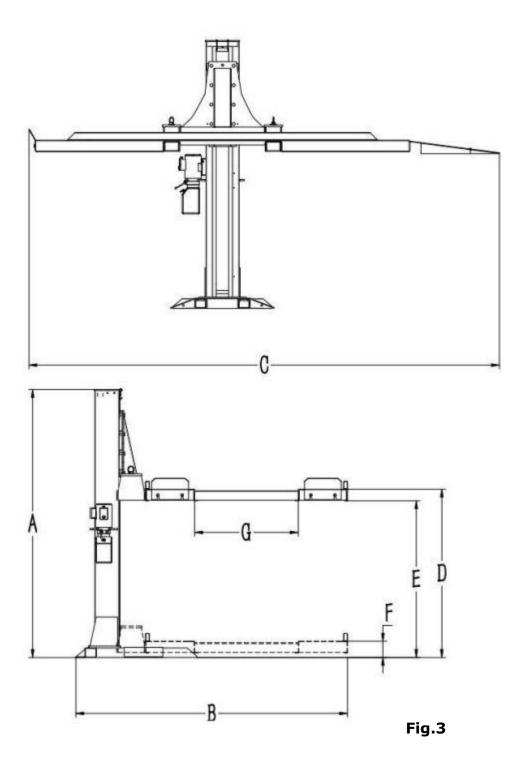
I. PRODUCT FEATURES AND SPECIFICATIONS



Single-post Parking Lift MODEL SPL-6

- · Specially designed for parking.
- · Dual safety device, no need air source, manual safety lock release.
- · Non slip lifting platform.
- \cdot H-shaped lifting platform with reinforced column and base to provide excellent stability.
- \cdot Available for low ceilings garage as low as 110".
- Suitable for home garages and commercial applications, with limited floor space required..

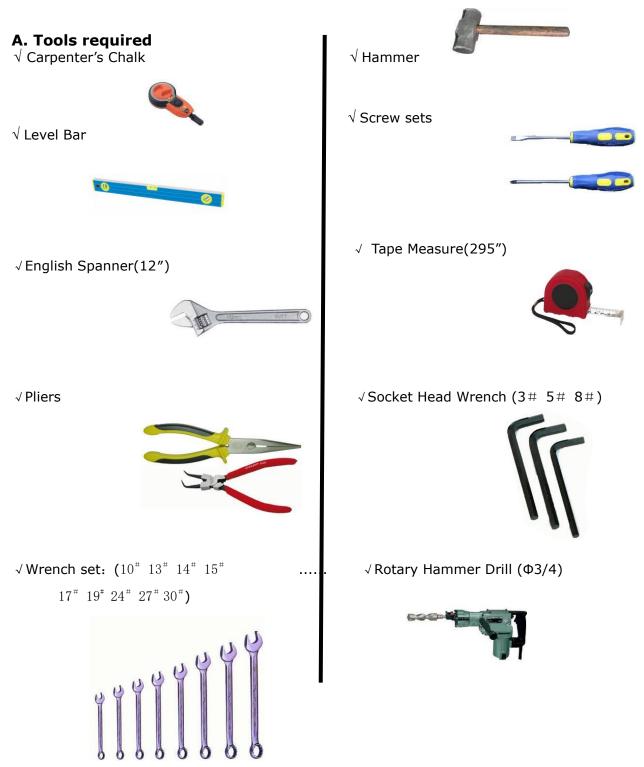
Specification & Dimension



MODEL SPL-6 SPECIFICATIONS

			A	В	с		D		E	F	G	
Model	Lifting Capacity	Lifting Time	Overall Height	Overall Width	Overall Length Incl. Ramps	Max. Lifting Height	Max. lock height to top of runway	Max. height underneath runway	Max. lock height underneath runway	Min. Height	Width Between runway	Motor
SPL-6	6000lbs	84s(110V) 32s(220V	108 7/8"	111"	192 1/8"	74"	64 7/8"	69 1/4"	66 1/8	6 3/8"	42 3/8"	1.0HP (110V) 2.0HP (220V)

II. INSTALLATION REQUIREMENT





B.Storage and installation requirement

- 1. Store the equipment in a dry, non-moldy and non-flammable environment.
- 2. The lift is only approved for indoor installation and use. Outdoor installation is prohibited.
- 3. When installing the machine, take safety precautions according to the instructions to avoid device damage.
- 4. The equipment should not be installed outdoors if the installation area is not protected.
- 5.During installation, all parts should be fastened to ensure the stability and smooth operation of the machine.
- 6.After installation, the whole machine should be checked to make sure that every component is working properly.

C.Specification of concrete (See Fig. 5) **Specifications of concrete must be adhered to the specification as following. Failure to do so may result in lift and/or vehicle falling.**

- 1. Concrete must be thickness 5" minimum thick and without reinforcing steel bars, and must be dried completely before the installation.
- Concrete must be in good condition and must be of test strength 3,500psi minimum.
 Solidify at least 15 days.
- 3. Floors must be level and contain no cracks.
- 4. Do not install the lift on asphalt or any surface other than concrete.

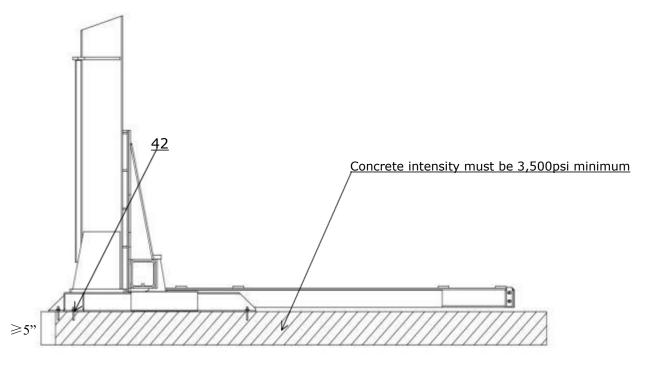


Fig.5

D.Power supply

- 1. You are required to use a licensed and qualified electrician for the installation process.
- 2.The power supply must be 110VAC/60HZ or220VAC/60Hz, with a cord larger than 12AWG, and must be properly grounded.

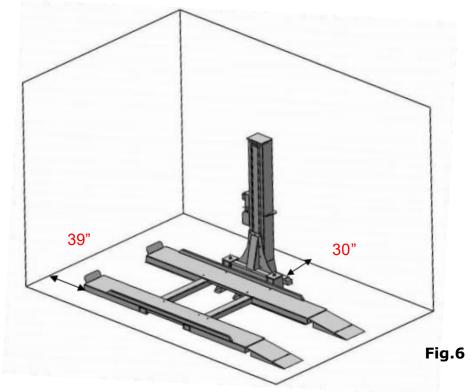
▲ DANGER All electrical wiring must be performed by a licensed and certified electrician. Attempting to connect the circuit without proper certification may cause damage to the lift or electrocution, resulting in serious injury or death.

III. INSTALLATION STEPS

A. Location of installation

Check and ensure the installation location (concrete, layout, space size etc.) is suitable for lift installation.

- Architectural plans. Consult the architectural plans for your desired installation location. Make sure there are no contradictions between what you want to do and what the plans show.
- 2. Available space. Make sure there is enough space for the lift; front, back, sides, and above. Refer to specifications for specific measurements.(See Fig.9)
- 3. Overhead obstructions. Check for overhead obstructions such as building supports, heaters, lights, electrical lines, low ceilings, and so on.
- 4. Power. You need a 110VAC/60HZ or 220 VAC/60Hz, current 20A, with a cord larger than 12AWG.
- 5. Installations: AMGO car lifts are approved for indoor installation and use only. Outdoor installation is prohibited.
- 6. Floor. The lift should only be installed on a flat, level concrete surface and not on asphalt or any other type of flooring. It is important to ensure that surface not more than 3° slope before installation.

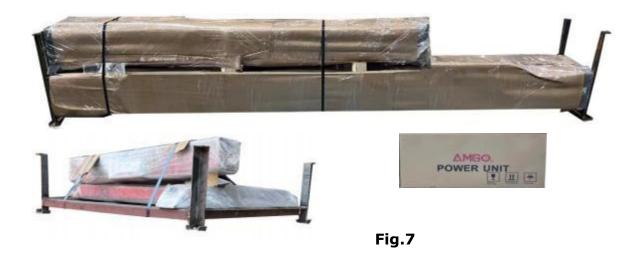


CAUTION Installing the lift on a surface with slopes more than 3° could lead to injury or even death. AMGO lifts are designed for installation on a flat and level surface only. (Defined as no more than 3/8 of an inch difference over the installation area). If the floor cannot be leveled, consider changing installation locations.

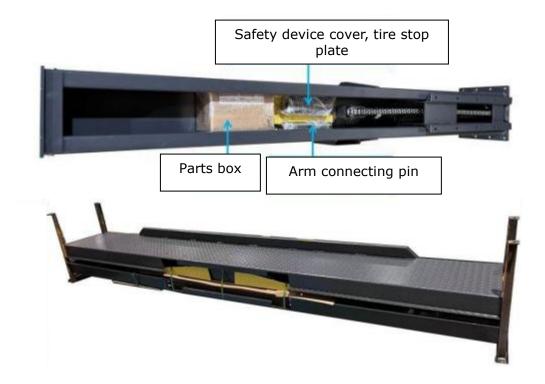
ATTENTION: Lift installation and concrete construction must comply with the latest version of the national standard "Automotive Lifts - Safety Requirements for Construction, Testing and Verification".

B.Check the parts before assembly

1. Received goods (lift and hydraulic power unit). (See Fig. 7)



2. Move the package of lift with forklift or crane to the side of installation location, cut the packing strips, take the column down with forklift or manually.



3.Remove the bolts of upper package, move aside the platform at top layer, take out the parts inside the platform at second layer, and remove the package stand.

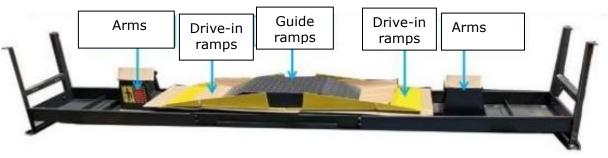
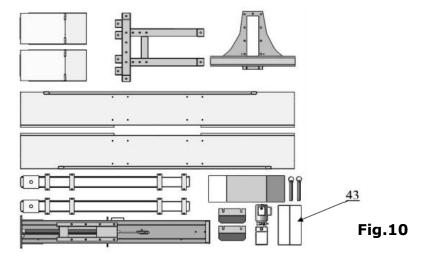


Fig.9

4. Move aside all parts to installation site and check the parts according to the shipment parts list. (See Fig.10)



5. Open parts box, check the parts according to the parts box list. (See Fig.11)



6. Check the parts of the parts bag according to the parts bag list. (See Fig. 12)

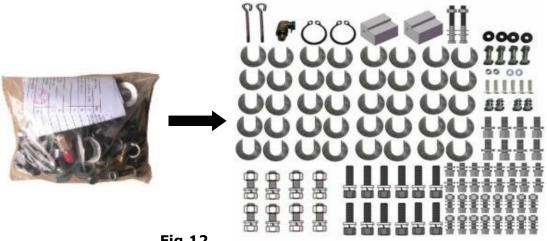
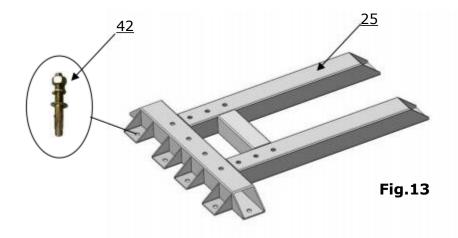


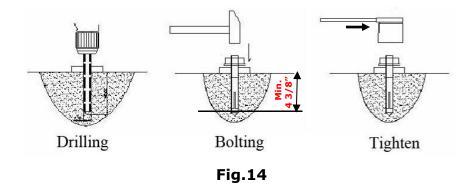
Fig.12

C.Confirm the installation position and place the base onto it. (See Fig.13)



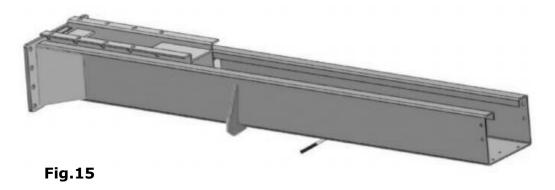
D.Fix anchor bolts.

Using the prescribed rotary hammer drill, and drill all the anchor holes and install the anchor bolts. Then tighten the anchor bolts. (See Fig. 14) **Note:** Torque of anchors is 150N.m. Minimum embedment of anchors is 4 3/8".

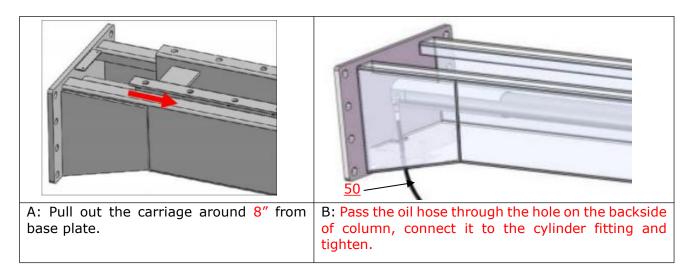


E.Install column and connect the oil hose to cylinder.

1.Lay the column flat on the ground. (See Fig.15)

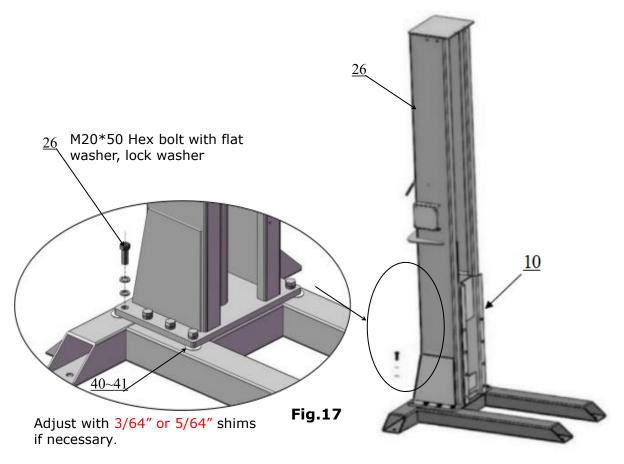


2. Connecting oil hose to cylinder. (See Fig.16)



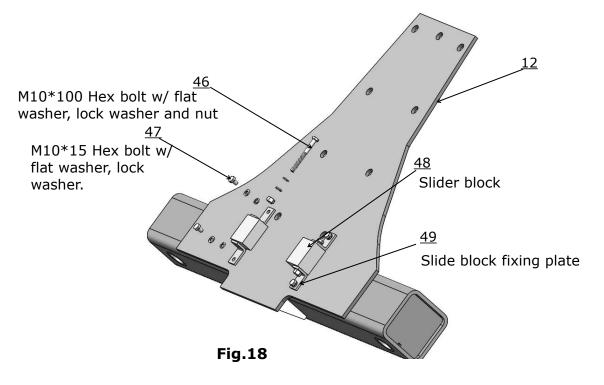


3. Position the column onto the base, align the mounting holes, and install with bolts. Check the column plumbness with level bar, adjust with shims if necessary. (**See Fig.17**)

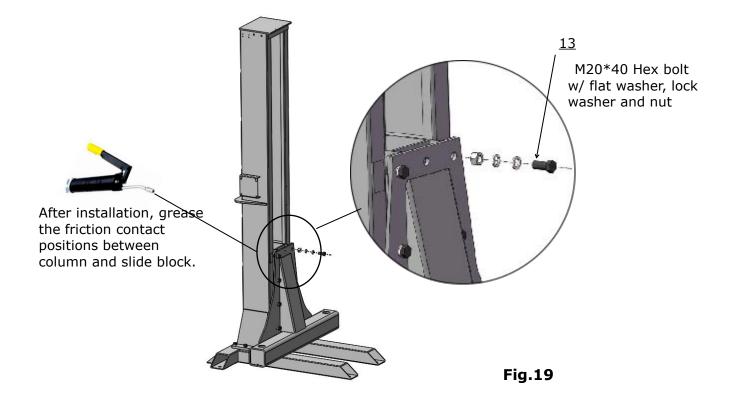


F.Install platform connection.

1. Connect the slider block with slide bock fixing plate, and fix to the backside of platform connection. (See Fig.18)

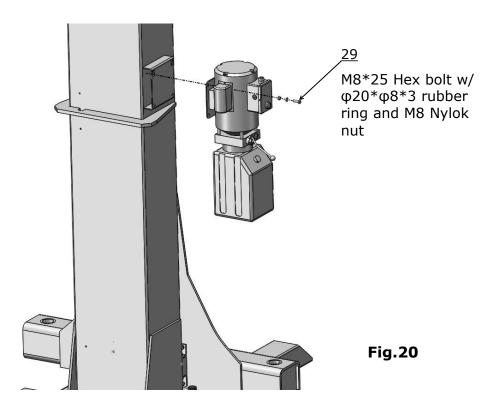


2. Install the platform connection to the carriage. (See Fig. 19)



G.Install power unit ,oil hoses and retainer

1.Install power unit, see fig 20



2. Install power unit, see fig 21

Install the 90° fitting to the power unit, then connect it with the oil hose that comes from the cylinder.

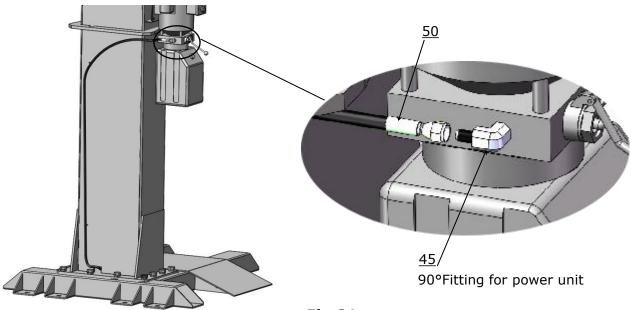
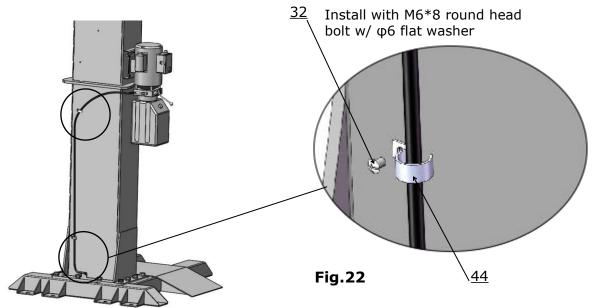


Fig.21

3. Install retainer, see fig 22.



Note: Tighten the oil hose fitting and power unit fitting to avoid oil leakage.

4. Fill the reservoir with hydraulic oil.

In consideration of hydraulic system's durability, please use hydraulic oil 46#.

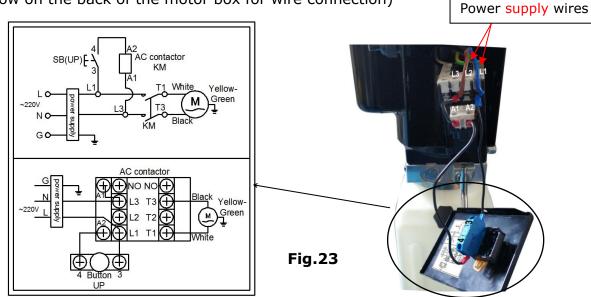
H.Install electrical system

Connect the power with schematic circuit diagram according to the requirement on the motor plate.

Note: To ensure the safety of operators, the lift must be grounded. Test the lift after installation to check if works fine.

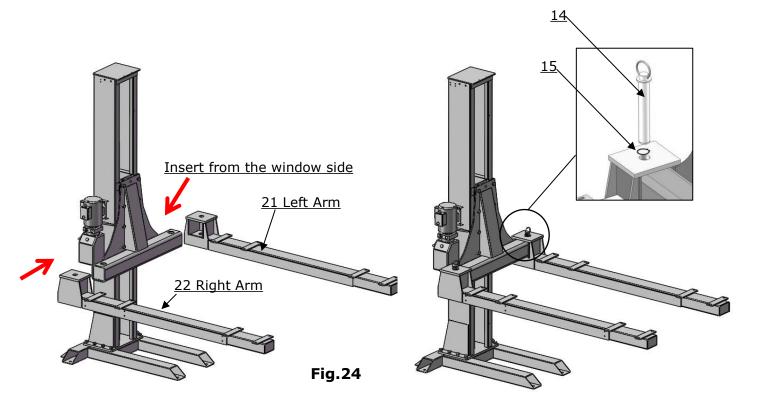
Single phase motor

Connect the two hot wires of power supply respectively to the terminals of AC contactor marked L1 and L3 . Connect ground wire to ground terminal.(Follow the circuit diagram show on the back of the motor box for wire connection)



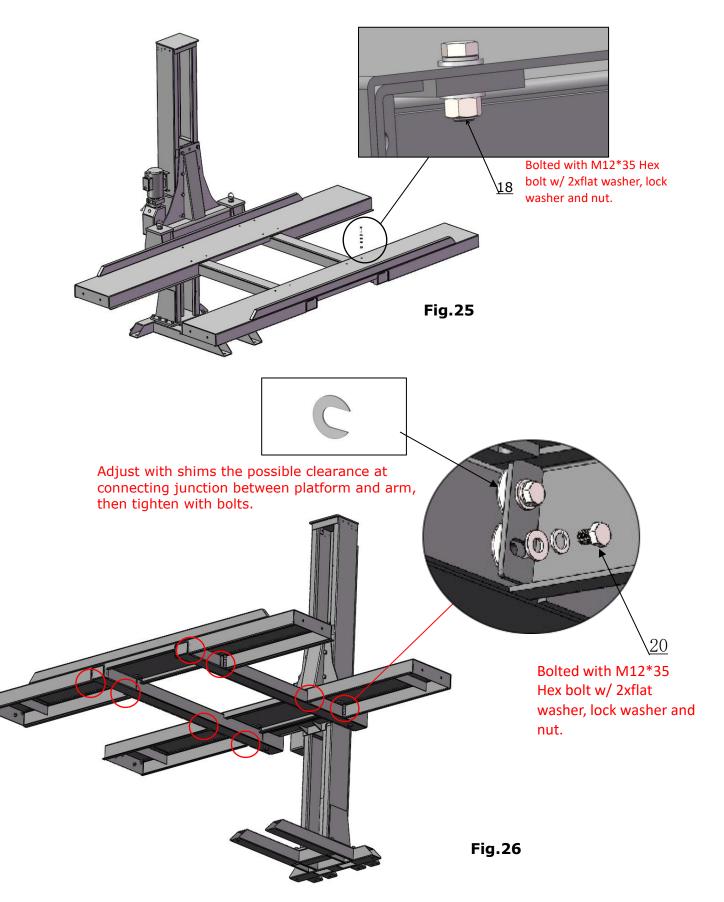
I. Install arms

Raise the carriage to proper position, insert the left and right arms from the window side into square tubes of platform connection, align the pin hole and fix with pin, then install the limit clip ring at the bottom.



J. Install platform

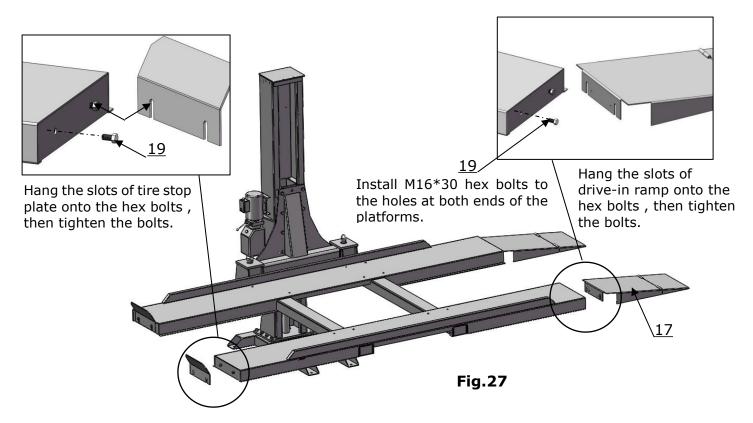
Hoist the platforms onto the arms, align the mounting holes and connect with bolts (no need to tighten the bolts at this step, tighten them in turn after the bolts of the lateral sides are aligned with the holes.)



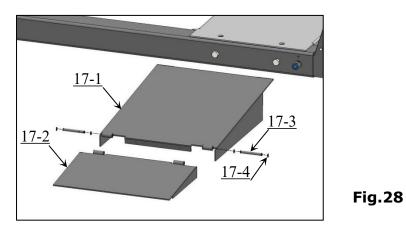
K.Install the drive-in ramps, tire stop plates and guide ramps.

1. Install drive-in ramps, tire stop plates.

Install M16*30 hex bolts into the holes at both end of the platform , hang the drive-in ramps and tire stop plates onto the bolts, then tighten the bolts.



Exploded view of foldable drive-in ramps assy. (1104533025C)

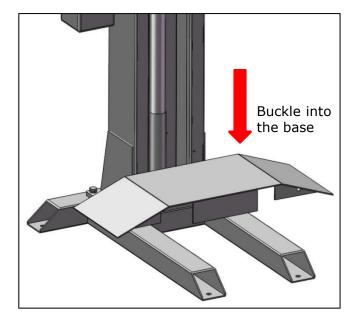


Parts list of foldable drive-in ramps assembly (1104533025C)

No.	Part Number	Description	Qty
17-1	1104233003A	Foldable drive-in ramps #1	2
17-2	1104233004A	Foldable drive-in ramps #2	2
17-3	1104543021	Connect Pin	4
17-4	10209010	φ10 Snap Ring	8

2. Install guide ramps.

Buckle the guide ramps directly into the base. See fig. 29



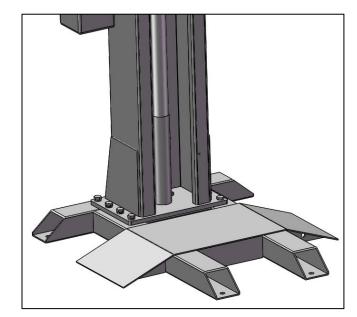
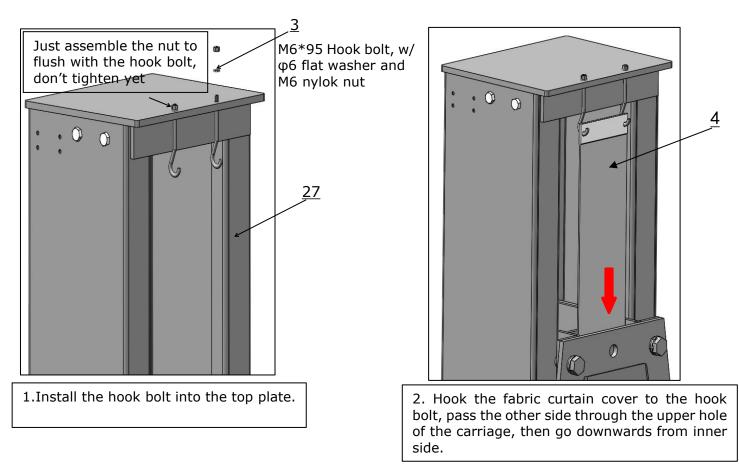


Fig.29

L. Install fabric curtain cover . See fig 30.

Follow the steps below to install the curtain



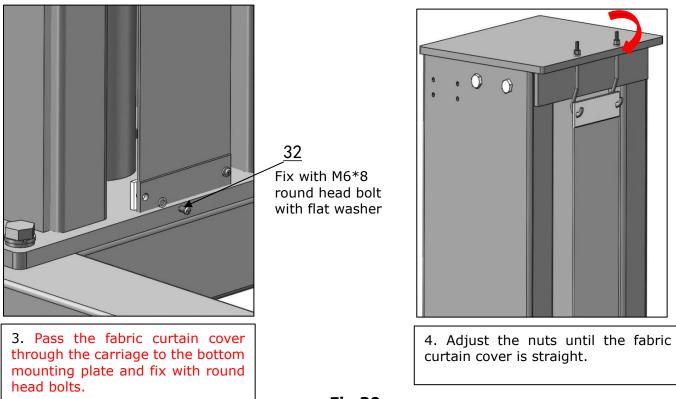
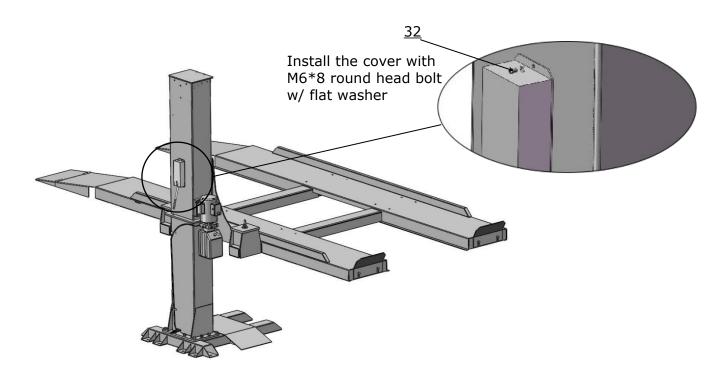


Fig.30

M. Install safety device cover . See fig 31.

Align the safety device cover with the holes on the column, and install with bolt.





IV. EXPLOEDED VIEW

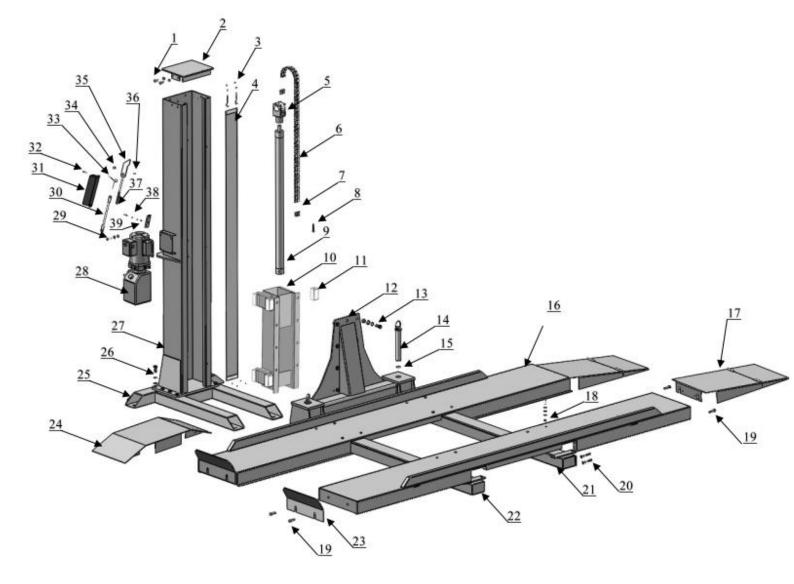


Fig.32

Parts List of SPL-6

Item	Part#	Description	QTY.
1	1001085013	M12*30 hex bolt (w/ M12 Nylok nut)	2
2	11101013-01	Top plate	1
3	1101085015	Hook bolt M6*95 (w/ $\phi 6$ flat washer, M6 Nylok Nut $)$	3
4	11101042	Fabric curtain cover L=2570	1
5	10207681	Chain pulley seat assy.	1
6	10101007	Chain	1
7	10201010A	Chain joint	2
8	10201005	Cotter pin(φ4*50)	1
9	10207010	Cylinder φ75*870mm	1
10	1101082023A-01	Carriage	1
11	1002755015	Slider block (55*50*100)	8
12	1101082001A-01	Platform connection	1
13	1001085008	M20*40 hex bolt (w/ ϕ 20 flat washer, ϕ 20 lock washer, M20 nut	8
14	1101082009A	Arm connecting Pin	2
15	10206033	Φ45 Clip ring	2
16	1101082013A	Platform	2
17	1104533025C	Foldable drive-in ramps assy.	2
18	1001085010	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	16
19	10410013	M16*30 hex bolt	8
20	1001085004	$ \begin{array}{c c} M12*16 \ hex \ bolt \ (w/ \ \phi 12 \ flat \ washer, \ \phi 12 \\ lock \ washer) \end{array} $	16
21	1101082003A	Left arm	1
22	1101082003A	Right arm	1
23	1101082018	Tyre stop plate	1
24	1101082024A	Guide ramp	
25	101023	Base	
26	1001085005	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	
27	11101040	Column	
28	071103	Manual power unit	

Item	Part#	Description	QTY.
29	1001085009	M8*25 hex bolt (w/ 8*20*3 rubber ring, M8 nylok nut)	4
30	11203013	Connecting Bar	1
31	11209008	Safety device cover	1
32	1001085016	M6*8 round head bolt (w/ φ6 flat washer)	6
33	10209007	Spring (120°)	1
34	11206002	Safety block pin	1
35	11203263	Safety device	1
36	10209012	Snap pin (q3.2)	1
37	10206003	Rubber sleeve of release handle	1
38	1001085014	M6*20 hex bolt (w/ φ6 flat washer, φ6 spring washer, M6 nylok nut)	1
39	11203261	Safety block	1
40	10201090	Shim 1mm	20
41	10620065	Shim 2mm	20
42	10201140	Anchor bolts 3/4"*6-1/2"	8
43	1001085015	Parts box	1
44	11217048	Clip	2
45	10201020	90 ^o straight fitting for cylinder 3/8NPT(M)*1/4JIC(M)	1
46	1101085006	$ \begin{array}{c} \text{M10*80 socket bolt half threaded (w/ \phi10 flat washer, \phi10 lock washer, M10 nut) \end{array} $	2
47	1101085007	$ \begin{array}{c c} M10*15 \text{ hex bolt} & (w/ \ \phi 10 \ \text{flat washer, } \phi 10 \\ \text{lock washer}) \end{array} $	4
48	1001082002	Slide block (76*60*45)	2
49	1101082027	Slide block fixing plate	4
50	10101027	Oil hose 1/4"*1602mm	

4.1 Exploded view of cylinder (10207010):

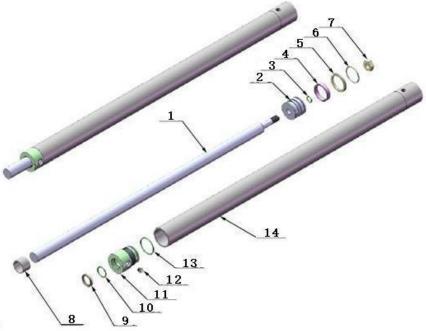
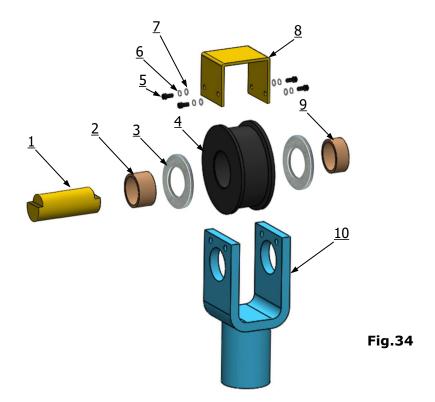


Fig. 33

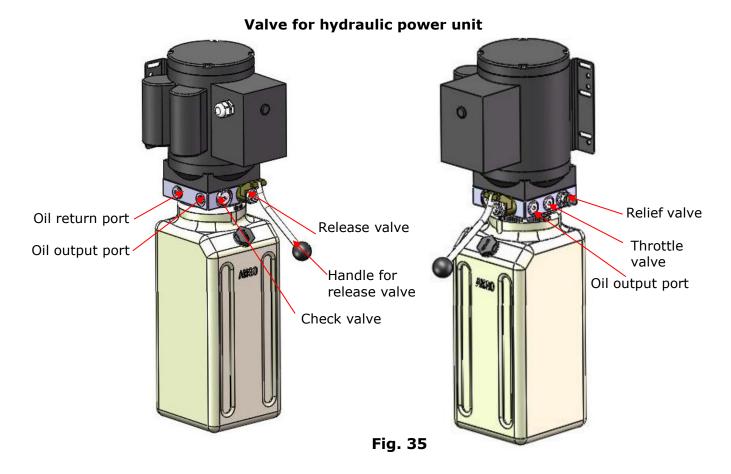
Item	Part#	Description	QTY.	Note
1	11207027	Piston rod	1	
2	11207028	Piston	1	
3	10206069	O-ring	1	
4	10620053	Support ring	1	
5	10620054	Y-ring	1	
6	10630027	O-ring	1	
7	10206071	Hex nut	1	
8	11207029	Piston rod adjusting sleeve	1	
9	10217078	Dust ring	1	
10	10520058	O-ring	1	
11	11207030	Head cap	1	
12	10201034	Bleeding plug	1	
13	10207031	O-ring	1	
14	11207032	Bore Weldment	1	

4.2. Exploded view of chain pulley seat assy. (11207681):



Item	Part#	Description	QTY.
1	11207006	Pin for chain pulley Φ35*93	1
2	10420132A	Bronze bush Ф41.2*Ф35.1*20	1
3	11530023	Flat washer Ф44*Ф35.5*2	2
4	11207007	Chain pulley Φ105*50	1
5	10430138	Socket bolt M6*16	4
6	10209149	Lock washer Φ6	4
7	10420045	Flat washer Φ6	4
8	11207693	Chain limit block	1
9	10530042	Bronze bush Ф41.2*Ф35.1*28	1
10	11207008	Chain pulley seat	1

Illustration of hydraulic



V. TEST RUN

1. Adjust the lowering speed (Fig.28)

If necessary, you can adjust the lower speed of the lift by turning the throttle valve clockwise to decrease it, or counterclockwise to increase the lower speed.

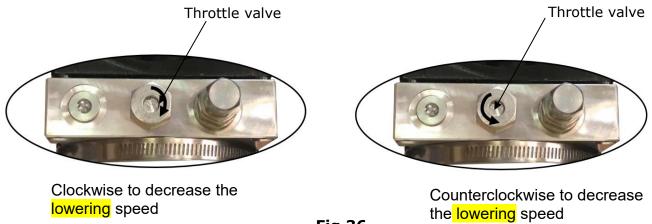
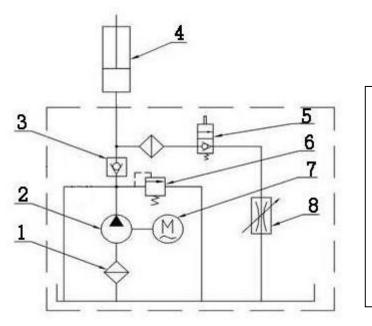


Fig.36

2. Test with load

The load test should be conducted after the above adjustments have been completed. Run the lift at low level several times first, when there is no other abnormal phenomenon, run the whole process. Repeat the above adjustment if there is any abnormal phenomenon.

Tips: There will be vibration during the first operation without load, load and run several times, the vibration will disappear naturally after the air in the hydraulic system is exhausted!



Hydraulic Schematic Diagram

- 1. Filter
- 2. Gear pump
- 3. Check valve
- 4. Cylinder
- 5. Release valve
- 6. Relief valve
- 7. Motor
- 8. Throttle valve



VI. OPERATION INSTRUCTIONS

To lift vehicle

- 1. Keep clean of site near the lift;
- 2. Place lift arms to the lowest position;
- **3.** Drive in the vehicles onto platforms.

To lower vehicle

- 1. Clear obstructions around and under the lift and keep people away from the lift.
- 2. Press the UP button of the power unit to raise the vehicle slightly and then unlock the

safety device, lower the vehicle by pushing the release handle on the power unit.

3. Drive away the vehicle.

VII.MAINTENANCE SCHEDULE

Monthly:

- 1. Tighten anchor bolts, torque of anchors is 150N.m;
- 2. Check all fittings, bolts and pins to ensure proper mounting;
- 3. Lubricate slide bock, chains with lubricant;
- 4. Make a visual inspection of all hydraulic hoses/lines for possible wear or leakage;
- 5. Check safety device and make sure proper condition;
- 6. Lubricate all rollers and pins with 90wt. gear oil or equivalent.

Note: All anchor bolts should take full torque. If any of the bolts don't function for any reason, DO NOT use the lift until the bolt has been replaced.

Every six months:

- 1. Make a visual inspection of all moving parts for possible wear, interference or damage;
- 2. Check equalizer tension of chains and make visual inspection for possible wear;
- 3. Check the plumbness of column;
- 4. Check rubber pads and replace as necessary;
- 5. Check safety device and make sure proper condition.

Oil cylinder maintenance:

In order to extend the service life of the oil cylinder, please operate according to the following requirements.

- 1. Recommend to use N46 anti-wear hydraulic oil;
- The hydraulic oil of the lifts should be replaced regularly during using. Replace the hydraulic oil 3 months after the first installation and replace the hydraulic oil once a year afterwards;
- 3. Make at least one full-cycle running everyday to exhaust the air from the system, which could effectively avoid the corrosion of the cylinder and damage to the seals caused by presence of air or water in the system;
- 4. Protect the outer surface of the oil cylinder's piston rod from bumping and scratching, and timely clean up the debris on the oil cylinder dust-ring and the piston rod.

VIII. TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Motor does not run	 Start button does not work Wiring connections are not in good condition Motor burned out AC contactor in damage 	 Replace Start button Repair all wiring connection Repair or replace motor Replace
	5. Release valve out of work 6. Gear pump in damage 7. Relief valve or check valve in damage 8. Low oil level	5. Repair or replace 6. Repair or replace 7. Repair or replace 8. Fill tank
Lift does not stay up	 Release valve out of work Relief valve or check valve out of work Cylinder or fittings leaks 	4. Repair or replace5. Repair or replace6. Replace oil seal or replace fittings
Lift raises too slow	 Oil system is jammed Motor running on low voltage Oil mixed with air Gear pump leaks Overload lifting 	 Clean the oil system Check electrical system Fill tank Replace pump Check load
Lift cannot lower	 Safety device is locking Release valve in damage Safety cable broken Oil system is jammed Hydraulic solenoid valve out of work 	 Release safety device Repair or replace Replace Clean the oil system Replace the solenoid valve

IX. CAR LIFT SAFETY TIPS

Post this safety tips in a place that will always alert the operator. Please reference to the lift manufacturer's manual for specific information about the lift.

- 1. Check the lift daily. If the machine breaks down or has damaged parts, do not operate, and use original equipment parts to repair;
- 2. **Do not** overload. The rated weight of the manufacturer design is indicated on the label of the lift;
- 3. Position control of the vehicle and operation of the lift can only be done by a trained and authorized person;
- 4. **Do not** lift a car with occupants inside. Keep the customers or bystanders away from the lift;
- 5. Keep the area around the lift clear of obstacles, lubricating oil, grease, garbage or other debris;
- 6. Before driving a vehicle onto the lift, keep the arms and rubber pads in place to ensure an unobstructed space. Do not hit or run over the arm and rubber pad of the lift, otherwise it may cause damage to the lift or the vehicle;
- 7. Lifting the vehicle to suitable position for operation. **Noted:** Please lift the vehicle high enough if you work underneath, make sure the safety devices are locked;
- 8. **Noted:** Removing(or installing) parts from(to) a vehicle would cause a sudden shift of gravity which may result in instability of the vehicle. Please refer to the vehicle manufacturer's service manual as a recommended procedure if you need remove/install parts from(to) the vehicle;
- 9. Before lowering the lift , make sure all obstacles underneath including tool tray, tool rack etc., are all removed, then release the safety lock.
- 10. Before driving the vehicle off from the lift, place the arms and rubber pads in place to allow an unobstructed exit.

X. LIFT DISPOSAL.

When the car lift cannot meet the requirements for normal use and needs to be disposed, please follow local laws and regulations.



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