

# **SP-6K-SS**

CAPACITY 6000LB

## **Single Post Storage Lift**

INSTALLATION & OPERATING INSTRUCTIONS



July 2016

# 1. GENERAL INFORMATION

## 1.1 SPECIFICATIONS

<b>Specifications</b>	<b>SP-6K-SS</b>
Capacity	6,000 lbs.
Width Overall (pump mounted on back)	110-7/16"
Width Overall (pump mounted on side)	106-5/16"
Height Overall	110-1/4"
Length Overall	185-13/16"
Undercar clearance	76-15/16"
Drive Over Base Ramp Height	3"
Runway Width	18-7/8"
Runway Length	151-15/16"
Clearance Between Runways	39-3/8" – 42-1/2"
Approach Ramp Length	30-3/4"
Power Supply	110 VAC, 1PH, 20 Amp

## 1.2 DIMENSIONS ( mm / inch)

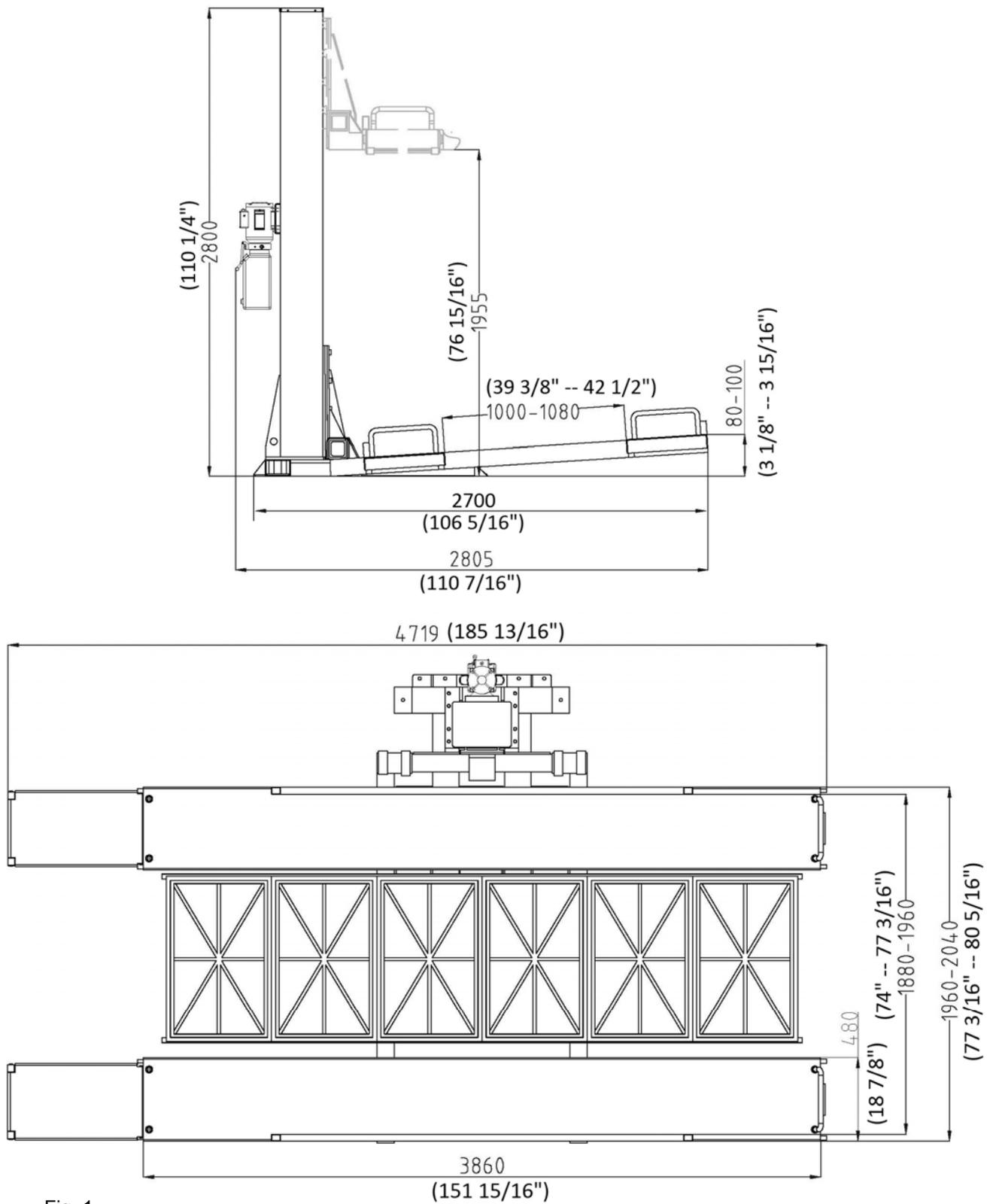


Fig. 1

## Important!

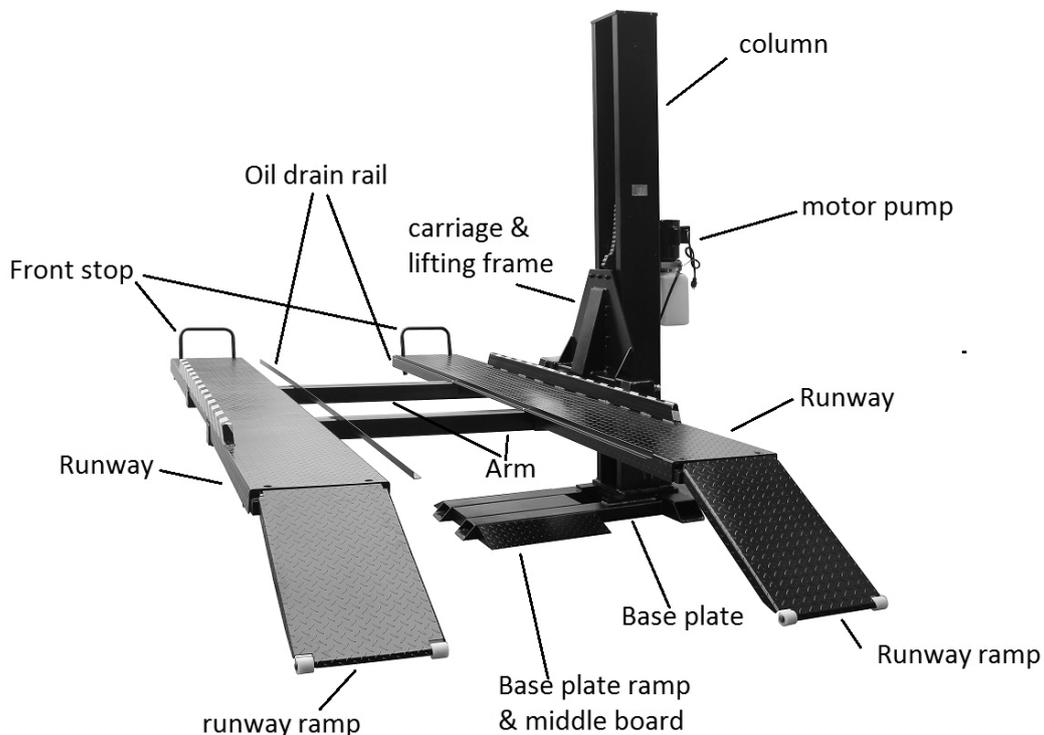
**Be sure to read the operating instructions before operating**

### Getting Ready

Make sure you have made all necessary measurements to assure that your lift will fit in your garage and accommodate the two cars you intend to park with it. Make sure you have enough clearance at the top, and enough width to allow parking a third car on the non-lift side. It is useful to chalk the outlines of the lift on your garage floor, using the manufacturer's dimensions, to see how the lift will fit. Knowing where the lift will sit the base plate, which is the first step in the assembly process, will help to determine the location of the power supply that is required to operate this lift.

Enlist the services of a qualified electrician to provide appropriate electrical service to the garage and make sure he knows what the circuit requirements are. Seek his advice on receptacle and plug configurations that will work.

Make sure you have someone to help you. The pieces of this lift are big, heavy, and cumbersome. It is possible for two people to install this lift if they have the appropriate lifting and handling equipment, but it is definitely easier and faster if there are several people available to help manhandle the pieces into place. As with any activities involving big heavy materials, safety must be uppermost in your mind. This lift is more difficult to install than some of our other units because of its one-post design, but this very design makes it extremely effective for residential garage use. With proper preparation and installation, you will be very pleased with this lift.



**Fig. 2 Major Lift Components**

## **Required Tools**

- Fork Lift to unload lift on delivery
- Fork Lift and/or engine hoist for moving pieces and positioning lift column. You will also need a ten-foot length of 3/8" chain
- Metric wrenches and sockets with ratchet
- Adjustable wrench
- Small crowbar or large screwdriver for aligning bolt holes
- Concrete hammer drill with a new 3/4" concrete bit
- Pliers
- Flat blade screwdriver and Philips screwdriver.
- Hydraulic floor jack on wheels or bottle jack, (for positioning pieces)
- 1-1/8" Socket & Extension
- 12mm Hex Socket
- Tin Snips
- 12 quarts of Non-Detergent / Non-Foaming Hydraulic Oil - SAE-10, AW 32 or equivalent

## **Optional Tools** (may be helpful, depending on specific installation)

- Fence stretcher, for pulling ramps onto lift arms

## **Floor Requirements**

- The lift should be installed on a 3000 PSI concrete with little gradients.  
Thickness of concrete: ≥ 6 inch (150 mm).

## **Receiving and Handling**

When you receive your lift, it will come banded in one large package, and you will need a forklift to unload it.

## **Installation**

You will need common hand tools that most homeowners have, like a hammer, screwdrivers and pliers. But in addition, you will need some tools that are not common. Each installation is somewhat different, and depends on how much room you have to work around the lift. Here is a chronological sequence of installation steps, with the associated tools.

### **1 Unloading the lift**

You'll need a forklift that can handle about 2500 to 3000 pounds and operate on a smooth surface. They can be rented by the day from many tool rental companies.

### **2 Un-banding the lift**

The steel bands which secure the lift parts to the pallets are heavy duty. You'll need a pair of metal shears or tin snips to cut the bands. Be very careful when doing this because the bands will tend to fly apart when they are cut, and the heavy lift parts may shift when freed from the bands. Stand to the side of the bands when you cut them, and use gloves when removing the cut bands because they have sharp edges.

### 3 Moving pieces

You can move the pieces to the garage with the forklift. Some of the smaller pieces can be moved by two or more people carrying them, but the base plate, the lifting column, the arms and the runways will probably require the forklift. A piece of 3/8" chain about 10 feet long will be useful for moving heavy pieces by wrapping around the pieces and the forks of the forklift or the engine hoist hook, if that's what you're using.

### 4. Installing steps

#### STEP 1

The first piece to be positioned is the base plate. Place it on the garage floor as close to its final position as possible. After the base plate is in place, you'll fix it on the ground by anchors. Or, it may be anchored after everything is done. (Fig. 3-A,B,C)

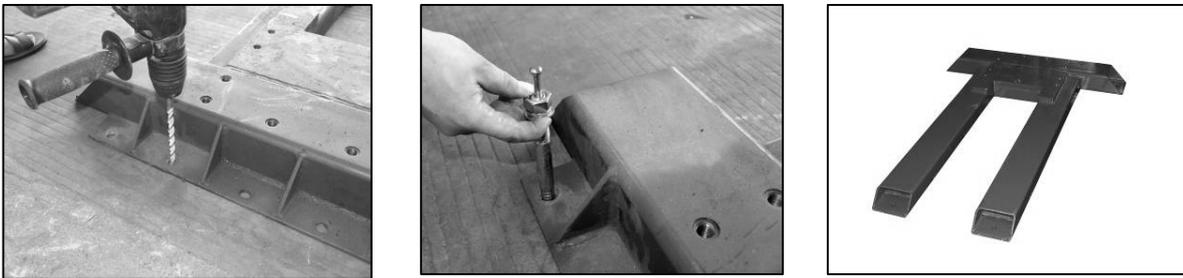


Fig. 3- A, B, C Anchoring the base plate

#### STEP 2

The next major piece is the lift column. It will have the carriage unit, the hydraulic cylinder and chain assembly, and safety latch cable already assembled in it.

Pick the column up from a horizontal position by a forklift or an engine hoist. Lift it vertically high enough to set the column on the base plate and maneuver it around to line up the mounting holes. The column is easier to maneuver when it is vertical on the base plate. If possible, do not remove the lift chain from the column until you have got the mounting bolts started into the base plate. (Fig. 4-A, B, C, D)

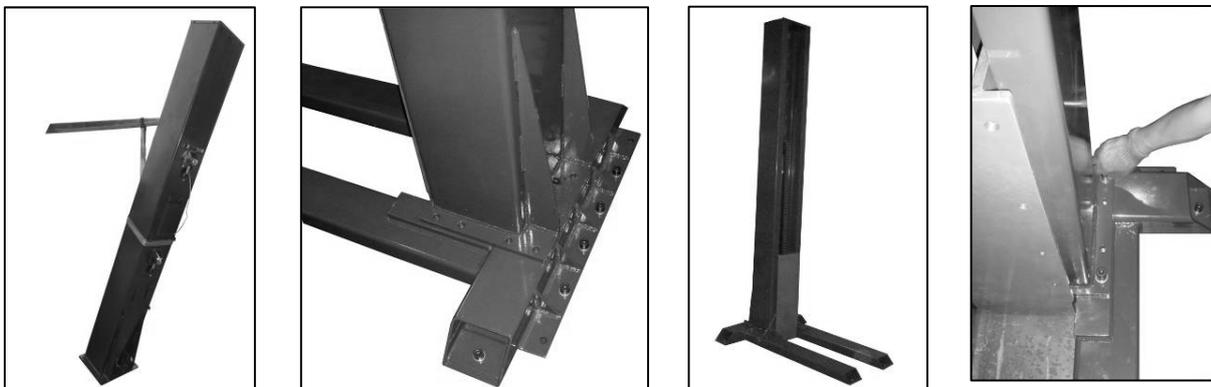
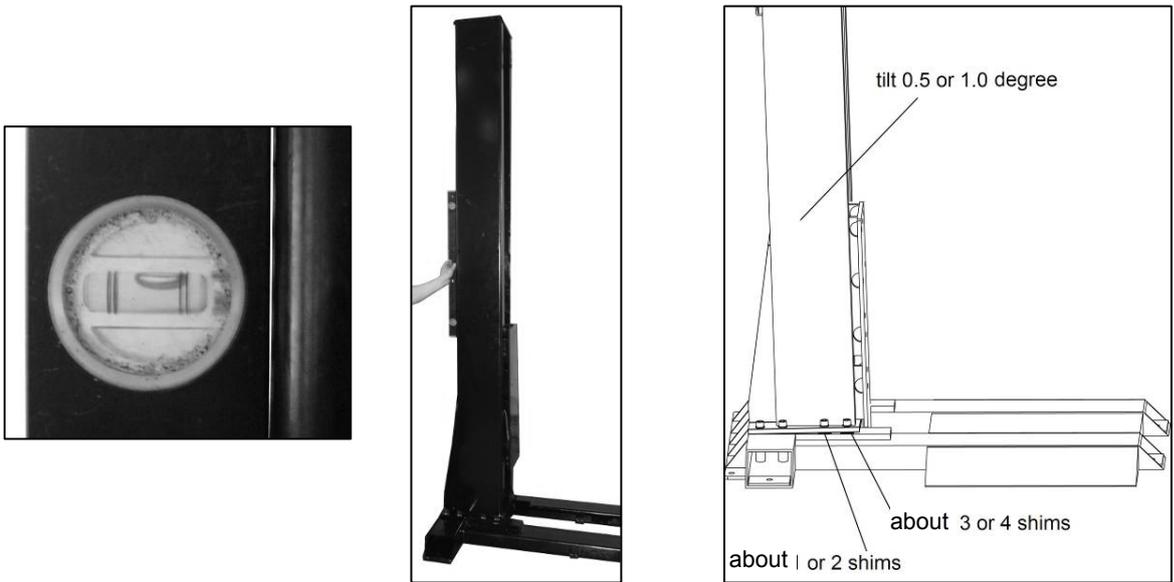


Fig. 4-A, B, C, D set up column (1)

After you've put the column into position, you'll bolt it to the base plate. You'll need a wrench or a socket with a ratchet to tighten these bolts.

In order to make the column be vertical when car is loaded, it has been welded some shims at the bottom of the column. The tilting degree is between 0.5 and 1.0 (Fig 5-A, B, C).



**Fig. 5-A, B, C set up column (2)**

### **STEP 3**

Before mount on the motor pump, first mount on the bracket on the side you preferred (right or left or back).



**Fig. 6-A, B, C, D, E pump & hose**

Then mount the motor pump on the back of column. Fix it using bolts and nuts. Connect the hose from the cylinder to the motor pump. (Fig.6-A, B, C) The hose has different fittings on each end. So make sure you match up the end of the hose with the cylinder. There is an O-ring on the end of the cylinder tube. Make sure these fittings are tight.

Fill the tank with hydraulic oil (about 6 Liter). It is suggested to be AW 32/46 Non-Detergent Non-Foaming Anti-Wear Hydraulic Oil (SAE-10).

Now you need to get the motor pump be correctly power connected. Your 110V pump does come with a short cord attached to the motor. But because it may be not longer enough and there are so many receptacle variations, you will need a proper extension cord and/or to install a plug on the end of the cord. If you are not sure the cord size and which plug to use, consult your electrician. And the motor running direction should be the same as the indication on it.

**STEP 4**

The next task is to position the lifting frame on the carriage with bolts. (Fig. 8-A,B) A hydraulic floor jack or bottle jack is good for holes lining. Then tighten all the bolts on the frame.

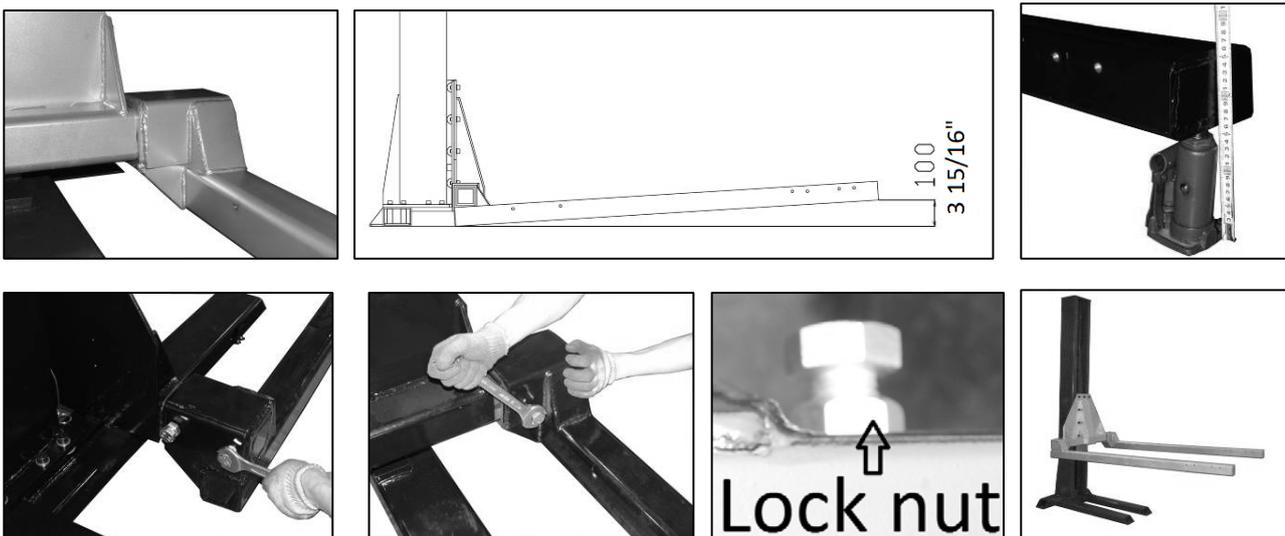


**Fig. 8-A, B lifting frame**

**STEP 5**

After that, position the two lift arms to the lifting frame (Fig. 9-A). In order to make the platforms horizontal while car is loaded, preset the arms as following:

First is to lift up the far end of the arms with hydraulic jack to 3-15/16" inch (100mm) (Fig. 9-B, C). Then tighten the back side two screws and front one screw (Fig. 9-D & E). Use the lock-nut to fix the adjusting.



**Fig. 9-A, B, C, D, E, F, G set up arms**

**STEP 6**

Install the runways on the lifting arms. If they are hard to move, you can use a chain and a fence-stretcher to help persuade them. Position the platforms according to the fixing holes on the arms. Then bolt up the runways with the lifting arms and those adjusting bolts. (Fig. 10-A, B, C)

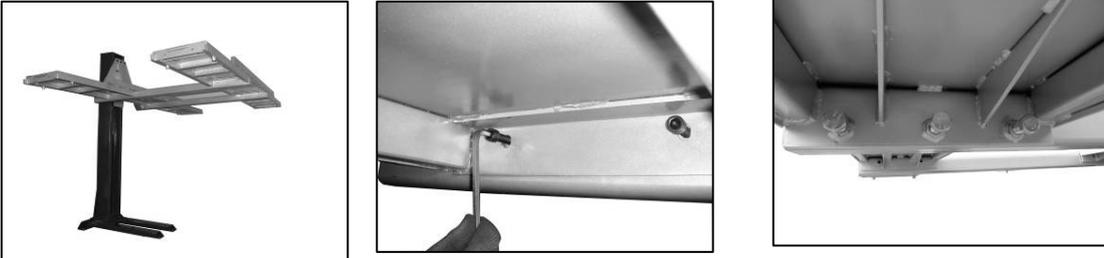


Fig. 10-A, B, C runway fixing

**STEP 7**

Put the on the ramps of the platform and those ram supports according to the driving direction. Pay attention to those Circlips. They shall be in their position. (Fig. 11-A, B, C)

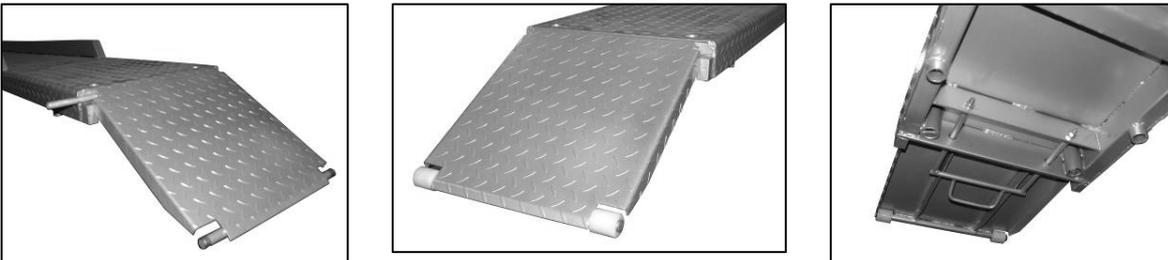


Fig. 11-A, B, C ramp and support

**STEP 8**

Put on the wheel stop at the other end of the runway (Fig. 12). Bolt the ground ramp fixing chip on the base plate. Then put on the ground ramps and middle board. (Fig. 13, 14)



Fig. 12, 13, 14 wheel stop and ground ramp

**Check again all the bolts and nuts and tighten them on necessary.  
Now the lift is ready for test.**

## OPERATING INSTRUCTIONS

The lift is very simple to operate. Turn on the power supply first. Then press and held the START button on the motor to activate it. The motor operates an internal pump that forces hydraulic oil into the lift cylinder, which extends the roller chain and raises the lift. (Fig.15)

As the lift rises, an internal safety latch will pass over the steel stops (rectangular blocks which protrude from the back, inside of the lift column), and you will hear “clanks” as it does so. This sound is normal, and indicates that the safety latch is passing over the stops properly. Release the START button when the lift has reached its desired position. For safety, every time it is suggested to lock the lift by press down the RELEASE handle.

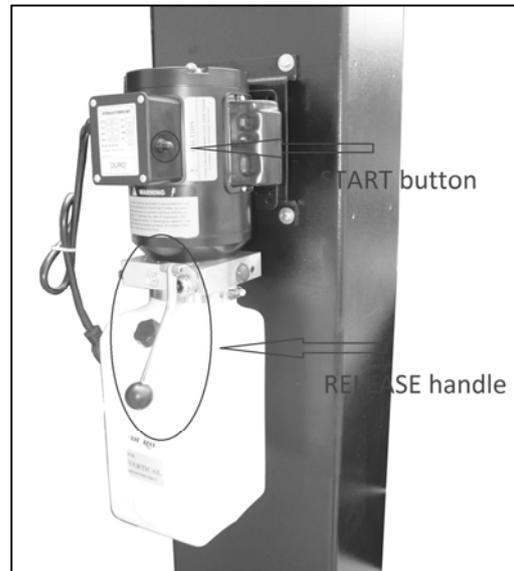


Fig. 15 start button & release button on motor

To lower the lift, you need first to raise up the carriage a little press down the START button if it has been locked . Then you shall pull the lock release cable one time to release the lock. After that, you shall press down and hold the RELEASE handle. The lift will lower down by gravity. No extra power is required to lower the lift.

After the installation is complete, before the first time application, raise the lift without load about three feet high and then lower it to floor. Repeat this process for two or three times. And then top off the hydraulic oil reservoir again, if necessary. This assures that hydraulic oil is distributed everywhere in the system that it needs to be.

**NOTE: Only top off the reservoir when the lift is in the lowest position. If you fill the reservoir in a raised position, there will be too much hydraulic oil in the system when the lift is lowered, The oil will squirt out of the reservoir.**

## RAISING A VEHICLE

Drive the vehicle onto the platform through ramps until it is about centered. Set the parking brake. Depress the UP button and the vehicle will rise. Raise the vehicle until it is near the ceiling of the garage.

**BE CAREFUL NOT TO RAISE THE VEHICLE SO HIGH THAT IT STRIKES THE CEILING! MAKE SURE ANTENNAS ARE REMOVED, IF NECESSARY. AND BE AWARE OF ANYTHING THAT PROTRUDES FROM THE CEILING, LIKE LIGHTBULBS, GARAGE DOOR OPENERS OR DOOR TRACKS. IT IS VERY HELPFUL IF YOU HAVE A "SPOTTER" ON A LADDER TO TELL YOU WHEN YOU ARE NEAR THE CEILING FOR THE FIRST LIFT!**

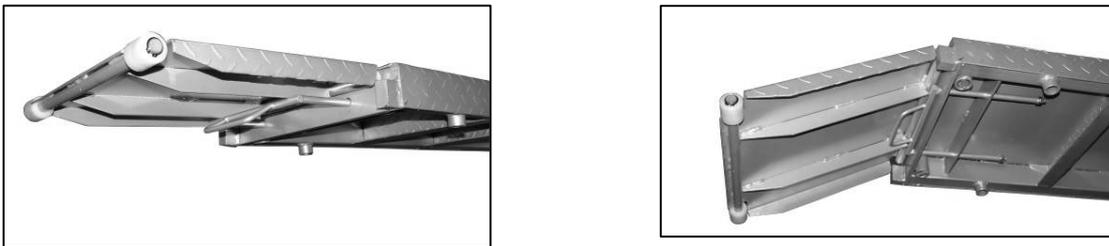


Figure 16-A, B ramp and its support.

In order to maximize the height underneath the platforms, the ramp support shall be pulled backwards. The ramp rests on the support as in Fig 16-A. Before loading or unloading the vehicle on the platform, the ramp support shall be pushed forward as in Fig. 16-B.



## SP-6K-SS Exploded Views & Parts List

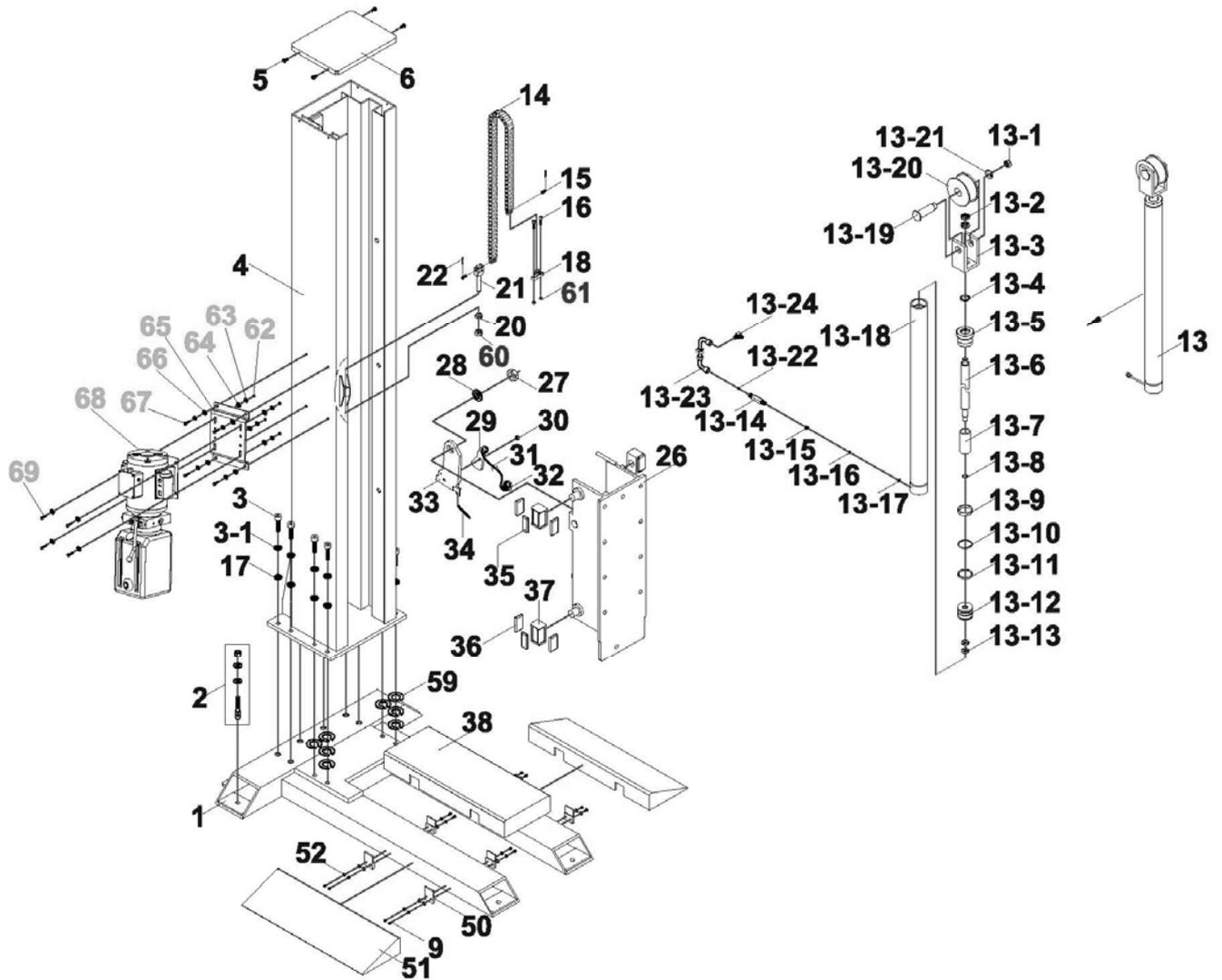


Fig . 17

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SP-6K-SS

## SP-6K-SS Exploded Views & Parts List

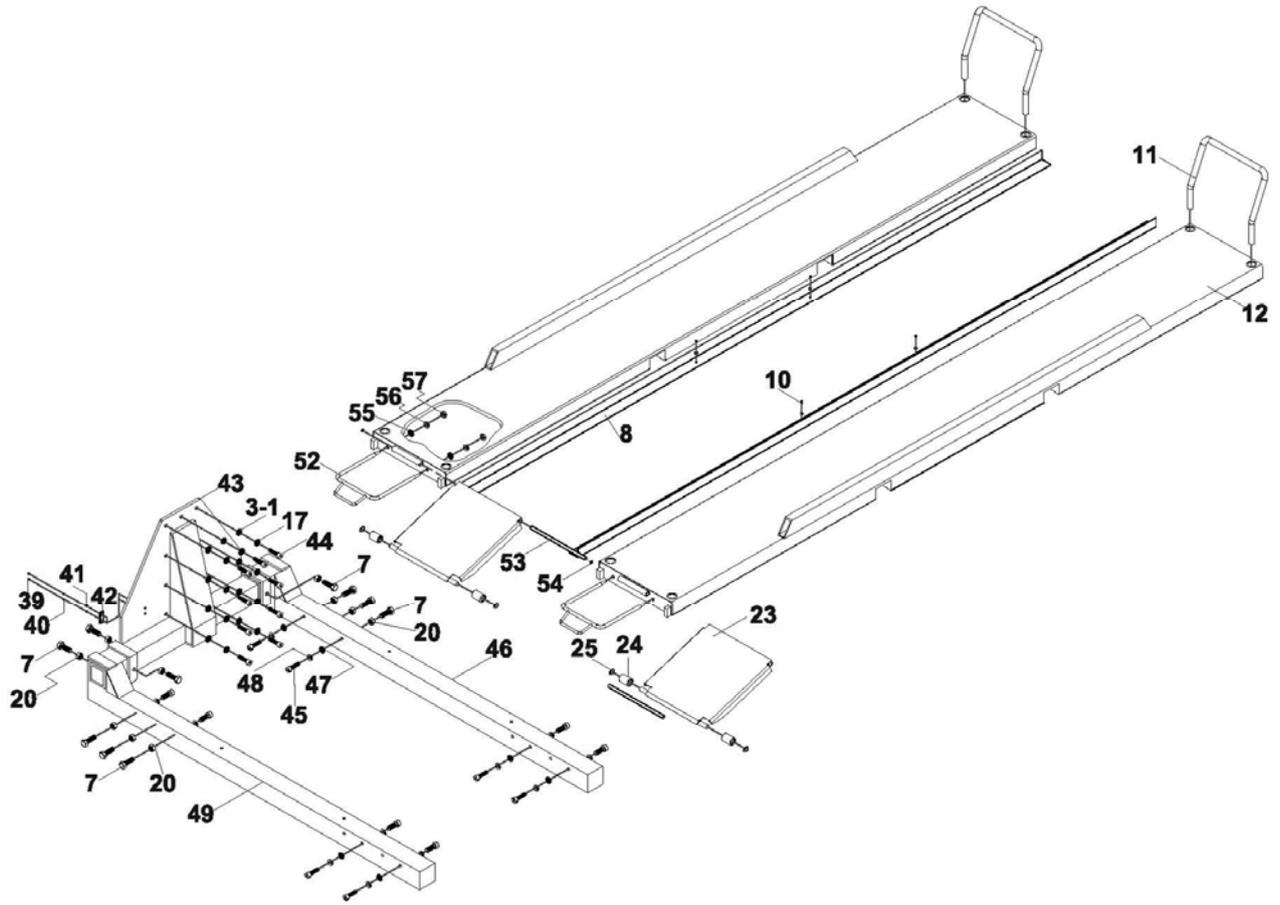


Fig. 18

## SP-6K-SS Parts list

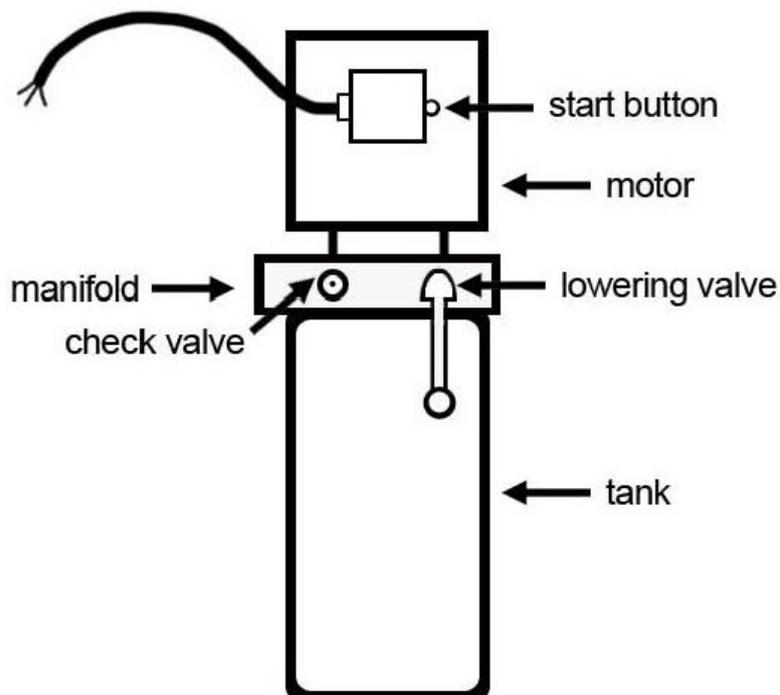
ITEM	CODE	DESCRIPTION	QTY	NOTE
1	DJ05-01000-000	base plate	1	
2	DJ05-10000-000	anchor	10	M16
3	5105-16050-000	bolt	10	M16*50 (8.8)
3-1	5301-00016-000	flat washer	10	
4	DJ05-02000-000	column	1	
5	5105-06030-000	screw	4	M6*30
6	DJ01-00005-000	upper cover	1	
7	5101-20040-000	bolt	12	M20*40
8	DJ05-00005-000	oil pan bar	2	
9	5105-06025-000	screw	12	M6*25
10	5107-06015-000	screw	4	M6*15
11	DJ05-00001-000	front stop	2	
12	DJ05-03000-000	platform	2	
13	DJ05-13000-000	cylinder	1	
13-1	5205-00024-000	thin nut	1	M24*1.5
13-2	DJ01-13001-000	round nut	2	
13-3	DJ01-12100-000	roller seat	1	
13-4	5906-00030-000	dust ring	1	
13-5	DJ01-13003-000	front guide ring	1	
13-6	DJ05-13002-000	piston bar	1	
13-7	DJ01-13004-000	sheave	1	
13-8	5901-00030-000	O-ring	1	
13-9	DJ01-13005-000	guide ring	1	
13-10	5901-00066-000	O-ring	1	
13-11	5905-00065-000	U-ring	1	
13-12	DJ01-13006-000	piston	1	
13-13	DJ01-13007-000	nut	2	
13-14	DJ01-13305-000	straight connector	1	
13-15	DJ01-13304-000	throttle washer	1	
13-16	5309-00010-000	circlips	1	
13-17	DJ01-13008-000	copper washer	1	
13-18	DJ01-13100-000	cylinder body	1	
13-19	DJ01-12002-000	roller pin	1	
13-20	DJ01-12001-000	roller	1	
13-21	5303-00024-000	spring washer	1	
13-22	5901-00006-000	O-ring	1	
13-23	DJ01-13200-000	hose	1	
13-24	SJ01-12001-000	angle connector	1	
14	DJ05-11000-000	chain	1	
15	DJ01-00004-000	chain pin	2	
16	5105-16060-000	bolt	2	M16*60(8.8)
18	DJ01-00001-000	chain block (down)	1	
20	5201-00020-000	nut	12	M20
21	DJ01-00003-000	chain block (upper)	1	
22	5404-03020-000	split pin	4	
23	DJ05-09000-000	ramp	2	
24	DJ05-00004-000	roller	4	
25	5304-00020-000	circlips	4	

ITEM	CODE	DESCRIPTION	QTY	NOTE
26	DJ05-08100-000	carriage	1	
27	5206-00030-000	lock nut	1	M30*1.5
28	5301-00035-000	flat washer	1	Φ35
29	SJ01-07002-000	lock tongue	1	
30	5206-00010-000	lock nut	1	M10
31	DJ05-08201-000	release cable	1	
32	SJ03-00013-000	handle	1	
33	SJ01-07001-000	self-lock board	1	
34	SJ01-07007-000	spring	1	
35	DJ01-08008-000	top nylon block	4	
36	DJ01-08007-000	side nylon block	8	
37	DJ01-08006-000	block frame	4	
38	DJ05-01500-000	middle ramp	1	
39	5105-06015-000	screw	2	M6*15
40	5303-00006-000	spring washer	14	Φ6
41	5301-00006-000	flat washer	18	Φ6
42	DJ05-06100-000	cable holder	1	
43	DJ05-06000-000	lifting frame	1	
44	5105-16040-000	bolt	9	M16*40 (8.8)
45	5105-12040-000	screw	8	M12*40
46	DJ05-05000-000	right arm	1	
47	5301-00012-000	flat washer	8	Φ12
48	5303-00012-000	spring washer	8	Φ12
49	DJ05-04000-000	left arm	1	
50	DJ05-01005-000	hook	6	
51	DJ05-01400-000	ramp	2	
52	DJ05-14000-000	ramp holder	2	
53	DJ05-00003-000	ramp shaft	2	
54	5304-00016-000	circlips	4	Φ16
55	5301-00010-000	flat washer	4	Φ10
56	5303-00010-000	spring washer	4	Φ10
57	5201-00010-000	nut	4	M10
59	DJ05-00006-000	shim	10	Φ16
60	5206-00020-000	lock nut	1	M20
61	5206-00016-000	lock nut	2	M16
62	5201-00008-000	nut	4	M8
63	5303-00008-000	spring washer	8	Φ8
64	5301-00008-000	flat washer	8	Φ8
65	DJ05-00020-000	motor mounting board	1	
66	5302-00008-000	large flat washer	4	Φ8
67	5101-08020-000	bolt	4	M8*20
68		motor pump	1	
69	5101-08025-000	bolt	4	M8*25

## IMPORTANT

THE PROBLEM: Power unit runs fine but will not pump any fluid.

Step 1 – Locate the check valve, the flush plug to the left of the lowering valve. (See drawing below.)



Step 2 – Using an Allen wrench and shop towel – with shop towel in place to catch fluid – loosen the check valve plug

2 ½ turns to allow it to leak.

Step 3 – Push the START button for one second, then release for three seconds. Repeat these steps until unit starts pumping fluid.

Step 4 – Tighten the check valve plug.

## LIMITED WARRANTY

### **Structural Warranty:**

The following parts and structural components carry a five year warranty:

Columns	Arms	Uprights	Swivel Pins
Legs	Carriages	Overhead Beam	
Tracks	Cross Rails	Top Rail Beam	

### **Limited One-Year Warranty:**

Tuxedo Distributors, LLC (iDEAL) offers a limited one-year warranty to the original purchaser of Lifts and Wheel Service equipment in the United States and Canada. Tuxedo will replace, without charge, any part found defective in materials or workmanship under normal use, for a period of one year after purchase. The purchaser is responsible for all shipping charges. This warranty does not apply to equipment that has been improperly installed or altered or that has not been operated or maintained according to specifications.

### **Other Limitations:**

This warranty does not cover:

1. Parts needed for normal maintenance
2. Wear parts, including but not limited to cables, slider blocks, chains, rubber pads and pulleys
3. Replacement of lift and tire changer cylinders after the first 30 days. A seal kit and installation instructions will be sent for repairs thereafter.
4. On-site labor

Upon receipt, the customer must visually inspect the equipment for any potential freight damage before signing clear on the shipping receipt. Freight damage is not considered a warranty issue and therefore must be noted for any potential recovery with the shipping company.

The customer is required to notify Tuxedo of any missing parts within 72 hours. Timely notification must be received to be covered under warranty.

Tuxedo will replace any defective part under warranty at no charge as soon as such parts become available from the manufacturer. No guarantee is given as to the immediate availability of replacement parts.

Tuxedo reserves the right to make improvements and/or design changes to its lifts without any obligation to previously sold, assembled or fabricated equipment.

There is no other express warranty on the Tuxedo lifts and this warranty is exclusive of and in lieu of all other warranties, expressed or implied, including all warranties of merchantability and fitness for a particular purpose.

To the fullest extent allowed by law, Tuxedo shall not be liable for loss of use, cost of cover, lost profits, inconvenience, lost time, commercial loss or other incidental or consequential damages.

This Limited Warranty is granted to the original purchaser only and is not transferable or assignable.

Some states do not allow exclusion or limitation of consequential damages or how long an implied warranty lasts, so the above limitations and exclusions may not apply. This warranty gives you specific legal rights and you may have other rights, which may vary from state to state.

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