SP-6K-SS

CAPACITY 6,000LB

Single Post Storage Lift



INSTALLATION & OPERATING INSTRUCTIONS

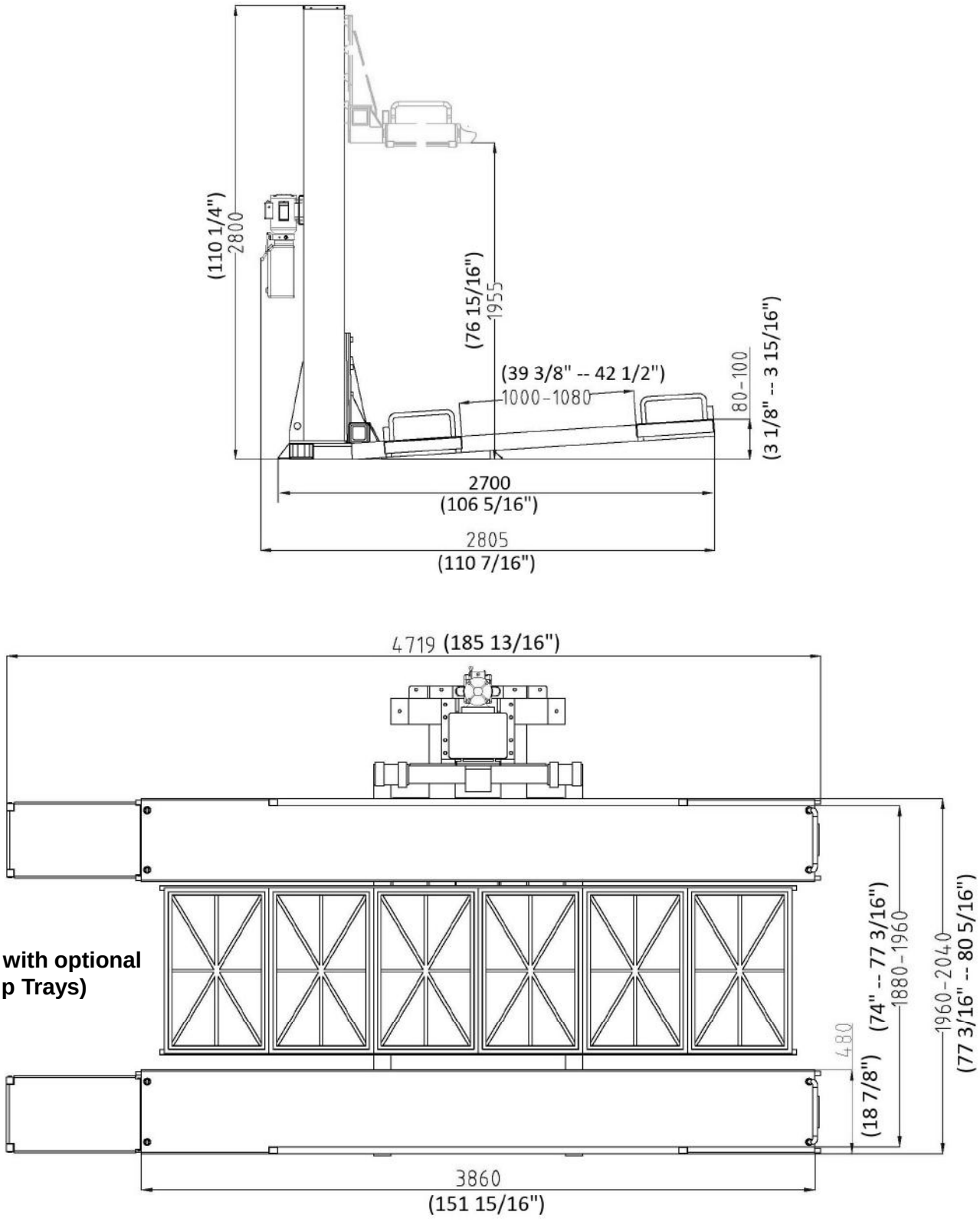
Aug. 2019

1. GENERAL INFORMATION

1.1 SPECIFICATIONS

Specifications	**SP-6K-SS**
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)



(Shown with optional Drip Trays)

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.

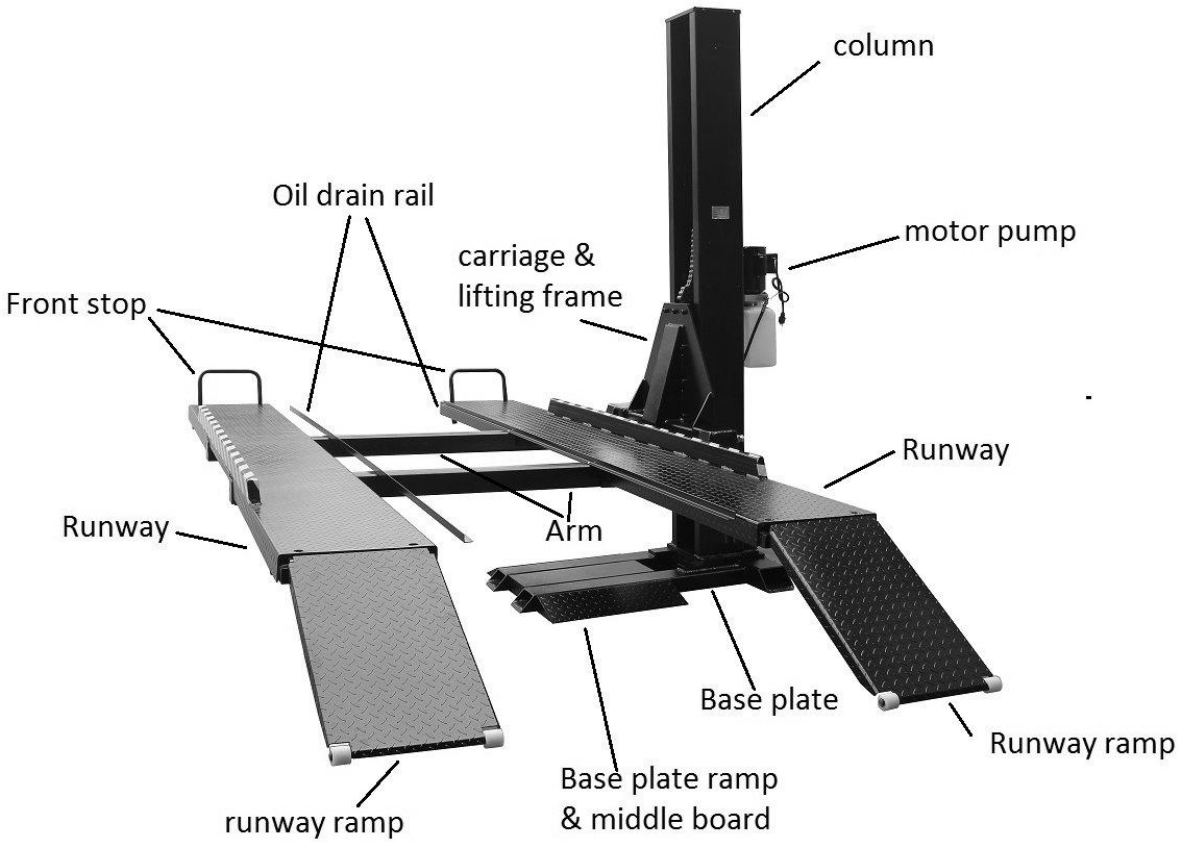


Fig. 2
Major Lift Components

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 ¾” 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 & 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 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 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 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)

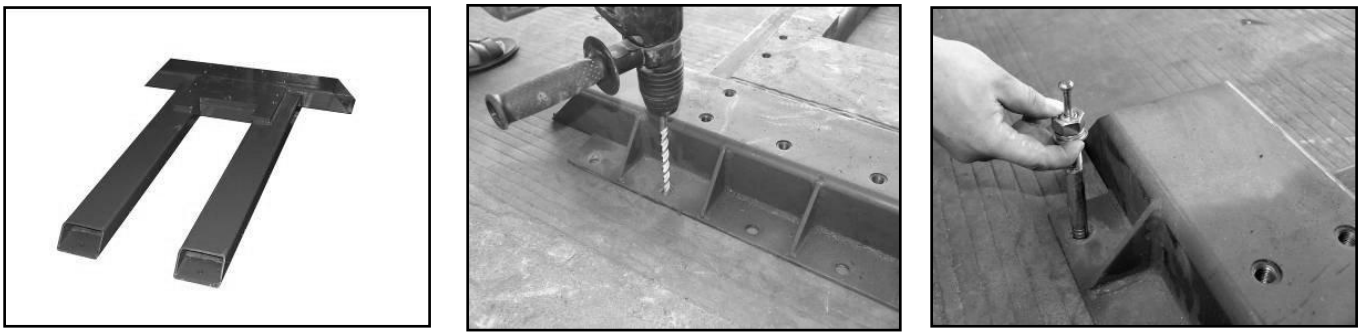


Fig. 3

A, B, C (Anchoring 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 column up from horizontal position by a forklift or an engine hoist. Carefully 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 vertical on the base plate. If possible, do not remove the straps from the column until you have got the mounting bolts started into the base plate. (Fig.4 A, B, C, D)

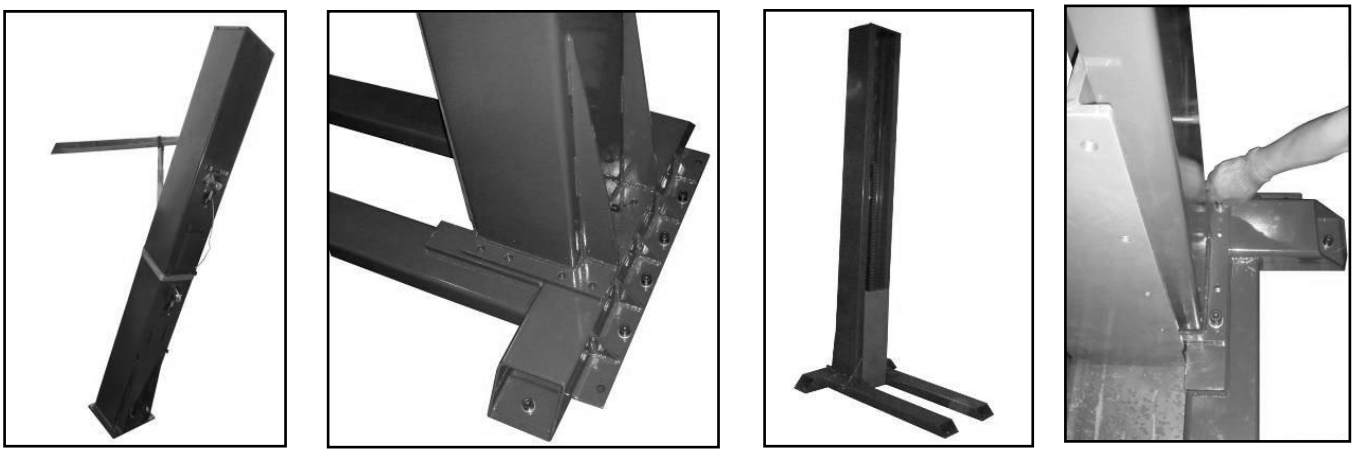


Fig. 4

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, shim plates have been welded to the bottom of the column. The optimal tilting degree is between 0.5 and 1.0 (Fig. 5 A, B, C).

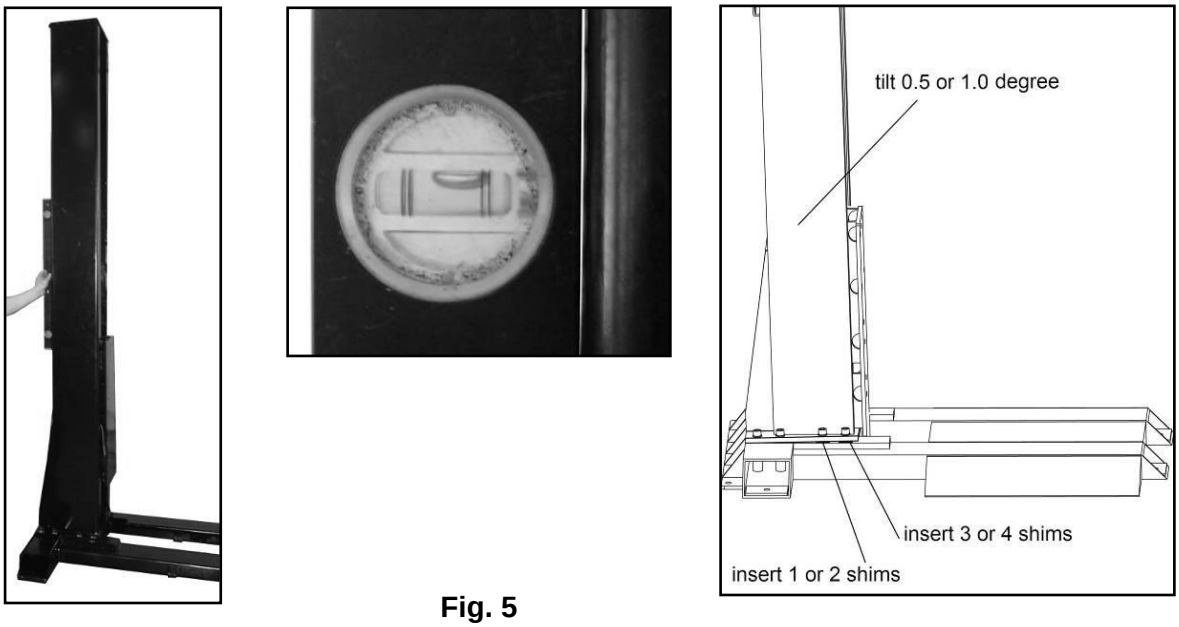


Fig. 5

A, B, C (Set-Up Column-2)

STEP 3

Before mounting motor pump, first mount the bracket on the side you preferred (Right or Left or Back).

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.

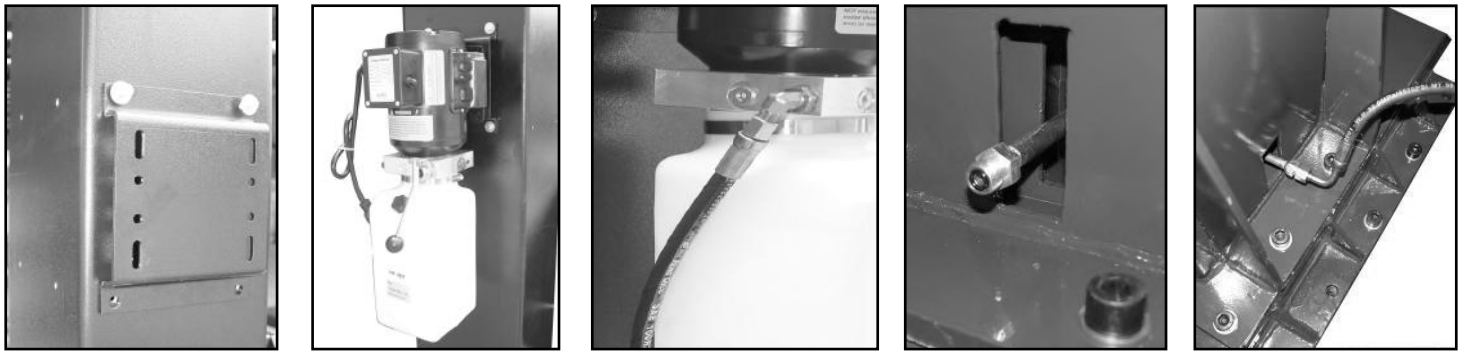


Fig. 6

A, B, C, D, E (Motor Pump & Hose)

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 with the correct power connection. Your 110V pump does come with a short cord attached to the motor. But because it may be not long 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 hex socket bolts. (Fig.8 A & B) A hydraulic floor jack or bottle jack is recommended to assist in aligning mounting holes. Tighten all the bolts securely.

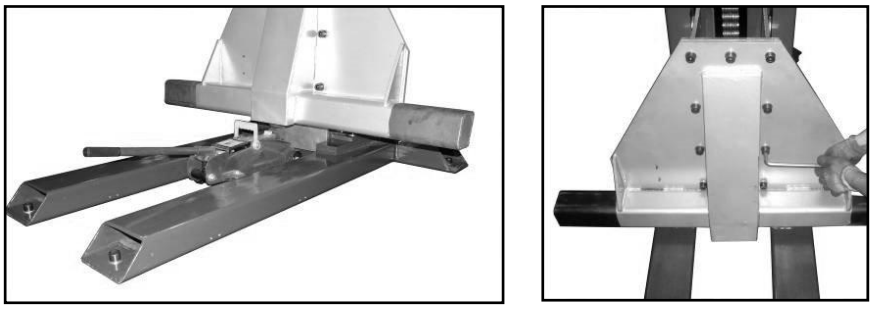


Fig. 8

A & B (Lifting Frame)

STEP 5

Position the two lift arms to the lifting frame (Fig.9 A). In order to make the runway platforms horizontal while car is loaded, install the arms as follows:

First, lift up the far end of the arms with hydraulic jack to 3-15/16” (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 secure adjustments.

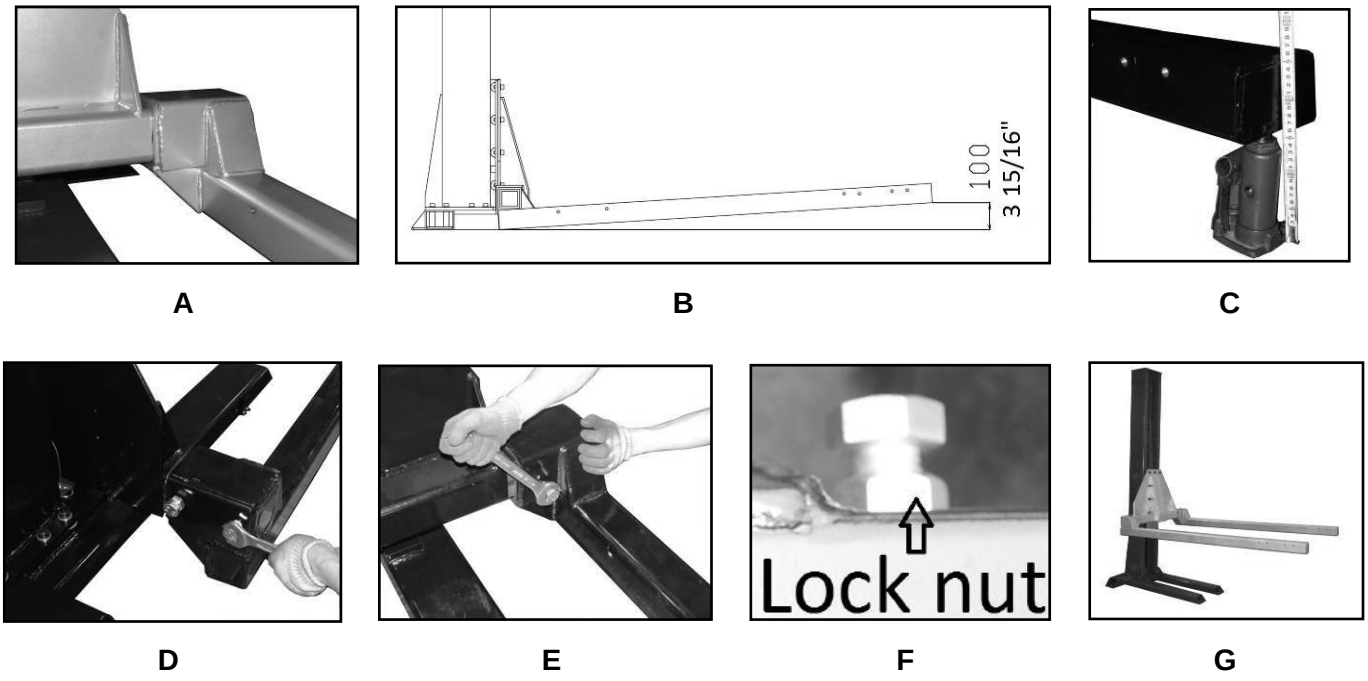


Fig. 9

A, B, C, D, E, F, G (Setting-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 maneuver them. Position the runway platforms according to the fixing holes on the arms. Bolt the runways to the lifting arms with the provided bolts. (Fig.10 A, B, C)

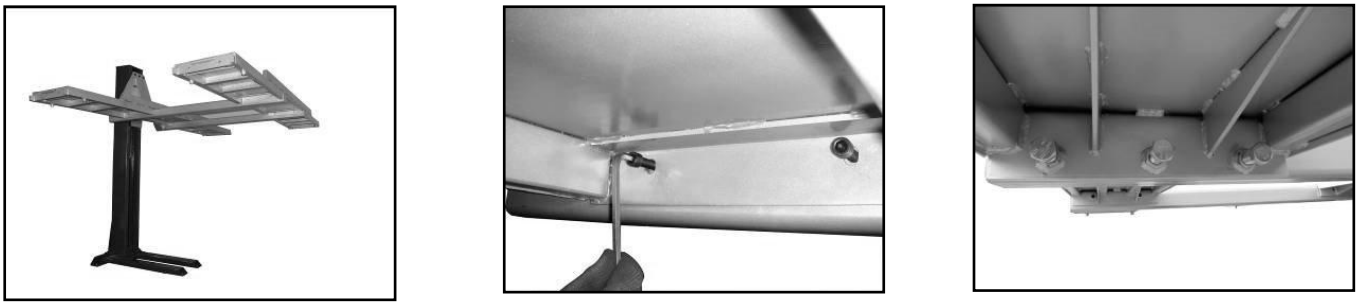


Fig. 10

A, B, C (Runway Attachment To Arms)

STEP 7

Attach drive-on ramps to end of runway platforms, along with ramp supports, according to the driving direction. Ensure Circlips are properly installed into slots on pivot pins. (Fig.11 A, B, C)

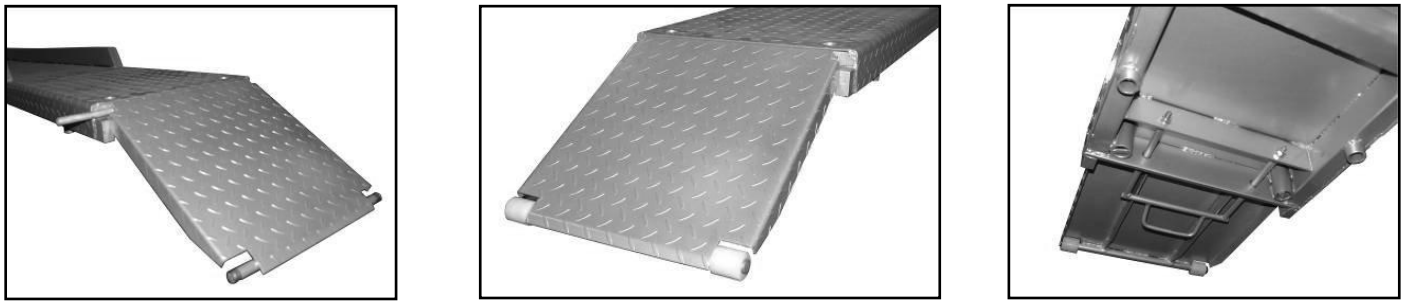
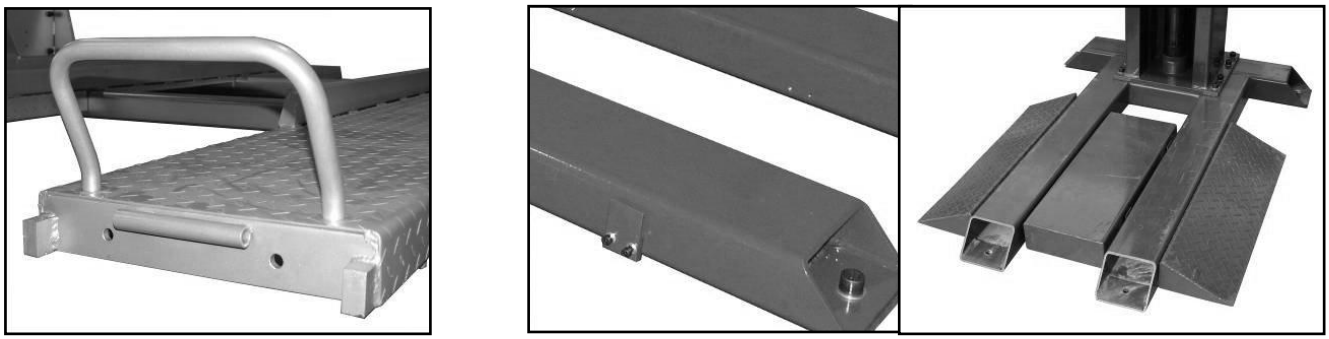


Fig. 11

A, B, C (Ramps & Support Brackets)

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 spacer. (Figs. 13, 14)



Figs.12, 13 & 14

(Wheel Stops, Ground Ramps & Middle Spacer)

Re-check to ensure all Nuts, Bolts & Fasteners are securely tightened.

The lift is now ready for testing.

OPERATING INSTRUCTIONS

The lift is very simple to operate. Turn on the power supply first. Then press and hold 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.18)

As the lift rises, an internal safety latch will pass over the steel stops (rectangular latch 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 pressing down the RELEASE handle, until the lift rests on the latch block.

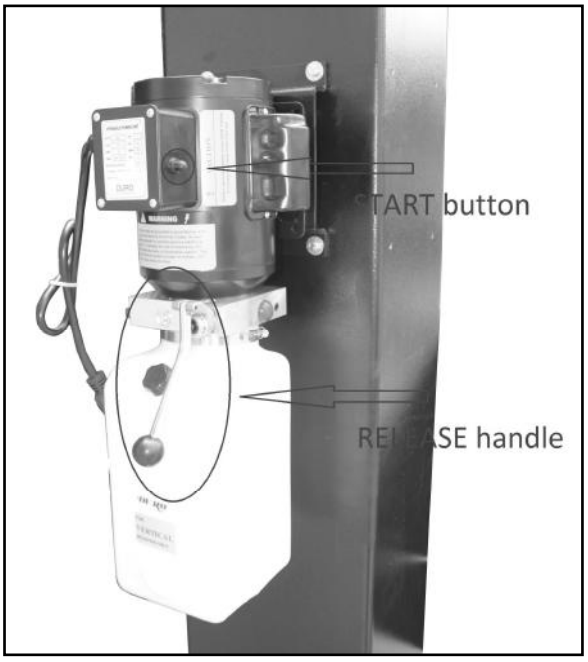


Fig. 18
Start Button & Release Handle on Power Unit

To Lower Lift:

You first need to raise up the lift a little by pressing down the START button, if lift is in the raised locked position. Then pull the Lock Release Cable (one time) to release the latch. After that, 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, which 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 START button on power unit and the vehicle will rise. Raise the vehicle until it's near the ceiling of the garage.

WARNING!!

BE CAREFUL NOT TO RAISE THE VEHICLE SO HIGH THAT IT STRIKES THE CEILING! MAKE SURE ANTENNAS ARE REMOVED, IF NECESSARY. ALSO 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!

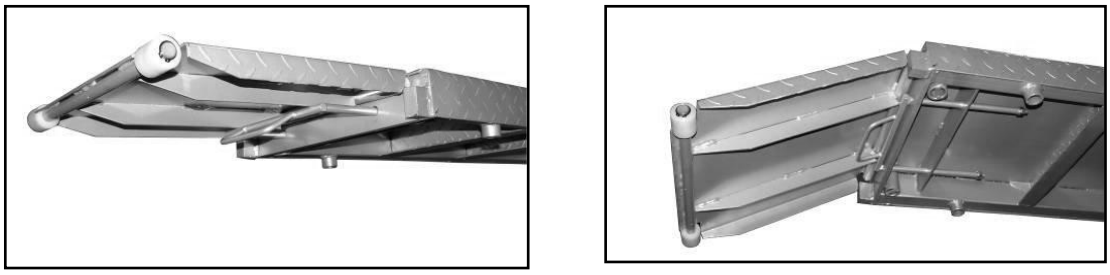


Fig.19

A & B Ramp & Ramp Support

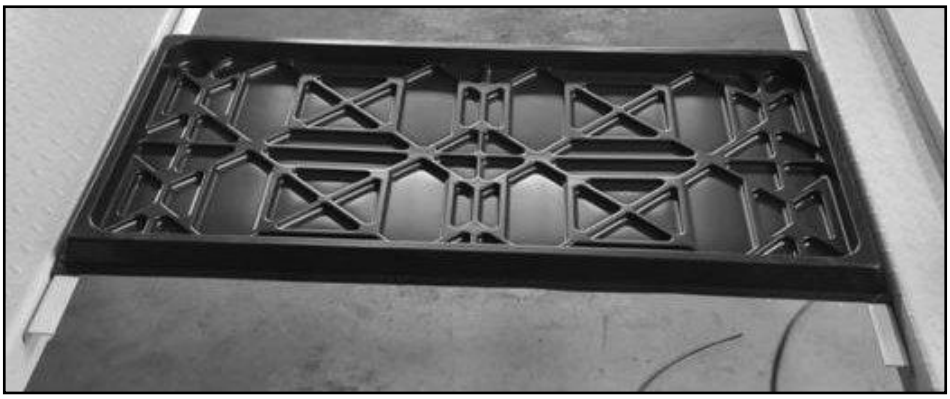
In order to maximize the height underneath the platforms, the ramp support shall be pulled backwards. The ramp rests on the support as in Fig.19 A. Before loading or unloading the vehicle on the platform, the ramp support shall be pushed forward to allow for ramps for pivot down, as shown in Fig.19 B.



OPTIONAL ACCESSORIES

The SP-6K-SS Lift has the ability to add Drip Trays between the Runways to assist in preventing any vehicle oil and/or debris from falling on the floor or another vehicle parked under the runways.

NOTE: Drip Tray Rails are included with every SP-6K-SS Lift regardless if optional Drip Trays are applied or not. If Drip Trays are not to be used, it is not required to install the support Rails.



IMPORTANT!

Based on how the Runways are installed, in either the 'narrow or wide' position will determine the specific width size of 'optional' Drip Trays required to be ordered for the SP-6K-SS Lift. (See details below)

- **'Narrow' Runway Position: (P/N: FP9KDX-DT) - Drip Tray - 39"W**
- **'Wide' Runway Position: (P/N: FP8K-DS/DX-XLT-DT) - Drip Tray - 42"W**

Installation for Drip Tray Rails & Drip Trays

1. Locate and install Drip Tray support Rails to inside of Runways, using the #12 self-tapping screws provided (Fig.15).
2. Place Drip Tray(s) on top of support Rails (Fig.16).

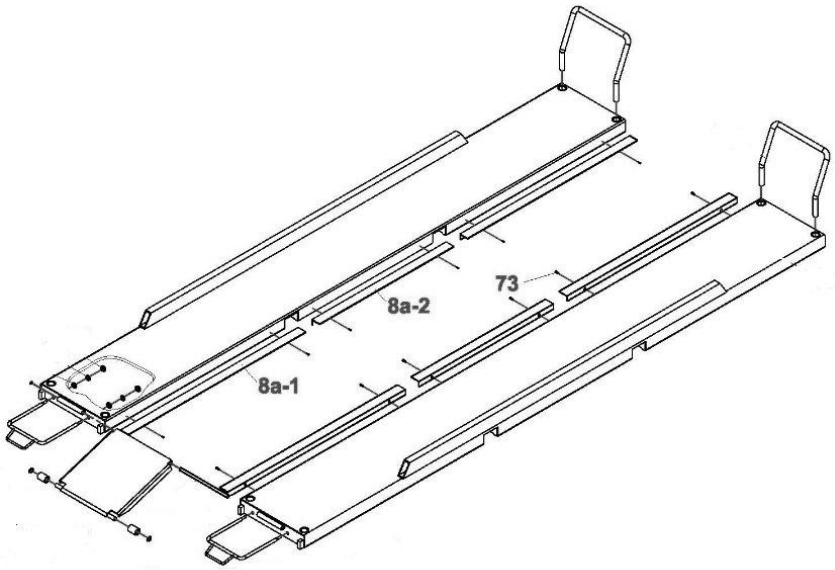


Fig.15

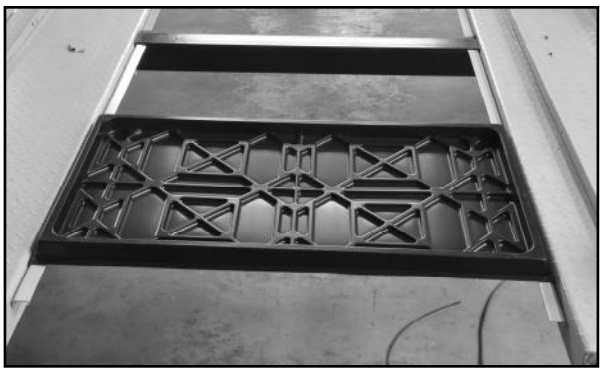
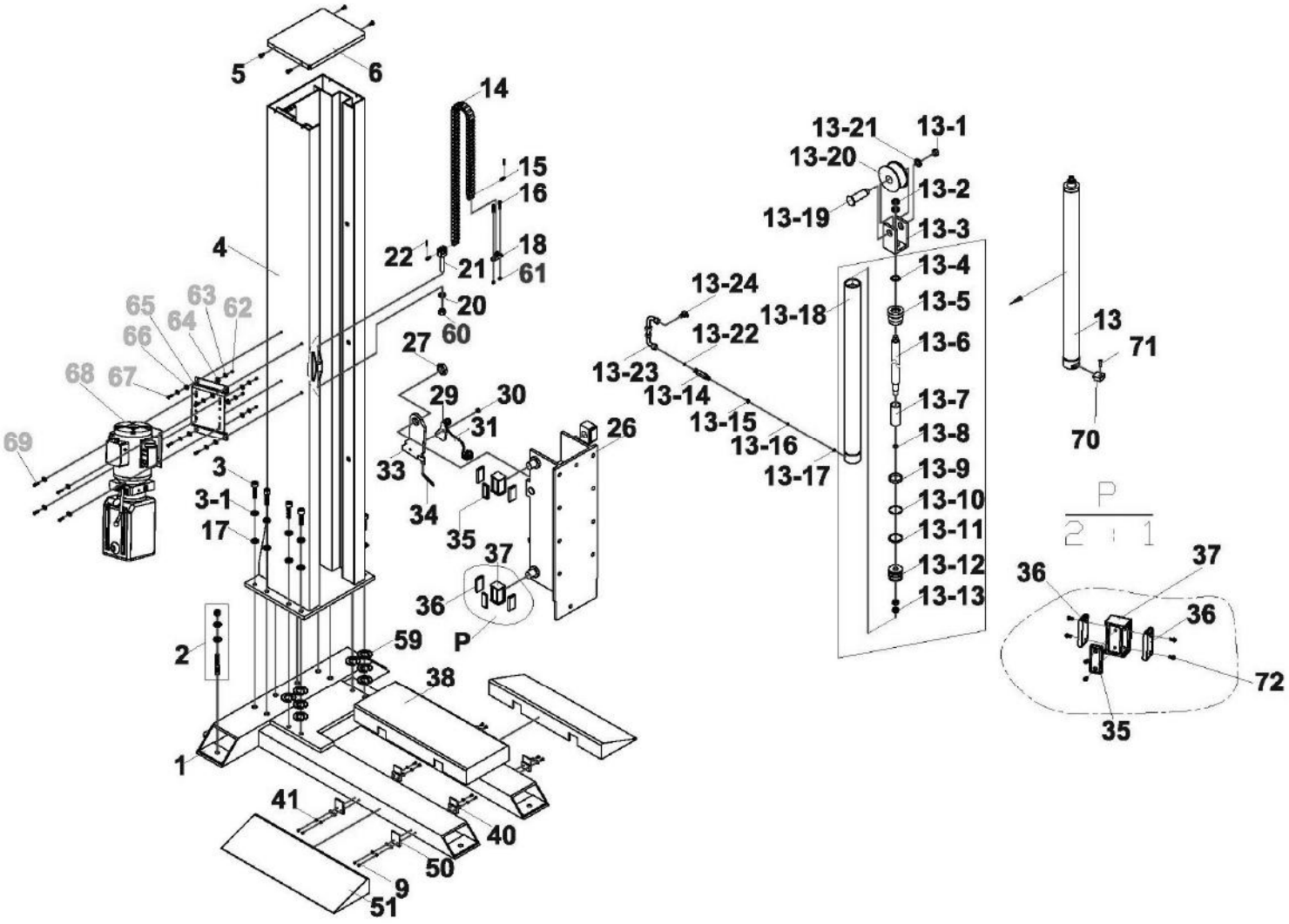


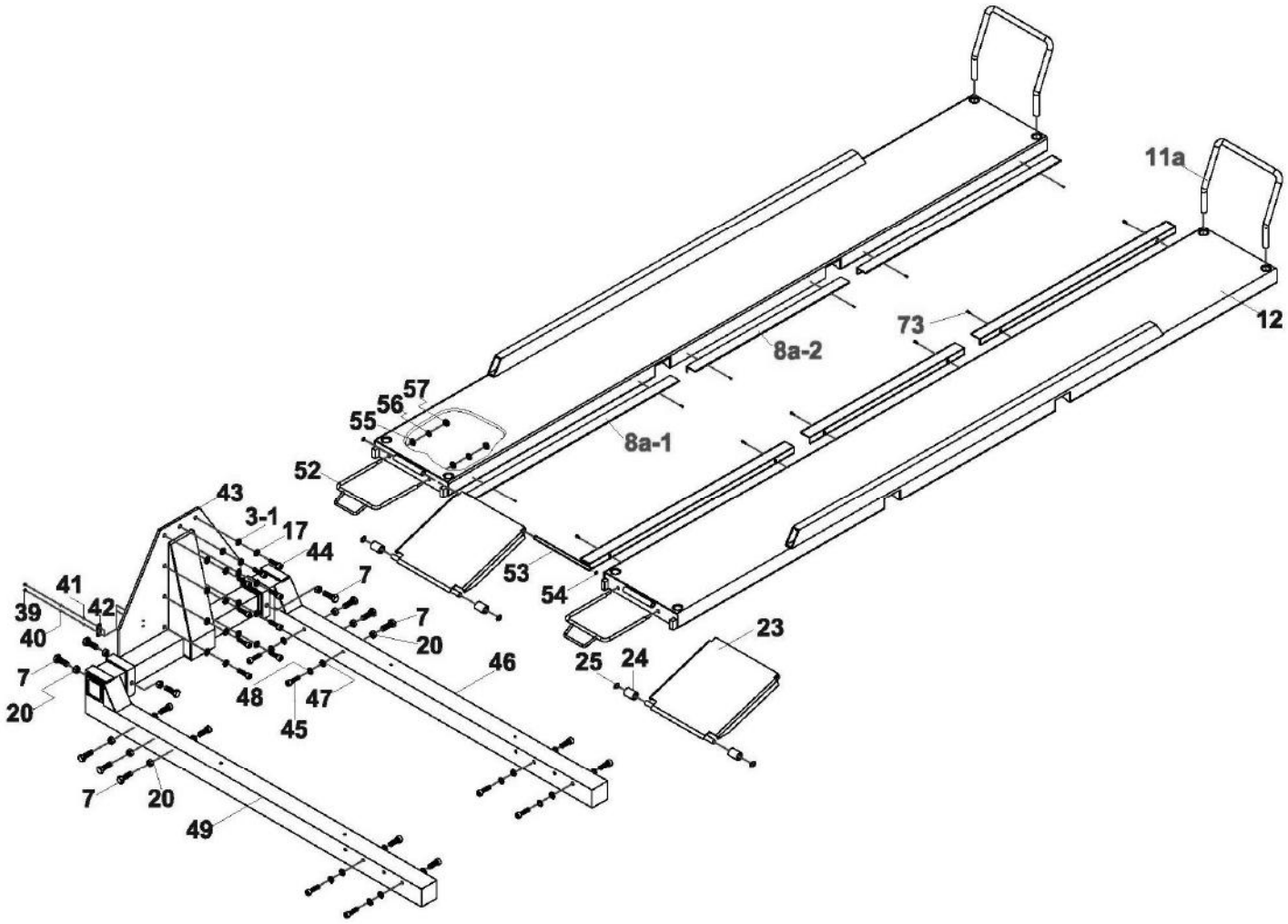
Fig.16

SP-6K-SS

Exploded View (A)



SP-6K-SS
Exploded View (B)



SP-6K-SS Parts list

ITEM		CODE	DESCRIPTION	QTY
1	SP-6K-SS-001	DJ05-01000-000	Base Plate	1
2	SP-6K-SS-002	DJ05-10000-000	Anchor Bolt, 3/4” x 5.5”	10
3	SP-6K-SS-003	5105-16050-000	Bolt, M16x x50mm	10
3-1	SP-6K-SS-003.1	5301-00020-000	Flat Washer, D20	10
4	SP-6K-SS-004	DJ05-02000-000	Column	1
5	SP-6K-SS-005	5105-06030-000	Screw, M6x x30mm	4
6	SP-6K-SS-006	DJ01-00005-M00	Upper Cover	1
7	SP-6K-SS-007	5101-20040-000	Bolt, M20 x 40mm	12
8a-1	SP-6K-SS-008A.1	DJ05-00005-D00	* Drip Tray, End Rail	4
8a-2	SP-6K-SS-008A.2	DJ05-00021-D00	* Drip Tray, Middle Rail	2
9	SP-6K-SS-009	5105-06025-000	Screw, M6 x 25mm	12
10	SP-6K-SS-010	5107-06015-000	Screw, M6 x 15mm	4
11a	SP-6K-SS-011A	DJ05-00001-000	4” Front Stop-A	2
12	SP-6K-SS-012	DJ05-03000-A00	Platform	2
13	SP-6K-SS-013	DJ01-13000-000	Cylinder	1
13-4	SP-6K-SS-013.4	5906-00030-000	Dust Ring	1
13-5	SP-6K-SS-013.5	DJ01-21002-M00	Guide Ring	1
13-6	SP-6K-SS-013.6	DJ05-13002-000	Piston Bar	1
13-7	SP-6K-SS-013.7	DJ01-21003-M00	Sheave	1
13-8	SP-6K-SS-013.8	5901-00030-000	O-Ring	1
13-9	SP-6K-SS-013.9	DJ01-21004-M00	Guide Belt	1
13-10	SP-6K-SS-013.10	5901-00066-000	O-Ring	1
13-11	SP-6K-SS-013.11	5905-00065-000	U-Ring	1
13-12	SP-6K-SS-013.12	DJ01-21005-M00	Piston	1
13-13	SP-6K-SS-013.13	DJ01-21006-M00	Nut	2
13-1	SP-6K-SS-013.1	5205-00024-000	Thin Nut	1
13-2	SP-6K-SS-013.2	DJ01-00013-M00	Round Nut	2
13-3	SP-6K-SS-013.3	DJ01-20000-M00	Roller Seat	1
13-14	SP-6K-SS-013.14	DJ01-00031-M00	Straight Connector	1
13-15	SP-6K-SS-013.15	DJ01-00030-M00	Throttle Washer	1
13-16	SP-6K-SS-013.16	5309-00010-000	Circlip, D10	1
13-17	SP-6K-SS-013.17	5603-00016-000	Combined Seal, D16	1
13-18	SP-6K-SS-013.18	DJ01-13100-000	Cylinder Body	1
13-19	SP-6K-SS-013.19	DJ01-12002-000	Roller Pin	1
13-20	SP-6K-SS-013.20	DJ01-00014-M00	Roller	1
13-21	SP-6K-SS-013.21	5303-00024-000	Spring Washer	1
13-22	SP-6K-SS-013.22	5901-00006-000	O-Ring	1
13-23	SP-6K-SS-013.23	DJ01-00021-M00	Hose	1
13-24	SP-6K-SS-013.24	SJ01-12001-000	Angle Connector	1
14	SP-6K-SS-014	DJ05-11000-000	Chain	1
15	SP-6K-SS-015	DJ01-00004-M00	Chain Pin	2
16	SP-6K-SS-016	5105-16060-000	Bolt, M16 x 60mm	2
17	SP-6K-SS-017	5303-00016-000	Spring Washer, D16	21
18	SP-6K-SS-018	DJ01-00001-M00	Chain Block (down)	1
20	SP-6K-SS-020	5201-00020-000	Nut, M20	12
21	SP-6K-SS-021	DJ01-00003-M00	Chain Block (upper)	1
22	SP-6K-SS-022	5404-03020-000	Split Pin	4
23	SP-6K-SS-023	DJ05-09000-000	Ramp	2
24	SP-6K-SS-024	DJ05-00004-000	Nylon Roller	4
25	SP-6K-SS-025	5304-00020-000	Circlip	4
26	SP-6K-SS-026	DJ01-12000-M00	Carriage	1
27	SP-6K-SS-027	5206-00030-000	Lock Nut, M30 x 1.5mm	1
29	SP-6K-SS-029	DJ01-13002-M00	Lock Tongue	1
30	SP-6K-SS-030	5206-00010-000	Lock Nut, M10	1

31	SP-6K-SS-031	DJ01-13003-M00	Release Cable	1
33	SP-6K-SS-033	DJ01-13001-M00	Safety Latch	1
34	SP-6K-SS-034	SJ01-07007-000	Spring	1
35	SP-6K-SS-035	DJ01-00029-M00	Top, Nylon Block	4
36	SP-6K-SS-036	DJ01-00028-M00	Side, Nylon block	8
37	SP-6K-SS-037	DJ01-00027-M00	Block Frame	4
38	SP-6K-SS-038	DJ05-01500-000	Middle Ramp Spacer	1
39	SP-6K-SS-039	5105-06015-000	Screw, M6 x 15mm	2
40	SP-6K-SS-040	5303-00006-000	Spring Washer, D6	14
41	SP-6K-SS-041	5301-00006-000	Flat Washer, D6	18
42	SP-6K-SS-042	DJ05-06100-000	Cable Holder	1
43	SP-6K-SS-043	DJ05-06200-000	Lifting Frame	1
44	SP-6K-SS-044	5105-16040-000	Bolt, M16 x 40mm	9
45	SP-6K-SS-045	5105-12040-000	Screw, M12 x 40mm	8
46	SP-6K-SS-046	DJ05-05000-000	Right Arm	1
47	SP-6K-SS-047	5301-00012-000	Flat Washer, D12	8
48	SP-6K-SS-048	5303-00012-000	Spring Washer	8
49	SP-6K-SS-049	DJ05-04000-000	Left Arm	1
50	SP-6K-SS-050	DJ01-00020-M00	Hook	6
51	SP-6K-SS-051	DJ05-01400-000	Ramp	2
52	SP-6K-SS-052	DJ05-14000-000	Ramp Support Bracket	2
53	SP-6K-SS-053	DJ05-00003-000	Ramp Shaft Pin	2
54	SP-6K-SS-054	5304-00016-000	Circlip, D16	4
55	SP-6K-SS-055	5301-00010-000	Flat Washer, D10	4
56	SP-6K-SS-056	5303-00010-000	Spring Washer, D10	4
57	SP-6K-SS-057	5201-00010-000	Nut, M10	4
59	SP-6K-SS-059	DJ01-00022-M00	Shim	10
60	SP-6K-SS-060	5206-00020-000	Lock Nut, M20	1
61	SP-6K-SS-061	5206-00016-000	Lock Nut, M16	2
62	SP-6K-SS-062	5201-00008-000	Nut, M8	4
63	SP-6K-SS-063	5303-00008-000	Spring Washer, D8	8
64	SP-6K-SS-064	5301-00008-000	Flat Washer, D8	8
65	SP-6K-SS-065	DJ05-00020-000	Motor Mount Bracket	1
66	SP-6K-SS-066	5302-00008-000	Large Flat Washer, D8	4
67	SP-6K-SS-067	5101-08020-000	Bolt, M8 x 20mm	4
68	PU-110V-L-K		110V Power Unit	1
69	SP-6K-SS-069	5101-08025-000	Bolt, M8 x 25mm	4
70	SP-6K-SS-070	DJ02-00027-000	Cylinder Plate	1
71	SP-6K-SS-071	5101-08030-000	Bolt, M8 x 30mm	1
72	SP-6K-SS-072	5110-04010-000	Screw, M4 x 10mm	24
73	SP-6K-SS-073	2649-ZG003-000	* Self-Tap Screw, #12 x 3/4”	12

*** Indicates optional installation, if not using optional Drip Trays**

POWER UNIT PRIMING

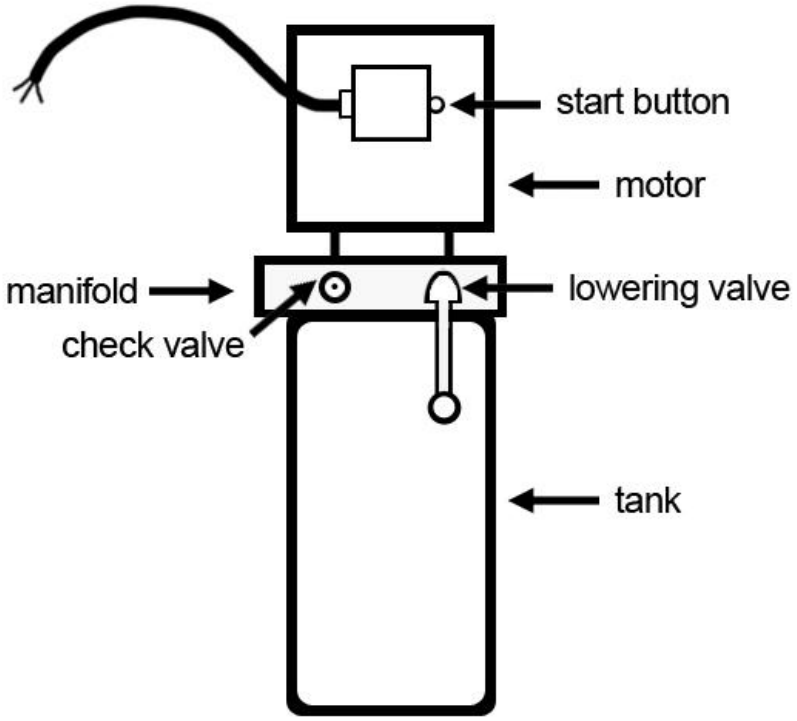
WARNING!! Failure to properly relieve pressure in the following steps can cause injury to personnel.

IMPORTANT

POWER UNIT PRIMING PROCEDURE

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

Step 1 – Locate the check valve. It is the plug to the left of the lowering valve.



Step 2 – Using a Hex wrench and shop towel – with shop towel in place to catch fluid – loosen the check valve plug by approximately 2-½ turns and allow fluid to bleed off.

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.

YOUR POWER UNIT SHOULD NOW BE PRIMED

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 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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