

# **FP8K-DS & FP8K-DS-XLT**

## **Four Post Parking Lifts**

**8,000 lbs. Capacity**

**(4,000 lbs. per axle)**



## **INSTALLATION / OWNERS MANUAL**

**READ THIS MANUAL THOROUGHLY BEFORE INSTALLING, OPERATING, OR MAINTAINING THIS LIFT. WHEN DONE WITH INSTALLATION BE SURE TO RETURN DOCUMENTS TO PACKAGE AND GIVE ALL MATERIALS TO LIFT OWNER/OPERATOR. WHEN INSTALLATION IS COMPLETE BE SURE TO RUN LIFT UP AND DOWN A FEW CYCLES WITH AND WITHOUT “TYPICAL” VEHICLE LOADED ON LIFT.**

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## **IMPORTANT INFORMATION**

1. Always inspect the lift for damage and make note of any damage on the bill of lading.
2. In case of freight damage, call the truck line immediately and report the damage as a freight claim.
3. **IMPORTANT!** Make sure you have extra help or heavy duty lifting equipment when unloading and assembling the lift.
4. Please read the safety procedures and operating instructions in this manual before operating lift. Keep this manual near lift at all times. Make sure all operators read this manual.
5. **NOTE:** Are you installing in a level location? (Lift must be anchored in place if slope is greater than 1/8" per foot.)
6. Make sure you have enough room to install the lock rods. You will need at least 6' of clearance from the opposite end of the power unit end of the lift and 6' at the power unit end. The power unit may be installed on the driver front or the passenger rear corner.
7. Never raise a car until you have double checked all bolts, nuts and hose fittings.
8. Always lower the lift to locks before going under the vehicle or storing another vehicle underneath lift.
9. Never allow anyone to go under the lift when raising or lowering.

## **OWNER / EMPLOYER RESPONSIBILITY**

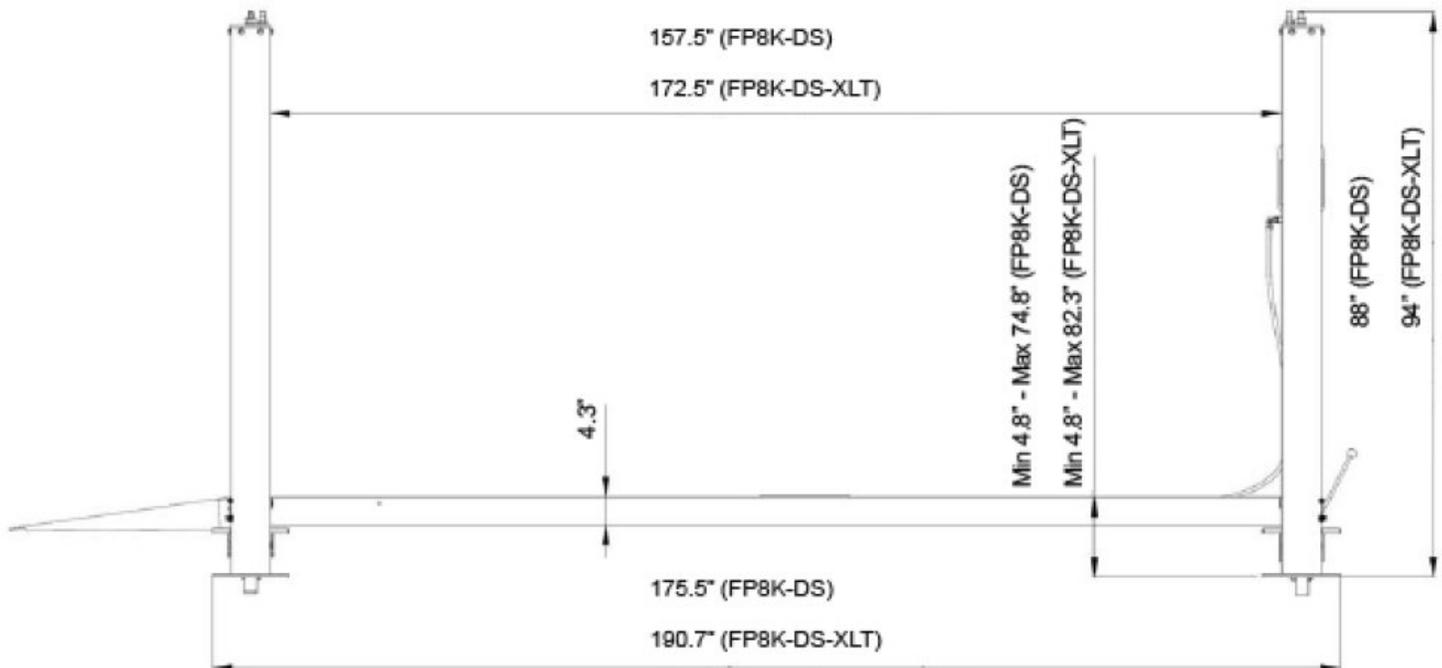
This is a vehicle lift installation/operation manual and no attempt is made or implied herein to instruct the user in lifting methods particular to an individual application. Rather, the contents of this manual are intended as a basis for operation and maintenance of the unit as it stands alone or as it is intended and anticipated to be used in conjunction with other equipment.

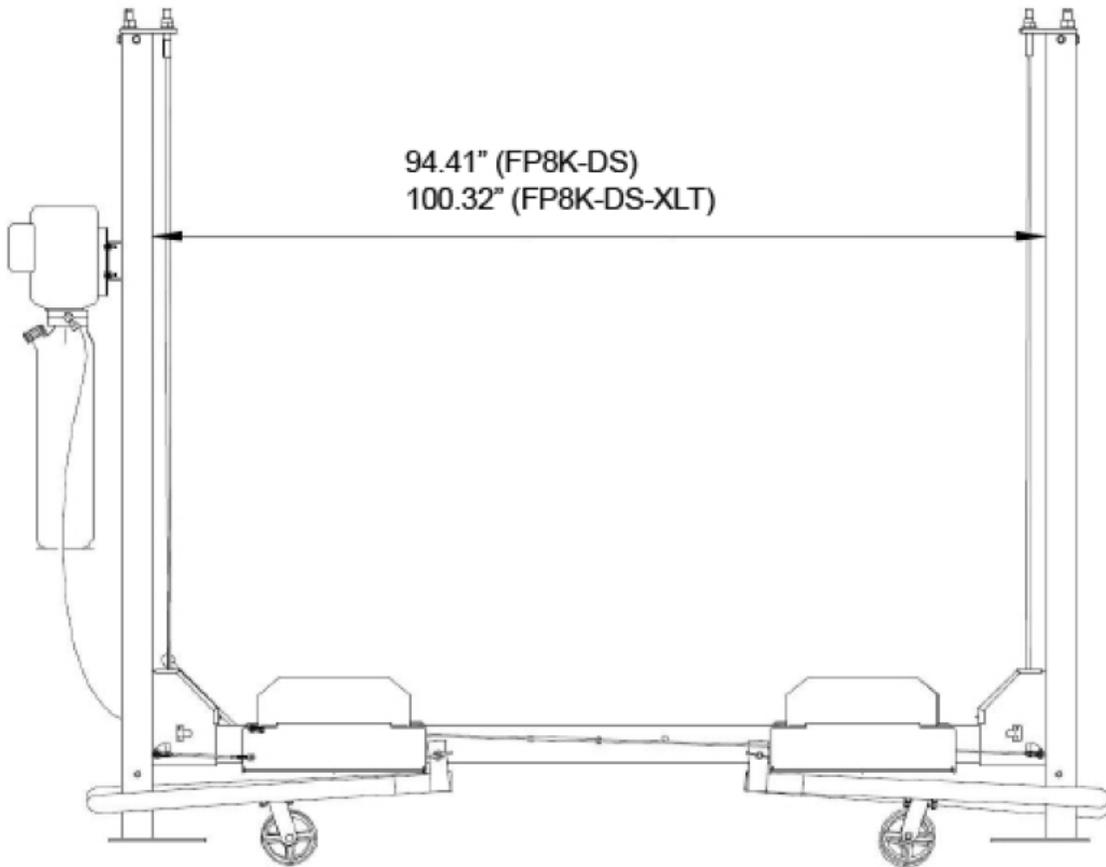
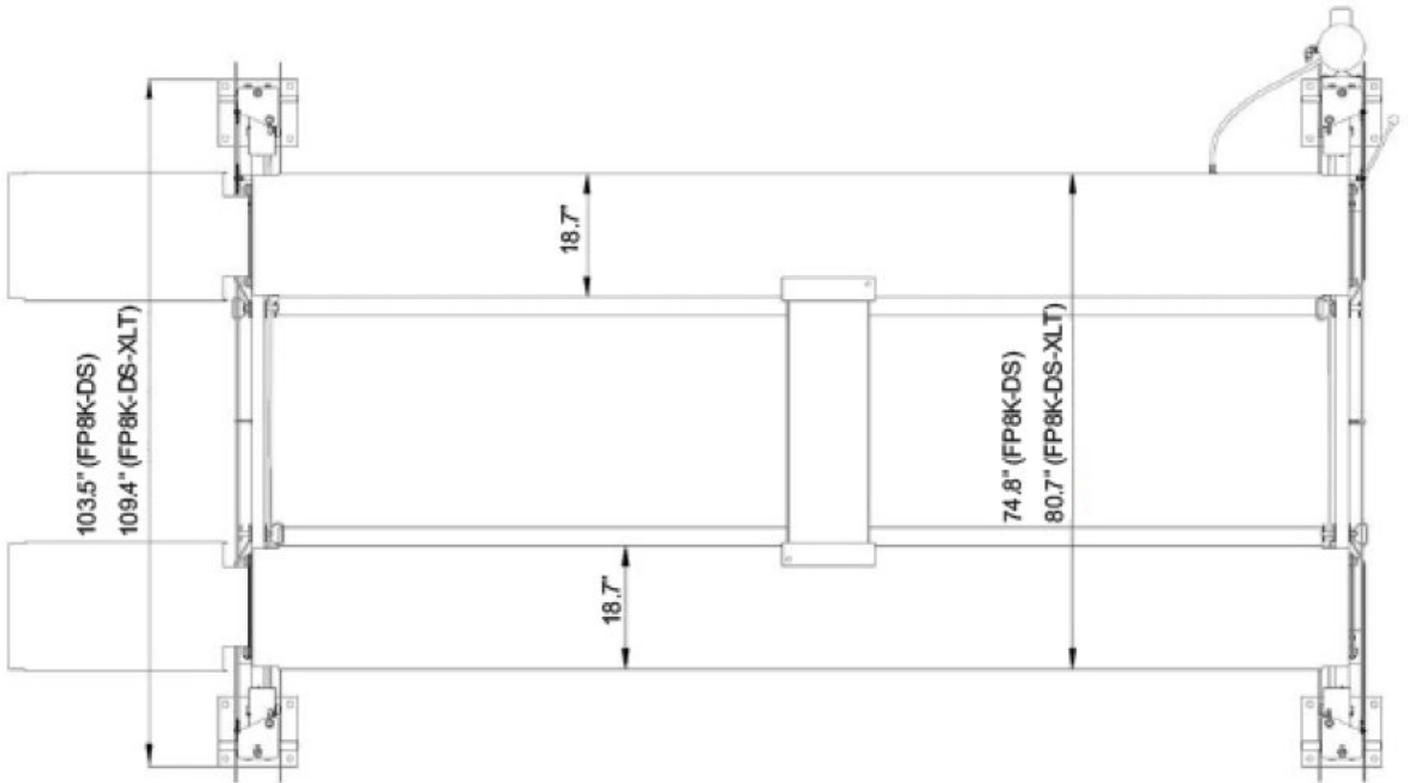
Proper application of the equipment described herein is limited to the parameters detailed in the specifications and the uses set forth in the descriptive passages. Any other proposed application of this equipment should be documented and submitted in writing to the factory for examination. The user assumes full responsibility for any equipment damage, personal injury, or alteration of the equipment described in this manual or any subsequent damages.

## SPECIFICATIONS

Specifications	FP8K-DS	FP8K-DS-XLT
Lifting Capacity	8000lbs	8000lbs
Overall Length w/ Ramps	207-1/8"	222-1/2"
Overall Length/ No Ramps	175-1/2"	190-5/8"
Overall Width	103-1/2"	109-1/2"
Overall Height	86-1/4"	96"
Track Length	165-1/2"	180-1/2"
Track Width	18-5/8"	18-5/8"
Max Track / Position Width	74-3/4"	80-5/8"
Base Plate Size	10" x 12"	10" x 12"
Lifting Height	74-3/4"	82-1/4"
Width between Posts	94-1/2"	100-5/16"
Length between Post	157-1/2"	172-1/2"
Max Clearance / Under Track	70"	78"
Locking Positions	10	12
Lifting Speed	90S	100S
Power	110V-15 Amp / 1PH	110V-15 Amp / 1PH
Ship Weight	1,690 lbs.	1,785 lbs.

## LAYOUT





## TOOLS REQUIRED

- Set of Metric Wrenches and/or Sockets
- Adjustable Wrench
- Locking Pliers
- 25' Tape Measure
- Step Ladder
- Hammer
- Crow Bar
- 4 Foot Level
- Chalk Line
- Flat Screwdriver
- Hex-Key / Allen Wrench Set
- Needle Nose Pliers
- Rotary Hammer Drill (If anchoring)
- 3/4" Masonry Bit (If anchoring)
- 3 Gallons of Hydraulic Oil\*

\*Recommended Oil: ISO 32 Light Hydraulic Oil

## SELECTING SITE

Before installing your new lift, check the following.

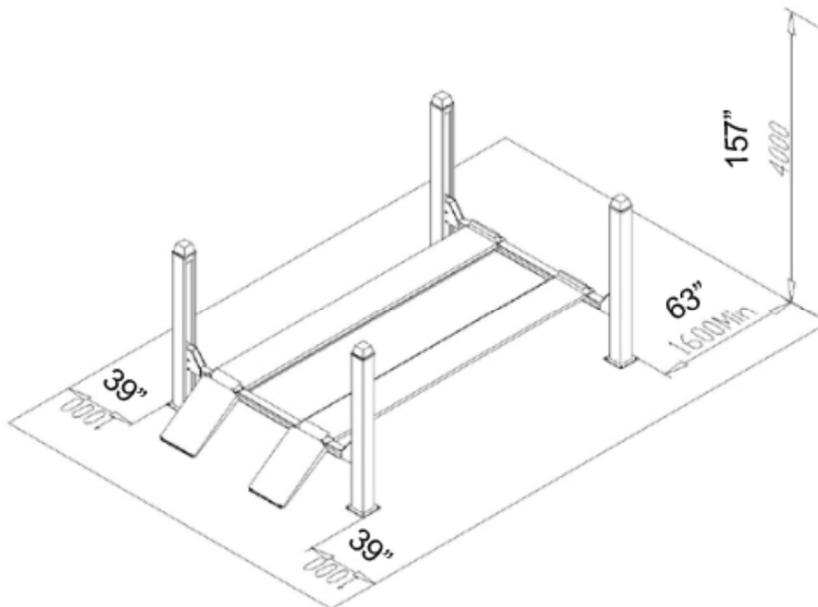
**OVERHEAD OBSTRUCTIONS:** The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.

**FLOOR REQUIREMENTS:** Visually inspect the site where the lift is to be installed and check for cracked or defective concrete. This lift must be installed on a solid level concrete floor with no more than 2 degrees of slope. A level floor is suggested for proper installation and level lifting. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab. This lift is designed to be installed on a minimum of 4" thick, 3500psi, with steel reinforced concrete. Do not install this lift on asphalt, wood, or any other surface other than described. This lift is only as strong as the foundation on which it is installed.

**NOTE:** This Lift does not require bolting to the floor (BUT) If you choose the option to anchor the Lift to the floor, please follow the detailed instructions in the manual and criteria above.

**DO NOT** install this lift outdoors unless special consideration has been made to protect the power unit from weather conditions. **The Power unit is not water proof!!!**

**DO NOT** install lift close to wall. It is necessary to leave adequate clearance for safely walking. Suggest clearance be 1 meter (3 feet) at min.



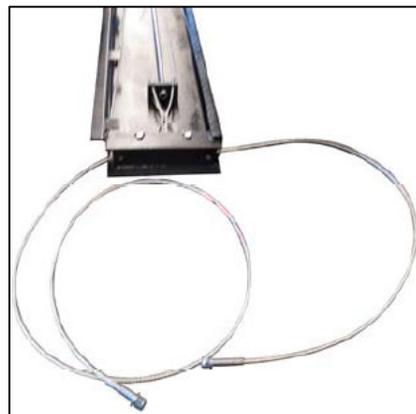
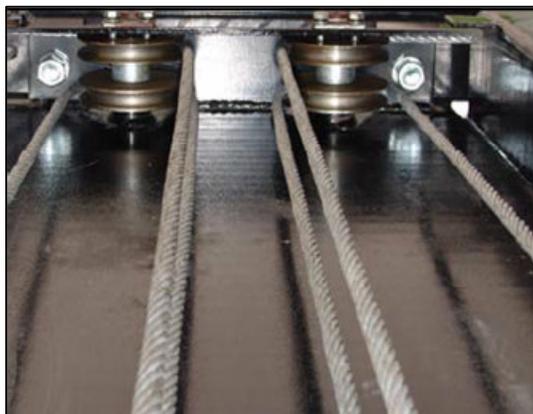
## INSTALLATION INSTRUCTIONS

Improper installation can cause accelerated wear, resulting in catastrophic failure which may cause property damage and / or bodily injury. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied, resulting from improper installation or use of this product. Read this installation manual in its entirety before attempting to install or operate the lift.

1. Remove plastic wrap from top runway and remove all hardware. This includes the Power Unit and Jack Tray. **Note:** You should find this manual either attached to the Lift or inside the Power Unit box.
2. While the Mainside Runway (Item # 51) Figures 1 & 3 is upside down, find the end of the Hydraulic Hose that is already connected to the cylinder. Locate the hole in the side of the runway and install the 90 degree fitting (Item # 86) securing to runway with Jam Nut.
3. Fully extend the cylinder rod by pulling on the on the end of the Cylinder (Item # 56) Figures 1, 3 & 4.
4. Remove lifting Cables (Items # 94, 95, 96 & 97) Figure 4 and layout on floor. Identify the Cable lengths for proper installation position, based on Figure 4 & Parts List on page 25.
5. Using the 'button head' cable ends, attach Cables to the Mount Plate located on the end of the Cylinder. Ensure to anchor the Cables to the Mount Plate using the Lock Plate to lock Cables into position. Double check to ensure Cables are properly installed for routing.



6. Locate the four cable ends and route the appropriate Cable through each hole in corners of the Mainside Runway, shown in Figure # 4. Take up as much cable slack as possible and lay each cable back into the runway. **Note:** Make sure that cables are properly routed around pulleys and are not in a bind. Refer to Figure 4 for Cable routing detail.



7. Unbolt the top runway (Mainside) from the shipping brackets at each end of the runway, taking the necessary safety precautions (using some type of a hoist is recommended), as this runway will need to be flipped over so it is no longer upside down. Place this runway in your bay with the hydraulic fitting facing toward your previously chosen corner for the power unit. **Note:** be careful not to pinch or damage cables.
8. Next unbolt all four columns from the shipping package and place the column with the power unit mounting bracket in the chosen corner noted in previous steps. Arrange the other three columns in the remaining corners.
9. Unpack the Crossbeams, Ramps, Safety Latch Linkage Rods and Lock Ladders from bottom Runway. Remove the Safety Latch covers (Item # 14) Figure # 1 from Crossbeams. They will be reinstalled later. Arrange the Crossbeams so that the Safety Latches / threaded Bolt for the Locking Linkage is facing outward to ensure that both of the Connecting Rods (Item # 70) Figure #2 are closest to the power unit side columns.
10. If you have means for securely lifting the Crossbeam (Item # 67) Figure # 2, lower it into the tops of the columns. If you don't, then the columns will have to be placed horizontal on the floor, and the Crossbeam installed in the columns. Then the entire end structure (two columns and a cross rail) will need to be stood up as one. **Note:** Make sure to install Crossbeams so that the Safety Latches / threaded Bolt are facing to outside of the lift, once stood up. The Cables will run on the inside of the Crossbeams.
11. Unpack the Lock Ladders (Item # 5) Figure # 1 from the package and slide them into the precut slot on the Rub Blocks (Item # 56) inside each column. After removing the top nut from the lock ladder you are ready to install the Top Caps (Items # 3 & 4) Figure # 1 onto the columns.



12. Be aware of the offset hole in Top Caps. Arrange them so that the cable mounting holes are closest to the runways. Use provided bolts, nuts, washers, and lock washers to install Top Caps as shown in Figure # 1.
13. Secure Top Cap and Lock Ladder assemblies together with Washer and Nut (Items # 7 & 8). Position the Crossbeams at the second lowest locking position on all columns.



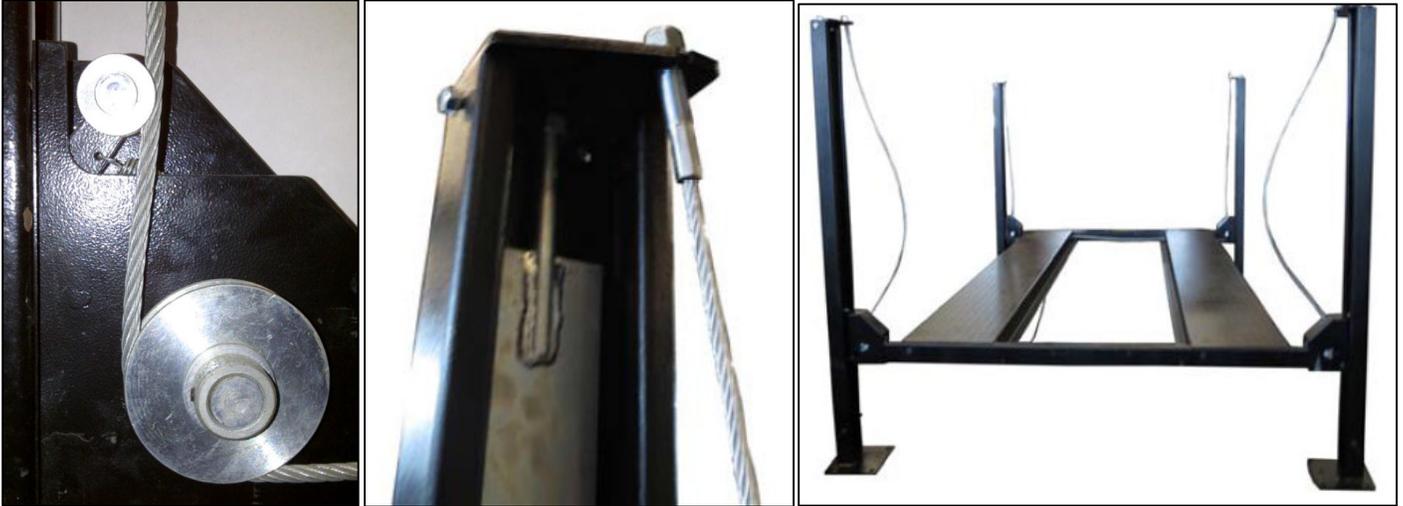
14. Stand-up and arrange the two end structures (Columns & Crossbeams) so that the outside of the cross rail to the outside of the cross rail measurements are close. Compare the measurements from the left and the right until they are diagonally within 1/2". The 1/2" variance will help in mounting the runways.



15. Carefully lift and position each Runway into place and secure with the provided Hex Bolts (Item # 44), mounting Plate (Item # 42) and hardware (Items # 45, 46 & 47) as shown in Figure # 1. The lift will square itself as you further assemble it. **Note:** Install the Offside Runway (Item # 52) opposite from the Mainside Runway (Item # 51) and Power unit Column as shown in Figure # 1.



16. Route and mount the appropriate Cable(s) (Items # 94, 95, 96 & 97) to each Column Top Cap, while ensuring that the small, spring loaded Cable Pulley (Item # 41) is between the Cable and the Lock Ladder. This will allow the secondary slack cable lock to function properly. See Figure # 4 for Cable routing installation. **Note:** Make sure all Cables are properly routed around Cable Sheaves.



17. Install all Lock Rods & Linkage components per the drawing on (Page 18) Figure #2. Also, install Eye bolts (Item # 69) to outside / middle of each Crossbeam. Secure each bolt with Hex Nut.



18. Mount Power Unit (Item # 62) to the Mainside Column w/ attached mounting bracket using the hardware provided shown in Figure # 3. Once mounted, fill the Power Unit reservoir tank with hydraulic fluid and install the Hydraulic Fittings, Nuts & Washer (Items # 90, 91, 92 & 93) to the high pressure port on the Power Unit. Connect the electrical power to the Power Unit.
19. Install the “braded” Hydraulic Hose (Item # 89) Figure # 3 to the Fitting (Item # 86) on the side of the Main side Runway and the other end to the 90 degree fitting on the Power Unit as shown in Figure # 3.
20. Raise unit and set on the locks. Place level on crossbeam.
21. Tighten the Lock Ladder Rod Nut located on the top of each posts. This will raise the corner of the lift to adjust for leveling. Each post has this adjustment. Place level on each runway and crossbeam and check for proper levelness. Adjust to level the lift. **Note:** You may have to loosen the Nut under the Top Plate to make leveling adjustments.
22. After leveling is complete, tighten the Nut on the Lock Rod, located underneath the Top Cap on each post. This will lock the Lock Ladder in position.

23. Raise lift off all locks until cables are supporting the lift. Adjust the Cable Nylon Lock Nut (Item # 99) located on the top of each post until lift is level on crossbeams and runways. This will ensure the lift travels up and down level. **Note:** You may need to use locking pliers to hold the cable from turning when adjusting the Nylon Nut. Ensure the threads are engaged through the nylon for each Nylon Nut.
24. Install the Plastic 'drip' Boards into the bracket slots on the underside of the Mainside Runway as shown below.



25. Insert Wheel Stop Plates (Item # 43) at front end of Runways, as shown in Figure #1 & #5.
26. Install Drive-On Ramps (Item # 53). **Note:** The usage of additional Wheel Stop Plates are recommended when lifting and/or storing a vehicle, with or without the Drive-On Ramps.



27. Install Jack Tray between the Runways.

**NOTE:** Lubricate ALL Cable Sheaves, Bearings and Shafts with grease prior to operating Lift.

***The Lift Installation is now complete.***

**(See following pages for Caster Kit & Anchoring Instructions, if required)**

**CAUTION:** Read Safety & Operation Instructions before operating lift.

## **CASTER KIT ASSEMBLY / INSTALLATION**

1. Install Caster Wheels (Item # 107) to Caster Frames (Item # 104) using hardware provided, shown in Figure 5. **NOTE:** Hitch Pin and Hairpin Clip will be used to attach casters to lift in following steps. **DO NOT** install Caster Kit at this time.
2. Raise the lift 2 ft. to 3 ft. high.
3. Place Caster Assemblies under crossbeams as shown below and in Figure 5. Secure with Hitch Pin (Item #106) and Hairpin Clip (Item # 105).



4. Lower lift and the columns will automatically raise off the floor.



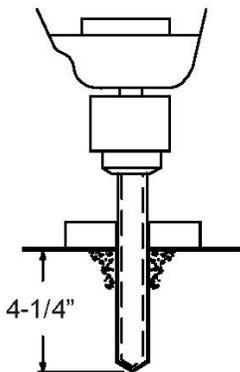
**NOTE:** This Lift does not require bolting to the floor (BUT) If you choose the option to anchor the Lift to the floor, please follow the criteria & detailed instructions on next page.

## FOUNDATION and ANCHORING REQUIREMENTS

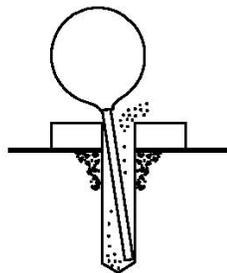
1. Concrete shall have compression strength of at least 3,000 PSI and a minimum thickness of 4-1/4" in order to achieve a minimum anchor embedment of 3-1/4". **NOTE:** When using the standard supplied 3/4" x 5-1/2" long anchors, if the top of the anchor exceeds 2-1/4" above the floor grade, you DO NOT have enough embedment.
2. Maintain a 6" minimum distance from any slab edge or seam. Hole to hole spacing should be a minimum 6-1/2" in any direction. Hole depth should be a minimum of 4-1/4".
3. **DO NOT** install on asphalt or other similar unstable surface. Columns are supported only by anchoring to floor.
4. Using the horseshoe shims provided, shim each column base as required until each column is plumb. If one column has to be elevated to match the plane of the other column, full size base shim plates should be used. Torque anchors to 130 ft-lbs. Shim thickness **MUST NOT** exceed 1/2" when using the 5-1/2" long anchors provided with the lift.
5. If anchors do not tighten to 130 ft-lbs. installation torque, replace the concrete under each column base with a 2' x 2' x 6" thick 3,000 PSI minimum concrete pad keyed under and flush with the top of existing floor. Allow concrete to cure before installing lifts and anchors (typically 2 to 3 weeks).

### ANCHORING TIPS

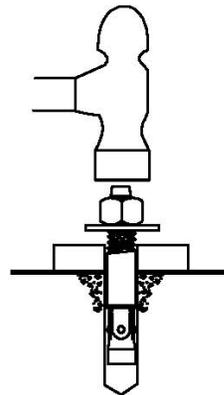
1. Use a concrete hammer drill with a carbide tip, solid drill bit the same diameter as the anchor, 3/4" - (.775 to .787 inches diameter). Do not use excessively worn bits or bits which have been incorrectly sharpened.
2. Keep the drill in a perpendicular line while drilling.
3. Let the drill do the work. Do not apply excessive pressure. Lift the drill up and down occasionally to remove residue to reduce binding.
4. Drill the hole to depth of 2" deeper than the length of anchor. **NOTE:** Drilling thru concrete (recommended) will allow the anchor to be driven thru the bottom of foundation if the threads are damaged or if the lift will need to be relocated.
5. For better holding power blow dust from the hole.
6. Place a flat washer and hex nut over threaded end of anchor, leaving the nut almost flush with the top of the anchor bolt. Do not damage threads. Tap anchor into the concrete until nut and flat washer are against base plate. Do not use an impact wrench to tighten! Tighten the nut, two or three turns on average after the concrete has cured (28-day cure). If the concrete is very hard only one or two turns may be required.



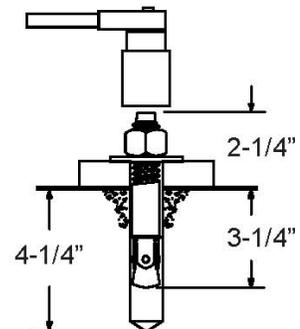
Drill holes using 3/4" carbide tipped masonry drill bit per ANSI standard B94.12.1977



Clean hole.



Run nut down just below impact section of bolt. Drive anchor into hole until nut and washer contact base.



Tighten nut with Torque wrench to 130 ft.-lbs.

# SAVE THESE INSTRUCTIONS

## SAFETY INSTRUCTIONS

When using your garage equipment, basic safety precautions should always be followed, including the following:

- Read all instructions
- Care must be taken as burns can occur from touching hot parts.
- Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged - until it has been examined by a qualified service person.
- Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.
- If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat.
- Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
- Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.
- To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
- Adequate ventilation should be provided when working on operating internal combustion engines.
- Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
- To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.

## SAFETY PROCEDURES

- Never allow unauthorized persons to operate lift. Thoroughly train new persons/employees in the use, operation and care of lift.
- **CAUTION!** Power unit operates at high pressure.
- Remove passengers before raising vehicle.
- Prohibit unauthorized persons from being in shop area while lift is in use.
- Total lift capacity is 8,000 lbs (4,000 lbs. per axle). Do not exceed this capacity.
- Prior to lifting vehicle, walk around the lift and check for any objects that might interfere with the operation of lift and safety latches; tools, air hoses, shop equipment.
- When approaching the lift with a vehicle, make sure to center the vehicle between the columns. Slowly drive the vehicle up with someone outside the vehicle guiding the driver.
- Prior to lowering vehicle, walk around the lift and check for any objects that might interfere with the operation of lift and safety latches; tools, air hoses, shop equipment.
- Slowly drive the vehicle on and off of the lift. Have someone outside the vehicle guide the driver.

### **CAUTION!**

LUBRICATE ALL CABLE SHEAVES, BEARINGS, AND SHAFTS WITH GREASE PRIOR TO OPERATING THE LIFT. LUBRICATE ALL ON AN ANNUAL BASIS.

Motors and all electrical components are not sealed against the weather and moisture. Install this lift in a protected indoor location. Failure by the owner to provide the recommended shelter could result in unsatisfactory lift performance, property damage, or personal injury.

## **OPERATION INSTRUCTIONS**

### **NOTE: ALWAYS CHOCK WHEELS AND SET PARKING BRAKE BEFORE LIFTING VEHICLE!**

Read Safety & Operating Instructions procedures in Manual completely before operating lift.

- Properly maintain and inspect lift in accordance to owner' manual.
- Do not operate a lift that is damaged or in need of repair.
- Allow only authorized personnel in the lift bay.
- Stay clear of lift when raising or lowering (no riders).
- Keep hands and feet away from pinch points at all times.
- Never override the lift operating and safety controls.
- If a vehicle is suspected of falling, clear area immediately.
- Do not rock vehicle while positioned on lift.
- Always use safety jack stands when removing or installing heavy components.

### **Vehicle Loading:**

- Position vehicle on lift runways by having another person guide you onto the runways. Check for proper weight distribution (center of gravity should be evenly distributed between columns).
- Set vehicle parking brake and chock tires to prevent vehicle movement.
- Use caution before lifting pickup trucks, sport utility and other type vehicles. The individual axle weight capacity should not exceed 1/2 of lift capacity.
- Make sure vehicle is neither front nor rear heavy.

### **Raising Lift:**

- Push up switch to raise lift until platform runways clear floor.
- Stop and check for vehicle movement and vehicle weight distribution. If secure, raise to desired height.
- Always lower the lift to the nearest lock position by pressing the lower lever to relieve the hydraulic pressure and let the latch set tight in a lock position.
- Never work under a lift that is not in the locked position.

### **Lowering Lift:**

- Clear all obstacles from under lift and vehicle, and ensure only lift operator is in the lift area.
- Stay clear of lift and raise the lift off the safety locks.
- Pull safety latch releases and press the lower lever to begin descent.
- Ensure lift is fully lowered, and having another person guide you, carefully unload the lift by driving off of the lift runways.

### **CAUTION!**

PAY ATTENTION TO THE LOWERING SPEED OF ALL FOUR CORNERS. MAKE SURE THEY ARE MOVING DOWN AT THE SAME SPEED. STOP LOWERING THE LIFT BY RELEASING THE LOWERING LEVER ON THE POWER UNIT AND MOVING THE LOCK LEVER TO THE LOCK POSITION IF ANY CORNER STOPS MOVING OR IS SLOWER IN DESCENT. ALWAYS LOCK THE LIFT BEFORE GOING UNDER THE VEHICLE. NEVER ALLOW ANYONE TO GO UNDER THE LIFT WHEN RAISING OR LOWERING.

**NOTE:** It is normal for an empty lift to lower slowly - it may be necessary to add weight. Read and adhere to all WARNING, CAUTION and SAFETY INSTRUCTIONS labels on lift.

## **PREVENTIVE MAINTENANCE SCHEDULE**

The periodic Preventive Maintenance Schedule given is the suggested minimum requirements & minimum intervals; accumulated hours or monthly period, whichever comes sooner.

Periodic maintenance is to be performed on a daily, weekly, and yearly basis as given in the following paragraphs.

Do not modify the lift in any manner without the prior written consent of the manufacturer.

**WARNING!!** Failure to perform the daily pre-operational check can result in expensive property damage, lost production time, serious personal injury, and even death. The safety latch system must be checked and working properly before the lift is put to use.

Failure to heed this warning can result in death or serious injury, or damage to equipment. If you hear a noise not associated with normal lift operation or if there is any indications of impending lift failure CEASE OPERATION IMMEDIATELY! Inspect, correct and/or replace parts as required.

### **Daily Pre-Operation Check (8-Hours)**

- Check safety lock audibly and visually while in operation
- Check safety latches for free movement and full engagement with rack.
- Check hydraulic connections, and hoses for leakage.
- Check cables connections bends, cracks-and for loose fittings.
- Check for frayed cables in both raised and lowered position.
- Check snap rings at all rollers and sheaves.
- Check bolts, nuts, and screws and tighten if needed.
- Check wiring & switches for damage.
- Check floor for stress cracks near columns.
- Check Lubrications on cable sheaves and shafts.

### **Weekly Maintenance (every 40-Hours)**

- IF LIFT IS ANCHORED TO FLOOR - Check anchor bolts torque to 130 ft-lbs for the  $\frac{3}{4}$  in. anchor bolts. Do not use an impact wrench to tighten anchor bolts.
- Check floor for stress cracks near columns
- Check hydraulic oil level.
- Check and tighten bolts, nuts, and screws.
- Check all cable sheaves/assembly for free movement or excessive wear on cable sheave shaft.

### **Yearly Maintenance**

- Lubricate the cable sheave shafts at least once a year, after the lift is in service.
- Check for excessive wear of cable. Replace them if necessary.
- Change the hydraulic fluid - operating temperature, type of service, contamination levels, filtration, and chemical composition of fluid should be considered. If operating in dusty environment shorter interval may be required.

## **TROUBLESHOOTING**

The common problems that may be encountered and their probable causes are covered in the following paragraphs:

➤ **Motor Does Not Operate:**

1. Breaker or fuse blown
2. Faulty wiring connections
3. Defective up button

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

➤ **Motor Functions but Lift Will Not Rise:**

1. Power Unit is not priming correctly. (See Power Unit Prime Procedure on next page.)
2. A piece of trash is under release 'down' valve. Push handle down and push the up button at the same time. Hold for 10-15 seconds. This should flush trash from valve.
3. Remove the check valve cover and clean ball and seat.
4. Oil level too low. Oil level should be at the MAX fill line located on the reservoir tank, when lift is fully lowered. Ensure to lower lift to relieve all hydraulic pressure and add oil as required.

➤ **Oil Blows out Breather of Power Unit:**

1. Oil reservoir overfilled. Relieve all pressure and siphon out hydraulic fluid until at a proper level.
2. Lift lowered too quickly while under a heavy load. Lower the lift slowly under heavy loads.

➤ **Motor Hums and Will Not Run:**

1. Lift overloaded. Remove excessive weight from lift.

**WARNING!!** The voltages used in the lift can cause death or injury. In the following steps, make sure that a qualified electrician is used to perform maintenance.

2. Faulty wiring
3. Bad capacitor
4. Low voltage

➤ **Lift Jerks Going Up and Down:**

1. If the lift jerks while going up and down, it is usually a sign of air in the hydraulic system. Raise lift all the way to top and return to floor. Repeat 4-6 times, ensuring not overheat power unit.

➤ **Oil Leaks:**

1. Power Unit: if the power unit leaks hydraulic oil around the tank-mounting flange check the oil level in the tank. The level should be two inches below the flange of the tank. A screwdriver can be used as a "dipstick".
2. Cylinder / Piston Rod: the rod seal of the cylinder is out. Rebuild or replace the cylinder.
3. Cylinder / Vent: the piston seal of the cylinder is out. Rebuild or replace the cylinder.

➤ **Lift makes Excessive Noise / Vibrates:**

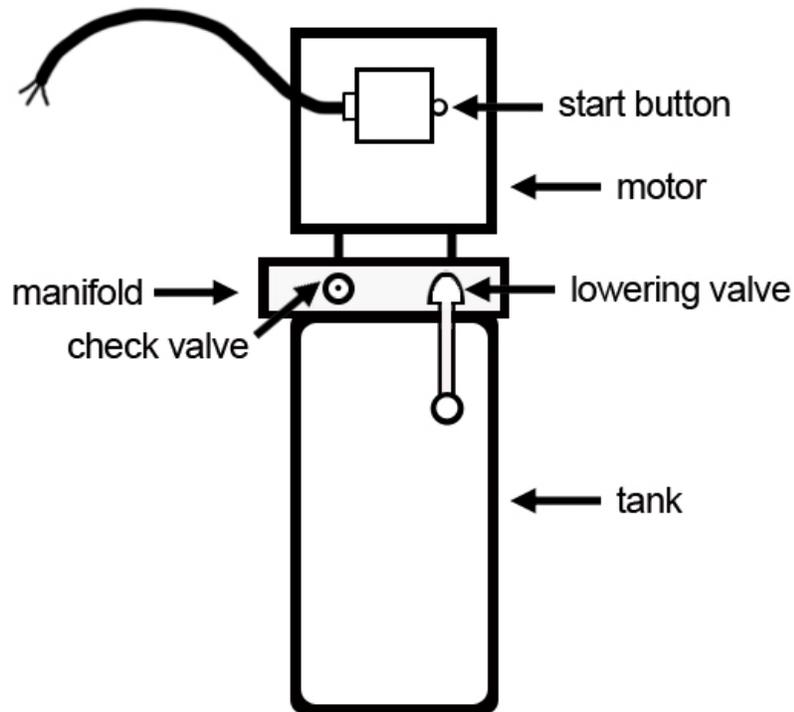
1. Cross beam ends are rubbing the columns. Readjustment needed.
2. Cylinder too tight, load lift half capacity and cycle up and down a few times to break in.
3. May have excessive wear on cable sheaves or shafts. Replace them.

## **POWER UNIT PRIMING PROCEDURE**

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

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

Step 1 – Locate the check valve, the flush plug to the left of the lowering valve.



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.

**YOUR POWER UNIT SHOULD BE PRIMED**

## **LATCH & CABLE INSPECTION / ADJUSTMENTS**

**WARNING!!** Failure to perform routine inspections can lead to reduced service life, which could result in property damage and/or personal injury. **Check locking latches for proper operation. Inspect for worn or missing parts. Replace worn or damaged parts and adjust as required.**

### ➤ **Latch Mechanism Inspection**

Latches and Latch Bar Alignment:

- Check for proper latch operation on all four corners.
- Observe locking latches during lift operation to ensure that all latches line up with slots in latch bar located in all four columns. If not, relocate and/or re-shim columns.
- Check slack cable devices for proper operation. Inspect for worn or missing parts. Replace worn or damaged parts as required.
- Observe both locking latches and slack cable devices during lift operation to ensure that all latches line up with slots in latch bar located in all four columns.

### ➤ **Leveling – Cable & Lock Ladder Adjustments**

#### A. Initial Adjustment

- Adjust cable with lift fully lowered. Loosen jam nut and tighten nut on cable stud on top of column until yoke end is raised 1/4" (6.4 mm) and back off nut one turn. Retighten jam nut.
- Repeat for all four cables.

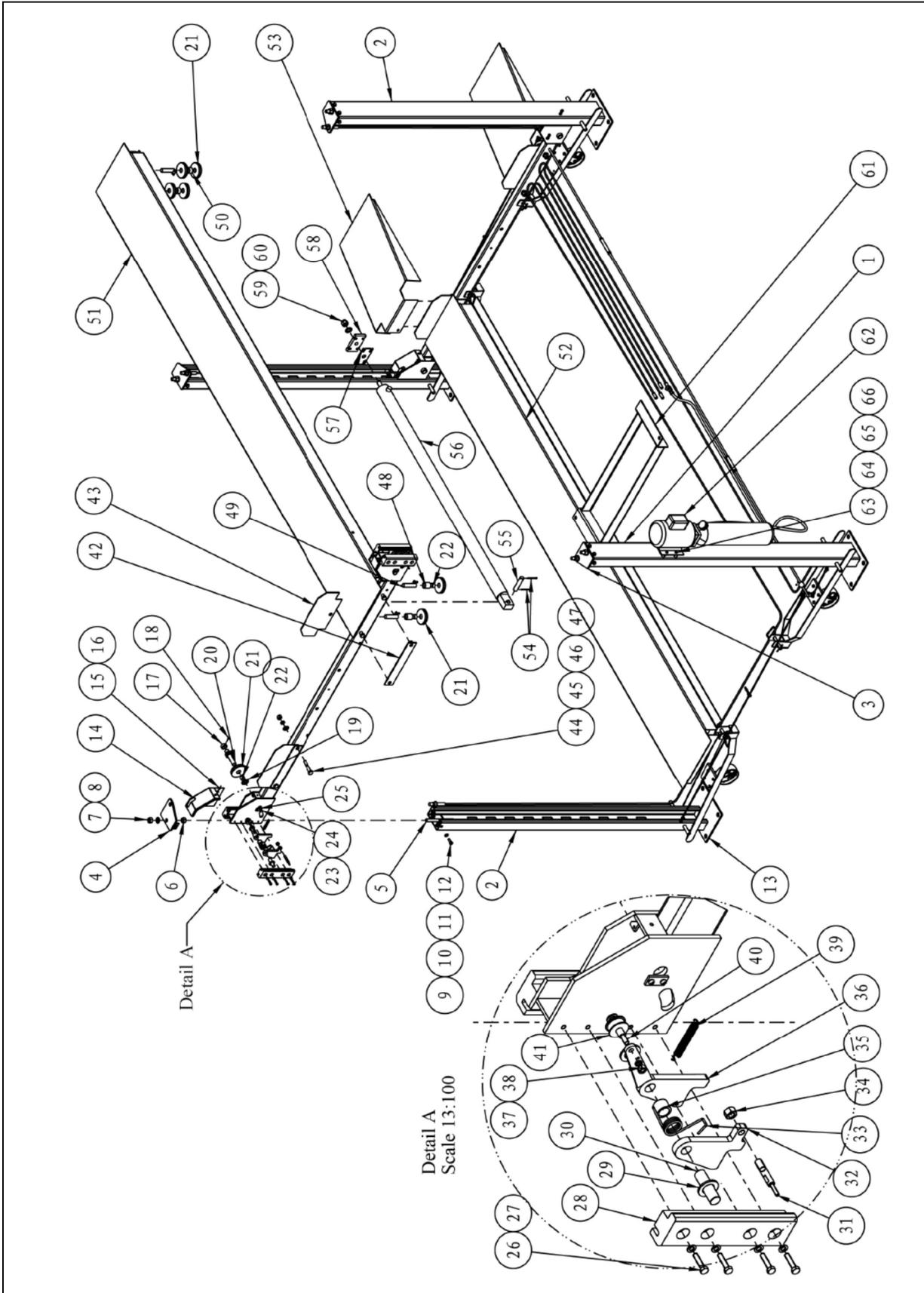
#### B. Final Adjustment

1. Load a typical vehicle on lift.
2. Raise lift as high as it will travel (full height). You should hear the locking latches click through all latch slots simultaneously.
3. Lower lift onto top latch position.
4. Check clearance, starting with the right front column, use a straight edge to mark the position of the yoke bottom on the column.
5. Raise lift to full height again. Mark second position. If gap between two marks is less than 2", adjust locking latch bar to reach clearance of 2". Repeat for the other three columns.
6. Adjust locking latch bar adjusting nut so that the bottom of the topmost latch bar slot is at least 2" below locking latch. After adjustment, tighten jam nut underneath column top plate.
7. If entire 2" clearance cannot be attained by adjusting the locking latch bar, adjust the cable. Turn cable adjusting nut to raise the locking latch 2" above bottom of latch bar slot. Tighten cable jam nut.
8. Lower lift and remove vehicle.
9. Raise the lift to full height. LISTEN and WATCH as the first locking latch clicks into place. Synchronize the other three columns with this column by adjusting their cables so all four latches click at same time. Tighten jam nuts.

**NOTE:** When making changes to adjustment nuts on cable end or latch bar stud, always leave at least two threads showing between nut and stud end. Latches may not click in at the same time when vehicle is being raised but should be close. Be sure all four corners have passed the locking latch bar slot before lowering lift on locking latches.

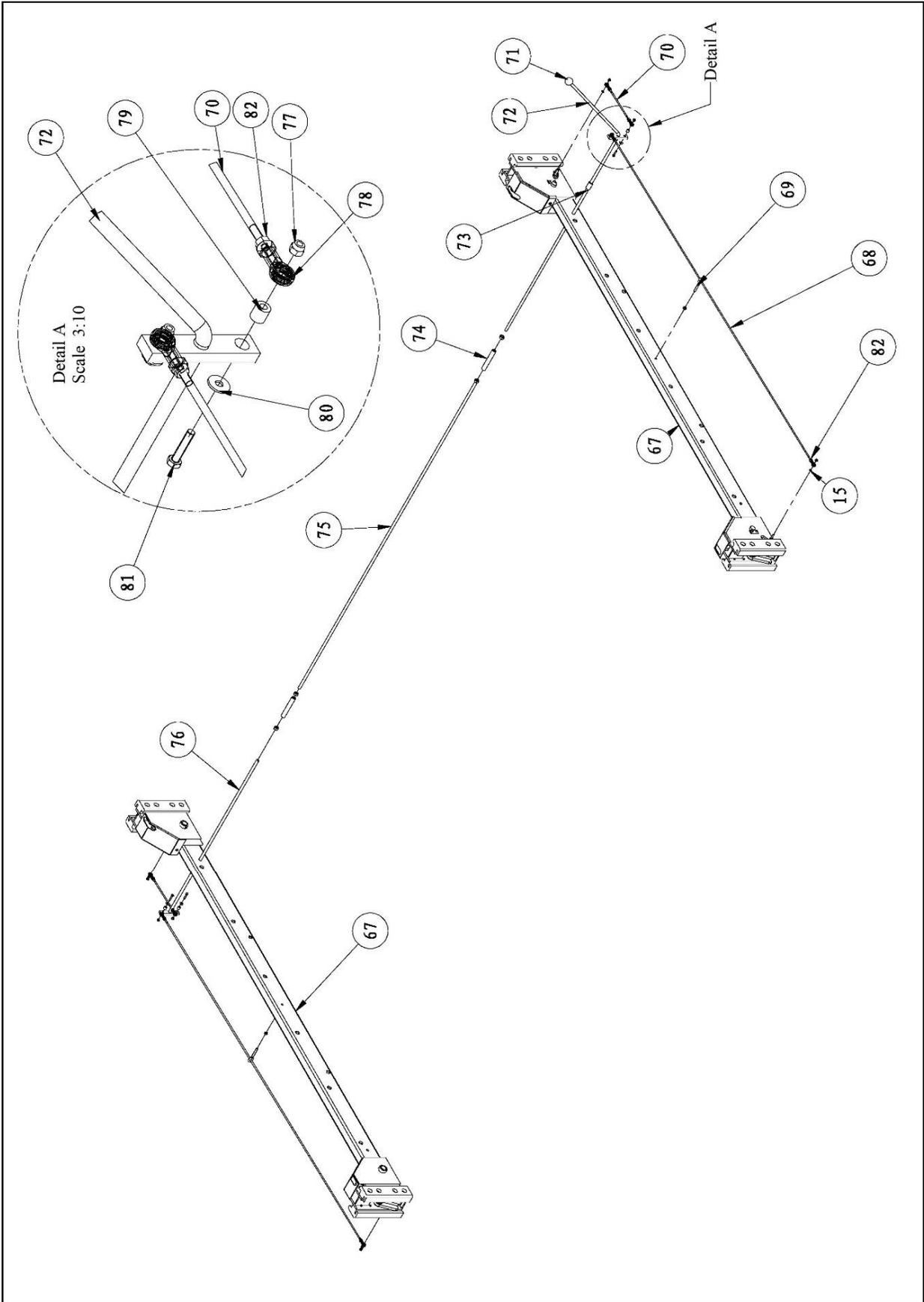
# EXPLODED VIEW

## Figure 1



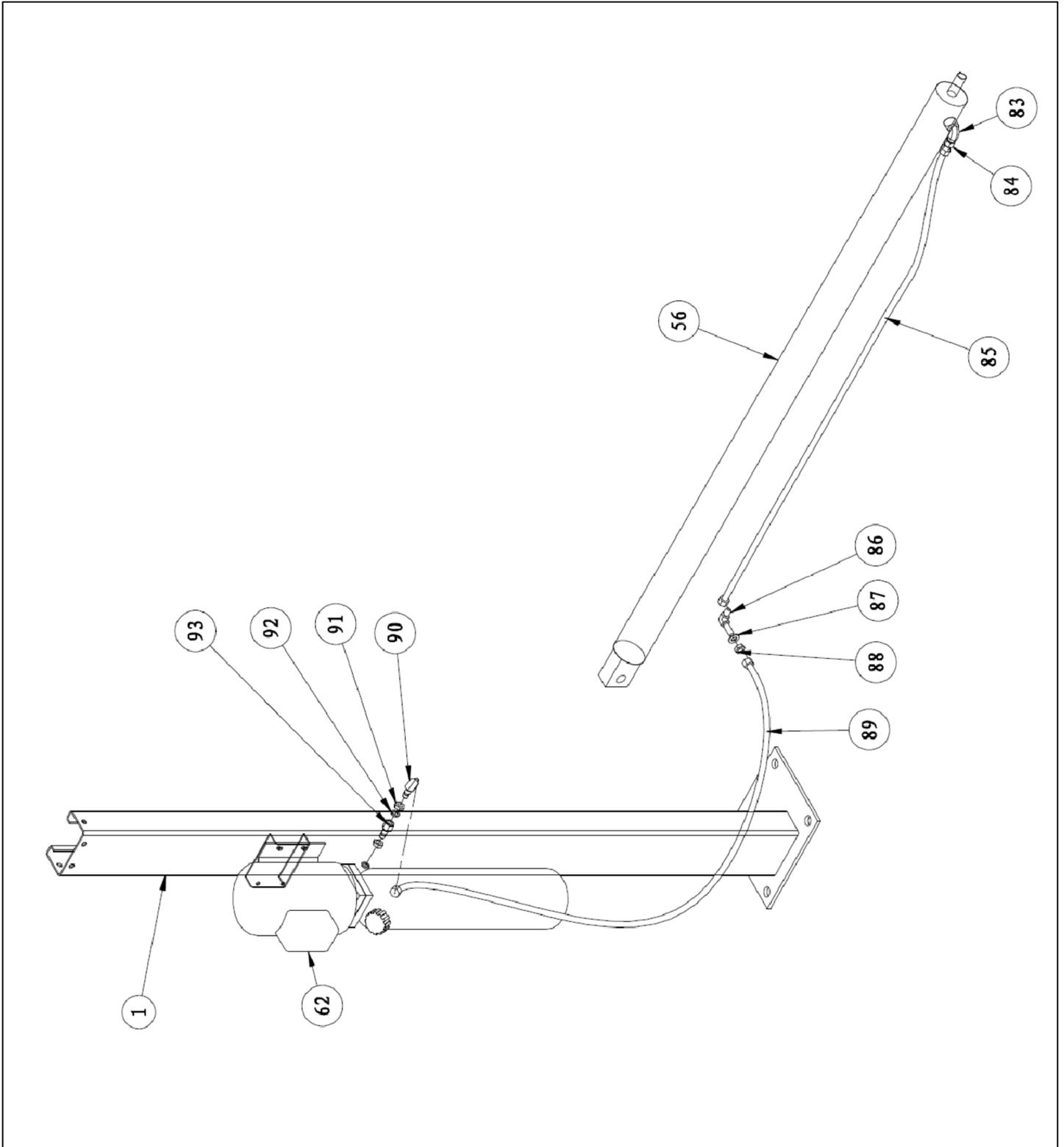
# EXPLODED VIEW

## Figure 2



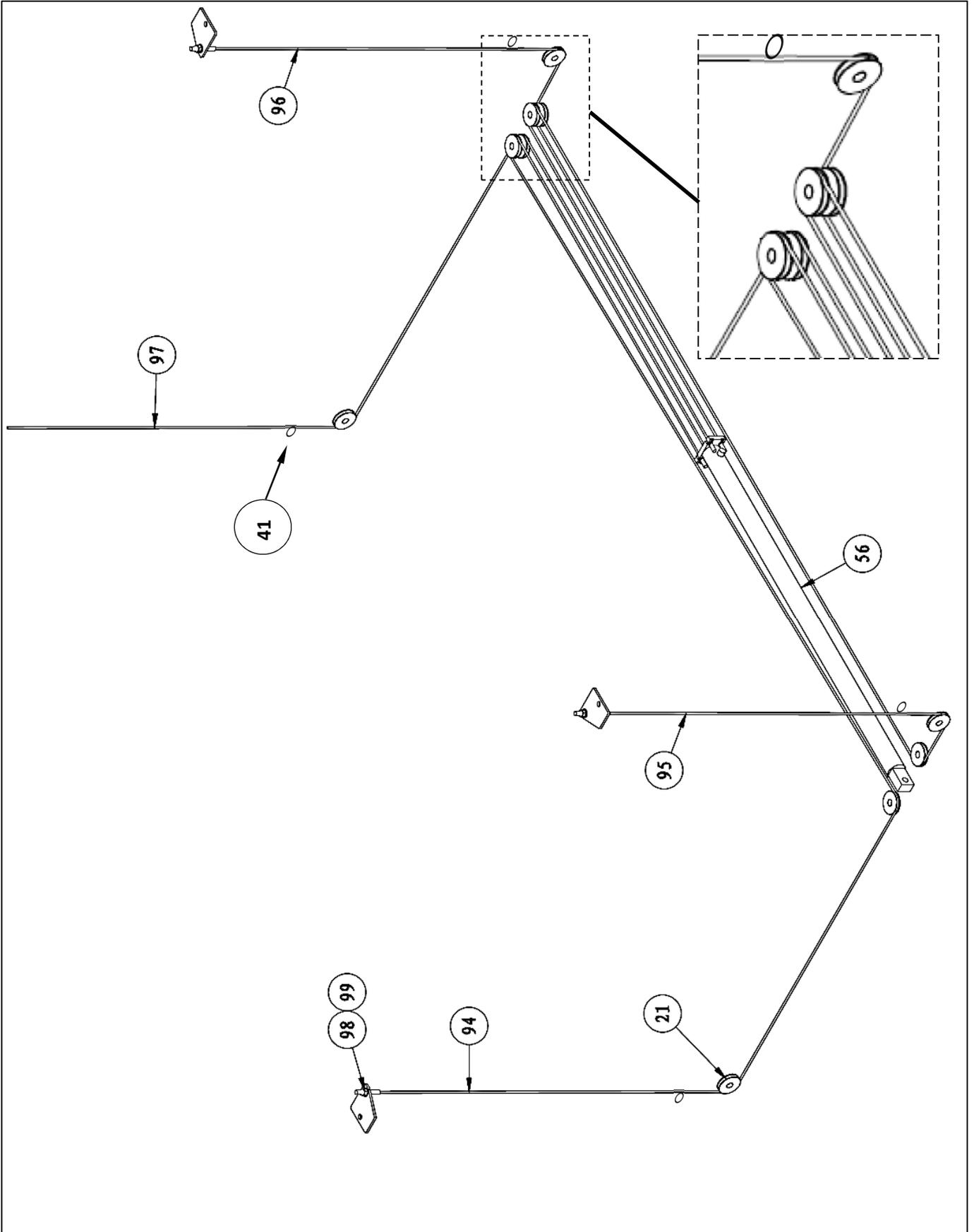
# EXPLODED VIEW

Figure 3



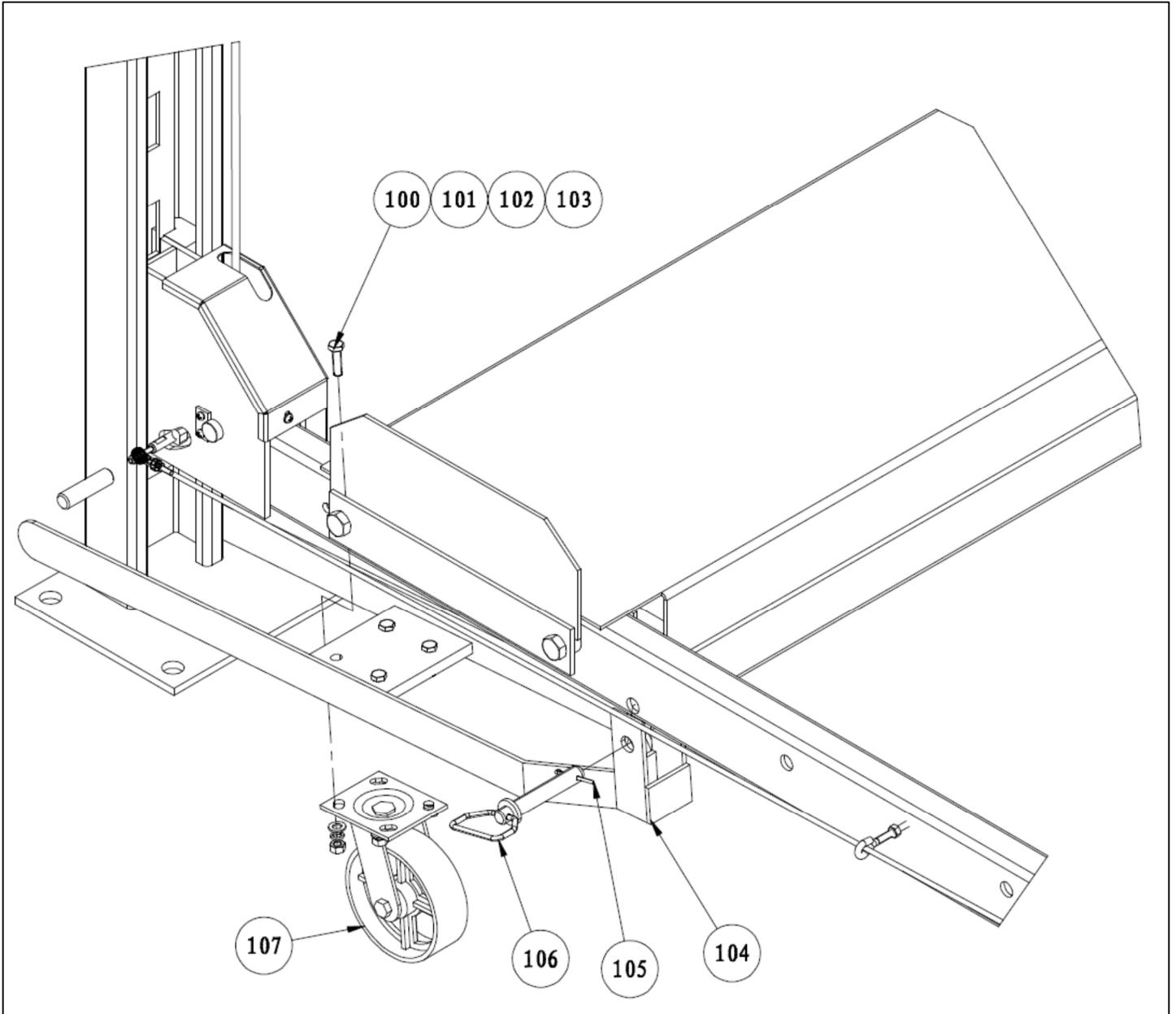
# EXPLODED VIEW

## Figure 4



**EXPLODED VIEW**

**Figure 5**



## PARTS LIST

ITEM	CODE	DESCRIPTION	QTY	NOTE
1	TT7B-100-01-00	Main column	1	
2	TT7B-100-02-00	Sub column	3	
3	TT7B-100-04-00	Top plate 1#	2	
4	TT7B-100-03-00	Top plate 2#	2	
5	TT7B-100-05-00	Latch ladder	4	
6	GB41	Hex nut	4	M20
7	GB6175	Hex nut	4	M20
8	GB95	Flat washer	24	D20
9	GB95	Flat washer	32	D12
10	GB5781	Hex Bolt	16	M12X35
11	GB93	Spring washer	16	D12
12	GB41	Hex nut	16	M12
13		Anchoring Bolt	16	φ19
14	TT7B-200-09A/B	Cover Plate	2*2	
15	GB93	Spring washer	24	D6
16	GB818	cross screw	16	M6X12
17	TT7B-200-10	Bushing	4	
18	GB78	Inner-hex bolt	4	M8X12
19	GB95	Flat washer	13	D24
20	TT7B-200-11	Spindle	4	
21	TT7B-200-08	Roller	10	
22	SF2518	Complex Bushing	10	
23	GB93	Spring washer		D6
24	GB818	Cross Bolt		M6X12
25	SGM-802-08	Guiding plate	8	
26	GB5781	Hex Bolt	32	M8X35
27	GB95	Flat washer	36	D8
28	TT7B-200-14	Nylon block	8	
29	GB95	Flat washer		D20
30	TT7B-200-06	Spindle	4	
31	TT7B-200-05	Rod	4	
32	TT7B-200-04	Safety block	4	
33	TT7B-200-07A/B	Torque spring	2*2	
34	GB6170	Hex Nut	8	M12
35	TT7B-200-02	Bushing	4	
36	TT7B-200-03-00A/B	Locking block	2*2	
37	GB93	Spring washer	8	D8
38	GB6170	Hex nut	10	M8
39	TT7B-200-15	Spring	8	

ITEM	CODE	DESCRIPTION	QTY	NOTE
40	TT7B-200-12-00	Spindle	4	
41	TT7B-200-13	Small roller	4	
42	DPF4-3.2-300-07-00	Plate	4	
43	DPF4-3.2-300-06	Baffle plate	4	
44	GB5780	Hex Bolt	8	M18X100
45	GB93	Spring washer	8	D18
46	GB6170	Hex Nut	8	M18
47	GB95	Flat washer		D20
48	TT7B-300-01-04	Spindle bushing 4	2	
49	TT7B-300-01-05	Spindle	4	
50	TT7B-300-01-07	Spindle bushing 3	2	
51	TT7B-300-02-00	Main runway	1	
52	TT7B-300-01-00	Sub runway	1	
53	TT7B-500-04-00	Approach ramp	2	
54	GB91	Cotter pin	2	D5X60
55	DPF4-3.2-500-02	Pin	1	
56		Hydraulic Cylinder	1	
57	DPF4-3.2-500-04	Plate	1	
58	DPF4-3.2-500-03	Block plate	1	
59	GB889	Nut	1	M24
60	GB95	Flat washer		D24
61	DPF4-3.2-600-00	Jack tray	1	
62		Power unit	1	
63	GB5781	Hex Bolt	4	M8X25
64	GB95	Flat washer		D8
65	GB93	Spring washer		D8
66	GB6170	Hex Nut		M8
67	TT7B-200-01-00	Crossbeam	2	
68	TT7B-500-02	Connecting rod	2	L=2080
69	TT7B-500-03	Anchoring bolt	2	
70	TT7B-500-01	Connecting rod	2	L=215
71		Knob	1	
72	DPF4-3.2-400-01-00	Handle	1	
73	DPF4-3.2-400-04	Bushing	2	
74	DPF4-3.2-400-03	Connection Coupler	2	
75	DPF4-3.2-400-11	Connecting rod	1	
76	DPF4-400-02-00	Connecting rod	1	
77	GB889	Nut	8	M6
78	SI6TK	Bearing	8	M6
79	DPF4-3.2-400-09	Spacer	4	

ITEM	CODE	DESCRIPTION	QTY	NOTE
80	GB96	Flat washer	4	D6
81	GB5781	Hex Bolt	4	M6X30
82	GB6170	Hex Nut	8	M6
83	TT7B-400-03	Angle fitting	1	
84	TT7B-400-04-00	Throttle Valve	1	
85	DPF4-3.2-500-10	Hydraulic Hose	1	
86	DPF4-3.2-500-07	Angle fitting	1	
87	GB95	Flat washer	1	d14
88	DPF4-3.2-500-06	Nut	1	
89	DPF4-3.2-500-11	Hydraulic hose	1	
90	TPF4-500-05	Tee fitting	1	
91	TPF4-500-09	Nut	2	
92	TPF4-500-08	Washer	2	
93	TPF4-500-07	Fitting	1	
94	TT7B-500-03A	Steel cable A – FP8K-DS	1	26' 9-7/8"
95	TT7B-500-03B	Steel cable B – FP8K-DS	1	22' 1-3/4"
96	TT7B-500-03D	Steel cable D – FP8K-DS	1	8' 10-5/8"
97	TT7B-500-04C	Steel cable C – FP8K-DS	1	13' 6-3/8"
98	GB95	Flat washer		D20
99	DPF4-500-12	Tight Nut	4	
100	GB5783	Galvanized Bolt	16	M10X35
101	GB93	Spring washer	16	D10
102	GB6170	Hex Nut	16	M10
103	GB95	Flat washer	16	D10
104	DPF4-3.2-700-01-00	Dolly frame	4	
105	GB91	Cotter Pin	4	D4X50
106	DPF4-3.2-700-02-00	Pin	4	
107		Caster	4	6"

**Parts Differ for FP8K-DS-XLT model**

ITEM	CODE	DESCRIPTION	QTY	NOTE
1	TT-8138-100-01-00	Main post	1	
2	TT-8138-100-02-00	Assistant post	3	
5	TT-8138-100-05-00	Safety bar	4	
51	TT-8138-300-02-00	Main runway	1	
52	TT-8138-300-01-00	Assistant runway	1	
61	DPF4-3.2-600-00T	Tool box	1	
67	TT-8138-200-01-00	Traverse beam	2	
68	TT-8138-500-02	Connection rod - XLT	2	L=2230
72	DPF4-3.2-400-01-00K	Handle	1	
85	DPF4-3.2-500-10K	Hydraulic hose	1	
94	TT-8138-500-03A	Steel cable A – FP8K-DS-XLT	1	29' 1/8"
95	TT-8138-500-03B	Steel cable B – FP8K-DS-XLT	1	23' 10"
96	TT-8138-500-03D	Steel cable D – FP8K-DS-XLT	1	9' 4-1/4"
97	TT-8138-500-04C	Steel cable C – FP8K-DS-XLT	1	14' 6-3/8"

# TUXEDO DISTRIBUTORS 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 (Tuxedo) 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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