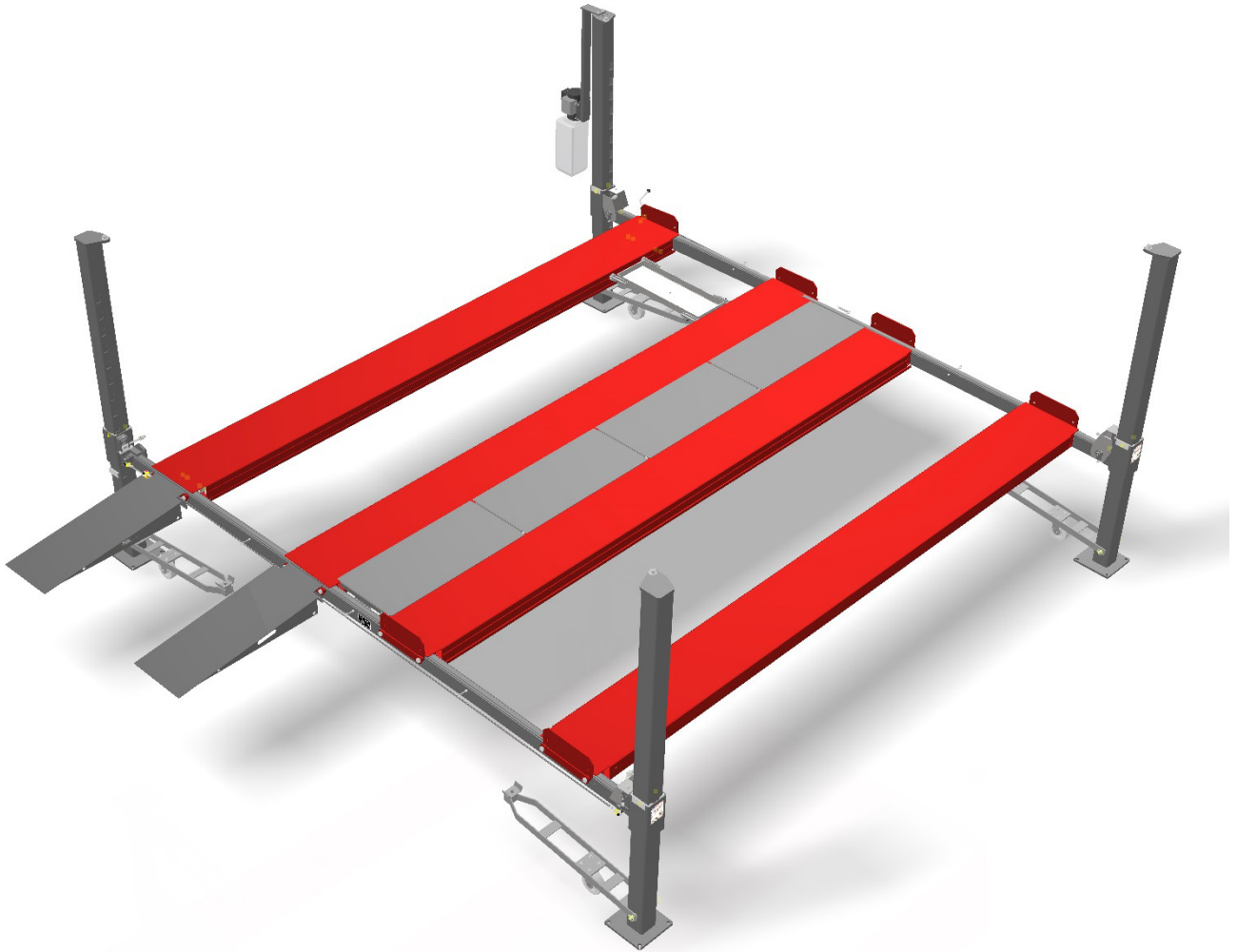




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# Backyard Buddy B-SXS-10000 Installation and Operations Manual



**DANGER**

**IMPORTANT SAFETY INSTRUCTIONS.** Please read the entire contents of this manual prior to installation, operation, servicing or maintaining the lift. Reference ANSI/ALI ALIS "Safety Requirements for Installation and Service of Automotive Lifts" & ALI "Lifting it Right". By proceeding you agree that you fully understand and comprehend the full contents of this manual and other included materials that came with your lift. Make this manual available to all operators. Failure to operate this equipment as directed may cause injury or death. **SAVE THESE INSTRUCTIONS**

**Designed and Engineered in Warren, Ohio USA**

---

## **IMPORTANT SAFETY INSTRUCTIONS**

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

1. Read all instructions.
2. Care must be taken as burns can occur from touching hot parts.
3. 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.
4. 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.
5. 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. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
6. 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.
7. Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.
8. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
9. Adequate ventilation should be provided when working on operating internal combustion engines.
10. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
11. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
12. Use only as described in this manual. Use only manufacturer's recommended attachments.
13. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.
14. To reduce the risk of injury, close supervision is necessary when this product will be used around children. (Pertains to cabinets only.)
15. To reduce the risk of injury, never overload the drawers or shelves. Refer to loading instructions.
16. To reduce the risk of electric shock or fire, never overload receptacles. Refer to markings for the proper load on receptacles.

### **SAVE THESE INSTRUCTIONS.**

Make sure the owner and each user of this lift receives the lift specific operation, inspection, and maintenance instructions along with any other provided or recommended safety materials.

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## Warranty

	Residential Use	Commercial Use
<b>Structure</b> (Ex. Runways Columns, Crossmembers)	5 Years	5 Years
<b>Cylinder</b> (Ex Cylinder & Seal Kits)	5 Years	2 Years
<b>Power Unit</b> (Ex. Motor, Capacitors & Switches)	5 Years	2 Years
<b>Operational Components</b> (Ex. Pulleys & Cables)	5 Years	2 Years
<b>Free Shipping on Warranty Parts</b>	1 Year	1 Years

Rolling Jacks (RJM & RJA) have a 2-year residential warranty, and a 1-year commercial warranty.

Advantage Lifts warranty only applies to the original purchaser of the lift.

Advantage Lifts shall repair or replace at their option any defective part, as soon as the part becomes available, during the warranty period. Part(s) in question may be required to be returned to the factory freight prepaid for inspection prior to being considered defective.

This warranty does not extend to defects caused by outside use, ordinary wear, abuse, misuse, overloading, improper installation, shipping damage, improper concrete floor, and lack of required maintenance, or an Act of God.

This warranty also does not cover parts needed for normal maintenance, wear parts, which include but are not limited to, cables, hoses, and slider blocks. On-site labor is not covered by this warranty. No part will be replaced for cosmetic blemishes unless it affects the safety or functionality of the lift.

Advantage Lifts reserves the right to make product design changes or other improvements without obligation to update previously sold equipment.

Advantage Lifts shall not be liable for loss of use, inconvenience, lost time, commercial loss or other incidental or consequential damages. This warranty is governed by the laws of the State of Pennsylvania.

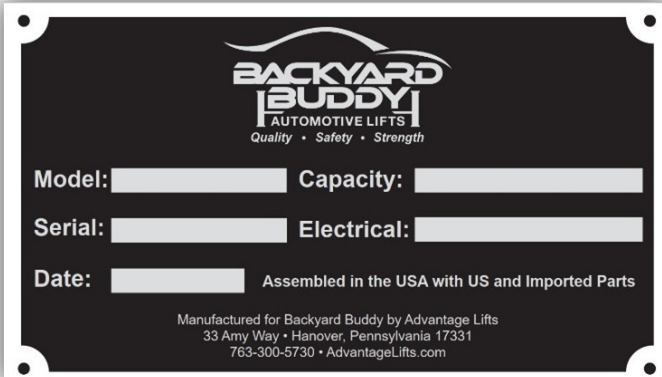
## Lift Information

Record the information from the name plate for your lift. This is required for warranty issues.

Model: \_\_\_\_\_

Serial: \_\_\_\_\_

Date Installed: \_\_\_\_\_



The image shows a nameplate form for Backyard Buddy Automotive Lifts. The form is black with white text and input fields. At the top, it features the 'BACKYARD BUDDY' logo with 'AUTOMOTIVE LIFTS' underneath and the tagline 'Quality • Safety • Strength'. Below the logo, there are four input fields: 'Model:', 'Capacity:', 'Serial:', and 'Electrical:'. At the bottom left, there is a 'Date:' field. At the bottom right, it says 'Assembled in the USA with US and Imported Parts'. At the very bottom, in smaller text, it reads 'Manufactured for Backyard Buddy by Advantage Lifts, 33 Amy Way • Hanover, Pennsylvania 17331, 763-300-5730 • AdvantageLifts.com'.

## Safety

Read these safety instructions entirely, Check [advantagelifts.com](http://advantagelifts.com) for manual updates. Advantage recommends reviewing the current version of the ANSI/ALI ALIS “*Safety Requirements for Installation and Service*” to provide additional safety information for installing and using your lift. Additionally, the ALI “*Lifting it Right*” and “*Safety Tips*” documents are recommended reading for every lift operator ([autolift.org](http://autolift.org)) For installation reference ANSI/ALI ALOM, “*Safety Requirements for Operation, Inspection and Maintenance*”.

Always keep the Installation & Owner’s Manual, ALI Lifting it Right safety manual, and any other safety instruction accessible. Post these safety tips where they will be a constant reminder to an authorized lift operator.

**The Owner/Employer shall** ensure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the manufacturer's operating instruction; ALI/SM, ALI Lifting it Right safety manual; ALI/ST ALI Safety Tips card; ANSI/ALI ALOIM (current edition), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards. ([autolift.org](http://autolift.org))

**The Owner/Employer shall** establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM (current edition), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall ensure that lift inspectors are qualified and that they are adequately trained in the inspection of the lift. ([pg. 38](#))

**The Owner/Employer shall** establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM (current edition), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and the employer shall ensure that lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift. ([pg. 38](#))

**The Owner/Employer shall** maintain the periodic inspection and maintenance records recommended the manufacturer or ANI/ALI ALOIM (current edition), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance. ([pg 45](#))

**The Owner/Employer shall** display the lift manufacturer's operating instructions; ALI/SM, ALI Lifting it Right safety manual; ALI/ST, ALI Safety Tips cards; ANSI/ALI ALOIM (current edition), American National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; and in the case of frame engaging lifts, ALI/LP- Guide, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts; in a conspicuous location in the lift area convenient to the operator. ([autolift.org](http://autolift.org))

**The Owner/Employer shall** provide necessary lockout/tagout means for energy sources per ANSI Z244.1, Safety Requirements for the Lockout/Tagout of Energy Sources, before beginning any lift repairs or maintenance.

**The Owner/Employer shall** ensure the lift is not modified in any manner without the prior written consent of the manufacturer.

**The Owner/Employer shall** ensure worn, damaged, or broken parts are replaced with parts approved by the original equipment manufacturer or with parts meeting original manufacturer specifications.

**MAINTAIN** your lift. Keep the lift clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil. Always follow proper lockout/tagout procedures per ANSI Z244.1.

**NEVER** overload your lift. The manufacturer's rated capacity is shown on the nameplate affixed to the lift.

**NEVER** use the lift to raise one end or one side of vehicle.

**NEVER** raise vehicle with anyone inside it. No one should be in the lift area during operation.

**NEVER** operate the lift if it malfunctions or if there are broken, damaged or missing parts. Repairs must be made with the manufacturer's replacement parts and by authorized personnel only.

**NEVER** modify or remove components from the lift. Only use manufacturer's recommended attachments and replacement parts.

**NEVER** block open or override the operating controls. They are designed to close when released.

**NEVER** allow untrained or unauthorized individuals to operate the lift. Never allow children to operate the lift.

**ALWAYS** have the lift setting on the locks before going under the lift. Never allow anyone to go under the lift when raising or lowering.

**ALWAYS** have a spotter assist in aligning the vehicle. The vehicle must be centered on the runways in both directions to maintain a stable, even load.

**ALWAYS** keep accessible the Installation & Owner's Manual, and any other safety information.

**ALWAYS** know the gross weight of the vehicle you are lifting.

**ALWAYS** follow OSHA and ALI guidelines including but not limited to wearing safety glasses.

**ALWAYS** provide adequate ventilation when working on internal combustion engines.

**STAY ALERT.** Before lowering the lift be sure tool trays, stands, etc. are removed from under the vehicle, and that any rolling jacks are in the lowered position. Release locking devices before attempting to lower lift. Care must be taken as burns can occur from touching hot parts.

***Note to Installers:*** Verify that all factory installed fittings are tight.

**KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep your feet clear of the lift when lowering. Avoid pinch points.

**GUARD AGAINST ELECTRIC SHOCK.** This lift must be grounded while in use to protect the operator from electric shock. On 240V power units never connect the green power cord to a live terminal. This is for ground only.

**WARNING! RISK OF EXPLOSION.** This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.

**IMPORTANT NOTICE.** Do not attempt to install this lift if you have not been trained in basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to ensure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. The manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

## Owner's Responsibilities

To maintain the lift and user safety, it is the responsibility of the owner to read and follow these instructions:

- Follow all installation and operation instructions.
- Make sure installation conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical code.
- Carefully check the lift for correct initial function.
- Read and follow the safety instructions. Keep them readily available for machine operators.
- Make certain all operators are properly trained and know how to operate the lift and any accessories safely and correctly.
- Allow operation only with all parts in place and operating safely.
- Carefully inspect on a regular basis and perform all maintenance as required.
- Service and maintain the lift only with authorized or approved replacement parts.
- Keep all instructions permanently with the lift and all decals on the unit clean and visible.

## Hazard Level Definitions



Immediate hazard which **will** result in severe injury or death.



Hazards or unsafe practices which **could** result in severe personal injury or death.



Hazards or unsafe practices which **may** result in minor personal injury, product, or property damage.



# Shipping Information

## Receiving your lift:

Great care was taken in the preparation and packaging of your lift. Before receiving your lift inspect it for any visible damage to the packaging. Any visible damage must be noted on the bill of lading. All freight claims must be communicated to Advantage Lifts.

Advantage Lifts recommends picking up your lift at a local freight terminal with a trailer at least 18 feet long. Prior to arrival, communicate with the freight carriers and arrange for them to load the lift directly on your trailer. Your lift may also be delivered to a commercial location with forklift access.

As you are unpacking your lift make sure you have all components before beginning installation. Ensure all required tools are available to complete the installation. Do not discard the cardboard packing material until you have completed installing the lift. Cardboard can be used to protect lift components while installing.

For detailed instructions on receiving, unloading, and unpacking the lift see [page 10](#).

## Freight Damage:

**NOTIFY THE CARRIER AT ONCE** if any hidden loss or damage is discovered after receipt. Request that the carrier perform an inspection at the first available opportunity. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

### 1) ACCEPTING AN ITEM WITH FREIGHT DAMAGE

Choose this option if you only have minor cosmetic damage or a part that needs replaced to make the unit complete. Make note of the damage on the freight bill prior to signing and accepting delivery. You will be responsible for contacting Advantage Lifts to file the freight damage claim with the carrier; the driver can provide a number for you to call his terminal to begin the process. Take pictures and document any damage that is found for future reference. Once you have filed the claim, Advantage Lifts can provide any replacement parts or touch up paint needed should you choose this option, and the carrier should reimburse you for the cost of these items. If you have any questions or need further assistance, please call our customer service department **(763) 300-5730**.

### 2) REFUSE THE DAMAGED ITEM.

Choose this option if the carrier has severely damaged the freight beyond your judgment of a simple repair. Advantage Lifts will file all freight claims if refused due to severe damage. Make a copy of the freight bill email it to [shipping@advantagelifts.com](mailto:shipping@advantagelifts.com) with a brief explanation of the damage. Take pictures and document any damage that is found. If this is not possible, call Advantage Lifts at **(763) 300-5730** to notify us of the damage so that we can arrange to have a replacement lift shipped.

## Tools for Assembly

- Gloves
- Box knife
- Strap cutters/side cutters
- Vice grips
- Paper towels
- Dead blow hammer
- Allen wrench set (SAE)
- Tape measure (25')
- Open end wrench set, must include:
  - 7/16", 1/2", 9/16", 3/4", 1 1/8", 1 1/2"
- 1/2" or 3/8" ratchet drive socket set:
  - 7/16", 1/2", 9/16", 3/4", 1 1/8", 1 1/2"
- Flathead and Phillips screwdrivers
- Adjustable wrench
- Snap-ring pliers
- Cordless impact
- Step ladder
- Bottle of spray car wax
- 1 Can of spray lube
- 5 Gallons of AW-32 or AW-46 hydraulic oil
- Grease gun
- Wood blocks (Included)
- Bottle of spray car wax
- Zip-ties
- Optional - Car dollies
- Optional - Material handler
- Optional - Prybar/ratchet strap



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### USE PROPER LIFTING TECHNIQUES

*The B-SXS-10000 lift has components that weigh up to 600 lbs. At least one assistant is required to assist with lifting heavy components. Three assistants (4 total people) and/or material handling equipment is preferred.*

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Improper installation can accelerate wear, resulting catastrophic failure which may cause property damage and/or bodily injury. Advantage Lifts assumes 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. Only operate as instructed.

## STEP 1: Selecting a Site

Before installing your new lift, check for 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, lighting, garage door rails/openers, etc. Calculate the lift height based on the full raised height of the lift plus the vehicle height. Measure and check for clearance. Failure to do so may cause personal injury or property damage.

### Electrical Requirements:

This lift uses an electrically driven hydraulic Power Unit. Follow the manufacturer's instructions supplied in the Power Unit box. Wiring **must** be performed by a qualified electrician and meet local, state, and national requirements. Disconnect power from the lift before performing maintenance. Follow proper lockout/tagout procedures while servicing. The Power Unit requires a dedicated 240 VAC 60Hz 15-amp single phase circuit. Improper installation may damage the Power Unit which is not covered under the warranty. Never expose the Power Unit to any water or damp environment, this will void the warranty.

## Floor Requirements:

Visually inspect the floor where the lift is to be installed and check for cracked or defective concrete. This lift must be installed on a level concrete floor with no more than 3 degrees of slope and in good condition. Consult a qualified person to address concrete conditions, seismic loads and local or state requirements. This lift is designed to be installed on a minimum of 5-inch thick, 3500 psi concrete cured 28 days. Do not install this lift on asphalt, wood, or any other surface other than described.

**DO NOT** use this lift outdoors, doing so will void the warranty. Ensure proper drainage to keep water away from the lift. The lift is not designed to be used in a wet or damp environment or sit in standing water.

**DO NOT** begin installation in a tight area; give yourself plenty of space to work safely. It is recommended to leave at least 24-inches on each side of the lift (*figure 1.1 & 1.2*) and 60-inches on the front and back to install the front and rear rod that slides under the powered runway. The minimum ceiling height required for installation is 9-feet. Calculate clearance based on your vehicle height plus the maximum lifting height.

It is **NOT** recommended to anchor this lift. If you must anchor the lift, follow the instructions on [page 39](#). The owner is responsible for following any local or state seismic anchoring requirements. If the concrete floor is a post-tensioned slab, contact the architect before drilling.

## Power Unit Locations/Assembly View:

The power unit can be placed in one of two locations, driver's side front or passengers side rear (*figure 1.1*). Power unit shown in driver's side front in the diagram.

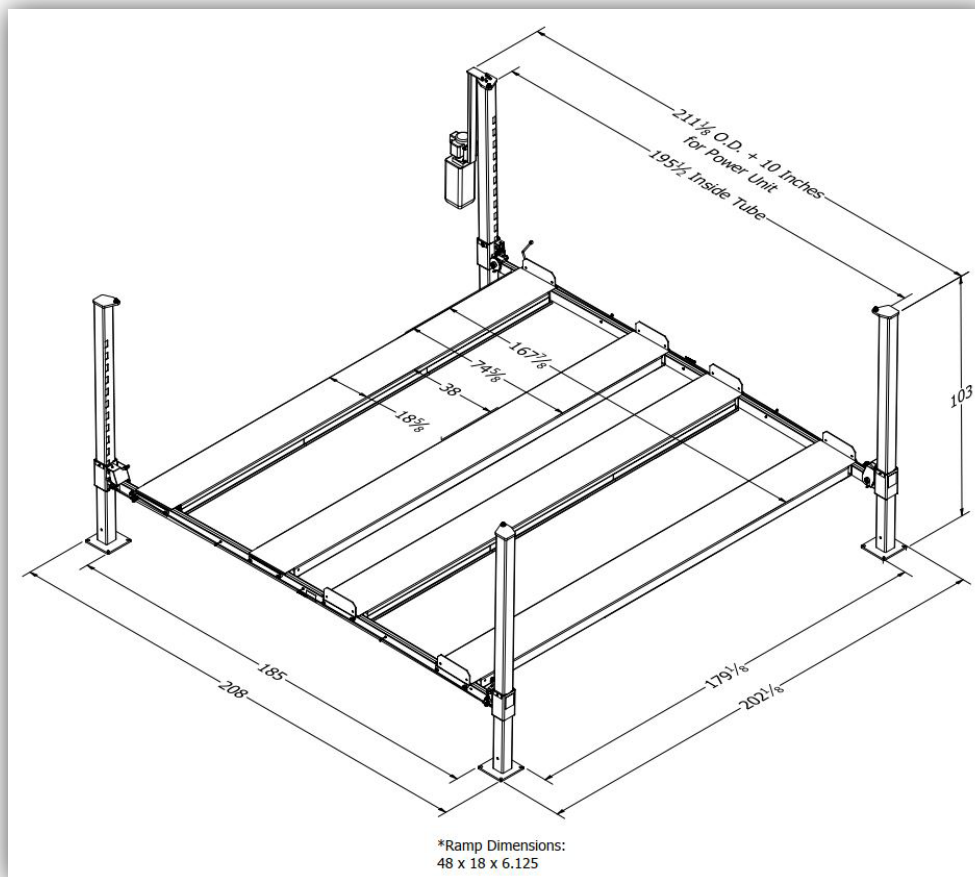


Figure 1.1 Lift Overview

# Site Planning

## Minimum Clearance

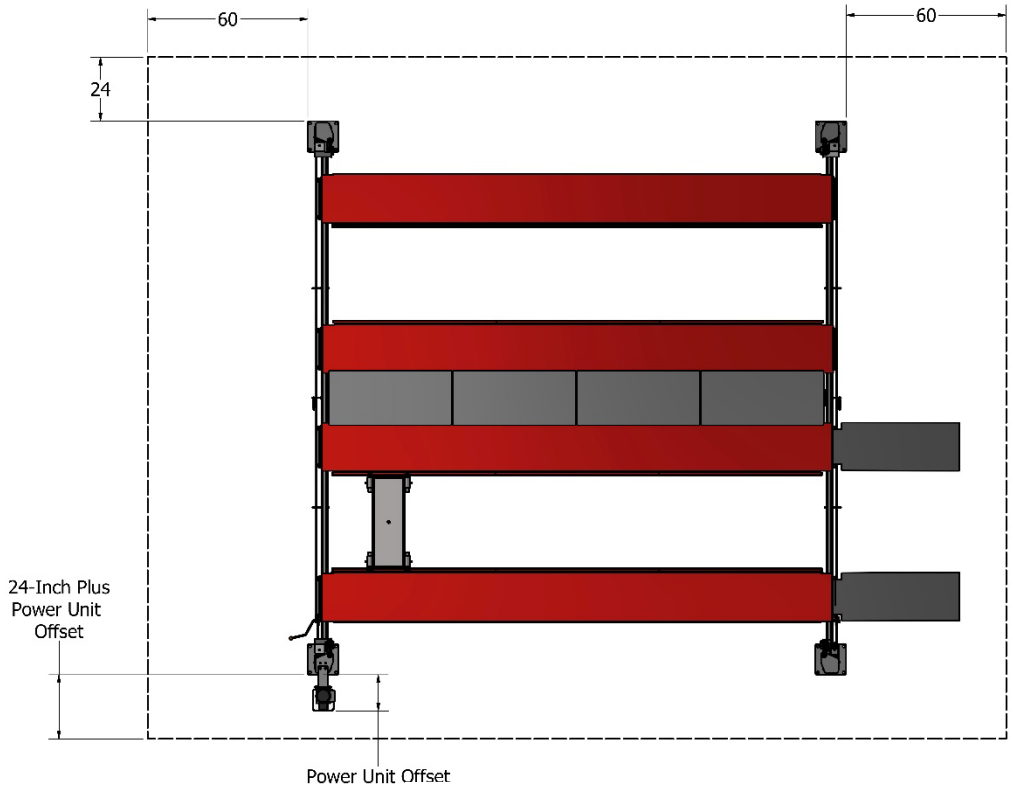


Figure 1.3 Clearance Around the Lift

## Calculate Ceiling Height

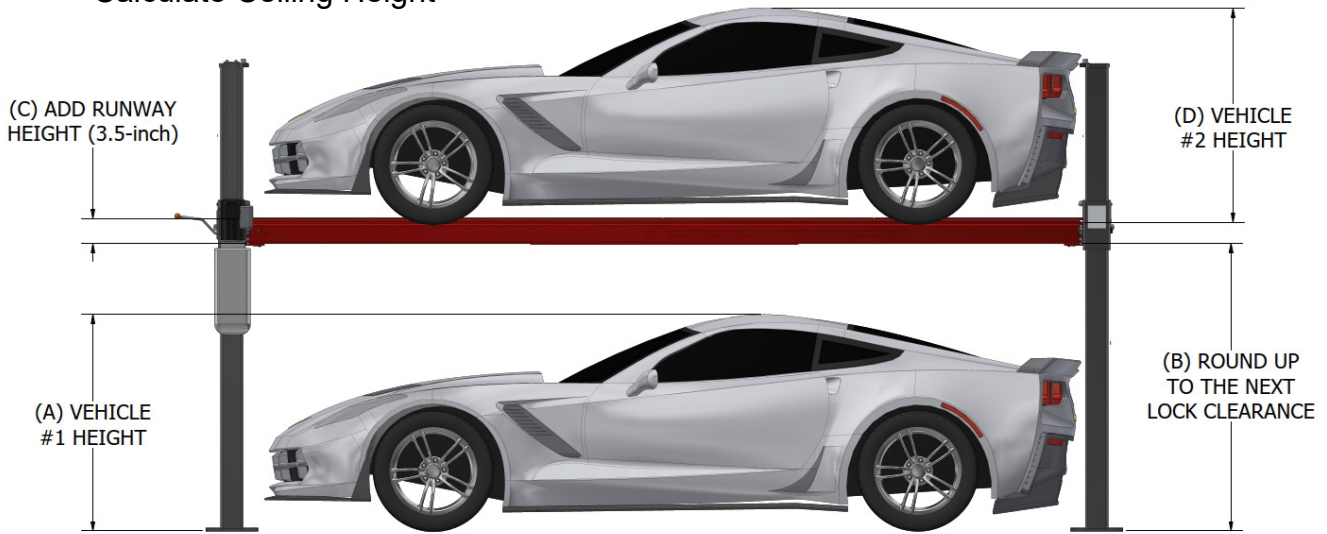


Figure 1.3 Lift Clearance (Height)

**Clearance Height = B (Clearance Pg 14) + C (4.5 Runway Height) + D (Vehicle #2 Height)**

Clearance under the runway can be calculated by measuring from the ground to the bottom of the lock hole and subtracting 2.25-inch for the crossmember offset (bottom of the lock to top of the runway). The dimensions on [page 9](#) list the clearance under the lift for each lock hole. These values are approximate due to the crossmember leveling out when loaded. Always use a spotter when driving a car in and out for the first time.

## Specifications

Specification	Imperial	Metric
*Lifting Capacity	10,000 lbs.	4,536 kg
Max Capacity / Front Axel	5,000 lbs.	2,268 kg
Max Capacity / Rear Axel	5,000 lbs.	2,268 kg
Height of Columns	103 in.	2616 mm
Max Clearance on Top Lock	81-1/2 in.	2070 mm
Min Track Height	7-1/8 in.	181 mm
Track Length	191-1/2 in.	4864 mm
Track Width	18-15/16 in.	481 mm
Overall Length	241-7/8 in.	6143 mm
Overall Width	208 in	5283 mm
Width Between Tracks	37-11/16 in.	705 mm
Width Between Columns	193 in.	4902 mm
Width Between Cables	190-1/4 in.	4832 mm
Locking Positions	13	----
Lock Spacing	5	----
Wheelbase	115 in.	----
Vehicle Ground Clearance	5.3 in.	134mm
**Standard Motor	240V 15-amp	----
Rise Time (240v Power Unit)	160 seconds	----
Power Unit Operating Pressure (Max)	3480 PSI	----

\*\*Optional 110v power unit is available

### Notes:

\* Lifting capacity decreases by 25% for wheelbases shorter than 115 inches for each 15-inch increment. With a minimum wheelbase of 70-inches having a lifting capacity of 75% less or 2,500 lbs. This is due to the wheels moving closer to the center of the runway where there is less support.

This lift and ramps are designed around a 5.3-inch ground clearance. Longer, shallower ramps may be needed for vehicles with less clearance.

Please refer to the user manual found in the Power Unit to review the duty cycle. Operating the Power Unit outside the manufacturer's specification will void the Power Unit warranty.

### Clearance Under Each Lock Position:

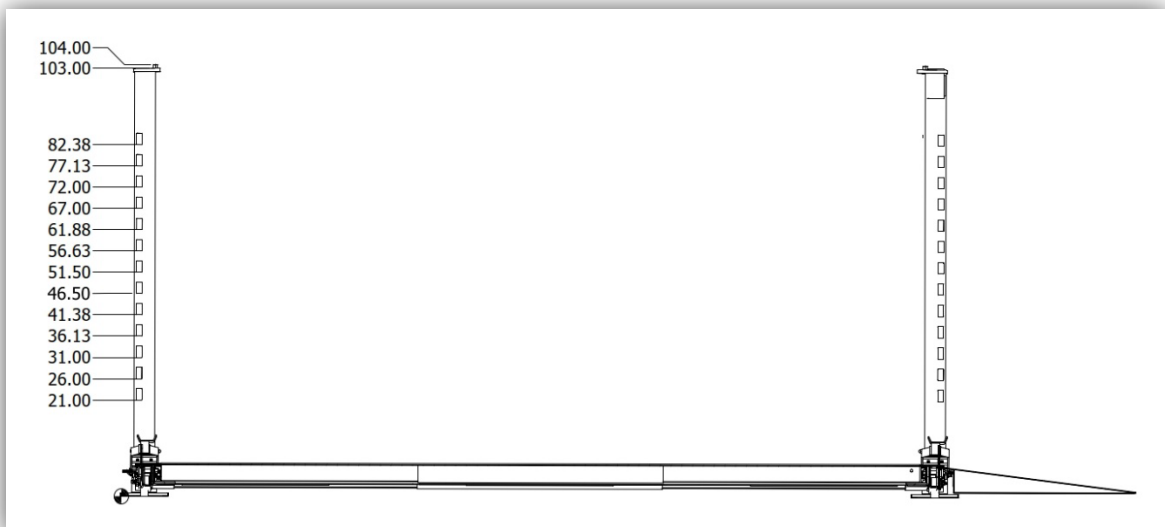


Figure 1.2 Clearance4 Under Each Lock Location

## STEP 2: Unloading and Unpacking:

Freight carriers may have restrictions on delivering to residential addresses requiring freight terminal pick-up. Please contact the freight carrier to coordinate delivery to a terminal where the terminal personnel will load the lift onto the customer's trailer or truck. Lifts will not be shipped to an address without a fork-lift. Lifts cannot be unloaded using a lift gate vehicle due to size restrictions.



Since many lift purchasers do not have access to a fork-lift, these instructions will highlight methods to unload the lift from a trailer or truck using readily available components. It is the sole responsibility of the owner to ensure that the methods employed and any equipment to be used are of the proper capacity and type to ensure the safety of personnel performing the work.

The shipping brackets and protective packaging were engineered to provide safe shipping, unloading and assembly. **DO NOT REMOVE** until the lift is at the installation site and when indicated in this document. Exterior wrappings may be removed to inspect for shipping damage.

Links to assembly videos of our products can also be found at our website [AdvantageLifts.com](http://AdvantageLifts.com). The videos can often provide additional details and updated information about any new features or assembly methods that may have been adopted since this manual was printed.

Each B-SXS-10000 lift is comprised of 2 packages. Package 1 is approximately 27.75 inches in height package 2 is 24-inch tall and has extension arms on one side that protect the crossmember. See *Figure 2.1* & *Figure 2.2*.

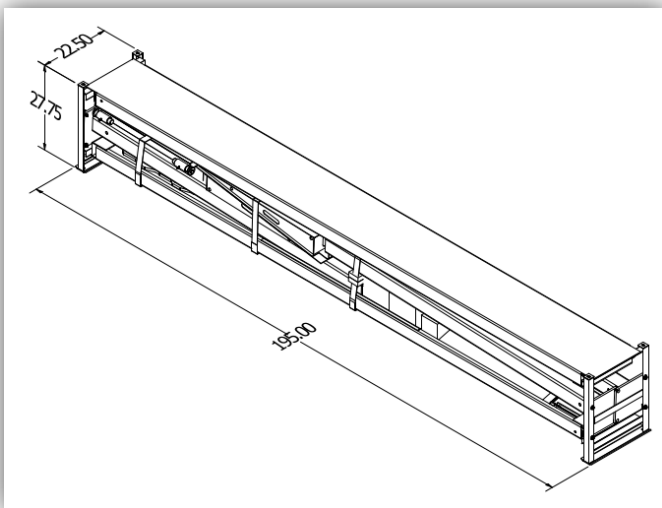


Figure 2.1: Package 1

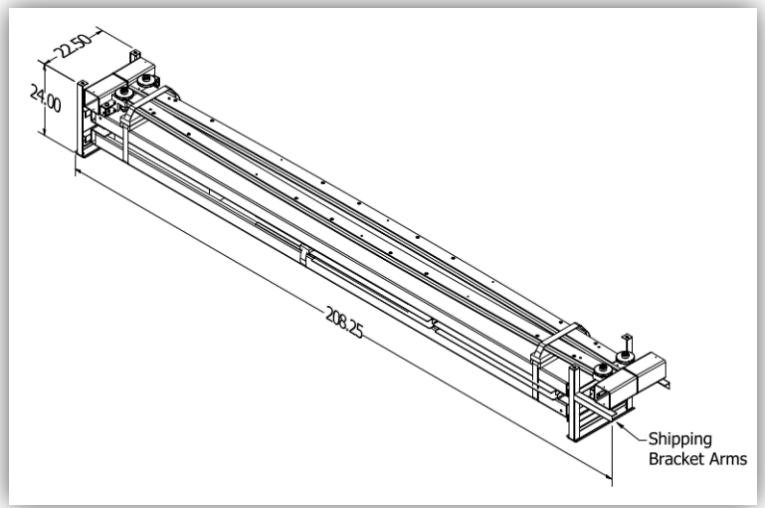


Figure 2.2: Package 2

Maneuver the trailer so it is close to the installation site and position it so any lifting devices that will be used to unload the packaged lift from the trailer are on a hard and smooth improved surface. For this installation, a hand operated material handling lift was used. Confirm the material handler, strap and dollies are sufficiently rated for the weight of each package. The taller package weighs approximately 2050 lbs. and the shorter package with the crossmembers is 1750 lbs.



Figure 2.3: Freight Terminal



Figure 2.4: Lift Loaded on Customer's Trailer

With the lift assembly still on the trailer, position the material handler to lift the portion of the package closest to the trailer tongue (figure 2.5) using a strap as shown. Position a wheeled car dolly underneath the shipping bracket (figure 2.6) and lower on to the dolly. Wood blocking may be necessary.



Figure 2.5: Material Handling Lift in Position



Figure 2.6: Positioning First Dolly



With the package assembly securely resting on the car dolly as noted above, re-position the material handler to the rear of the trailer and secure to the lift assembly in the same manner as before. (Figure 2.7 & 2-8)



Figure 2.7 Lift the back side of the package



Figure 2.8 Removing package from the trailer

With the material handler and strap attached to the rear section, raise the packaged assembly upward so the rear section clears the car trailer. Carefully roll the entire lift assembly backwards bringing the front of the packaged assembly short of the rear of the car trailer. The lifted end may now be carefully lowered and placed on a car dolly that is positioned on the ground. (See *figures 2-7 thru 2-10*)



Figure 2.9



Figure 2.10

With one end of the packaged assembly securely on the ground, the material handler can now be re-positioned and secured to lift the opposite end that is resting on the car trailer. With the packaged assembly now raised to clear, the car trailer can be driven out from under the supported assembly. Alternatively, if room permits, the packaged assembly can be rolled away to clear the car trailer.



Figure 2.11



Figure 2.12

Finally, the car dolly and blocking can be positioned on the ground between the legs of the material handler, directly under the packaged assembly. It can now be safely lowered to rest on the dolly. If possible, leave the packaged lift assembly securely resting on the car dollies. This will allow the assembly and sub-components to be positioned closer to the final assembled location. (*Figures 2.9 thru 2.13*)





Figure 2.13

Repeat this process for the second package. If possible, leave each package on the car dollies, this will allow for repositioning of the packages during unpacking.

Before unpacking the lift plan the location and position of the lift. Consult *figure 1.1* (pg. 9) for the Power Unit locations. The information there will help you to finalize your intended layout for positioning of the lift to regard with critical clearances required during assembly and to determine where your Power Unit will be positioned.

The Power Unit can only be mounted on either the driver's side front or passengers side rear. Keep in mind the lift is easily repositioned after it is fully assembled with the optional caster kit.

### STEP 3: Legs, Crossmember & Guide Block Installation

Once the layout has been determined, remove the cardboard and shrink wrap if still attached and cut the metal banding with caution as it is under tension. Remove the top runway and leg bolts from Package 1 using a 3/4 box wrench and socket (or impact).

Do not remove the 4 bolts that hold the bottom runway in place, this holds the package together (*Figure 3.2*)



Figure 3.1

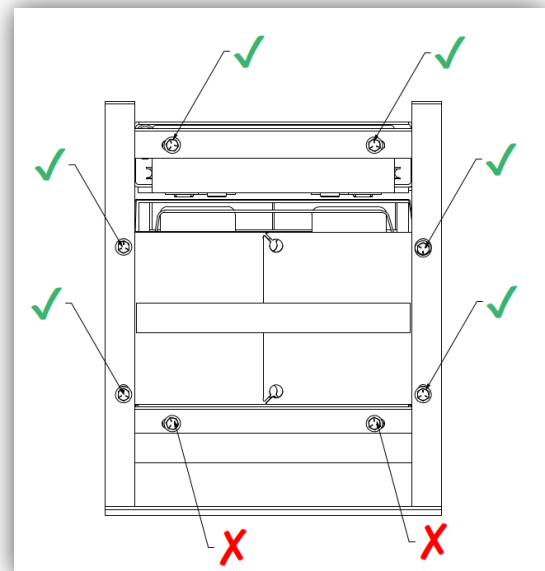


Figure 3.2

Using the material handler remove the top powered runway from Package 1. Make sure the load is centered and at least 2 people are present to stabilize the ends while moving. Place this runway of the way on top of 2x4s.



Figure 3.3

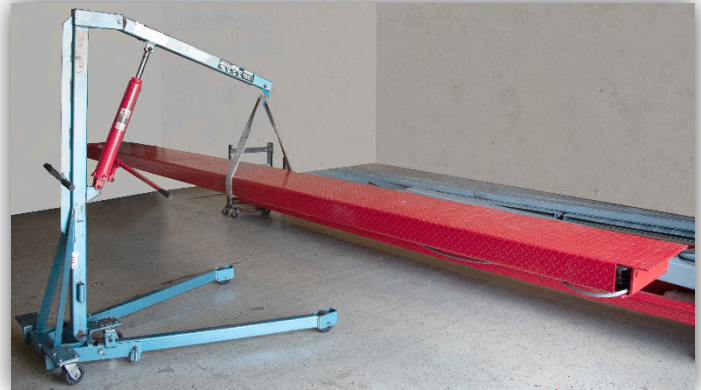


Figure 3.4

Remove the components packaged with the lift and then a set of legs. There are 2 left legs and 2 right legs. The legs can be placed where the lift will be assembled. Position the legs so the lock cut outs are facing each other, and that the lock cut outs are on the outer edge of the leg.

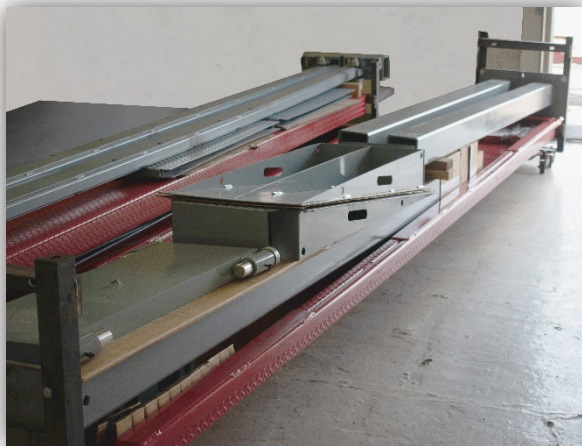


Figure 3.5



Figure 3.6



Figure 3.7

## Components in the lift

With one set of legs removed, the remaining items in package 1 can now be removed. Review the contents list to verify that all the parts are present. Some of the smaller components found between the two tracks are shown in *Figure 3.8 and 3.9*.

### Package 1 Contents:

- 1 - Powered runway
- 1 - Non-powered runway
- 4 - Top caps
- 1 - Wheel chocks
- 2 - Hardware boxes
- 2 - Approach ramps
- 4 - Legs (2 left, 2 right)
- 8 - Drip trays
- 8 - Wheel stops
- 8 - Wheel stop retainers

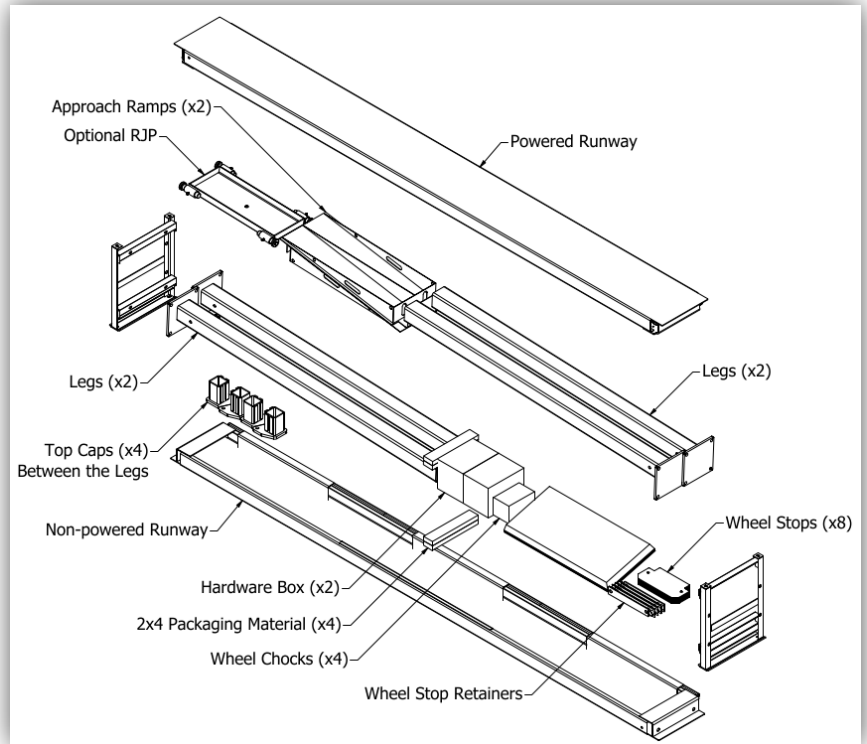


Figure 3.8: Package 1, Top Runway Removed

### Package 2 Contents:

- 2 - Crossmembers
- 2 - Non-powered runways
- 1 - Power unit
- 4 - Power unit mounting arm
- 2 - 3/8 diameter rods
- 1 - Safety rod with handle
- 1 - Safety rod with end plate
- 1 - Safety rod center
- 4 - Walkways

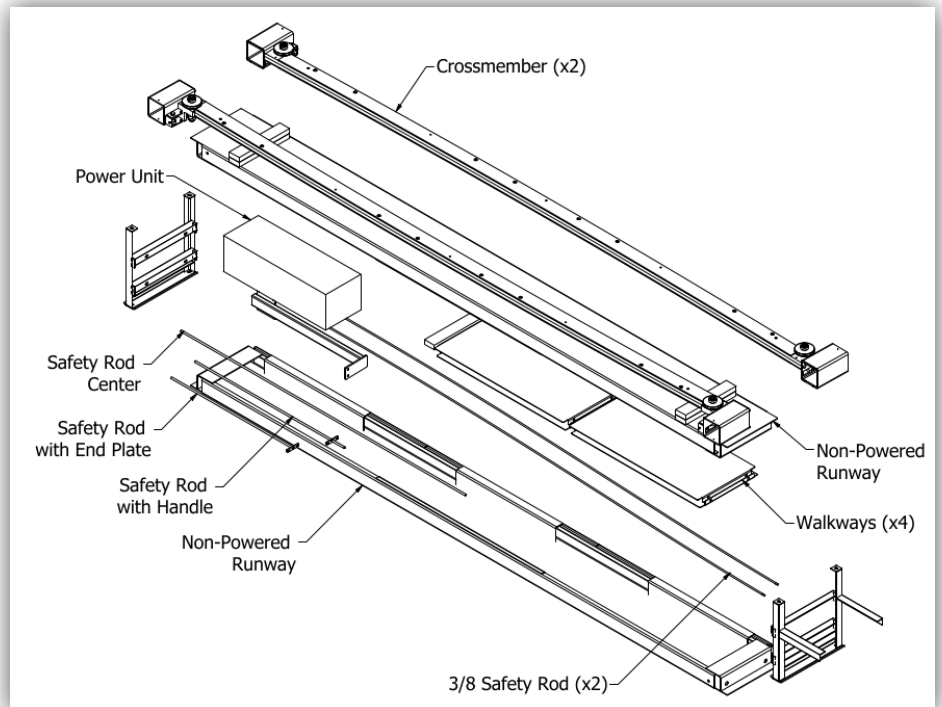
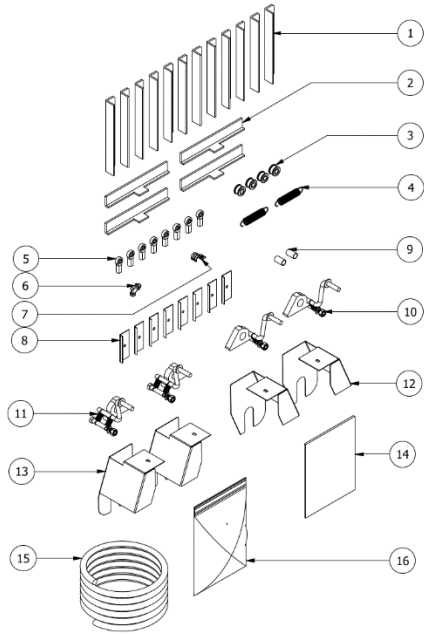


Figure 3.9: Package 2, Exploded View

## Hardware Box Contents:



	Description	Qty	Type	P/N
1	Glide Block 1	12	UHMW	20202
2	Glide Block 2	4	UHMW	20203
3	Secondary Lock, Pulley	4	Pully With Bearing	40010
4	Extension Spring	2	Extension Spring	60061-01
5	Hiem Joint	8	3/8-24 Thread	60023-01
6	Power Unit, Hydraulic Fitting	1	3/8 Elbow HYD Fitting	60066-01
7	Hydraulic Hose, Clamp	1	Hose Clamp	60067-01
8	Glide Block Retainers, Top	8	Formed Sheet Metal	20038
9	Primary Lock, Rod Spacer	2	Tube	20229
10	Secondary Lock & Arm, Left	2	Zinc	40012
11	Secondary Lock & Arm, Right	2	Zinc	40013
12	Pulley Guard, Left	2	Formed Sheet Metal	20256
13	Pulley Guard, Right	2	Formed Sheet Metal	20257
14	Printed User Manual			90052
15	Hydraulic Hose	1	72 inch	90003
16	Drain Kit	1	Fittings, Hose, Wrap	40077

Figure 3.10: Hardware Box Contents

Hardware Bag Contents: The hardware boxes also contain 2 bags with fasteners to assemble the lift.

Description	Qty	Type	Details	P/N
Top Cap, Bolt	4	HHCS	3/8-16 x 1 3/4	60001-04
Crossmember, Cable Keeper Nut	4	Nut	5/16-18	60006-01
Crossmember, Eye Bolt, Nut	12	Nut	5/16-18	60006-01
Hydraulic Mount, Nut	8	Nut	5/16-18	60006-01
Crossmember, Eye Bolt, Lock Washer	6	Lock Washer	5/16	60007-01
Hydraulic Mount, Lock Washer	4	Lock Washer	5/16	60007-01
Retainer Clip Screws	8	HHCS	1/4-20 x 1/2	60015-01
Pulley Guard, Lock Washer	4	Lock Washer	1/4	60016-01
Retainer Clip, Lock Washer	8	Lock Washer	1/4	60016-01
Cable, Lock Nut	4	Lock Nut	3/4-10	60017-01
Cable, Washer	4	Flat Washer	3/4	60018-01
Runway, Washer	16	Flat Washer	3/4	60018-01
Crossmember, Cable Keeper Bolt	4	HHCS	5/16-18 x 4	60019-02
Hydraulic Mount, Bolt	4	HHCS	5/16-18 x 1	60019-03
Lock Washer	8	Lock Washer	3/8	60021-01
Top Cap, Lock Washer	4	Lock Washer	3/8	60021-01
Hiem Joint Nut	16	Nut	3/8-24	60022-01
Cable Keeper bolts cross member	4	SHCS	5/16-18 x 2	60024-01
Hiem Joint, Washer	8	Flat Washer	3/8	60025-01
Primary, Joint Bolt	8	SHCS	3/8-24 x 1 3/4	60026-01
Runway, Bolt	16	HHCS	3/4-10 x 4 3/4	60027-01
Runway Nut	16	Nut	3/4-10	60028-01
Runway, Lock Washer	16	Lock Washer	3/4	60029-01
Rod Connector	2	Coupling Nut	1/2-13 x 1-3/4	60030-01
Primary Lock, All Thread	2	All Thread	3/8-24 x 8	60034-01
Ball Handle	1	Threaded Ball Knob	1/2-13	60035-01
Crossmember, Eye Bolt	6	Eye Bolt	5/16-18 x 5	60038-01
Secondary Lock, Pulley Keeper Nut	4	Acorn Nut	1/2-13	60047-01
Pulley Guard, Nut	4	Acorn Nut	1/4-20	60048-01
Safety Rod, Lock Nut	4	Nut	1/2-13	60049-01
Crossmember, Cable Keeper Acorn	4	Acorn Nut	5/16-18	60052-01



Figure 3.11 Hardware Bag Contents Separated

## Crossmember Preparation and Installation

Remove the crossmembers from the top of Package 2 using the material handler.

The crossmembers are heavy, two persons are required in addition to the material handlers to stabilize the load.

Note: Both crossmembers are identical.

Place the on a couple wood blocks or 2x4's as show in *Figure 3.14*.



Figure 3.12 Lifting the Crossmember



Figure 3.13 Moving the Crossmember

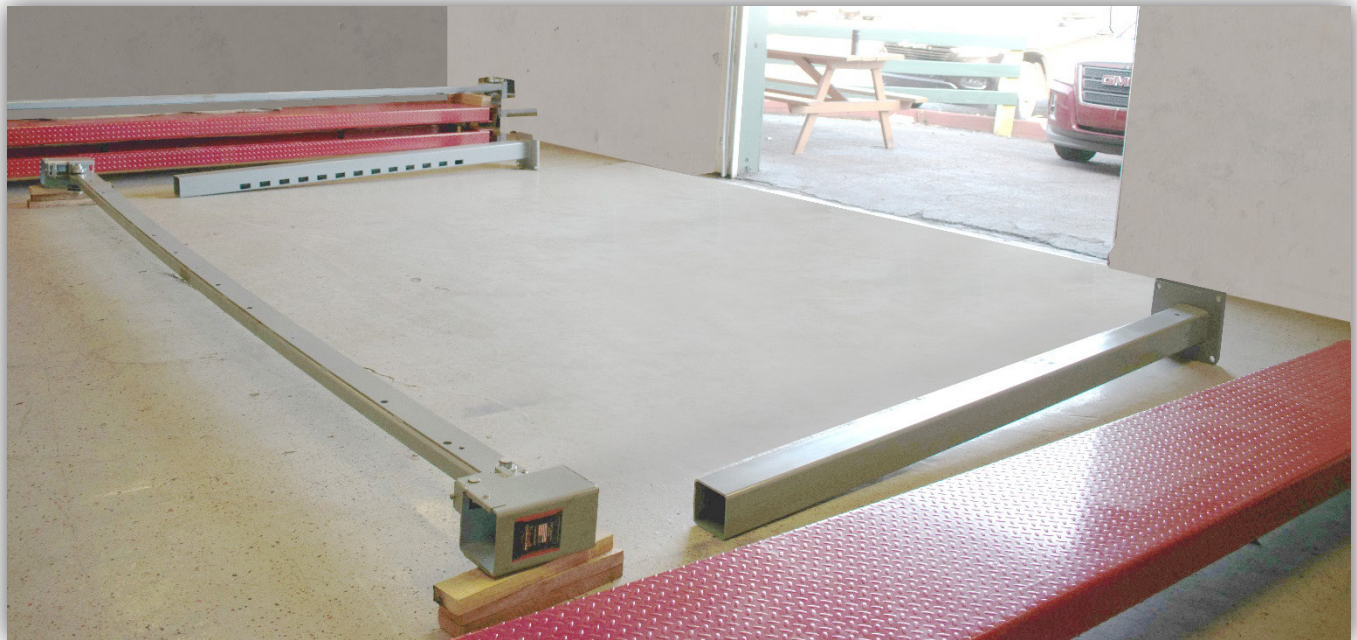


Figure 3.14 Crossmember Placement

Using wood blocks, prop the leg up so there is clearance to slide the crossmember down the legs. Position the crossmember so the guide blocks align with both columns, adjust the leg spacing as necessary to match them up.

At this point the spring-loaded primary lock also needs to be held from engaging so the crossmember can freely slide. To accomplish this, take one of the UHMW guide blocks from the hardware box and insert it between the lock and the guide block *figure 3.15*.

Slide one leg into the crossmember as shown in *figure 3.16*.



Figure 3.15

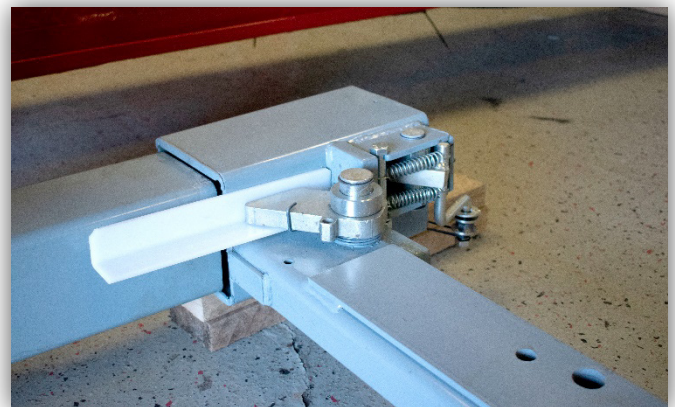


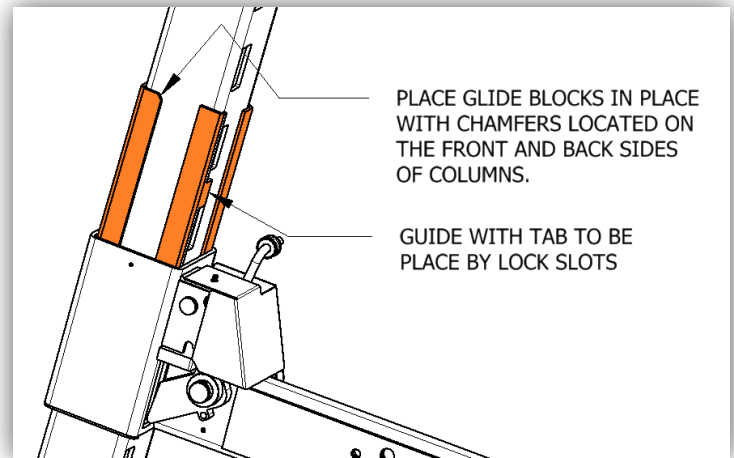
Figure 3.16

**\* NOTE \*** One side of each glide block is thicker than the other.

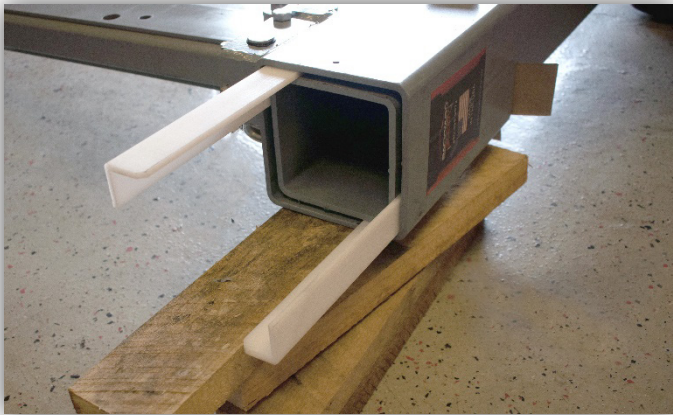
To denote correct orientation, notches have been machined into the corners. *Figure 3.17* illustrates the correct orientation for installation.

Place two glide blocks in the corners as shown in *figure 3.18*. Do not install all 4 glide blocks at this time.

A dead blow hammer may be used to gently tap in the blocks.



*Figure 3.17*

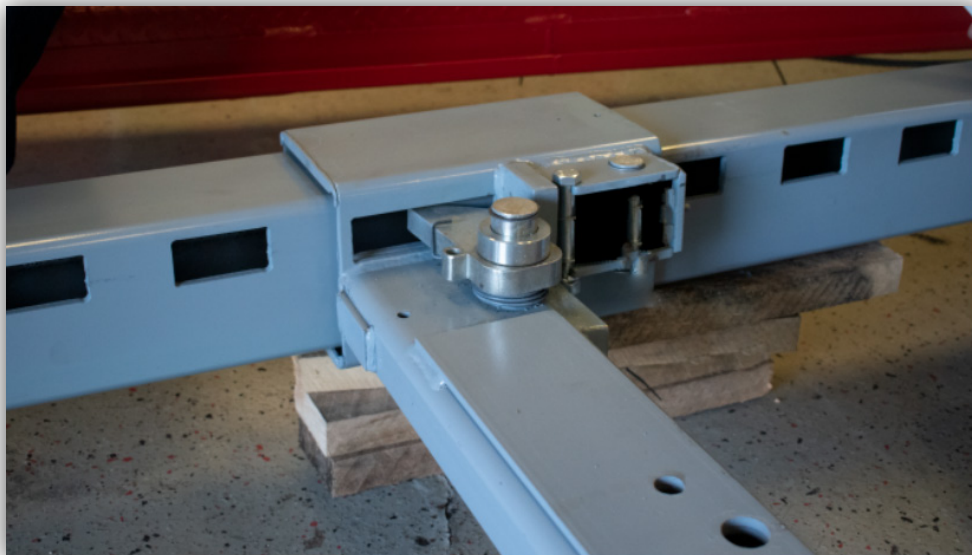


*Figure 3.18*



*Figure 3.19*

Slide the crossmember onto the columns. Pull out the glide block, releasing the primary lock, when the locks travel past the 6th position. This will secure the locks into the 5th position from the bottom. We've found this to be a good height for installing the tracks. (*Figure 3-17*).



*Figure 3.20*

Once on the locks you can stand up the columns and work them into the planned position. The crossmember and legs are extremely heavy, a material handler may be used to assist in raising the assembly. To prevent the crossmember from riding up the legs place a stop in the lock hole directly above the crossmember. The stop can be a piece of metal, prybar screwdriver, etc. Take care not to drop the stop into the leg while lifting. (Figures 3.21)



Figure 3.21

The next section can be assembled and raised. Take note the leg holes must face towards the outside of the lift on both sides (figure 3.23)

Install the remaining UHMW glide blocks. Remember 4 are cut to fit the locks (figure 3.17).

The UHMW glide blocks may be a tight fit. Wiggle the legs slightly to help with alignment, making it easier to install.

If it's still snug, use a wood block and a hammer to tap them down flush. Install the Glide Block Retainers as shown in figure 3.22 with 1/4-20 bolts and spring washers.

### Front and Back Sections Locations

The front and back sections should be positioned approximately 187 inches apart to fit the runways.

Check squareness by measuring diagonally between the front and back sections. Adjust until both numbers are the same. This will square up the lift.

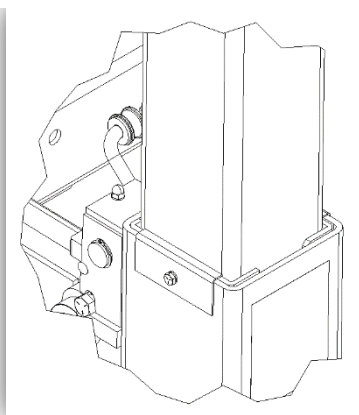


Figure 3.22 Glide Block Retainer Installed

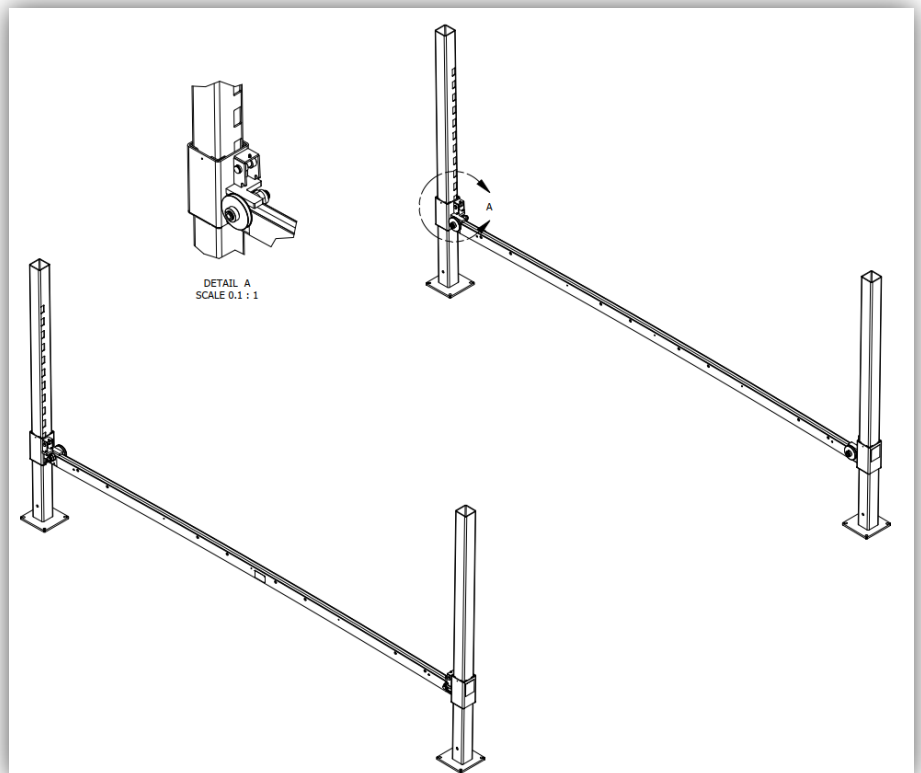


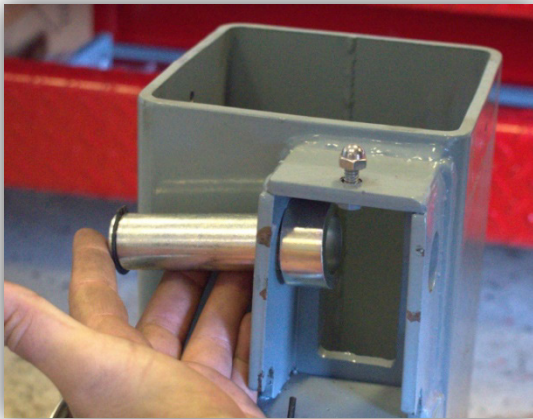
Figure 3.23 Front and Back Uprights



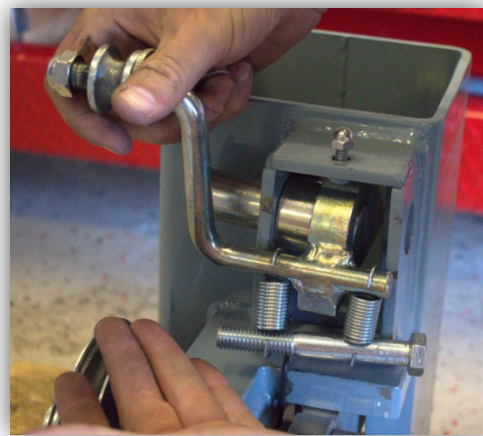
## Secondary Locks

Remove the left and right secondary lock pre-assemblies from the hardware box (2 of each).

1. Remove the external retaining ring from one side of the pin using snap ring pliers.
2. Slide the pin from the hole so that only one spacer remains on the pin. (*Figure 3.24*)
3. Select the pre-assembled secondary assembly from the hardware box, note there is a right and left version of this part. Select the part that aligns the secondary pulley over the primary pulley.
4. Place the point of the secondary lock assembly into the 6 x 6 tube with the springs facing out (*Figure 3.25*).
5. Slide the pin through the lock hole and add the spacer removed in step 2 back onto the pin. The lock will be between the two spacers. (*Figure 3.26*)

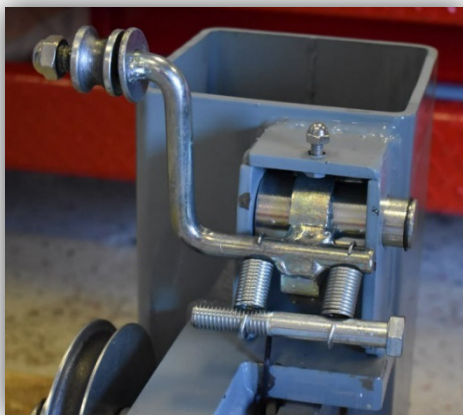


*Figure 3.24*

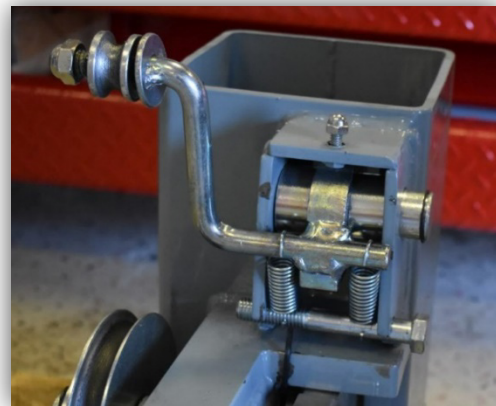


*Figure 3.25*

6. Push the pin through the Crossmember hole and reinstall the external retaining ring onto the end of the pin.
7. Remove the 1/2-13 nut and lock washer from the bolt on the pre-assembly.
8. Push down on the bolt to extend the springs and insert the bolt into the hook feature of the cross arm (*Figure 3.23*). Reinstall the nut removed in step 7.



*Figure 3.26*



*Figure 3.27*

## STEP 4: Runway Installation

The powered runway will be installed first, this is the upper runway from the Package 1 Assembly. Take note to visually locate the hole for the hydraulic fitting exiting the side of the powered runway, this fitting must be located next to the column the power unit will be bolted to, front left or rear right. Rotate the runway assembly, if needed, so the hole is pointed outward and the accessory rail is inward, towards the center. Roughly align the holes in the track with the holes in the crossmember. Danger, these parts are heavy, work slowly and cautiously as they are placed.

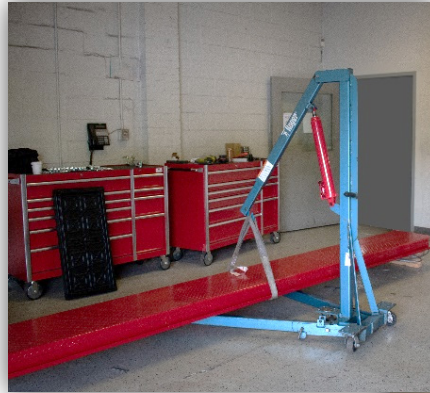


Figure 4.1



Figure 4.2



With bolts inserted through the wheel stop retainer, pass the bolts through the crossmember and secure with a flat washer, lock washer and nut. Finger-tighten and repeat for the opposite crossmember.



Figure 4.3



Figure 4.4



Figure 4.5



Figure 4.6

The remaining runway in Package Assembly 1 is packaged upside down. Position the material handler and strap around the runway and unbolt the remaining bolts and remove the shipping brackets.

Lift the runway to a comfortable height using the material handler and wen strap. While lifted, with one person on each end, rotate the runway. Spin, if needed, to position this runway so that the accessory rail from this runway faces the accessory rail from the previously installed powered runway. Place the runway onto the crossmembers and install as instructed for the power runway.

Package Assembly 2 contains the remaining two runways. Unbolt and install in the same manner as described for Assembly Package 1. Take care to set the components in the bottom of Package Assembly 2 in a safe location.

## STEP 5: Lock Linkage Installation

### Track Locks

Begin by laying out the components that comprise the linkages for the lock mechanisms (Table 5-1)

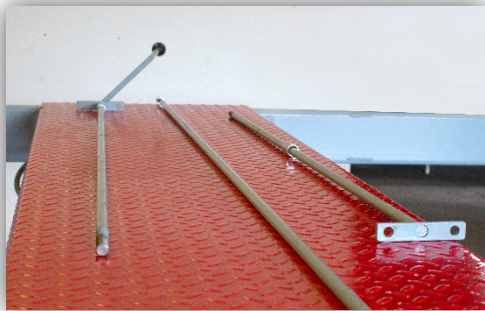


Figure 5.1

Table 5-1			
Description	Qty	Type	P/N
Safety Rod with Handle	1	1/2 x 59 Bent Rod	40015
Safety Rod Center	1	1/2 x 101.5625 Rod	20223
Safety Rod End Plate	1	1/2 x 43.5 Rod	40014
Hex Nut	4	1/2-13 Nut	60049-01
Threaded Coupler	2	1/2-13 x 1.75	60030-01
Safety Rod Ball Handle	1	1/2-13 x 1.5 dia.	60035-01
Eye Bolt	6	5/16-18 x 5	60038-01
Lock Washer	6	5/16	60007-01
Hex Nut	12	5/16-18	60006-01
Crossmember Rod	2	3/8 x 175.25 Rod	20226
All Thread	2	3/8-24 x 8.4375	60034-01
Hiem Joint	8	3/8-24 Thread	60023-01
Bolt	8	3/8-24 x 1 SHCS	60026-01
Hex Nut	16	3/8-24 Nut	60022-01
Spacer	2	3/4 dia. x 1/16 wall	20229



Figure 5.2

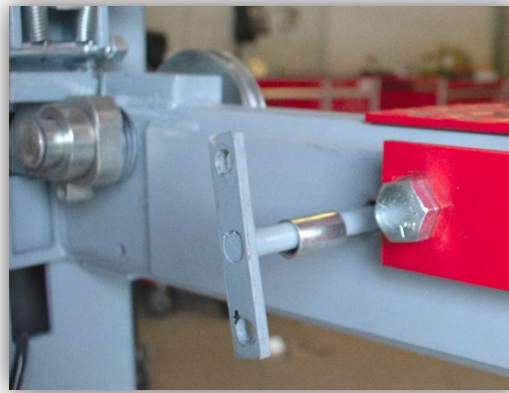


Figure 5.3

Slide the spacer (20229) on to the 1/2" x 59" bent handle safety latch linkage rod (*figure 5.2*). Install into the cylinder runway on the end closest to the hydraulic fitting that comes through the runway. Slide the rod through guide tubes on the underside of track (*figure 5-4*) & install the round handle knob (60035-01) onto the bent handle rod.

Install the center safety rod by sliding through the rod guides on the underside of the runway (*figure 5.4*).

Place the second spacer on to the 1/2 x 41-1/4" end plate lock linkage rod and install into the cylinder runway from the opposite end. Pass through the guides on the underside of the runway (*figure 5.3*).



Figure 5.4 Rod Inserted into Guide

Attach the three rods together using the (4) hex nuts and couplers. (Figures 5.4 to 5.6).

Both the safety rod handle and the safety rod end plate must be clocked the vertically, straight up and down at this time, they will be rotated once the hiem joints are installed. (Figures 5.2 & 5.3)

Hand-tighten both coupling nuts to ensure thread engagement between both rods. The end plates must be tight against the spacer and crossmember but able to freely rotate.



Figure 5.5 Rods Prepared for Coupling Nut

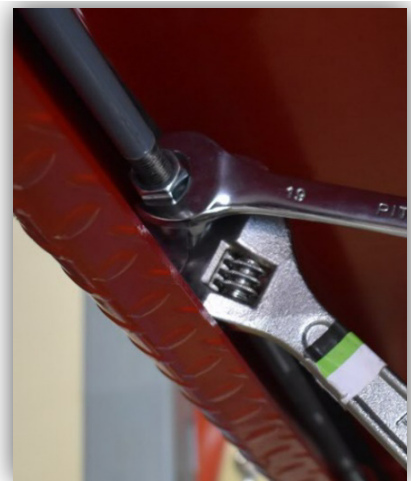


Figure 5.6 Tightening Coupling Nut

## Eyebolt Installation



Figure 5.7 Eyebolt and Nut, Outside of the Crossmember

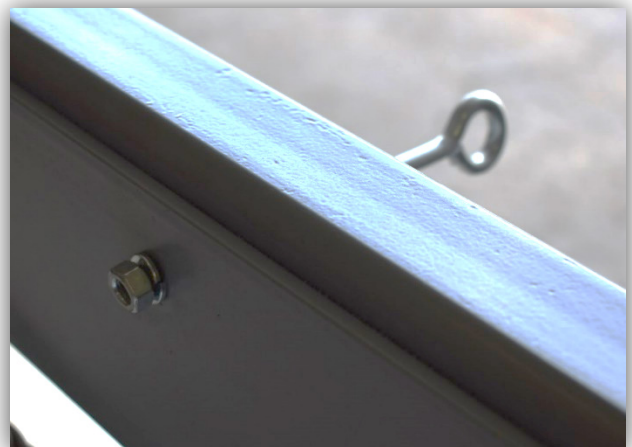


Figure 5.8 Eyebolt Nut and Washer, Inside the Crossmember

Select the (6) eyebolts and thread a 5/16 nut fully onto each. Insert into the crossmember hole with the eye facing out. Thread the 5/16 lock washer and nut onto the inside (figure 5.7 & 5.8).

## Lock Linkage Rod Installation

Choose the (2) 3/8 x 8.4375 all thread pieces and install a 3/8-24 nut and then a 3/8 hiem joint on to each end (*figure 5.9*).

Select the (2) 3/8 x 175.25 rods and slide through the eyebolts (*Figure 5.10*). After installed, thread a 3/8-24 jam nut and hiem joint on either end of the rod.

Install one end of the all-thread assembly into the track lock rod using a 3/8-24 SHCS, split washer and nut. (*Figure 5.11*)



Figure 5.9 Lock Linkage Hardware



Figure 5.10 - 3/8 Rod Inserted into Eyebolt

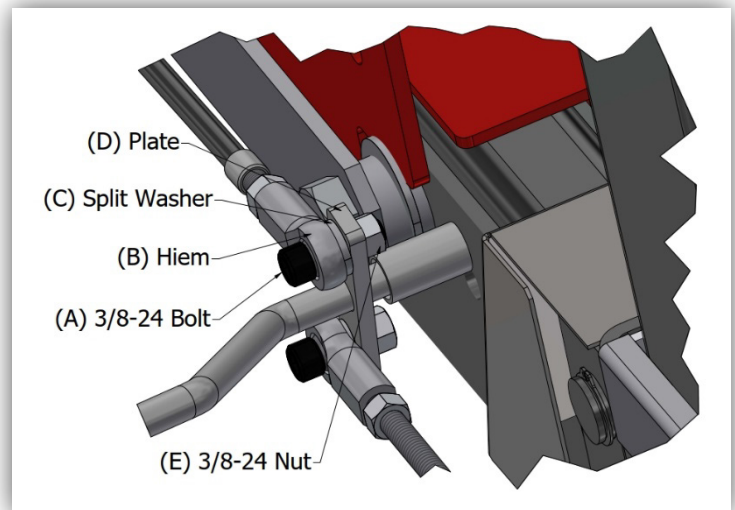


Figure 5.11 – Hiem Hardware installation Procedure



Figure 5.12 – All Thread Assembly Attached to the Primary Lock (End Plate Side)

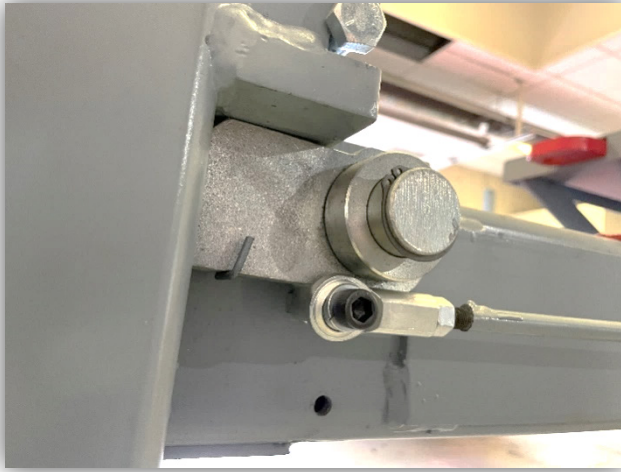
Insert the opposite end of the all-thread assembly into the primary lock as shown (*figure 5.12*).

Attach with a split washer and nut as performed on the opposite end.

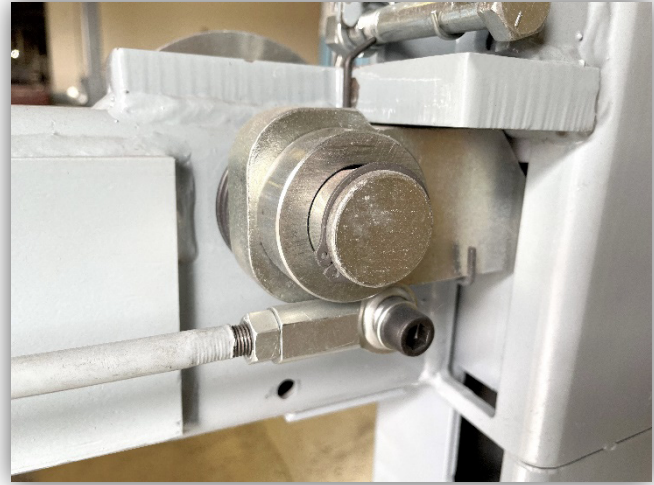
Install the all-thread assemblies in the same manner on the handle side.

Note: Leave the jam nuts loose until all 4 ends are installed.

The hiem joint on the opposite side of the 175.25 threaded rod is attached using the same 3/8 split washer and 3/8-24 nut, install on both crossmembers. Ensure the split washer is placed between the hiem and the lock. This acts as a spacer to allow him to pivot. Rotate the lock/handle assembly so that the safety rod handle points to 11 o'clock and the safety rod end plate side points to 1 o'clock (*Figure 5.12*)



*Figure 5.13 – 3/8 Rod End A*



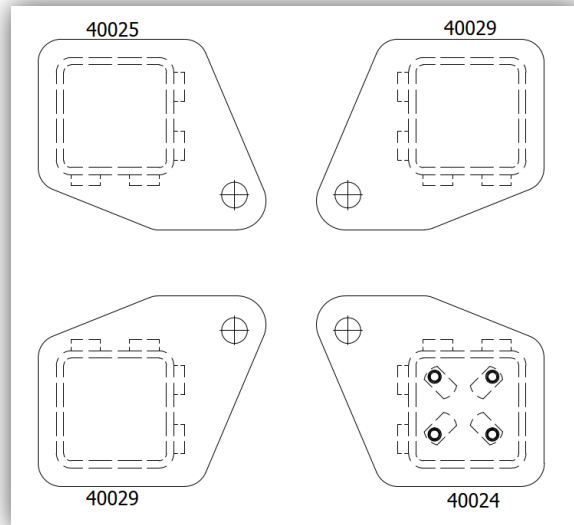
*Figure 5.14 – 3/8 Rod End B*

## STEP 6: Installing Top Caps & Power Unit Mount

There is a Top Cap for each of the four columns that secures the ends of the lift cables. The Top Cap with the 4 smaller holes (used to attach the power unit arm) mounts on the leg where the hydraulic fitting exits the runway.



*Figure 6.1 – Top Cap Orientation*



*Figure 6.2 – Top Cap Orientation*

The Caps have some material added to the sides to make them a snug fit, a non-marring hammer or block of wood may be required to fully seat them. Orient the holes for the cables so they are pointing inward to the inside corner of the post (*figure 6.1 & 6.2*). Note that the longest flat side of the Top Cap is flush with the outside of the column as referenced from the front or rear (*figures 6-3 & 6-4*).

	Description	Qty	P/N
1	Top Cap 1	1	40024
2	Hydraulic Power Unit	1	90043
3	3/8-16 x 1 3/4 HHCS	4	60001-04
4	5/16-18 Nut	24	60006-01
5	5/16 Split Lock Washer	10	60007-01
6	3/4-10 Nylock Nut	4	60017-01
7	3/4 Flat Washer	4	60018-01
8	5/16-18 x 1 HHCS	4	60019-03
9	3/8 Split Lock Washer	11	60021-01

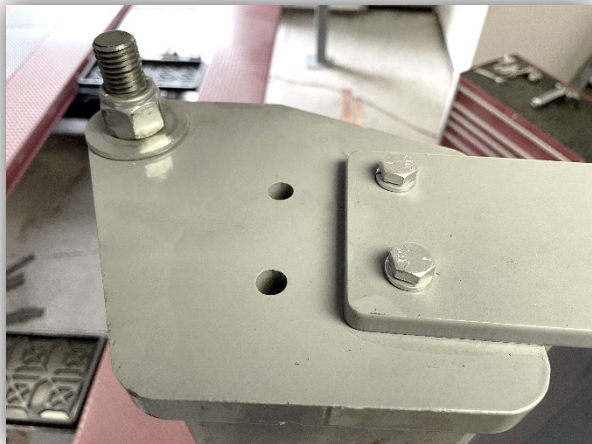


Figure 6.3 – Top Cap Orientation

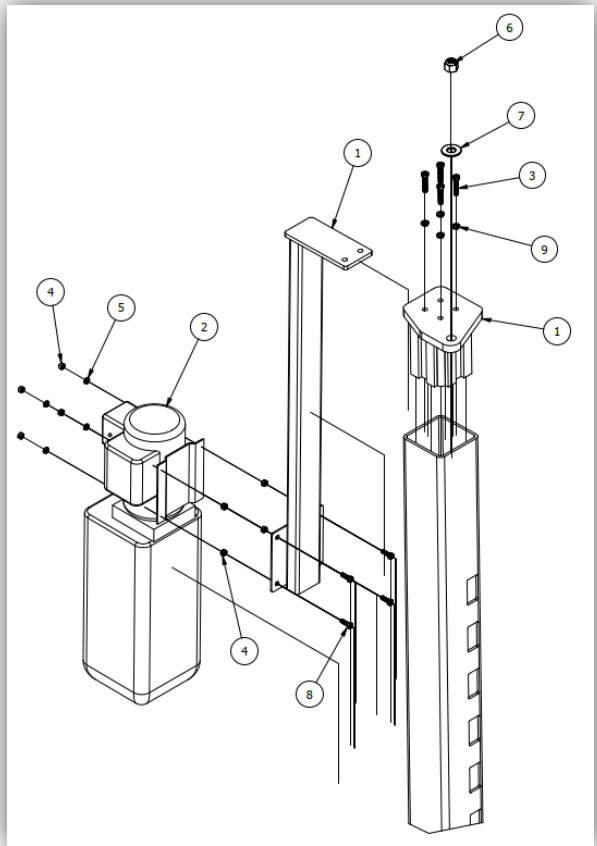


Figure 6.4 – Top Cap Orientation

The Power Unit Mounting Bracket may be mounted in two positions, on the outer side of the column or turned to the inside for a narrower width profile. Select the position that favors the layout of your shop or the desired operator position. Using (2) 3/8-16 HHCS bolts and (2) split washers, install the power unit (Figure 6.3). To mount the power unit to the bracket, install the 5/16-18 nuts and bolts as shown. This will allow the power unit to hang on the bolts. Attach with the (4) lock washers and (4) remaining 5/16 nuts.

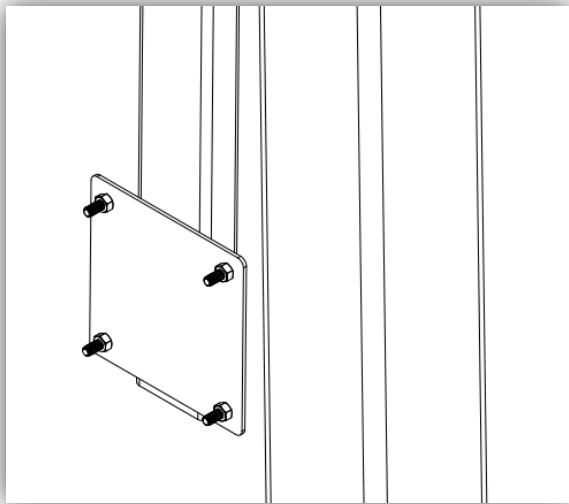


Figure 6.5 – Power Unit Mounting Bracket

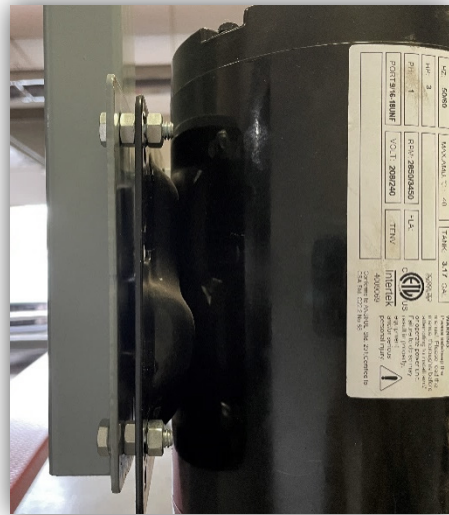


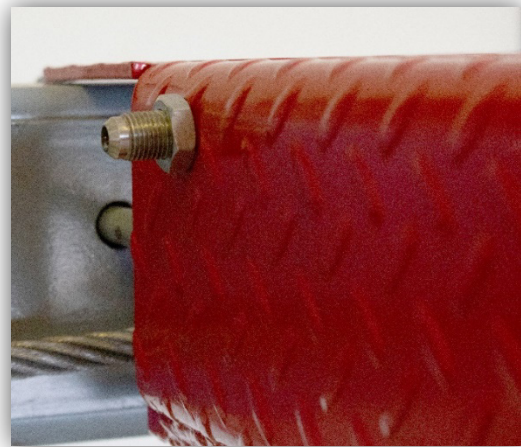
Figure 6.6 – Power Unit Installed

## STEP 7: Hydraulic Hose & Drain Kit

The 90° bulkhead fitting (90005) is attached to the end of the hose on the cylinder runway. Remove the packing nut and insert into the hole provided, secure with previously removed packing nut (*figure 7.2*)



*Figure 7.1 Hydraulic Hose Install*



*Figure 7.2 Bulkhead Fitting Attached*

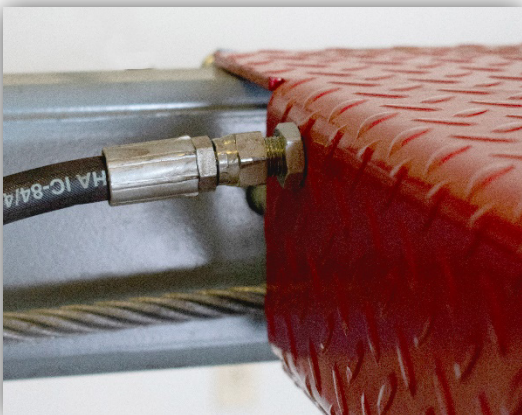
Next connect the hose from the hardware box to the bulkhead fitting. Remove the plastic shipping plug from the base of Power Unit pump and attach the 3/8 Male JIC-3/8 ADJ O-Ring, 90 Degree EL hydraulic fitting (60066-01) from the hardware box to the power unit (*figure 7.5*) and attach the hose.

---

**DO NOT OVER TIGHTEN. TEFLON IS NOT NEEDED FOR O-RING FITTINGS**

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Fill the hydraulic reservoir of the Power Unit with Hydraulic Fluid to a point about two inches below the fill cap of the reservoir. Use AW-32 for cold climates or AW-46 for warmer climates. The tank will hold approximately 12 quarts, leave room for hydraulic oil expansion. **DO NOT** top-off or overfill the system until after the lift has made a few non-full-rise cycles and any air in the system has been allowed to escape.



*Figure 7.3 Bulkhead Fitting Attached*



*Figure 7.4 Power unit fitting and Hose*



## Drain Kit

Open the drain kit with the 1/4 inch and push to connect fitting.

Remove the plug from the end of the hydraulic cylinder and install the 1/4 thread to 1/4 hose push to connect fitting (90023) (figure 7.5).

Remove the plug from the power unit as shown and install the 3/8 thread to 1/4 hose push connect fitting (90024) (figure 7.6).

Route the 1/4-inch nylon hose behind the pulley on the runway towards the power unit. Make sure to place in a position that it will not get caught or pinched.

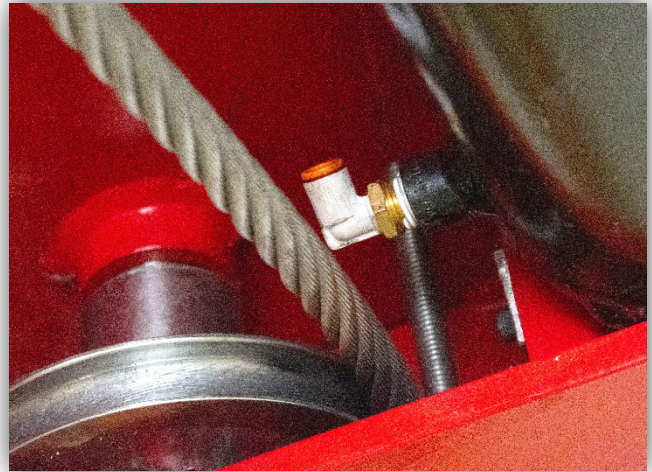


Figure 7.5 Cylinder Drain Fitting



Figure 7.6 Push to Connect Fitting

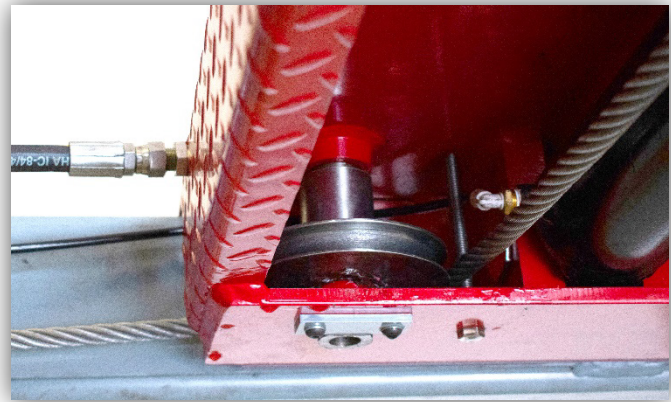


Figure 7.7 - 1/4-inch Hose Routing

Attach the opposite end to the fitting on the power unit. Wrap both cables together with the provided nylon sleeve and zip tie each end with the provided ties.

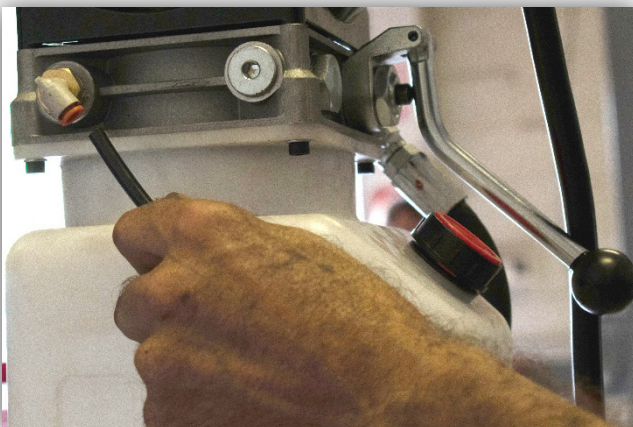


Figure 7.8 Push to Connect Fitting

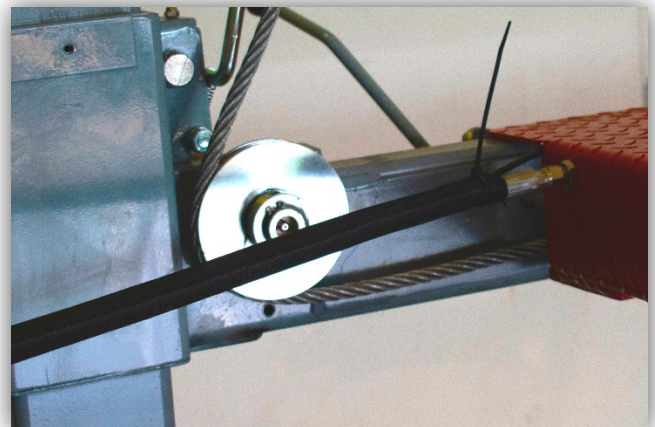


Figure 7.9 – Cable Wrap

Use the cable strap along with the nylon retainer 1/4-20 bolt to attach the cable to the leg. Ensure enough slack for lift movement.

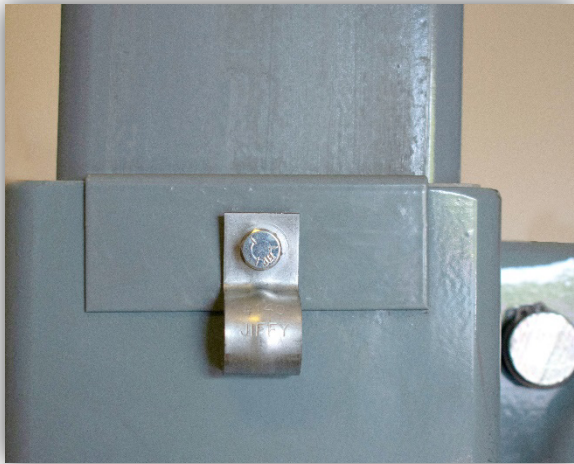


Figure 7.10 Cable Clamp

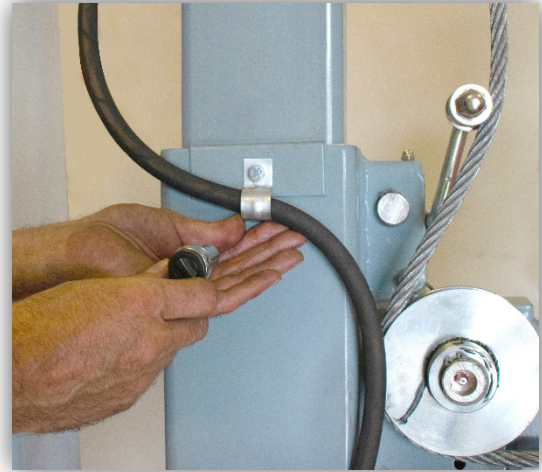


Figure 7.11 – Cable Clamp

## STEP 8: Installing Cables

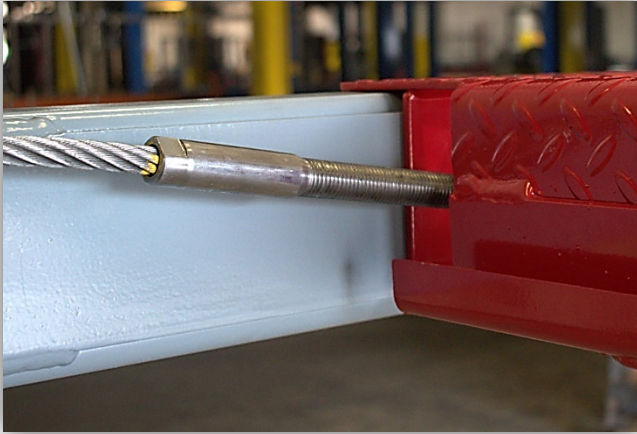
The cables come pre-installed and pre-routed on the cylinder runway. Begin by finding the zip ties and cutting with a pair of side cutters. Caution, the cables may be under tension. Make sure to cut the cable tie only (figure 8.1).



Next, feed the threaded ends of the cables wrapped around the pulleys from each end and side of the Cylinder Runway towards each end of the Crossmember. Two of the cables will need to pass through the openings in the non-power track just below the attaching bolts. (Figures 8-2 thru 8-4)



Figure 8.1 Remove Zip-Ties



*Figure 8.2 Routing Cables*



*Figure 8.3 Routing Cables*

To gain enough free cable length to wrap around the various pulleys and attach the cables to the Top Caps. To do this pull on the cables that are attached to the cylinder under the power runway to extend the rod on the lift cylinder. Pull until you have the rod cylinder extended about 3/4 of the way out.

**Note:** If the cylinder rod is fully collapsed some force may be required to extend the rod.

If this is the case, you may need to use a ratcheting strap or come-a-long to extend the cylinder rod. Additionally, an assistant may pull on another cable simultaneously to extend the cylinder rod.

If you are still not able to get the cylinder to extend, you will need to take a pry bar and put it between the cylinder case and cable block and pry the cylinder rod out at least an inch.

This should be enough for the cylinder piston to escape the suction of the internal hydraulic cushion, allowing you to be able to extend the rod cylinder by pulling on the cables.



*Figure 8.4 Routing Cables*

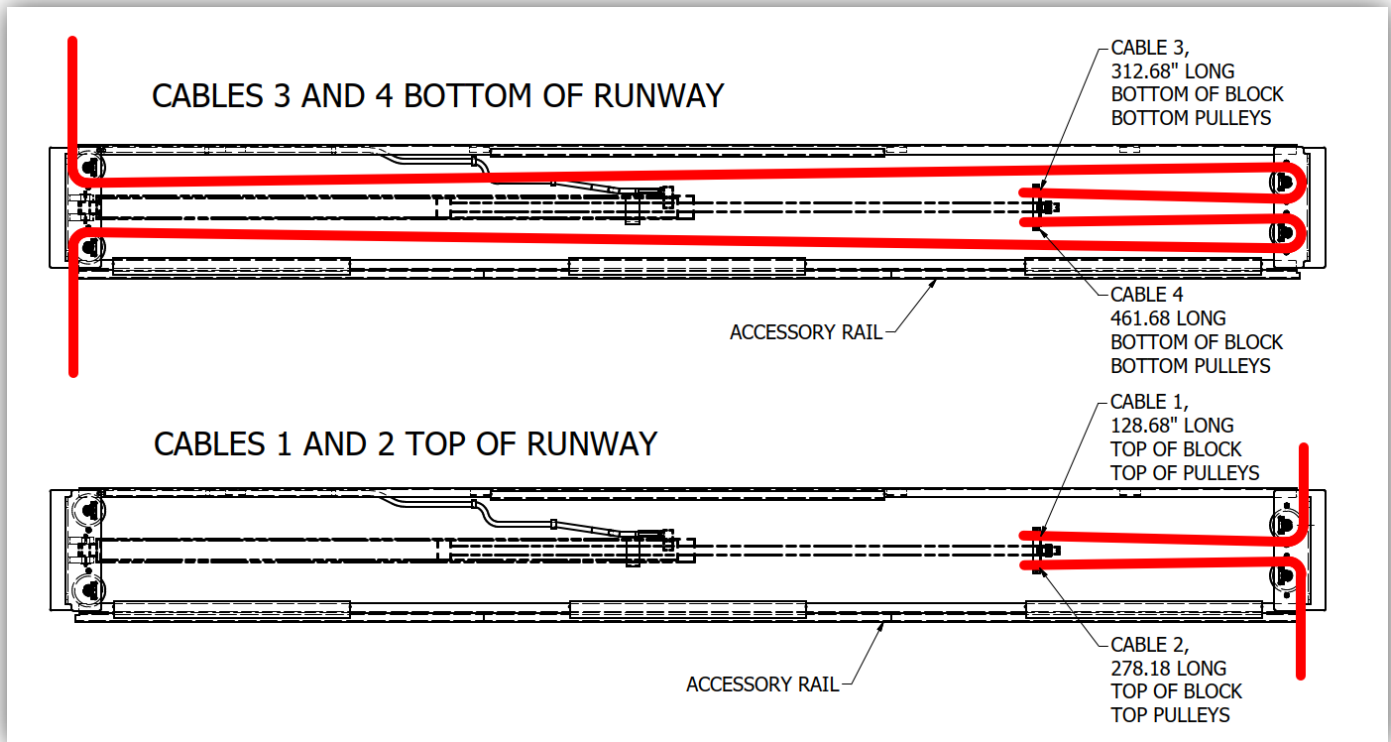


Figure 8.5 Routing Cables

Pass the cable through the hole in the Top Cap. Install the washer first then the nylon hex nut. Ensure at least 1/4 inch of threads are exposed above the nylon hex nut (figure 8.6).

Repeat this procedure for each of the four cables. Do not fully tighten the nylon lock nut. This will be adjusted prior to set up.

Check all the cable routing underneath the Cylinder Runway to ensure all cables are running straight and parallel to the lift cylinder without excessive slack, and the cable flange and retainer are square with the track.

Review cable location (figures 8.7 & 8.8).

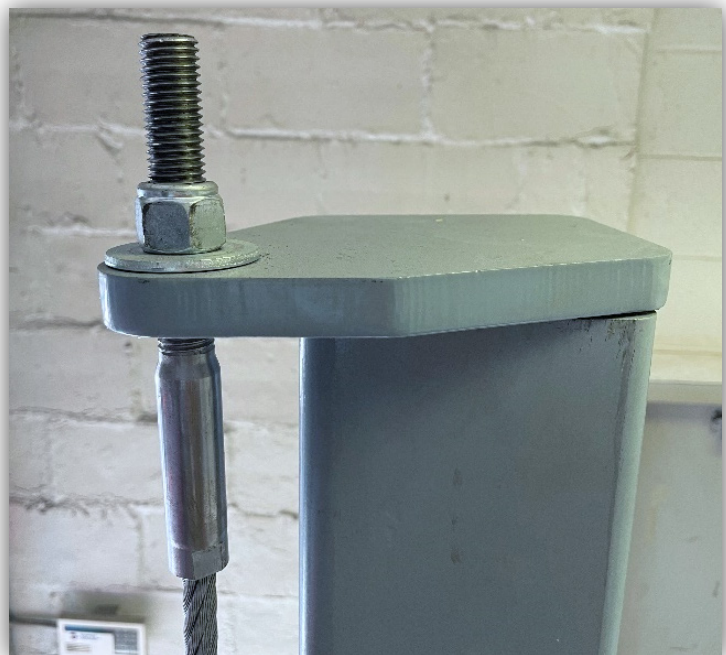


Figure 8.6 Top Cap



Figure 8.7 Routing Cables



Figure 8.8 Routing Cables

## STEP 9: Cable Keepers and Pulley Guard

Locate the (4) 5/16-18 x 4 fully threaded cable keeper bolts, nuts, and acorn nuts. Install the bolt into the crossmember from the lock side. Install the nut on the pulley side of the crossmember (figure 9.2) and install the acorn nut on the end of the bolt.



Figure 9.1 Cable Keeper Bolt

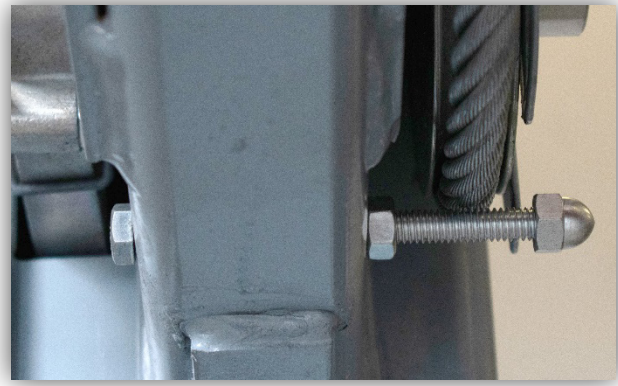


Figure 9.2 Cable Keeper Bolt

Install the pulley guards by sliding the guard between the pulley and the collar. Loosen the set screw on the collar if needed to provide enough clearance then re-tighten. Rotate the cover towards the leg and attach with the 1/4-20 acorn nut.

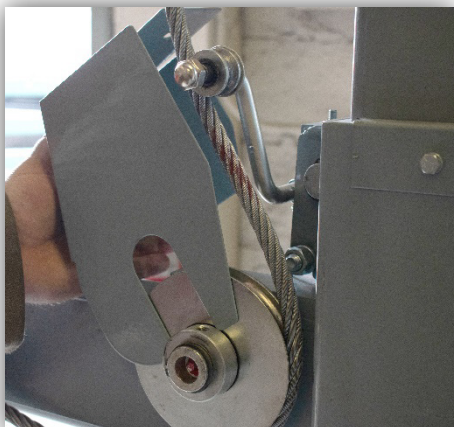


Figure 9.3 Pulley Cover

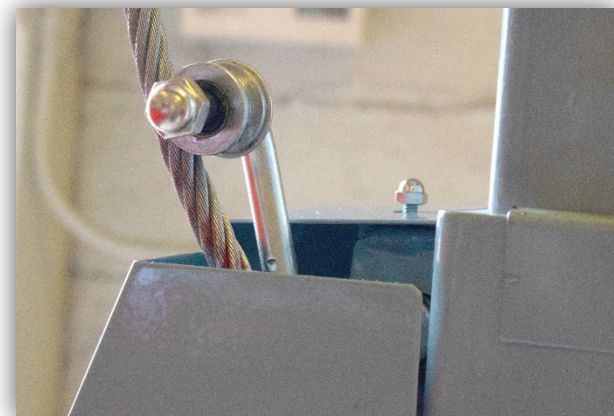


Figure 9.4 Pulley Cover

## STEP 10: Pre-Operation and Maintenance Checks

Perform the following checks at the required intervals and before initial operation during install. If any items are worn or in question perform appropriate lock out/tag out procedure and contact Advantage Lifts for replacement parts. Do not operate a lift with worn or questionable components.



Follow lock out/tag (ANSI Z244.1 recommended) during maintenance. The owner shall maintain inspection and maintenance records. It is recommended to follow inspection and maintenance record standards.

The most common cause of hydraulic system malfunction or failure is contamination of the hydraulic fluid. The hydraulic system (hose and pipe, cylinders, valves, etc.) must be clean to prevent contamination problems.

For unusual vehicles (limousines, RV's, long wheelbases, short wheelbases, etc.) contact Advantage Lifts for loading instructions.

### If Lift Does Not Rise

Check hose connections. Fluid should be pumping through hoses. Check fluid level. Run the lift up and down a few times to make sure the safety latches are engaging uniformly and that the safety latch release is functioning properly. Readjust if necessary.

### When lowering

When lowering the lift PAY CAREFUL ATTENTION. ALWAYS make sure that all FOUR SAFETY LATCHES are disengaged. If one of the latches locks on descent STOP immediately and rise until it is clear of the stop and adjust the Heim end on that latch.

### Maintenance Information

---

*OSHA AND ANSI REQUIRE USERS TO INSPECT LIFTING EQUIPMENT. THESE AND OTHER PERIODIC INSPECTIONS ARE THE RESPONSIBILITY OF THE USER.*

---

The maintenance schedule represents the minimum requirements and maximum time intervals. If you hear a noise or see any indication of impending failure – **stop operation immediately** – inspect, correct and/or replace parts as required. Do not replace any parts without contacting technical support. Only authorized individuals may replace components using authorized parts.

### Replacement Parts

The following items should only be performed by trained lift service personnel. Consult the factory before performing any of the following tasks.

- Replace hydraulic hoses.
- Replace cables and sheaves.
- Replace or rebuild hydraulic cylinders as required.
- Replace or rebuild pumps / motors as required.
- Replace cylinder or hydraulic components.



**Daily Checks** are the responsibility of the owner or qualified operator.

<input type="checkbox"/>	Confirm all fasteners are in place and tight. (Snap rings, collars, bolts, nuts etc.)
<input type="checkbox"/>	Check that the hoses are not kinked, are clear of the cables and do not hang up on the tank.
<input type="checkbox"/>	All secondary locks move freely and return to home position.
<input type="checkbox"/>	Check all primary locks for free movement and full engagement with leg holes.
<input type="checkbox"/>	Check all hydraulic connections and components for leaks.
<input type="checkbox"/>	Check wiring and switches for damage.
<input type="checkbox"/>	Check columns, cables, runways, and base plates are free of dirt, grease, or damage.

**Monthly Checks** may be completed by the owner/qualified operator or trained lift service personnel.

<input type="checkbox"/>	Check cable connections on the top cap and cylinder block.
<input type="checkbox"/>	Grease Zerk fittings.
<input type="checkbox"/>	Wax columns.
<input type="checkbox"/>	Check wire ropes for wear or cracks. ( <a href="#">See pg. 38</a> )
<input type="checkbox"/>	Check pump fluid level, refill if low.
<input type="checkbox"/>	Check anchor bolts (if used, <a href="#">See pg. 39</a> ).
<input type="checkbox"/>	Check the cylinder is rod and rod end threads for deformation or damage.
<input type="checkbox"/>	Check cylinder mount for looseness and damage.

### Yearly Checks

<input type="checkbox"/>	Empty the pump reservoir and refill with new fluid ( <a href="#">See pg. 28</a> ).
<input type="checkbox"/>	Thoroughly check each cable ( <a href="#">See pg. 38</a> ).

## STEP 11: First Start Up (At Installation)

Wax the outside of the columns where the UHMW Guide Blocks will make contact to the column. The wax will reduce friction and make for smooth operation (*figures 11.1 & 11.2*). **Grease the zerk fittings** (4 on the powered runway and 2 on each crossmember).

Confirm that power to the lift has been installed by a licensed electrician and is safe to operate. Press the power switch on the Power Unit to take slack out of the cables. Once the slack is taken out, raise the lift slightly to release the primary locks then pull the primary lock release handle. The locks should all clear the legs by the same distance. Have your assistant walk around and check for good clearance between the locks and columns. If not, adjust by threading in or out the 3/8-24 threaded rods attached to the hiem ends installed in [Step 5](#). Lower the lift by releasing the primary lock handle and pressure relief handle on the power unit.

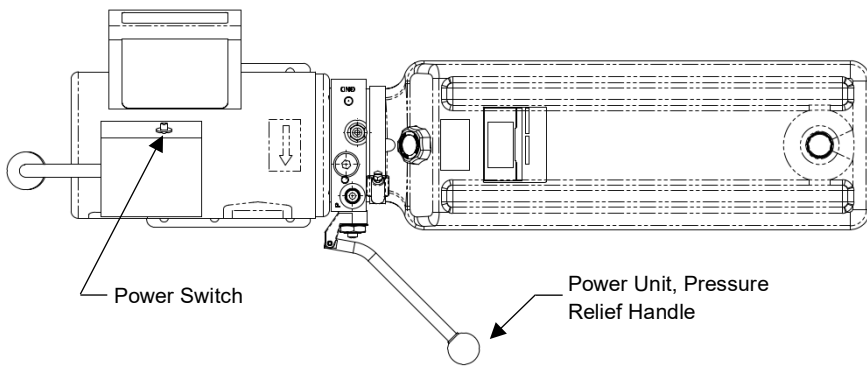


Figure 11.1 Power Unit Features

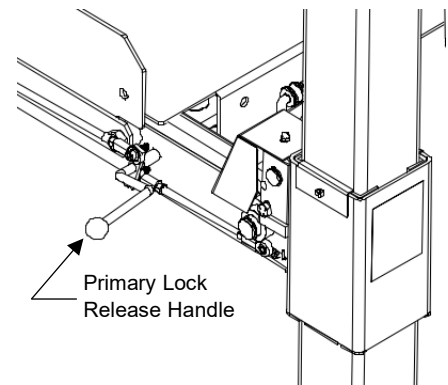


Figure 11.2 Primary Lock Release

With the primary locks adjusted, raise the lift again by pressing the power unit's power switch. Pay careful attention to the crossmembers to ensure all 4 are sliding on the legs. If one corner gets bound up, STOP. Pull the primary lock release handle and at the same time press the pressure relief handle on the Power Unit to lower the lift to a position where the runways and crossmembers are level. Once level, wax the bound leg and attempt to lift again.

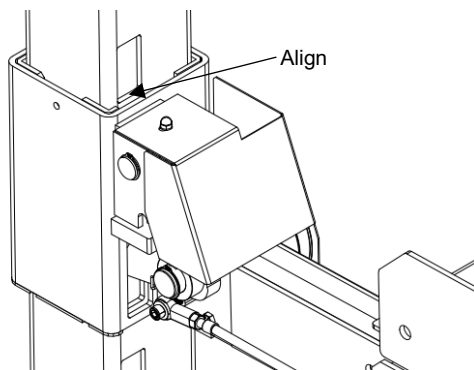


Figure 11.3

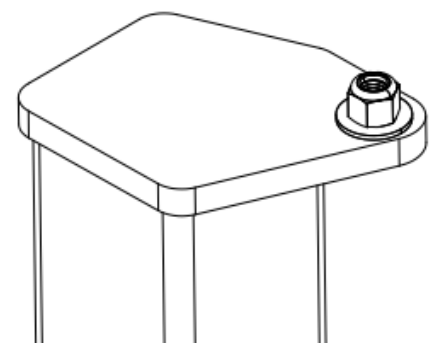


Figure 11.4 Top Cap Nut

Raise the lift until the top of the highest lock cover is flush with the bottom of a lock cutout (*figure 11.3*). Adjust the cables on the other three posts to raise up them so all 4 corners are equal. Adjust the cables by tightening the cable adjusting nut on the top of each post top cap (*figure 11.4*).



Lower again, then raise the lift. If cables are adjusted properly the lift should be level while raising and all four primary locks engage or audibly “click” simultaneously. If not adjust a low cable by tightening the nylon nut on the top cap.

## Before Loading

- Check that the primary locks and hiem joints are adjusted correctly.
- Check the secondary locks move freely and return to their home position.
- Check that the lift is “timed” (primary locks click simultaneously & the deck is level when raised).
- Check all nuts, bolts and snap rings are in place and tightened.

---

*There will be some initial stretching of the cables in the beginning. It may be necessary to re-adjust the cables a week after first use.*

---

- Once the lift is timed, drive a typical vehicle on to the lift and slowly raise. If the lift is not lifting the vehicle level, place onto the locks and re-time the lift by tightening/loosening the nut/cable on the top cap. This is normal operation as the cables stretch.

## STEP 12: Operation

---

*Do not use this lift unless you know the proper operation of the lift and its safety devices, and the hazards involved. See Safety Instructions [page 2](#) of this manual.*

---

- Read and follow all safety instructions in this document and the power unit before operation. Advantage Lifts also recommends ALI’s “Lifting it Right” and “Safety Tips” from [autolift.org](http://autolift.org).
- Drive the vehicle onto the lift platform using a spotter. It is recommended to center the wheelbase on the runways. Set the vehicle’s parking brake and leave the transmission in park / gear. Chock the vehicles’ wheels.
- Stand clear – Push the power switch on the power unit (*figures 11.1 & 11.2*) to raise vehicle to desired height. When the desired height is reached, release the power button then push the hydraulic release lever on the Power Unit and lower runways until it stops, check all four latches for full engagement in the square holes on each leg.
- To lower – push the power button to raise – rotate primary lock release handle and hold – push hydraulic release lever on Power Unit to lower (*figures 11.1 & 11.2*).
- Any hydraulic oil leakage, unusual noise, or excessive wear must be addressed before using lift.



**Warning:** Make sure all four latches release – if not STOP, raise higher until latch is clear, if a latch still does not release, adjust the threaded rod attached to the hiem joint end on the appropriate latch.

## Cable Inspection Guide



Good Condition



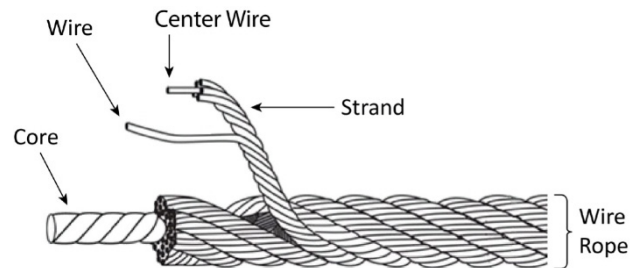
Broken Wires



Necking

### How to Check Your Cables:

- Visually check for any cable deficiencies.
- Run a rag along the cables. This will check for any snags.
- Flex the cable to check for broken wires that may be concealed in between the strands of the cable.



### When to Replace Your Cables:

- No adjustment is left.
- There are multiple broken wires.
- When heat damaged has occurred.
- Cable wear exceeds 10% of the diameters original size (necking).
- Evidence of corrosion pitting the wires or connectors.
- If you notice kinking, flattening, bird caging, cuts or other possible defects of a cable.
- 

If you have any questions regarding the condition of your cables that may not be listed, above contact the Advantage Lifts for assistance.

---

*Always check the full length of the cable*

---

### Notes:

- When you replace one cable inspect the others to see if they need to be replaced as well.
- Small cable adjustments periodically will be required, but if frequent adjustments are required the cables may need to be replaced.
- Cables should be replaced when damage or other factors listed above are present.
- Visually inspect your cables **daily**. Perform an in-depth inspection **monthly**.

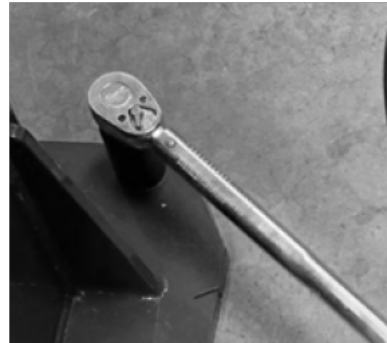
## Anchoring Instructions



**A**



**B**



**C**

**This lift does not require anchoring to the floor.** If you choose to anchor the lift, which is **not** recommended, follow the instructions below.

- Make sure the anchors are 8 inches from any wall, crack, or seam.
- Make sure the concrete has properly cured for at least 28 days.
- Concrete shall have a compress strength of 3500 PSI and a minimum depth of 5 inches.

Concrete fasteners must meet criteria as set in the ANSI/ALI ALCTV “*Safety Requirements for Construction, testing and Validation*”. It is the owner’s responsibility to adhere to any local or seismic anchoring requirements that may be required by other agencies or codes. The following steps are a general guide, if in doubt use the fastener manufacturer’s & ANSI/ALI ALCTV requirements.

1. Choose a concrete fastener that meets ANSI standards for Automotive Lifts. Drill a hole as specified by the fastener manufacturer using a concrete hammer drill and a new drill bit.
2. When drilling the hole ensure the drill is perpendicular to the floor while periodically moving the drill in an up and down motion. Do not force the drill by over applying pressure. (A)
3. Blow the dust from the hole to increase the anchor's effectiveness.
4. Assemble the washers and nuts on the threaded end of the anchor. Tap anchor with a hammer (B) so the washer and nut are resting on the baseplate.
5. Hand tighten each nut and then using socket wrench (NOT an impact wrench) tighten each nut 2-4 turns. (C)

*Approximate initial anchor torque is 100-pound feet, and re-torque is 70-pound feet. Check the bolt manufacturer specifications.*

# Automotive Lift Institute, Inc.

# WL200 Series Label Kit

<b>⚠ CAUTION</b>	<b>⚠ CAUTION</b>
	
<b>Lift to be used by trained operator only.</b>	<b>Authorized personnel only in lift area.</b>
©	©

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85, Cortland, NY 13045. These labels are protected by copyright.

[www.autolift.org](http://www.autolift.org) © 2006-2017 ALI/WL200

<b>⚠ WARNING</b>	<b>⚠ WARNING</b>
	
<b>Clear area if vehicle is in danger of falling.</b>	<b>Remain clear of lift when raising or lowering vehicle.</b>
©	©
<b>⚠ WARNING</b>	<b>⚠ WARNING</b>
	
<b>Keep clear of pinch points when lift is moving.</b>	<b>Keep feet clear of lift while lowering.</b>
©	©
<b>⚠ WARNING</b>	<b>⚠ WARNING</b>
	
<b>Do not override self-closing lift controls.</b>	<b>Chock wheel to prevent vehicle movement.</b>
©	©

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

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[www.autolift.org](http://www.autolift.org) © 2006-2017 ALI/WL200

<b>NOTICE</b>	<b>NOTICE</b>
	
<b>Read operating and safety manuals before using lift.</b>	<b>Proper maintenance and inspection is necessary for safe operation.</b>
©	©
<b>NOTICE</b>	
	
<b>Do not operate a damaged lift.</b>	
©	

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

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## Troubleshooting Guide

This system contains components that have stored electrical and mechanical energy. If the lift is not operating correctly follow proper lock out/tag out procedures. If possible place the lift on the locks to release mechanical energy stored in the cables and unplug the power unit and call Advantage Lifts at 763-300-5730 for further assistance. Repair work must be performed by a qualified person.

Trouble	Cause	Solution
Pump/motor does not start	<ul style="list-style-type: none"> <li>• Improper electrical hook-up.</li> <li>• Blown fuse or breaker tripped.</li> <li>• Pump binding or stuck.</li> <li>• Motor thermal overload tripped.</li> </ul>	<ul style="list-style-type: none"> <li>• Review electrical requirements.</li> <li>• Replace fuse/reset breaker.</li> <li>• Flush unit/replace pump.</li> <li>• Let motor cool.</li> </ul>
Pump/motor operates but no pressure	<ul style="list-style-type: none"> <li>• Wrong rotation of motor (air bubbles in outlet)</li> </ul>	<ul style="list-style-type: none"> <li>• Rewire (qualified electrician)</li> </ul>
<b>Pump/motor operate low flow and/or low Pressure</b> or does not hold the system.	<ul style="list-style-type: none"> <li>• Clogged inlet strainer (cracking noise).</li> <li>• Relief valve leaking.</li> <li>• Dirt on seat.</li> <li>• Release valve leaking or out of adjustment</li> <li>• O-Ring missing or cut.</li> <li>• Relief valve setting too low</li> <li>• Defect in blowhole in motor end head internally.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean strainer in solvent</li> <li>• Tighten relief valve</li> <li>• Flush seat</li> <li>• Readjust stem setting.</li> <li>• Replace o-ring.</li> <li>• Readjust relief valve.</li> <li>• Replace motor.</li> </ul>
Failure to lower	<ul style="list-style-type: none"> <li>• Release valve stem sticking.</li> <li>• Lift out of adjustment.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace or readjust stem/cartridge.</li> <li>• Readjust lift</li> </ul>
Air in oil	<ul style="list-style-type: none"> <li>• Loose inlet connection.</li> <li>• Low fluid level.</li> <li>• Bad seals in pump.</li> <li>• Siphon check does not seat.</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten connections.</li> <li>• Add fluid.</li> <li>• Replace seals.</li> <li>• Replace pump.</li> </ul>
Oil blows out the breather/filter port	<ul style="list-style-type: none"> <li>• Oil reservoir was overfilled.</li> <li>• Vehicle has been lowered too fast.</li> <li>• Seal damage in cylinder.</li> </ul>	<ul style="list-style-type: none"> <li>• Relieve pressure and reduce oil level.</li> <li>• Lower the lift slowly while under load.</li> <li>• Restrict lowering with manually controlled release valve</li> <li>• Replace cylinder seals</li> </ul>
Motor functions, but lift will not rise	<ul style="list-style-type: none"> <li>• Debris may be under check valve.</li> <li>• Oil levels are too low.</li> <li>• Lift is overloaded</li> </ul>	<ul style="list-style-type: none"> <li>• Simultaneously push the handle down and push the rise button; hold for 10-15 seconds</li> <li>• Check the reservoir and fill as needed.</li> <li>• Reduce weight on the li</li> </ul>
Runways will not raise or lower, once raised	<ul style="list-style-type: none"> <li>• Lift over capacity</li> <li>• Low oil levels</li> </ul>	<ul style="list-style-type: none"> <li>• Remove load, try lifting again.</li> <li>• Add fluid.</li> <li>• Check hoses for pinches or leaks.</li> <li>• Remove air from the hydraulic system.</li> <li>• Replace hydraulic oil if contaminated</li> </ul>
One corner of the lift runways is lower than the other three	Safety lock on the lower corner is not engaged.	<ul style="list-style-type: none"> <li>• Raise the lift, and make sure are all locks are engaged on the same safety lock height. Adjust the hiem joint linkages.</li> </ul>
Lift is stuck up in air past top lock.	<ul style="list-style-type: none"> <li>• The cylinder has maxed out causing the check valve to lock up.</li> </ul>	<ul style="list-style-type: none"> <li>• Hold in the power unit button for a few seconds and then slowly push down on the lowering handle.</li> </ul>
Lift is making noise	<ul style="list-style-type: none"> <li>• Check functional parts for wear.</li> </ul>	<ul style="list-style-type: none"> <li>• Lubricate bushings and sheaves.</li> </ul>
Lift chatters when in operation	<ul style="list-style-type: none"> <li>• Legs are binding in the sleeves.</li> </ul>	<ul style="list-style-type: none"> <li>• Wax the legs to allow the sliders to glide easily.</li> </ul>

**Lockout instructions:** If the lift becomes inoperable in the raised position, lower the lift as to rest it on the nearest lock position and call Advantage Lifts at 763-300-5730 for further assistance. In the event of a mechanical issue that creates a safety concern disconnect the lifts power source and place a tag on the power unit stating "Do Not Use" until the issue is resolved.

**Advantage Lifts** offers technical support with all of our products. Call 763-300-5730 with any questions on the operation and maintenance of your lift. Our knowledgeable staff will be glad to help you.

## ACCESSORIES

### Rolling Jack Platform

Loosen the set screw on one set of wheels (axles that ride on the same track channel). Confirm the other 2 wheels are tight then place tightened wheels of the Rolling Jack Tray on one set of accessory rails. Slide the loosened axles in or out to allow the wheels to seat properly on the opposite accessory rail. Leave the wheels loose, this will allow the roller shafts for the other side to travel in and out slightly to take up any misalignment or skew. Lubricate the 4 wheels on the Rolling Jack Tray. (PN 40032)



Figure 10.1 RJP

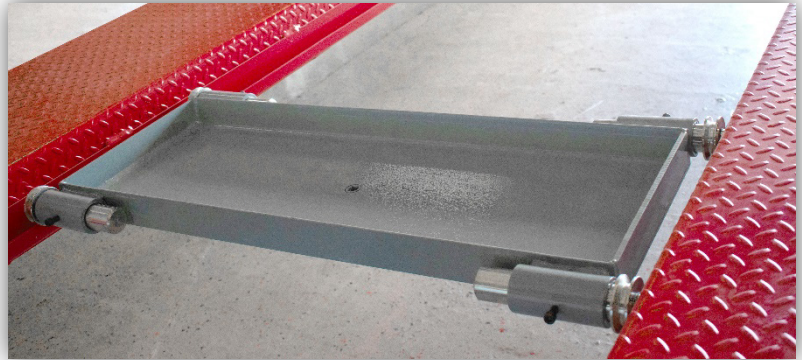


Figure 10.2 RJP

### Casters

Place the caster bracket around the leg. Insert the caster pin through the caster bracket, leg and then back through the caster bracket. Attach lock the caster pin to the leg using the attached locking feature. The lift may only be moved if completely empty. Remove all vehicles, accessories, or stored items before moving. To lift, lower the crossmember on to the caster cradle until the legs are lifted off the ground. (PN 40124, set of 4)



Figure 10.3 Casters

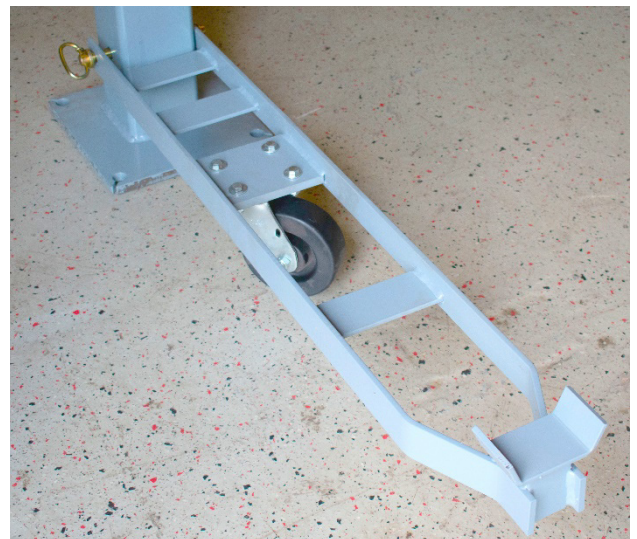


Figure 10.4 Casters

## Walkways

Walkways are designed to rest in the space between the two center runways. Place the first walkway with the tread facing up and the flat vertical side touching the inside of the crossmember. Place the next one so the vertical face nests inside of the groove. Do not attempt to drive on the walkways, they are only designed to support a human's weight. (PN 90066, set of 3)

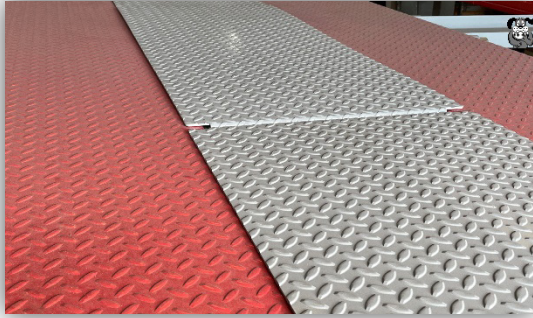


Figure 10.5 Walkways

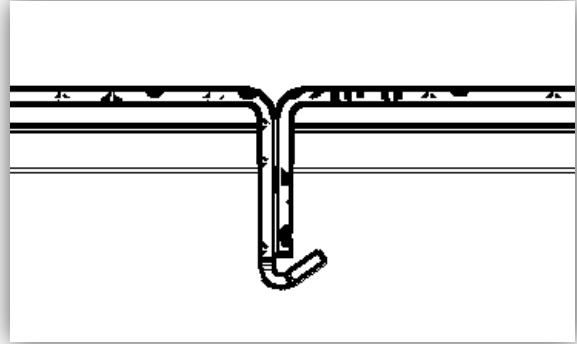


Figure 10.6 Walkways

## Ramps

Ramps are placed by removing the wheel stop and inserting the ramp back plate into the wheel stop retainer. Do not attempt to raise the lift with the ramps still attached to the lift. (PN 90054, Set of 2)

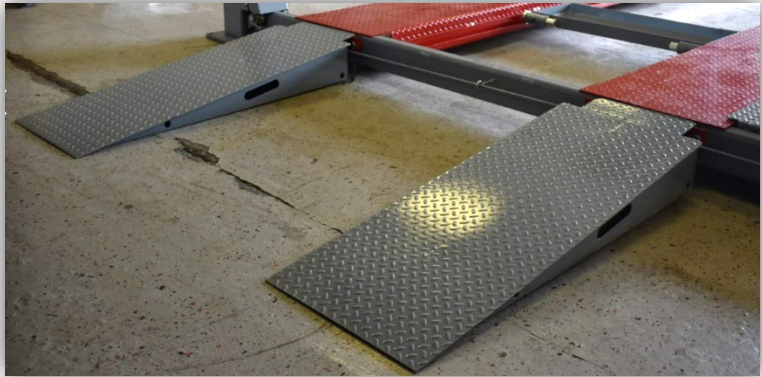


Figure 10.7 Ramps

## Drip Pans

Drip pans rest on the accessory rails. They are not designed to support any weight. They should be used to catch drips, do not fill with fluid, use as a tool tray, or place anything onto the trays. As with all plastics an increase in heat decreases the structural stability of the tray. (PN 40082, set of 8)



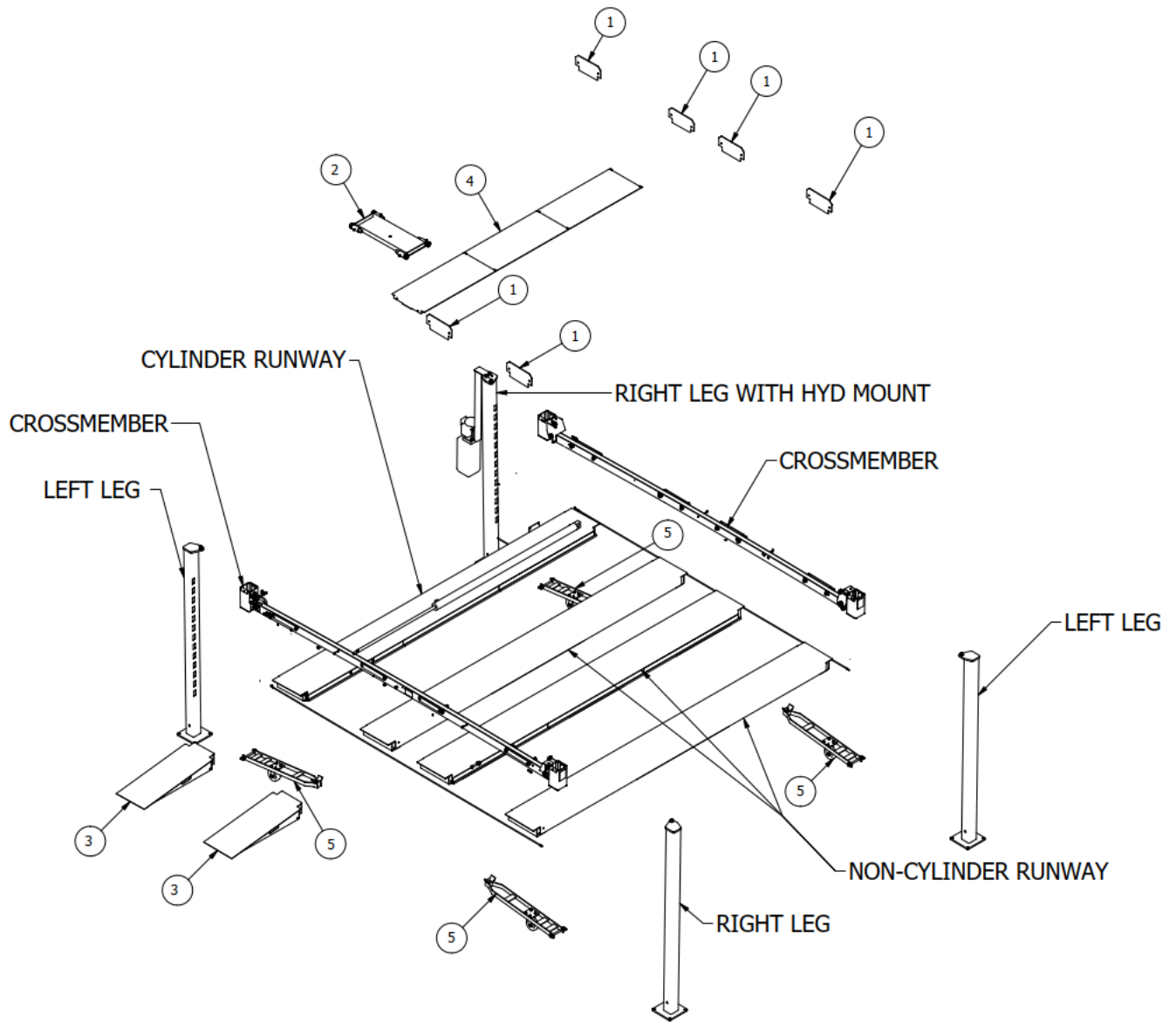
Figure 10.8 Drip Trays



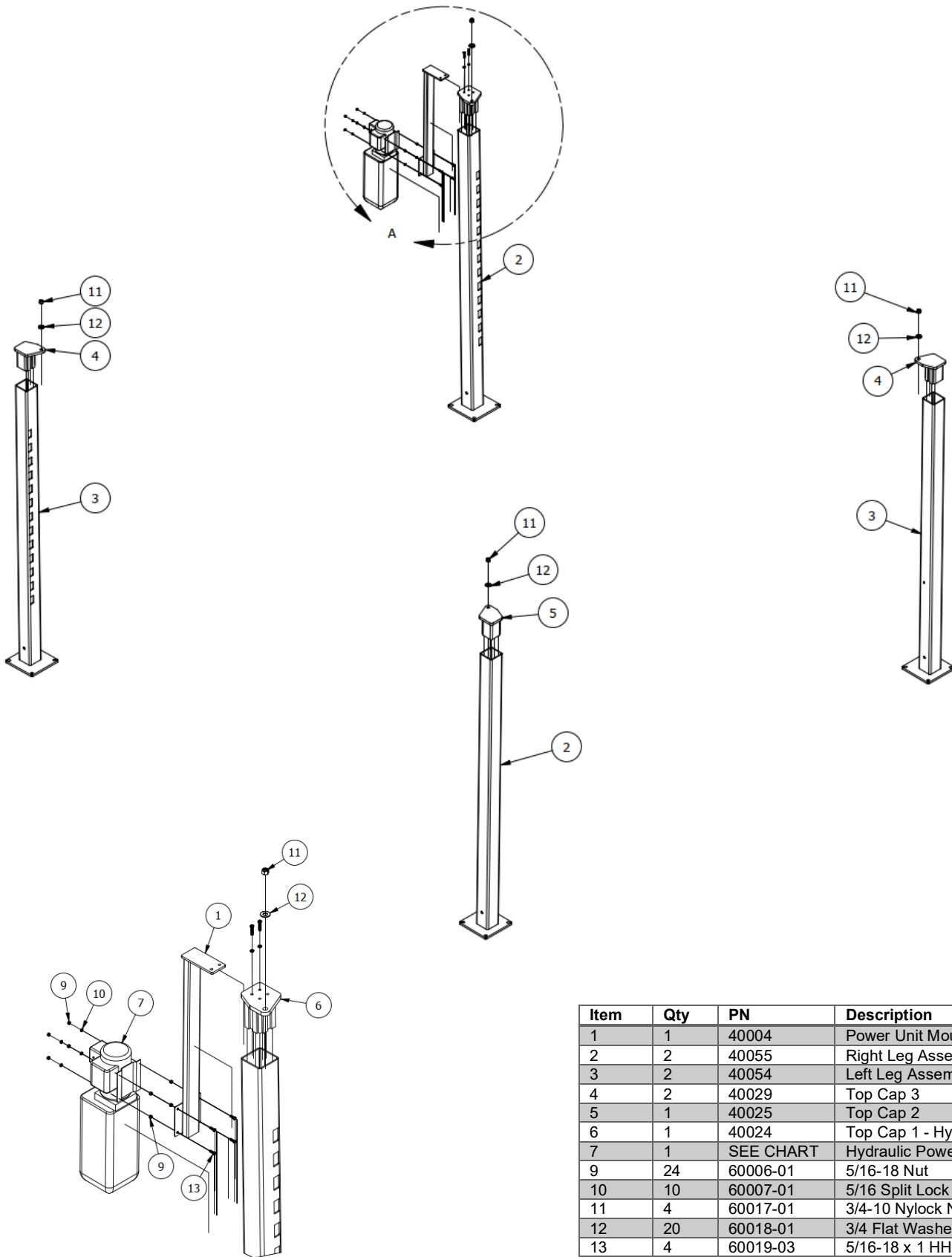


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# Parts List



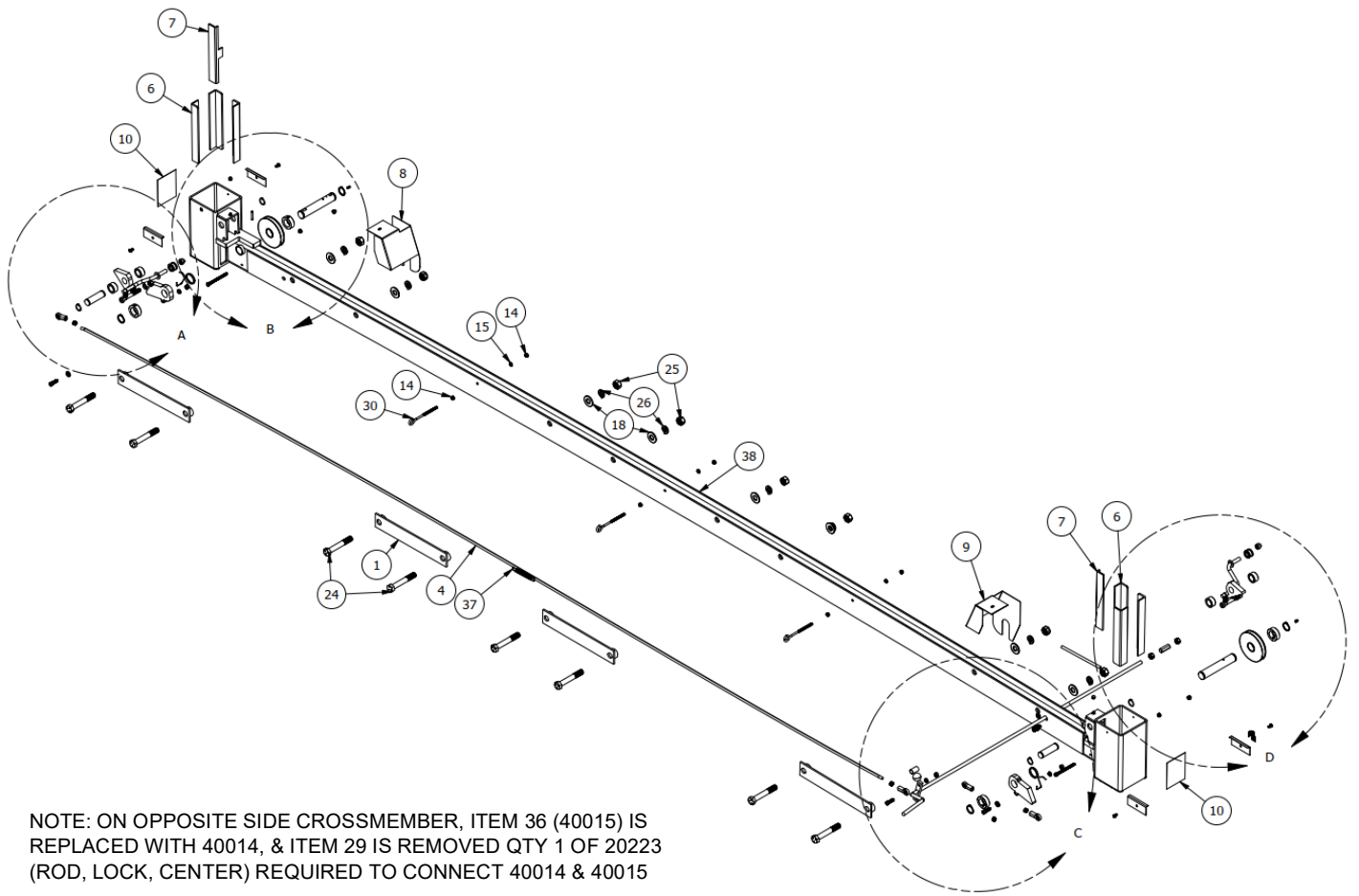
Item	Qty	PN	Description
1	8	20018	Wheel Stops
2	1	40032	Rolling Jack Platform
3	2	90054	Approach Ramp (set of 2)
4	4	20268	Walkway (Set of 3)
5	4	40124	SXS Caster Assembly



DETAIL A  
SCALE 1 / 15

Item	Qty	PN	Description
1	1	40004	Power Unit Mount
2	2	40055	Right Leg Assembly
3	2	40054	Left Leg Assembly
4	2	40029	Top Cap 3
5	1	40025	Top Cap 2
6	1	40024	Top Cap 1 - Hydraulic Mount
7	1	SEE CHART	Hydraulic Power Unit
9	24	60006-01	5/16-18 Nut
10	10	60007-01	5/16 Split Lock Washer
11	4	60017-01	3/4-10 Nylock Nut
12	20	60018-01	3/4 Flat Washer
13	4	60019-03	5/16-18 x 1 HHCS

ITEM 7 HYDRAULIC UNIT	
110V UNIT	90010
220V UNIT	90043

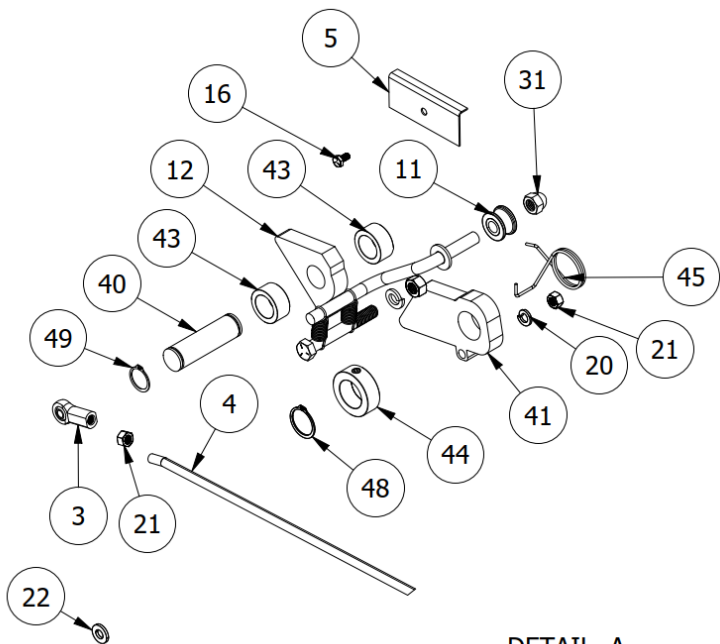


NOTE: ON OPPOSITE SIDE CROSSMEMBER, ITEM 36 (40015) IS REPLACED WITH 40014, & ITEM 29 IS REMOVED QTY 1 OF 20223 (ROD, LOCK, CENTER) REQUIRED TO CONNECT 40014 & 40015

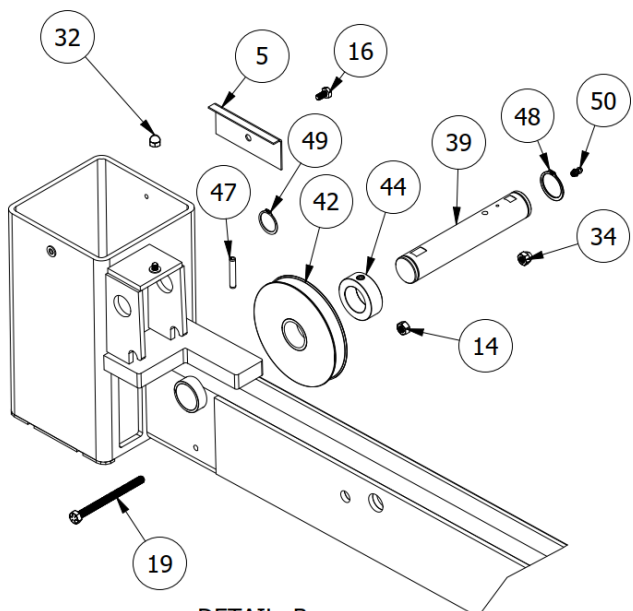
SEE NEXT SHEET FOR ADDITIONAL ASSEMBLY DETAILS

Item	Qty	PN	Description
1	4	40066	Wheel Stop Retainer Assembly
2	1	20229	Safety Rod Spacer
3	4	60023-01	Ball Joint Rod End
4	1	20226	Crossmember Rod
5	4	20038	Nylon Retainer Clip
6	6	20202	Slider A
7	2	20203	Slider B
8	1	20257	Pulley Guard - Right
9	1	20256	Pulley Guard - Left
10	2	90009	Cross Member Label
11	2	40010	Secondary Lock Tensioning Pulley Assembly
12	1	40080	Secondary Lock Right Assembly
13	1	40079	Secondary Lock Left Assembly
14	24	60006-01	5/16-18 Nut
15	10	60007-01	5/16 Split Lock Washer
16	8	60015-01	1/4-20 x 1/2 HHCS
18	20	60018-01	3/4 Flat Washer
19	4	60019-02	5/16-18 x 4 HHCS (fully threaded)
20	10	60021-01	3/8 Split Lock Washer
21	16	60022-01	3/8-24 Nut
22	8	60025-01	3/8 Flat Washer
23	8	60026-01	3/8-24 x 1 SHCS
24	16	60027-02	Runway Bolts
25	16	60028-01	Wheel Stop Nuts

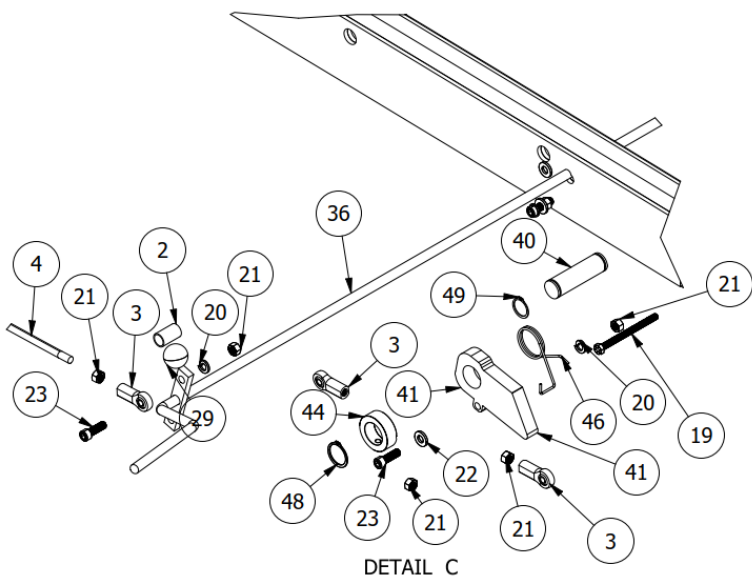
Item	Qty	PN	Description
26	16	60029-01	Wheel Stop Lock Washers
27	2	60030-01	Safety Rod Connector
29	1	60035-01	Safety Rod Ball Handle
30	6	60038-01	Crossmember Eye Bolts
31	4	60047-01	1/2-13 Acorn Nut
32	4	60048-01	1/4-20 Acorn Nut
33	4	60049-01	1/2-13 Hex Nut
34	4	60052-01	5/16-18 Acorn Nut
35	1	60067-01	Hose Clamp, 13/16 ID
36	1	40015	Safety Rod - Handle Assembly
37	1	60061-01	Extension Spring
38	1	40006	Crossmember Weldment
39	2	20209	Primary Pin
40	2	20218	Cylinder Pin, SXS-Secondary Pin
41	2	20220	Primary Lock
42	2	40011	5 Inch Pulley Assembly
43	4	20210	Cylinder & Secondary Lock Spacers
44	4	60200	Set Screw Collar 1-1/4 ID x 2 OD x 11/16 with /8-16 thread
45	1	60040-01	1-3/4 ID Right Torsion Spring
46	1	60039-01	1-3/4 ID Left Torsion Spring
47	2	60012-01	Cross Member Primary Pin - Pulley Side
48	4	60008-01	1-1/4 OD Retaining Ring
49	4	60009-01	1 Inch OD Retaining Ring



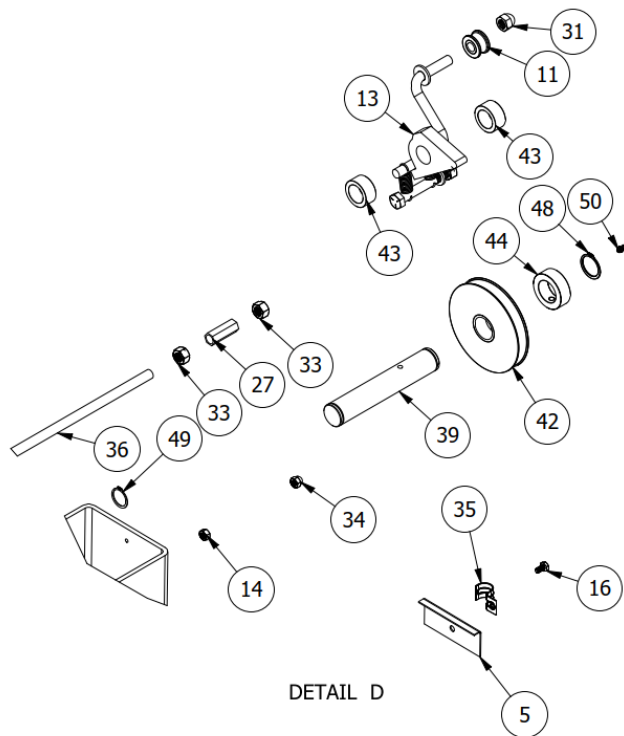
DETAIL A



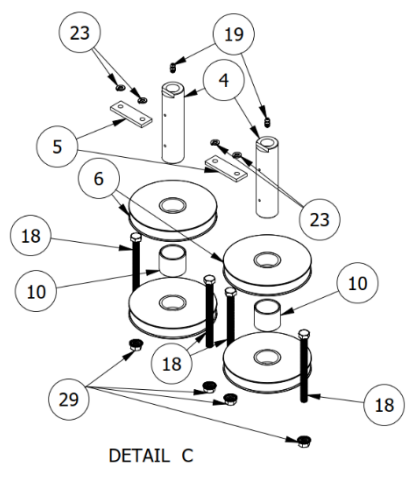
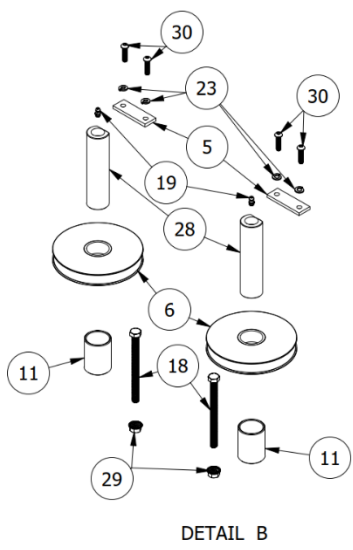
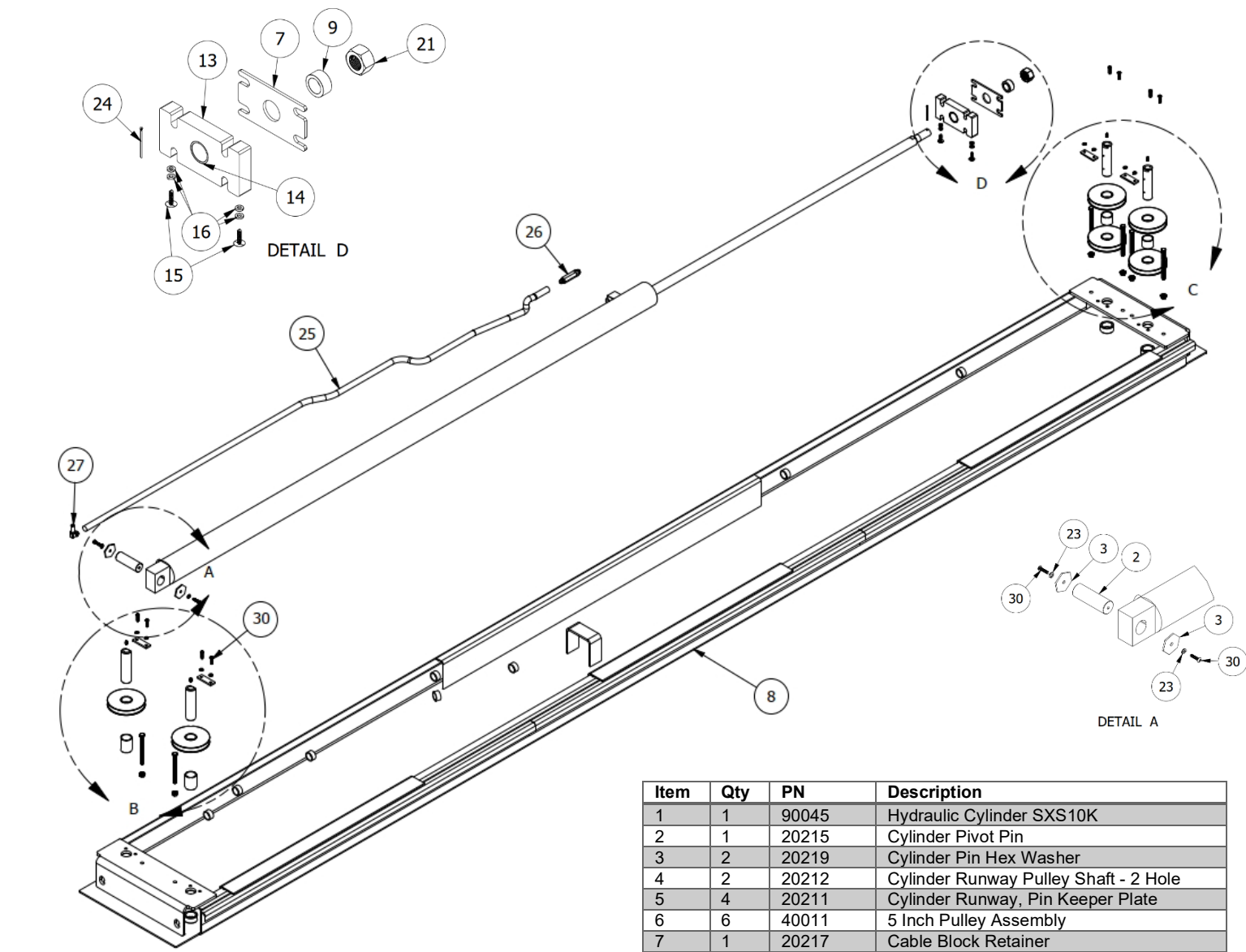
DETAIL B



DETAIL C



DETAIL D



Item	Qty	PN	Description
1	1	90045	Hydraulic Cylinder SXS10K
2	1	20215	Cylinder Pivot Pin
3	2	20219	Cylinder Pin Hex Washer
4	2	20212	Cylinder Runway Pulley Shaft - 2 Hole
5	4	20211	Cylinder Runway, Pin Keeper Plate
6	6	40011	5 Inch Pulley Assembly
7	1	20217	Cable Block Retainer
8	1	40027	Cylinder Runway Assembly
9	1	20210	Cylinder & Secondary Lock Spacers
10	2	20213	Cylinder Runway Pulley Spacer- Short
11	2	20214	Cylinder Runway Pulley Spacer- Long
12	1	40023	Cable Block Assembly
13	1	20216	Cable Block
14	1	60045-01	Cable Block Bearing
15	2	60036-01	Nylon Push Plug (Christmas Tree)
16	4	60037-01	Nylon Washer
17	6	60014-01	Nut for Cable Keeper Bolt
18	6	60001-02	Runway Cable Keeper Bolts
19	4	60010-01	1/4-28 Grease Fitting
20	8	60011-01	Cylinder Runway Pin Keeper Plate Bolts
21	1	60033-01	Hydraulic Cylinder Nut
22	2	60031-01	Cylinder Pin Bolts
23	10	60016-01	1/4 Split Washer
24	1	60062-01	Hydraulic Cylinder Cotter Pin
25	1	90002	86 Inch Hydraulic Hose
26	1	90032	Inline Flow Regulator
27	1	90005	Bulkhead fitting 3/8
28	2	20253	Cylinder Runway Pulley Shaft - 1 Hole
29	6	60134-01	Serrated Flange Nut 3/8-16
30	10	60011-02	1/4-20 BHCS
-----	1	60041-01	Cable Yellow 128-11/16 Inch •
-----	1	60041-02	Cable Yellow 278-3/16 Inch ••
-----	1	60041-03	Cable Yellow 312-11/16 Inch •••
-----	1	60041-04	Cable Yellow 461-11/16 Inch ••••
-----	3	40026	Non-Cylinder Runway (Not Shown)

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