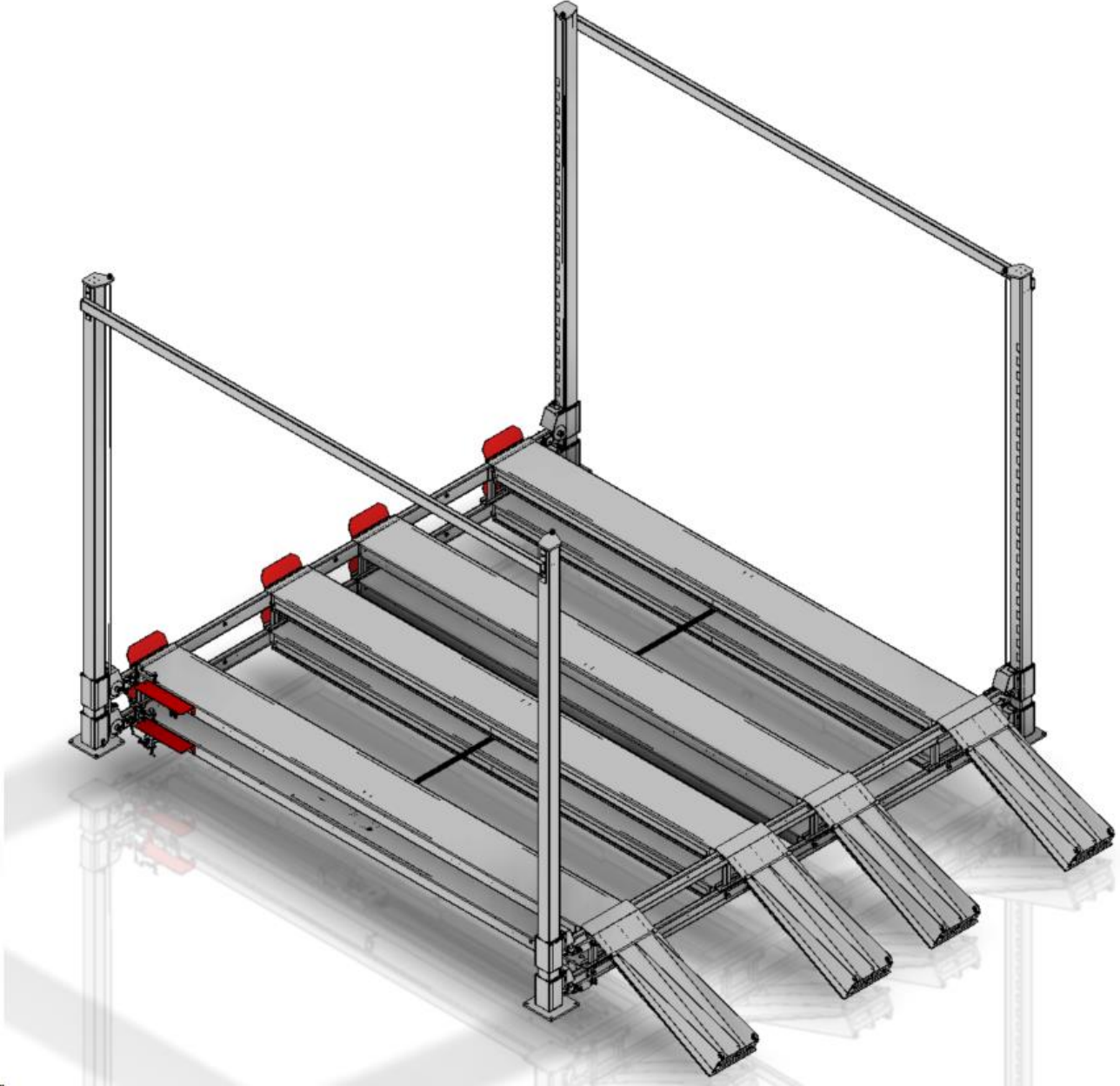




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Advantage Lifts Triple SXS Installation and Operations Manual



DANGER

IMPORTANT SAFETY INSTRUCTIONS. Please read the entire contents of this manual prior to installation, operation, servicing or maintaining the lift. 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.**

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 outlets 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 it 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/or 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.
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.

Safety Placard Installation

This lift contains a safety placard which must be mounted to one of the mounting bolts on the power unit. This placard must be positioned in a conspicuous location, easily visible to the lift operator.

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Warranty

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

Rolling Jacks (RJP & 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.

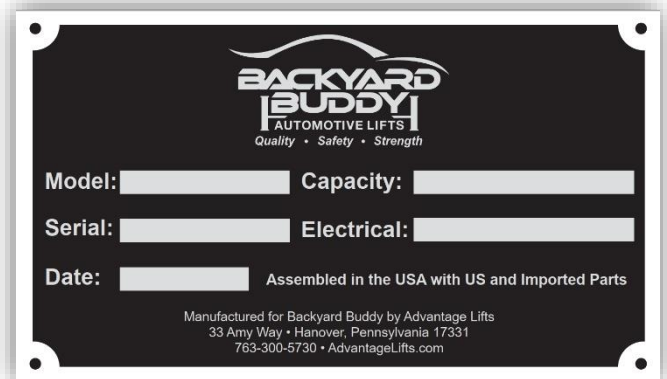
Lift Information

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

Model: _____

Serial: _____

Date Installed: _____



Safety

Read these safety instructions entirely, Check 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). 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)

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. 76](#))

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. 76](#))

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. 89](#))

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)

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 and hardware 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, the responsibility of the owner is 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.

A forklift will be required to assemble the lift.

The lift will be required to be installed by ALS.

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 and email it to 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 (Metric)
- Tape measure (25')
- Open end wrench set, must include:
 - 27mm, 17mm, 10mm, 17mm, 19mm, 14mm, 30mm, and 13mm
- 1/2" or 3/8" ratchet drive socket set:
 - 27mm, 17mm, 10mm, 17mm, 19mm, 14mm, 30mm, and 13mm
- Flathead and Phillips screwdrivers
- Adjustable wrenches
- External Snap-ring pliers.
- Cordless impact
- Step ladder 12-foot
- Bottle of spray car wax
- 1 Can of spray lube
- 5 Gallons of AW-32 hydraulic oil
- Grease gun
- Wood blocks (Included)
- Optional - Car dollies
- Optional - Prybar/ratchet strap



USE PROPER LIFTING TECHNIQUES

The lift has components that weigh beyond 300 lbs. At least one assistant is required to assist with lifting heavy components. A forklift is also a requirement. Three assistants (4 total people) are recommended.

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 the lift.

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. 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 30-amp single phase circuit. The lift will come prewired with a 3-conductor cable that is roughly 20' long. 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.

Notes:

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. The lift is not designed to be used in a wet or damp environment or sit in standing water. Ensure drainage to keep water away from the lift.

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. The minimum ceiling height required for installation is based on the vehicles you are placing on the lift. Calculate clearance based on your vehicle's 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 [84](#). 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 must be placed on the same side as the electrical connector on the side of the powered runway, driver's side front. Refer to figure 1.1.

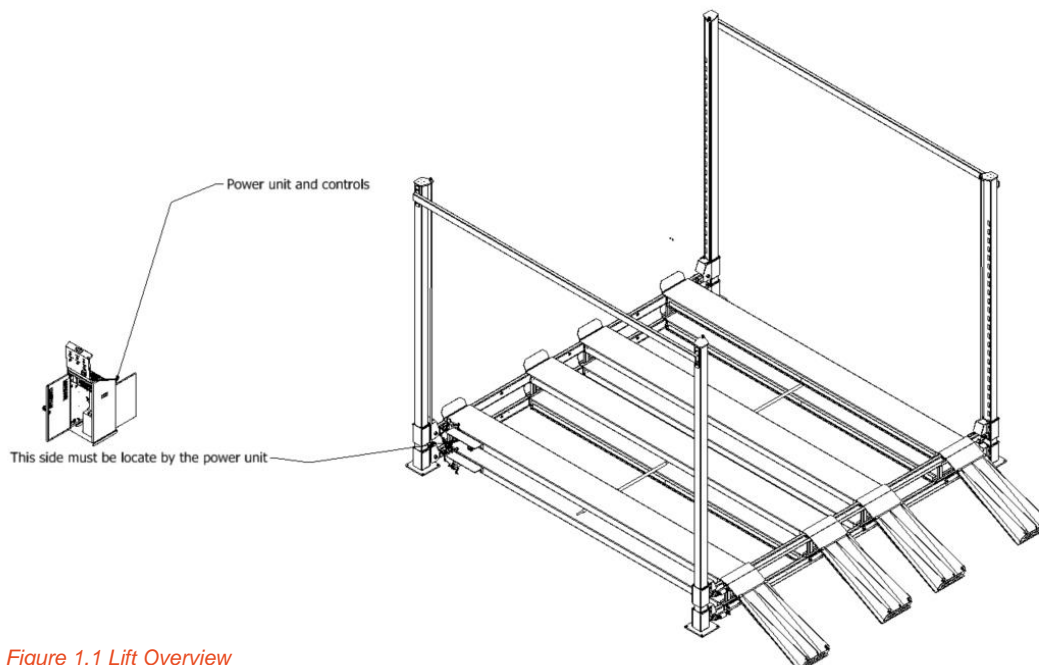


Figure 1.1 Lift Overview

Site Planning

Minimum Clearance

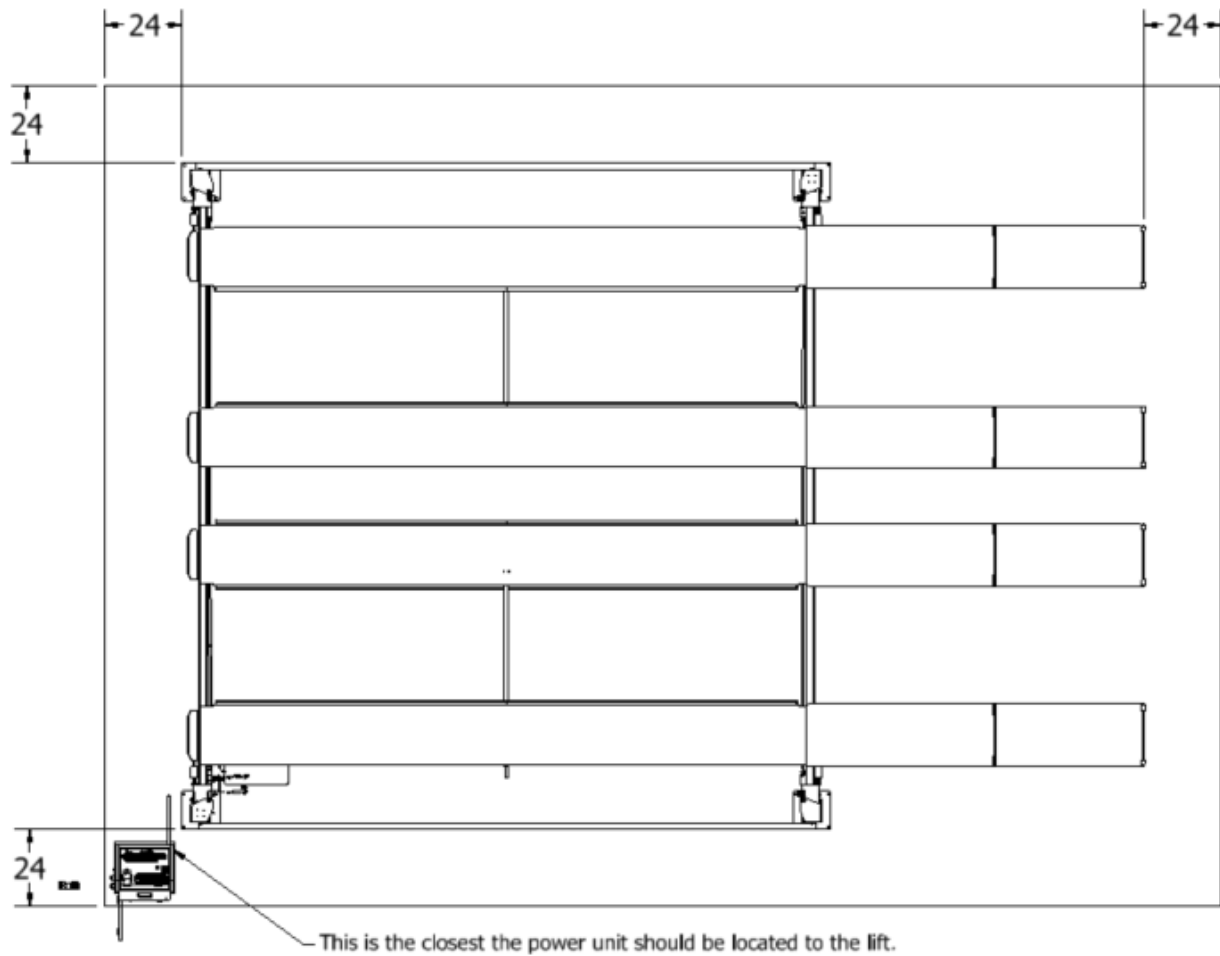


Figure 1.2 Clearance Around the Lift

The power unit will come pre-wired with an 8/3 cable that is approximately 20' long, with an L6-30 male end. A female end is also provided. The power unit must be within 62" of the leg closest to the power unit. See figure 1.2.1. It is best to position it in a location where you can see all primary locks retract and all 4 corners of both layers lowering down evenly.

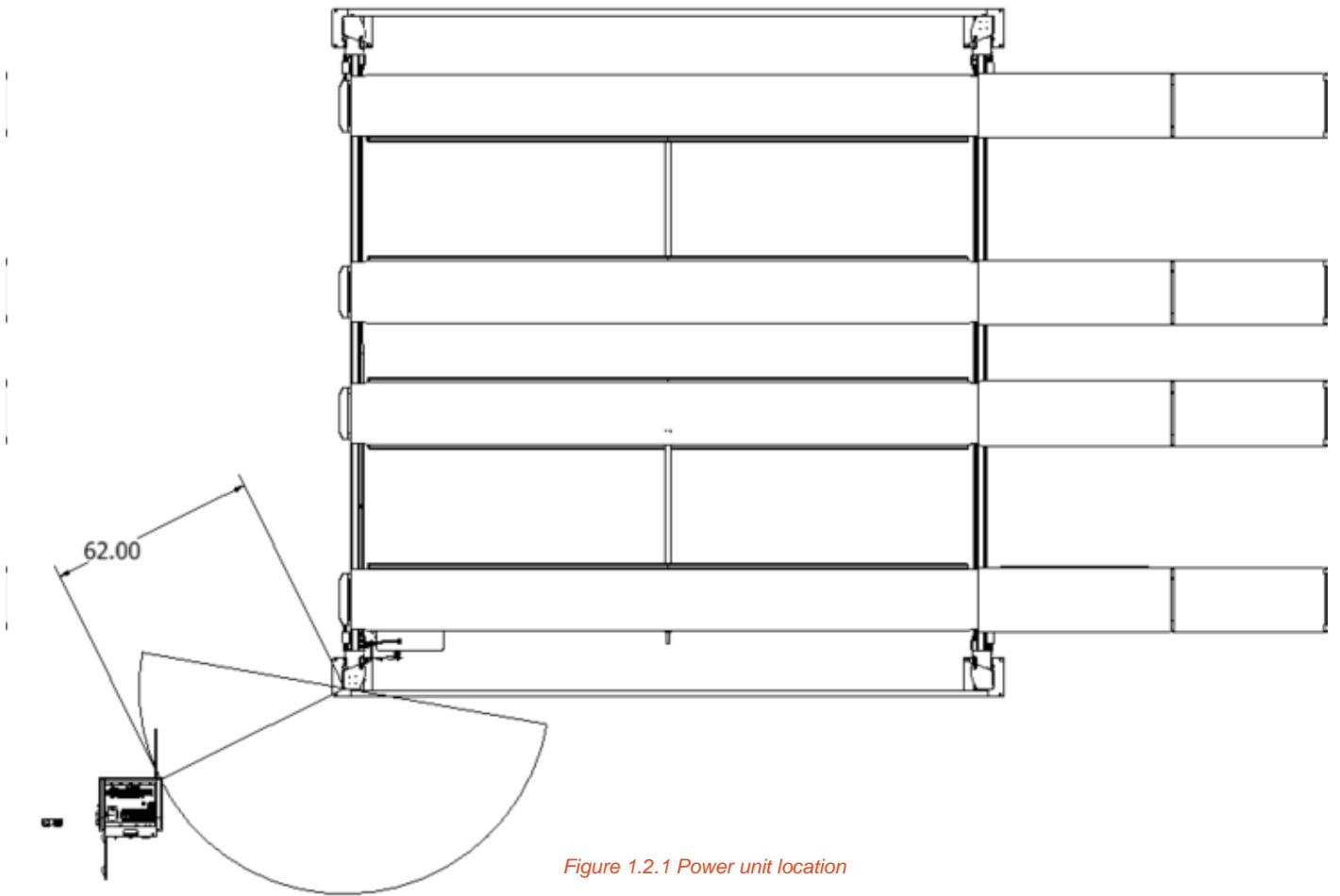
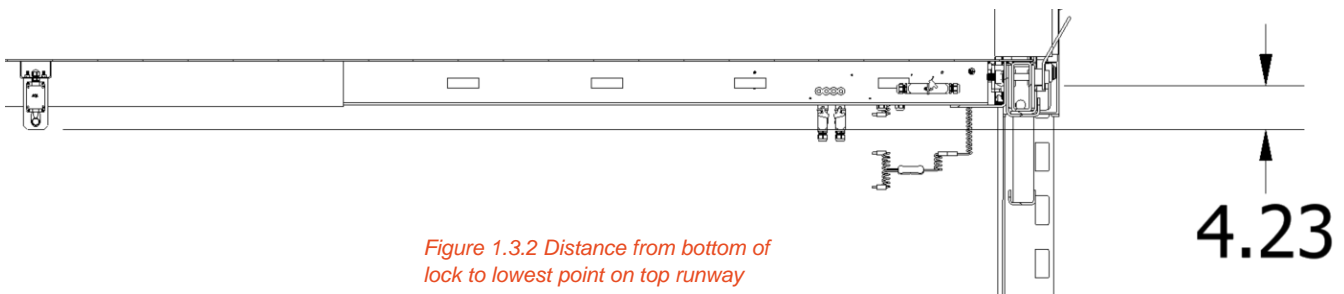
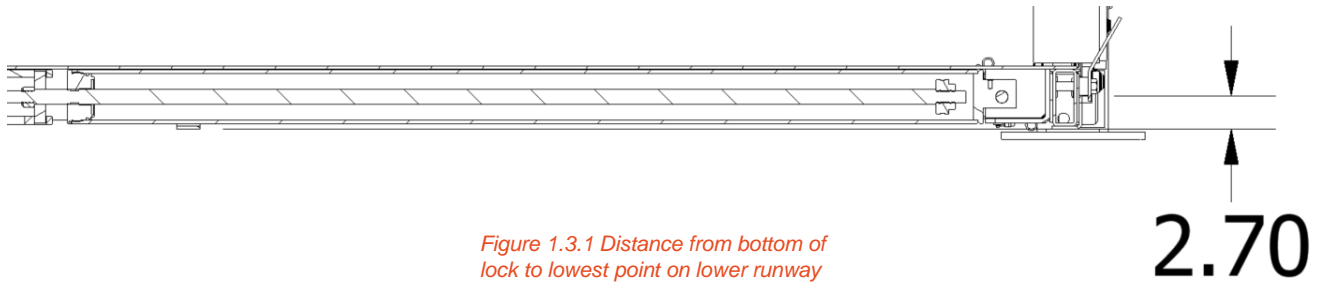
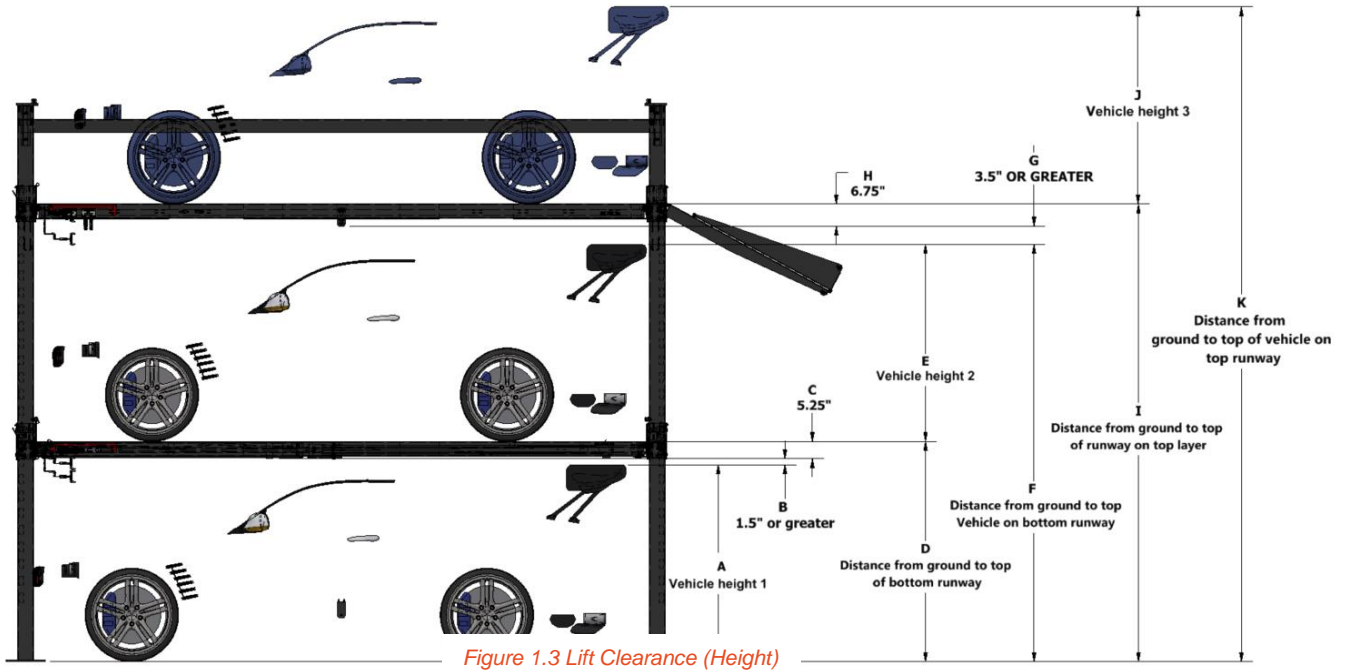


Figure 1.2.1 Power unit location

Calculate Ceiling Height

The minimum ceiling height for assembly is 206 inches, this is based on the backrest of the forklift being used to install your lift, 48". This is an average size for the back rest. This is the minimum ceiling height in your building that is needed to assemble the lift with a 48" backrest. The ceiling height required for your vehicles can be calculated below, if it is less than the minimum ceiling height listed above, use the minimum ceiling height dimension not the value you calculated. Refer to figure 1.3.3 for a visual representation of why this minimum ceiling height is required.



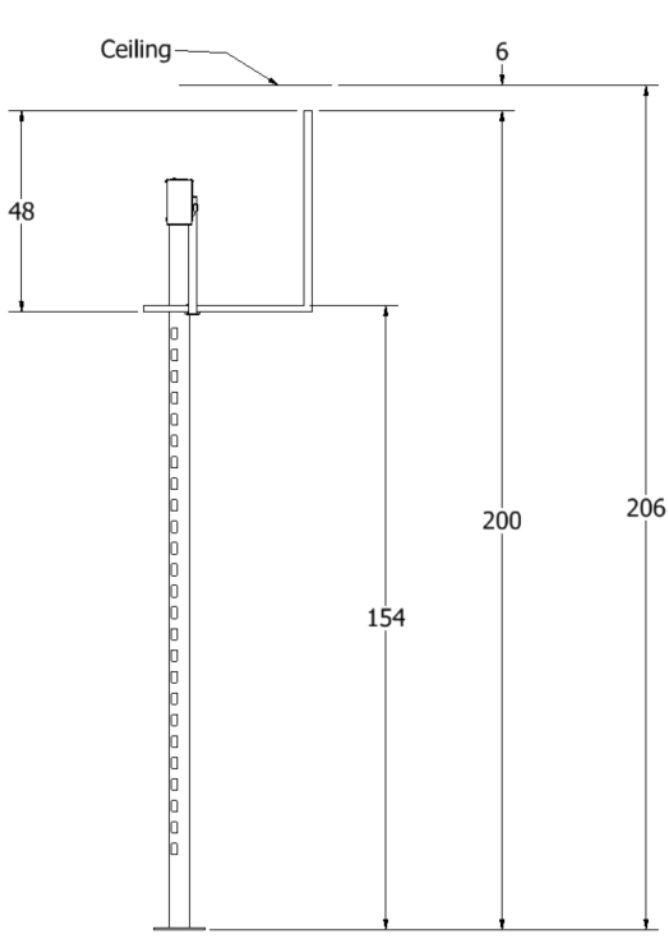


Figure 1.3.3 Minimum ceiling height (inches)

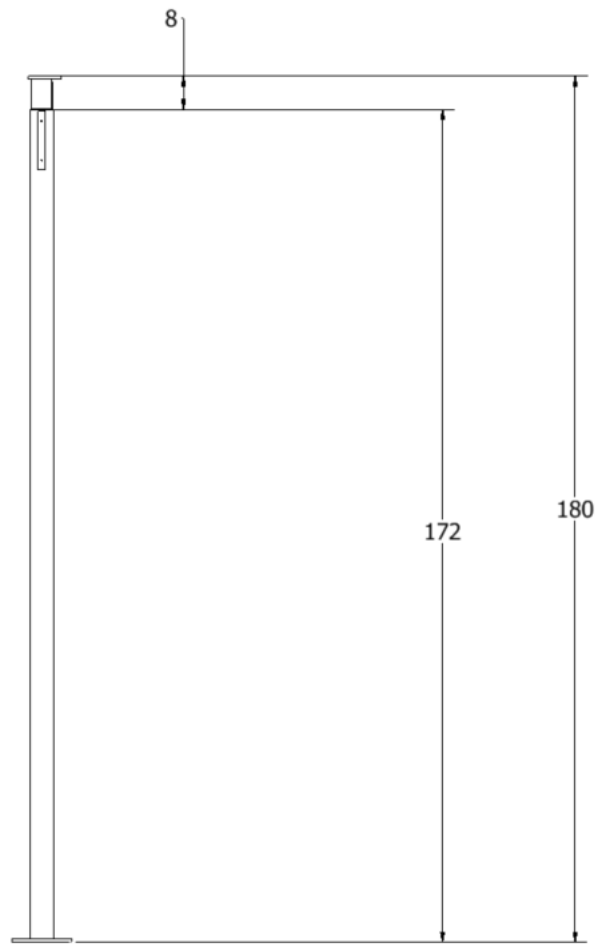


Figure 1.3.3.1 Minimum clearance needed to install top caps.

As mentioned above, 206 inches is the minimum ceiling height required for the installation of this lift. In the section about installing the crossmembers it is required that the top layer of crossmembers is installed, once the 2 sets of legs with the lower level crossmembers are up righted, with a forklift. The distance from the bottom of the forks to the top of the backrest determines the minimum ceiling height, but because we can use the shipping brackets, we can cheat the actual ceiling height required. Refer to figure 1.3.3 for a visual representation of this. There needs to be enough room for the forklift to raise the top layer of crossmembers above the top of the legs and an extra amount of clearance so as not to damage any property.

If a forklift with a smaller backrest height can be sourced, the minimum ceiling height can be reduced, please contact advantage lifts to see what is possible. Please note this is restricted based on the clearance needed to install the top caps.

Forklift requirements:

Bottom of forks to top of backrest - 48".

Thickness of forks Maximum, where forks will go into bracket – 2.75".

Clearance Lock Height 1 (next highest lock hole) = Vehicle height 1+ 2.70 inches +1.5 inches = Round to the next highest lock Hole Figure 1.4

Distance from ground to top of bottom runway = Clearance Lock Height 1 (next highest lock hole – 2.7 inches) + 5.25 inches

Distance from ground to top of Vehicle on bottom runway = Distance from ground to top of bottom runway + (Vehicle height 2)

Clearance Lock hole 2 (next highest lock hole) = Distance from ground to top of Vehicle on bottom runway + 4.23 inches + 3.5 inches = Round to the next highest lock Hole Figure 1.4

Distance from ground to top runway on top layer = Clearance Lock hole 2 (next highest lock hole) – 4.23 inches + 6.75 inches

Distance from ground to top of vehicle on top runway = Distance from ground to top runway on top layer + vehicle height 3

Note: If the ceiling height you calculated is less than 206 inches, the minimum ceiling height for assembly is 206 inches. This is required for the proper and safe assembly of the lift. Refer to page 11.

Between Vehicle #2 and the top layer runway, the minimum clearance required for the middle layer to move up and pull out of the lock holes is 3.5” (F). This value may not be smaller than 3.5” or your vehicles may push up against the safety bars.

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
Capacity	*Lifting Capacity top layer	8,000 lbs.
	*Lifting Capacity Lower layer	9,000 lbs.
	Max Capacity / Front Axel	50% of Lifting Capacity.
	Max Capacity / Rear Axel	50% of Lifting Capacity.
Height	Leg Height	168.60 in
	Leg Height with threaded end of cable sticking out	172.60 in
Width	Track Width	18.70 in
	Overall Width (Outside foot pads)	208.26 in
	Width Between Tracks	75.00 in
	Width Between Columns (Inside)	193.30 in
	Width between outside runways	168.00 in
	Width between runway sets	18.00 in
	Width between top caps (Outside)	203.54 in
	Width between top crossmembers	207.95 in
Length	Track Length	186.97in
	Overall Length	202.87 in
	Overall Length (Top Ramps Extended)	301.08 in
	Length between columns	178.86 in
Locks		

Locking Positions	25
Lock Spacing	5.12 in
Bottom Lock position from floor	17.95 in
General	115 in
Wheelbase	
**Vehicle Ground Clearance Lower level	6.08 in
***Vehicle Ground Clearance Top level	20 in
Motor 240 VAC, 1PH	
Rise Time	
Power Unit Operating Pressure (Max)	3,750 PSI

* 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. This is due to the wheels moving closer to the center of the runway where there is less support.

Operating the Power Unit outside the manufacturer's specifications will void the Power Unit warranty. While operating the hydraulic pump, the runway LED light Switch must be turned off.

**The ground clearance for the lower level and lower-level ramps is 6.08".

***The ground clearance for the Top level and Top-level ramps is 20".

Refer to the elevation drawing, figure 1.4, for the top layer ramp angle and length to ensure your vehicle will properly clear without scrapping when placing the vehicle on the top level.

Elevation Drawings:

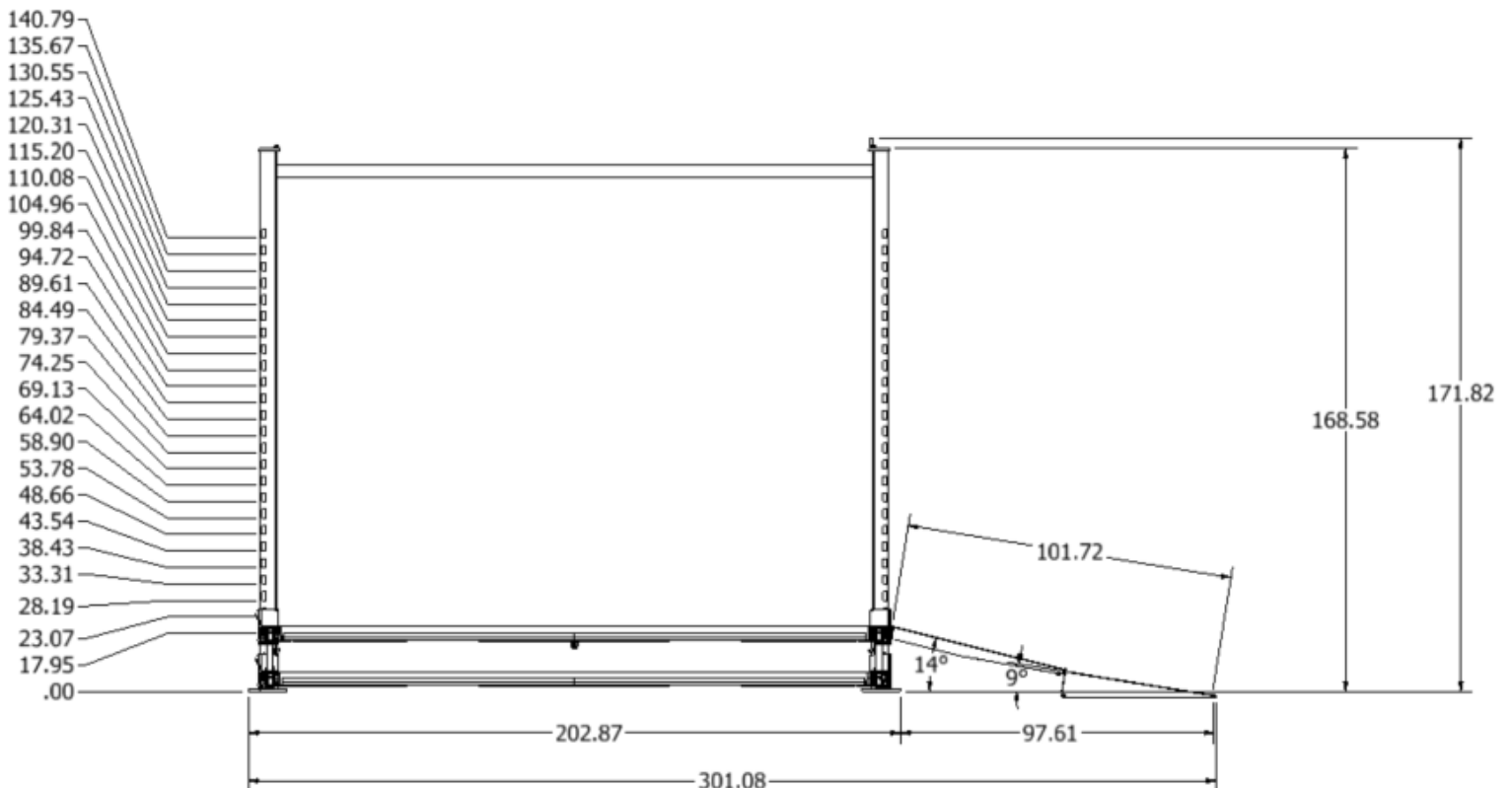


Figure 1.4 Lift Elevation & Lock Holes

Overall Dimensions:

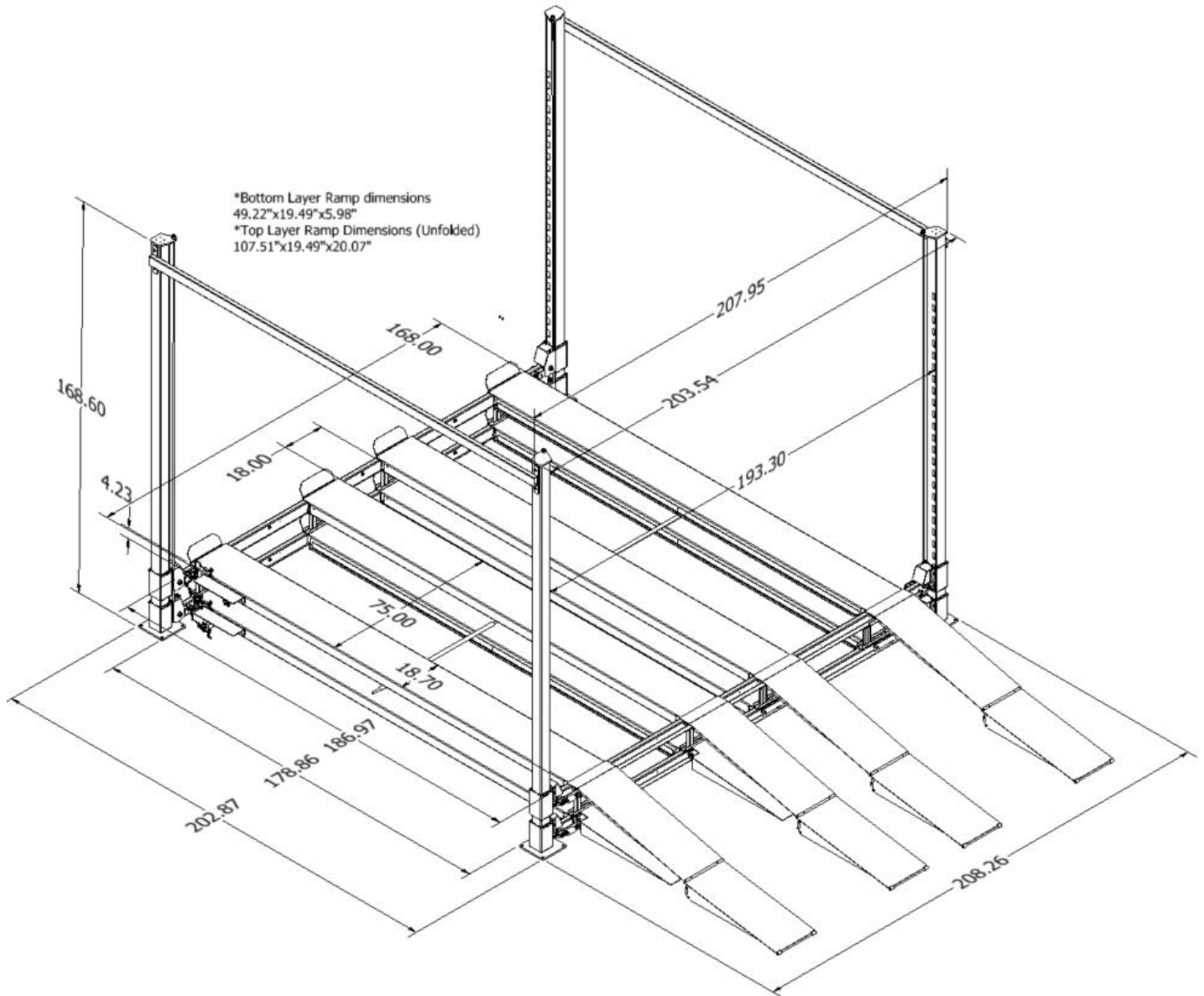


Figure 1.5 Lift Overview

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.

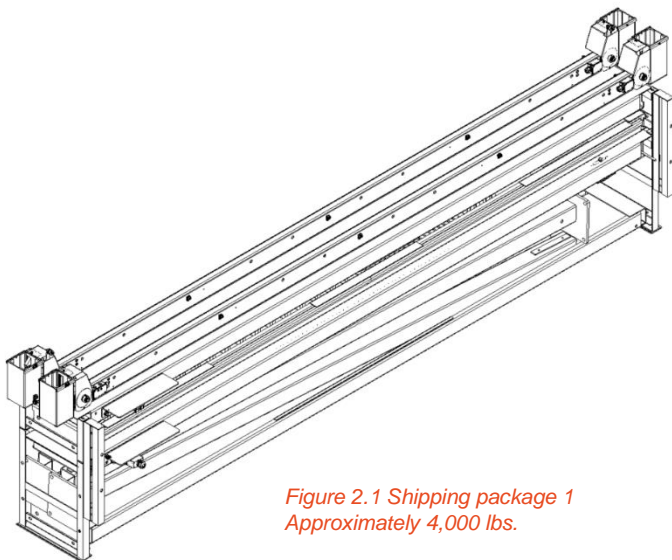


This lift will be required to be assembled with a forklift and by an authorized lift installer.

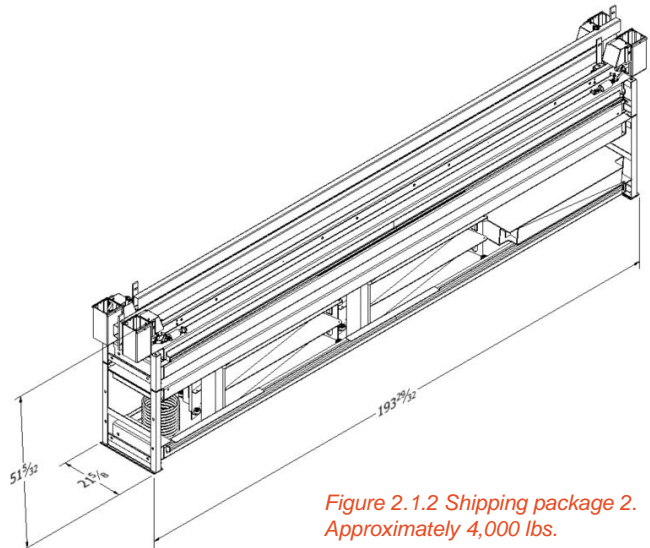
The shipping brackets and protective packaging were engineered to provide safe shipping, unloading and assembly. **DO NOT REMOVE** until the lift is at the installation site and when indicated in this document. Exterior wrappings may be removed to inspect for shipping damage.

Links to assembly videos of our products can also be found at our website AdvantageLifts.com. 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.

General Packaging dimensions are shown in *Figure 2.1 & Figure 2.2*.



*Figure 2.1 Shipping package 1
Approximately 4,000 lbs.*



*Figure 2.2 Shipping package 2.
Approximately 4,000 lbs.*

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.

Using a forklift, safely remove both packages from the trailer. Once both packages are removed from the trailer, safely begin unpacking the two packages. Ensure while doing this that you leave an adequate area for assembling the lift, refer to step 2 for the information needed on space requirements.



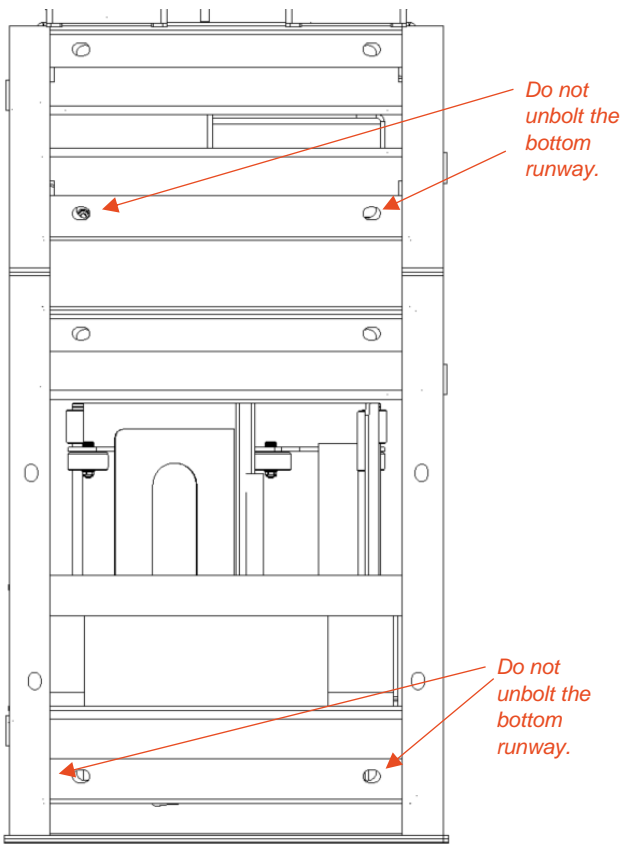


Figure 2.1.3 Shipping package 1 disassembly

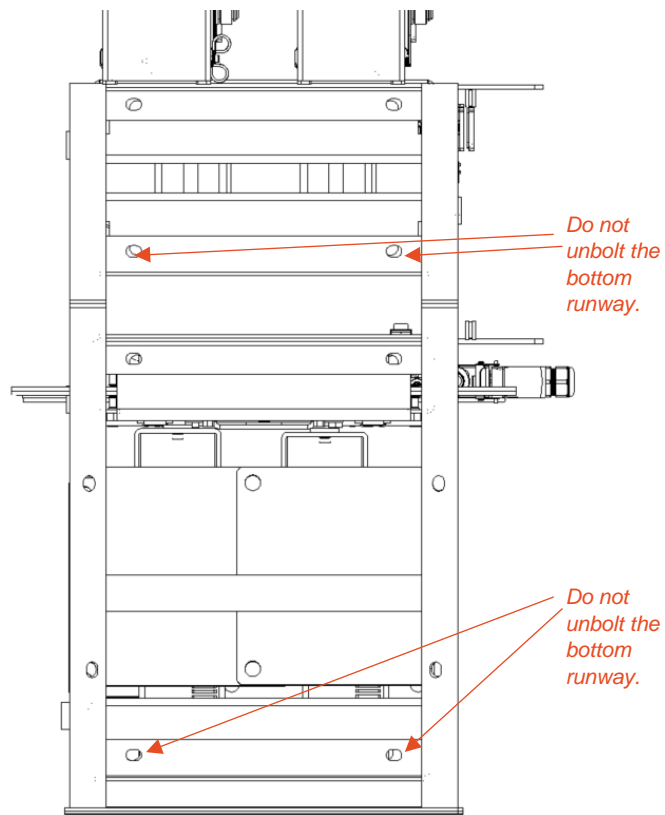


Figure 2.1.4 Shipping package 2 disassembly

When disassembling the packaging assemblies do not take the bolts holding the bottom runways out until you have the forklift in a position to support the runway. Refer to figures 2.1.3 and 2.1.4 for a visual representation of which runways are being talked about. These runways are bolted to the bracket's upside down, so when you remove the bolts, the runways will drop.

The first step is to Take the pieces bolted to the sides of package 1 off. These are here to protect the electrical connectors and formed pieces above the electrical connectors from being damaged in shipping. These are bolted in two spots on both ends of the package, with 2 bolts on each side. Refer to figures 2.2 and 2.3.

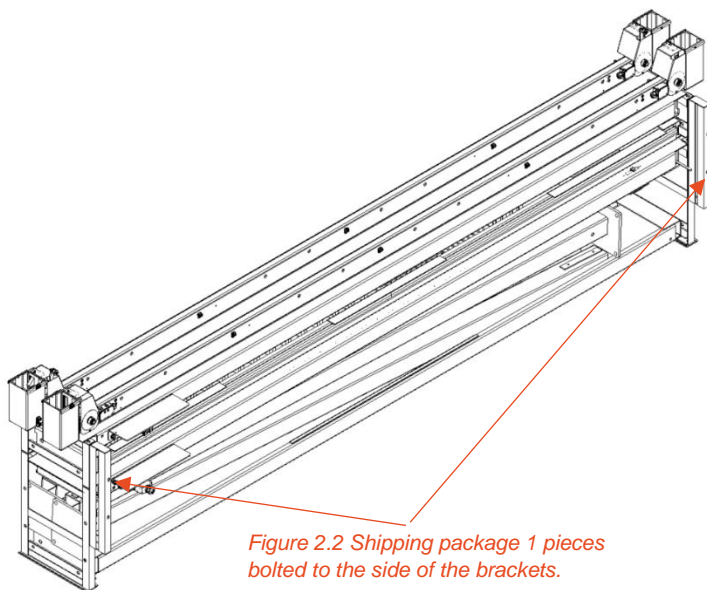


Figure 2.2 Shipping package 1 pieces bolted to the side of the brackets.

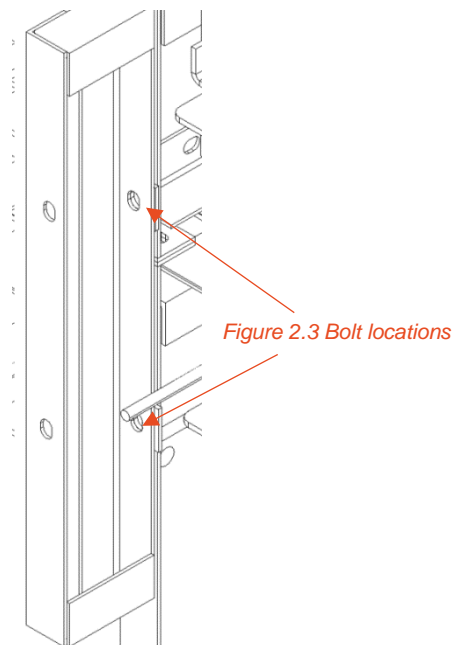


Figure 2.3 Bolt locations

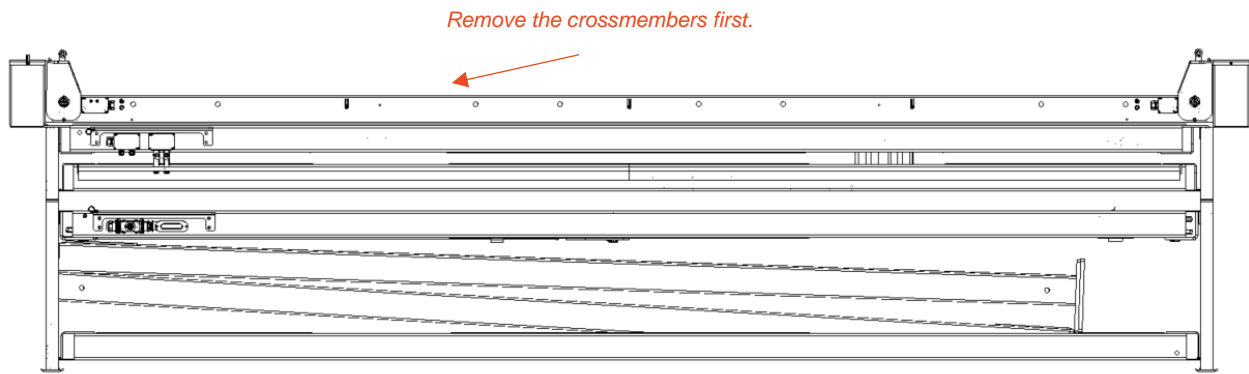


Figure 2.4 Shipping package crossmembers

The first step to disassembling the shipping packages is to take the crossmembers off the top of the packages. The crossmembers are strapped to the assembly, you will need to cut the straps to remove them, and place them on blocks of wood so they are not sitting directly on the ground.

2 Bolts and nuts on this side.

2 Bolts and nuts on this side.

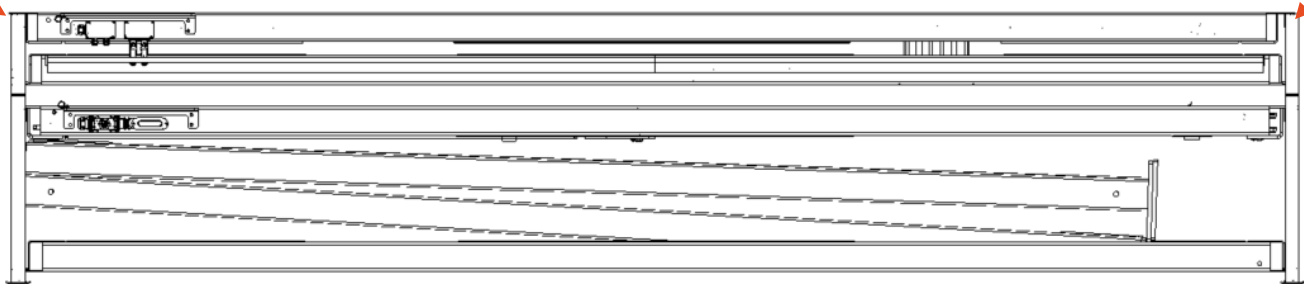


Figure 2.5 undo the 4 bolts holding the top runway to the package and safely remove it using the forklift.

Once you have the crossmembers off the package, you will need to unbolt the top runway from the top bracket removing 4 bolts. Refer to figure 2.5. When the bolts are removed, use a forklift to lift the runway off the package and place it on blocks of wood so it isn't sitting directly on the ground. Do this for all the runways.

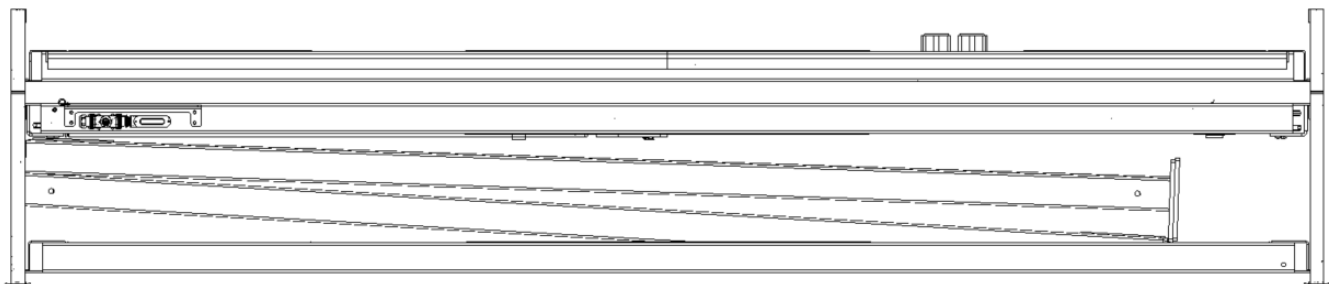
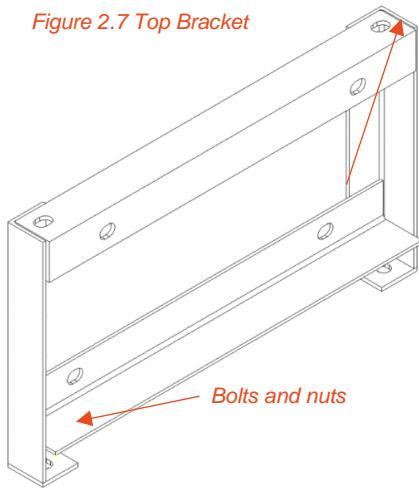


Figure 2.6 Runway with components inside on top bracket

Figure 2.7 Top Bracket



Referring to figure 2.6 and 2.7, undo the 4 bolts that hold the top brackets to the bottom bracket. Do not remove the bolts that hold the remaining crossmember to the top bracket. Once the 4 bolts holding the top bracket are removed, use a forklift to lift the top bracket and runway off the bottom bracket. With the runway on the forklift still, remove the last 4 bolts holding the top brackets to the runway.

Next remove the four bolts holding the runway on the bottom bracket. Refer to figure 2.8. These are on both sides of the assembly. Once the bolts are removed, use a forklift to remove the runway from the shipping bracket. The next step is to undo the four bolts holding the legs to the bracket as well. Refer to figure 2.8 for the location of the bolts.

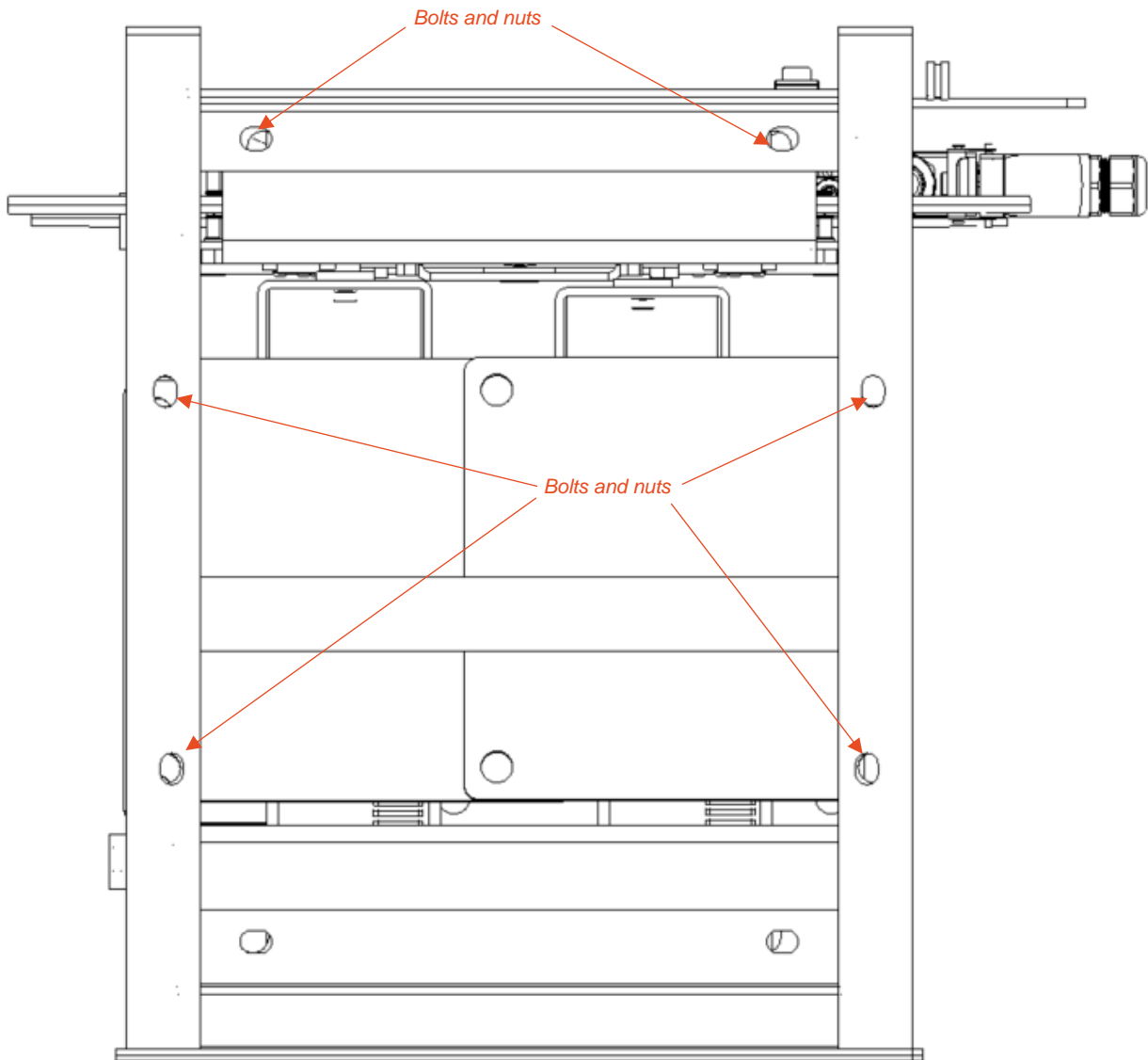


Figure 2.8 Bolt locations for runway and legs on bottom bracket

The legs will be strapped to the bottom runway on the bracket, you will need to cut the straps. Remove all four legs from the shipping assembly. Repeat the steps from earlier by lifting the remaining runway up and unbolting the shipping bracket from both sides. Remember to place the runway on blocks of wood.

Repeat the same steps for the second shipping package. The only difference is there are ramps instead of legs on the bottom runway. The ramps are strapped to the bottom runway and need to be cut. They are not bolted to it.

Refer to the next section for what components are in what package.

Components in the lift

The components in the lift are now accessible to view. A contents list to verify that all the parts are present can be found below in the BOM section of the manual. Some of the smaller components found nested under the lips of the lower runway. Refer to figures 2.2 and 2.3.

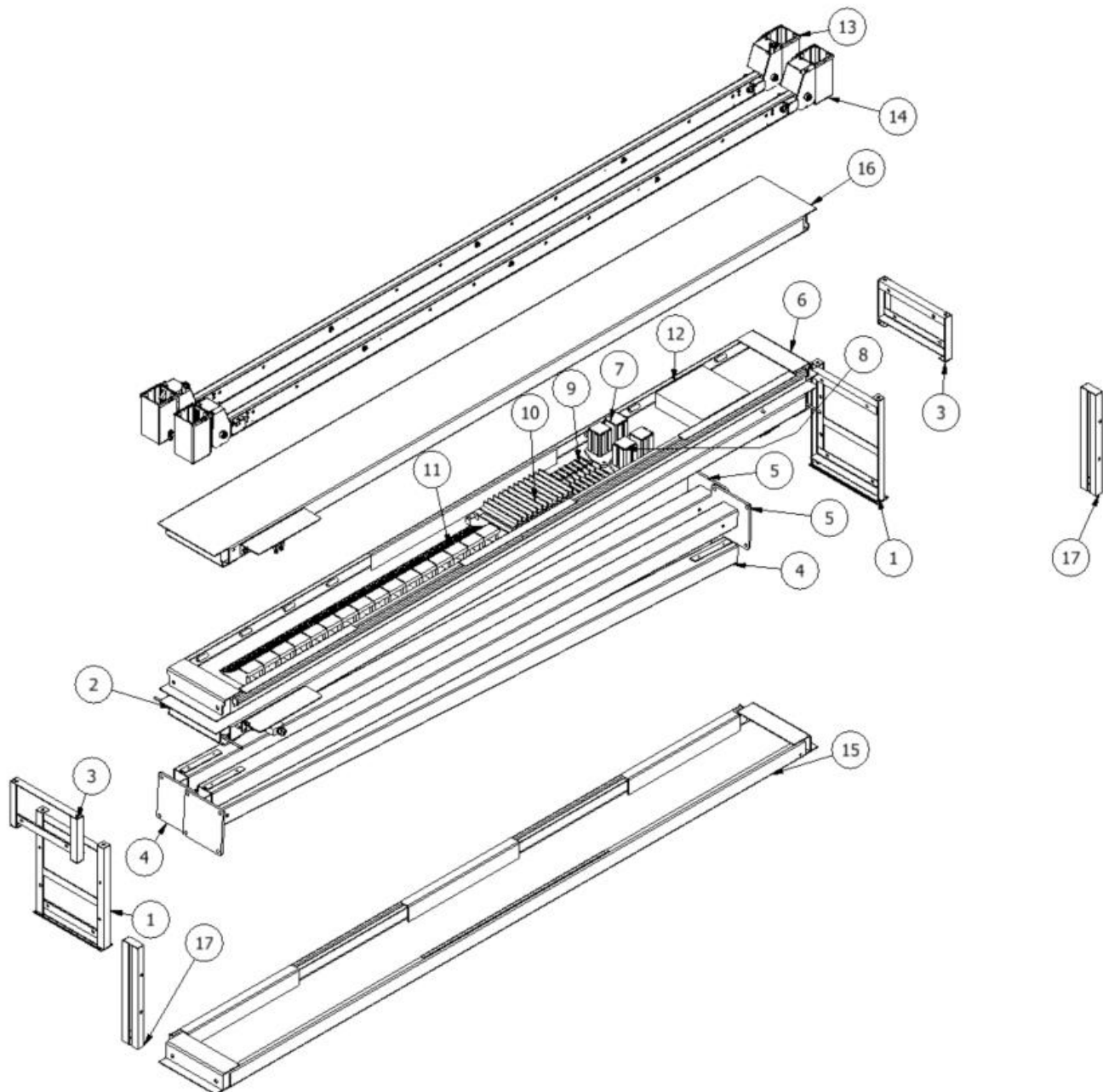


Figure 2.9 Shipping package 1 components

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	SXS10000-120 0-00	Shipping bracket Bottom weldment
2	1	SXS10000-6-3 00-00	Power Runway assembly
3	2	SXS10000-120 0-01	Shipping bracket top piece
4	2	SS7000-3-100- 02-00	Left Leg
5	2	SS7000-3-100- 01-00	Right Leg
6	1	SXS10000-6-3 00-02-00	Top Runway Weldment
7	2	DX9000XLT-10 0-04-00	Right Top Cap
8	2	DX9000XLT-10 0-03-00	Left Top Cap
9	8	SXS10000-200 -02_çĐ³ý1	Notched slider
10	24	SXS10000-200 -02	Slider
11	16	60069-01	Wheel Chock Ribbed Surface 5 in wide 6 in High Rubber
12	1	sxs TRIPLE HARDWARE BOX	Box with Various hardware not already installed
13	1	SXS10000-6-2 00-00-01	Crossmember 1
14	1	SXS10000-6-9 00-00-01	Crossmember 3
15	1	SXS10000-300 -02-00	Lower Runway Weldment
16	1	sxs10000-6-30 0-15-00	Top Runway Aboce Power runway
17	2	SXS10000-120 0-02	Shipping bracket side

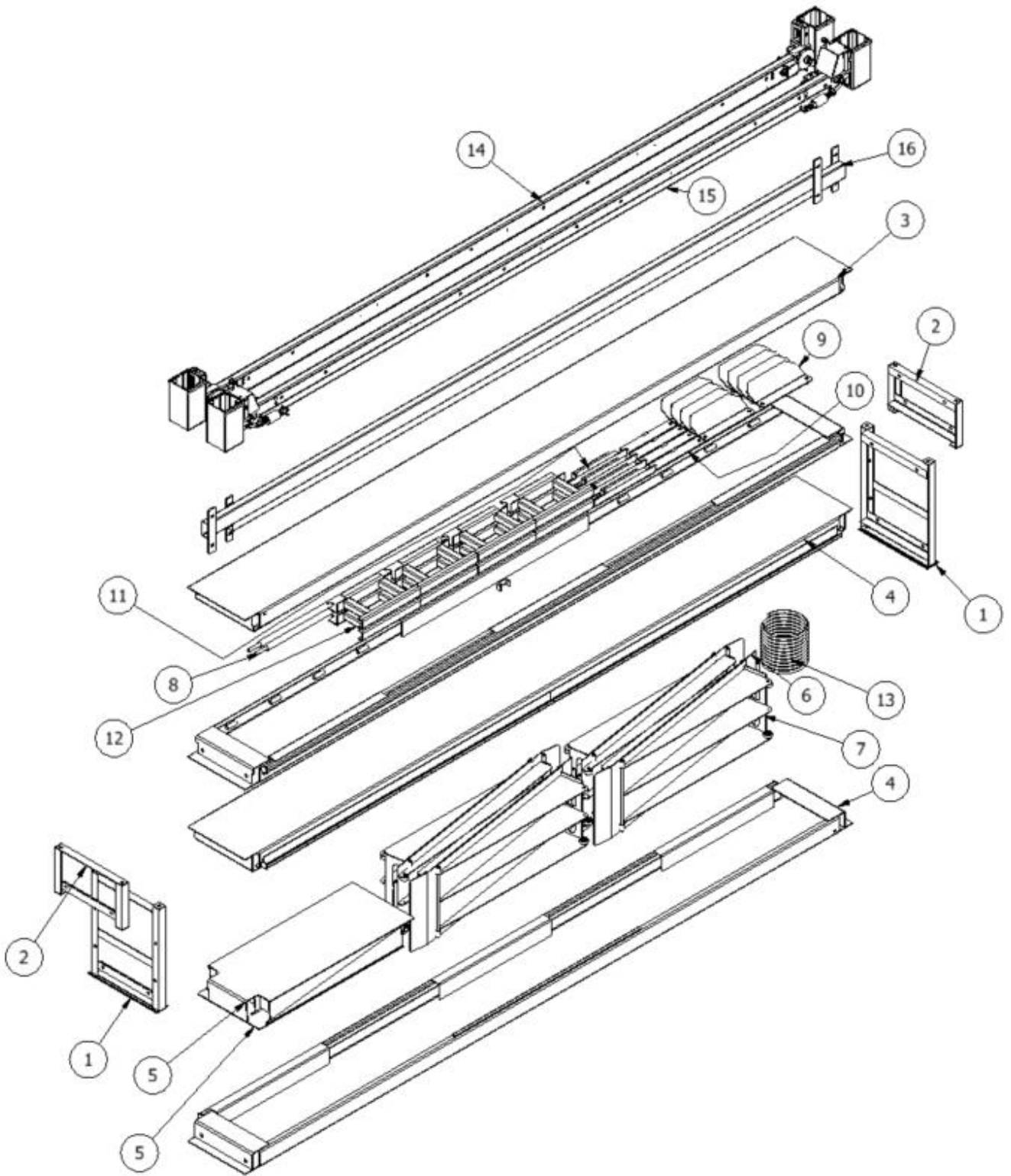


Figure 2.10 Shipping package 2 components

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	SXS10000-120 0-00	Shipping bracket Bottom weldment
2	2	SXS10000-120 0-01	Shipping bracket top piece
3	2	SXS10000-6-3 00-02-00	Top Runway Weldment
4	2	SXS10000-300 -02-00	Lower Runway Weldment
5	2	SXS10000-400 -00	Aluminum Drive on Ramp
6	4	SXS10000-6-4 00-02-00	Lower Piece of top layer ramp
7	4	SXS10000-6-4 00-01-00	Upper Piece of top layer ramp
8	2	SXS10000-110 0-01	Safety Bar
9	8	SXS10000-500 -00	Wheel Retainer
10	4	SXS10000-6-3 00-14-00	Ramp Retainer
11	4	SXS10000-6-4 00-03-00	Top Layer Ramp mount
12	8	SXS10000-6-3 00-03-00	Top Level Height Adjustment bracket
13	1	SXS10000-100 0-01-19	Hydraulic hose from lift to power unit
14	1	SXS10000-6-9 00-00	Crossmember 4
15	1	SXS10000-6-2 00-00	Crossmember 2
16	2	SS9000XLH-10 00N-00	Cross Bar

Take the time to review each item before continuing the build.

STEP 3: Assembling the lift.

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.

These legs will be the legs that were shown closest to the power unit in figure 1.1. 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.

Crossmember distance (center to center)

- 198 in

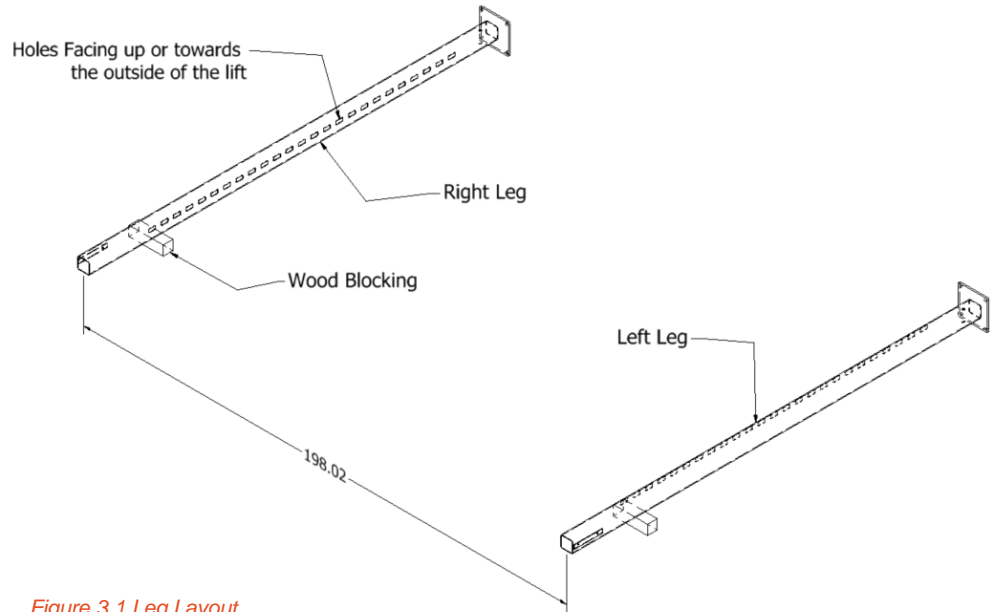


Figure 3.1 Leg Layout

Crossmember Preparation and Installation

Place a couple wood blocks or 2x4's from the packaging as show in figure 3.1.

Review all 4 crossmembers. There will be two lower crossmembers (SXS10000-6-200-00-01, SXS10000-6-200-00) and two upper crossmembers (SXS10000-6-900-00-01, SXS10000-6-900-00). The lower Crossmembers will have a secondary lock. We will label the crossmembers based on figure 3.2. We will start with crossmember 1 (SXS10000-6-200-00-01), which has the smaller electrical box with the 2 dc jacks and the secondary lock on it. The crossmembers are spread out between the two packages.

The crossmembers will come with the primary and secondary lock assembled and installed. It will also include the electrical items pre-wired with a plug end to make installation easy.

You will receive 32 plastic sliders that go between the sleeves on the crossmembers and the leg. Eight of the sliders will have notches cut into them to account for the primary and secondary locks. Refer to figure 3.3. These can be found in shipping assembly 1.

Also, you will want to remove the pulley covers, as these will be in the way for installation. You will need to remove the M6x1mm bolt that holds it on, an external retaining ring, and a shaft collar. Be sure to put the shaft collar and retaining ring back on before continuing installation. Refer to figure 3.2.3



Figure 3.2.1 Crossmember 1
SXS10000-6-200-00-01



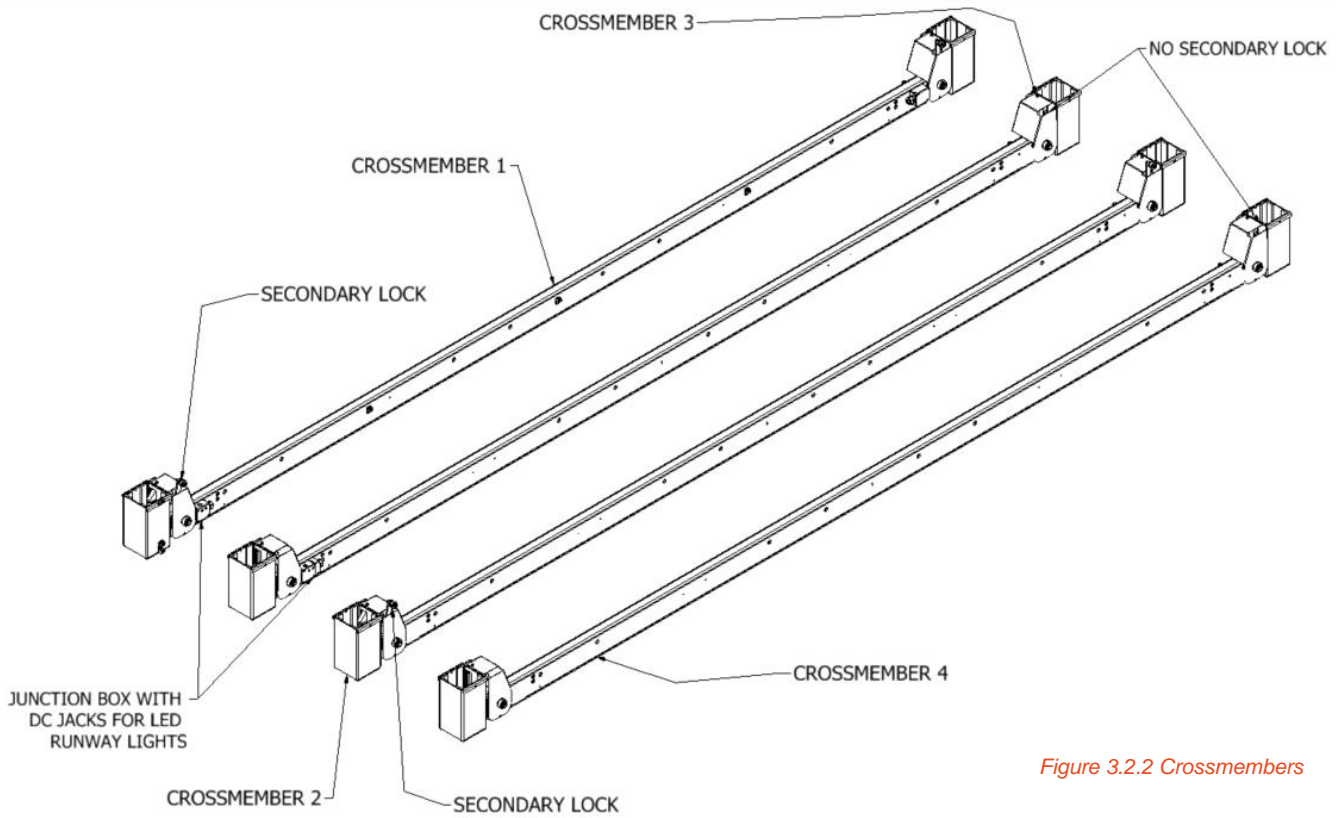


Figure 3.2.2 Crossmembers

With the 2 legs laying down on the blocks of wood, Place crossmember 1 in the position shown in figure 3.4 with 2 blocks of wood. An alternative to 2 blocks of wood are 2 dollies, this will make sliding the crossmember down the legs easier.

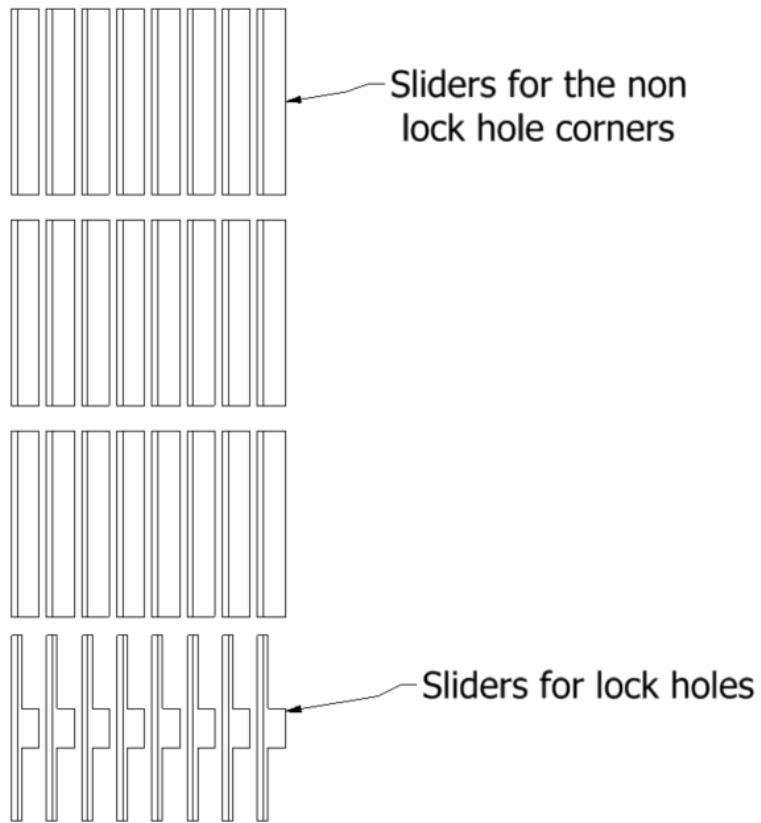


Figure 3.3 Sliders for sleeves

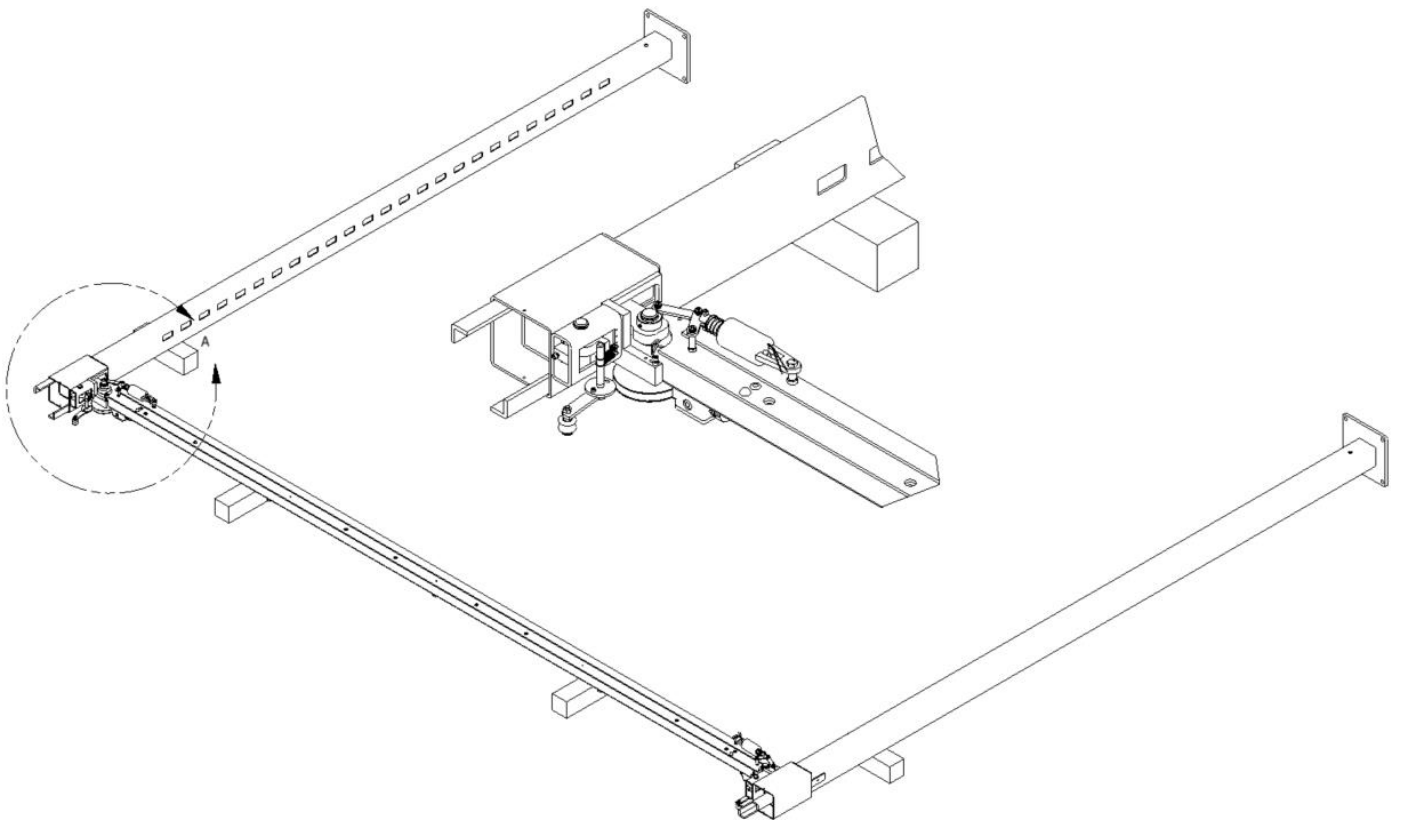
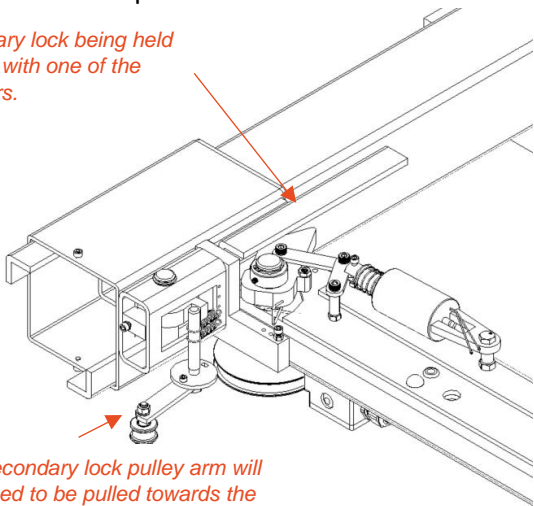


Figure 3.4 Sliders placement.

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

Primary lock being held back with one of the sliders.



Secondary lock pulley arm will need to be pulled towards the center of the crossmember.

Figure 3.5 Positioning Locks

Place two Slider blocks in the corners as shown in *figure 3.4*. Do not install all 4 blocks currently. A dead blow hammer may be used to gently tap in the blocks, do not force into place. Rotate the primary lock as to not catch in the leg holes by placing one of the other sliders between the primary lock and the sleeve on the leg 3.5. Repeat this on the other side of the crossmember as well. You will need to pull the secondary lock pulley arm towards the center of the crossmember to prevent the secondary lock from engaging.

Gently slide one leg into the crossmember sleeve, slightly wiggling if needed. Stop when around 40 inches from the foot pad or the 6th lock hole up. This provides a good working height for installing the runways.

Rotate the lock on the first leg to lock into position by removing the slider used in *figure 3.5* and repeat the process for the second leg. Once the primary locks are engaged on both legs, the leg/crossmember assembly is ready to raise into position.

Instead of using blocks of wood and pushing the legs into the sleeves one by one, you can use two dollies on each side of the crossmember and slide it down the legs. This requires both primary locks to be held back with the sliders.

The crossmember and legs are extremely heavy. 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. It is recommended to wax the legs for easier installation of the crossmembers.

Install the remaining UHMW glide blocks. Remember 8 are cut to fit the locks (*figure 3.3, 3.9*). The hardware should already be installed on the sleeves, you will just need to locate the retainer clips, which should be in package 1.

The UHMW slider 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 3.7* with M6x1x10mm socket head bolts on both sides of the sleeves on both sides of the crossmember.

Notch points towards the lock holes

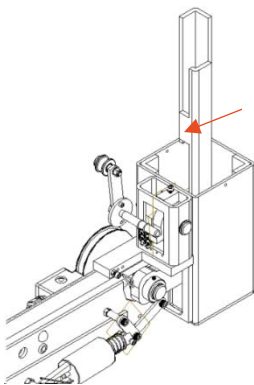


Figure 3.6 Notched slider

Retainer clips installed with m6x1x10mm bolts on both side of sleeves.

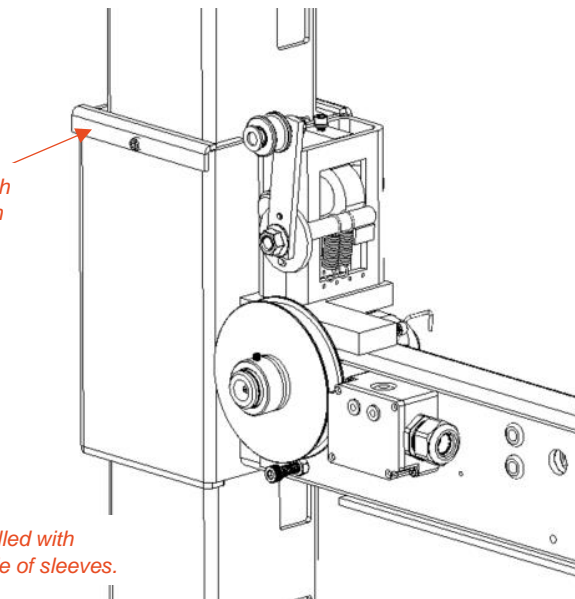
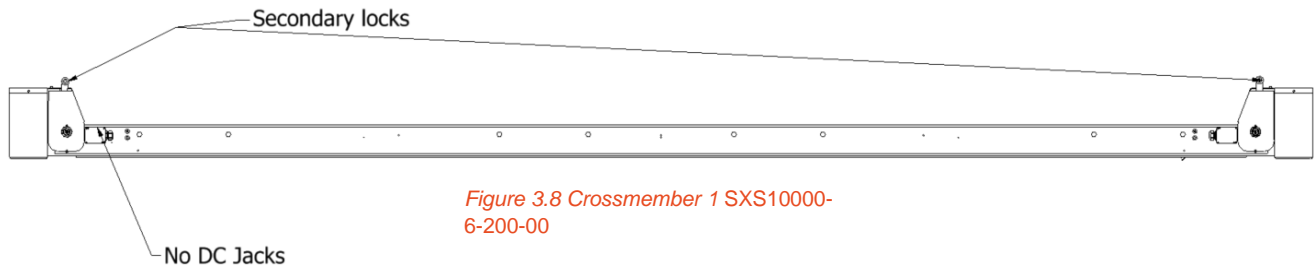


Figure 3.7 Retainer clips installed with m6x1x10mm bolts on both side of sleeves.

The hardware for the retainer clip hardware was threaded into the crossmember sleeves during shipping.

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 3.4*).

You will use crossmember 2 (SXS10000-6-200-00). Refer to *figure 3.8*. Repeat all the same steps as before.

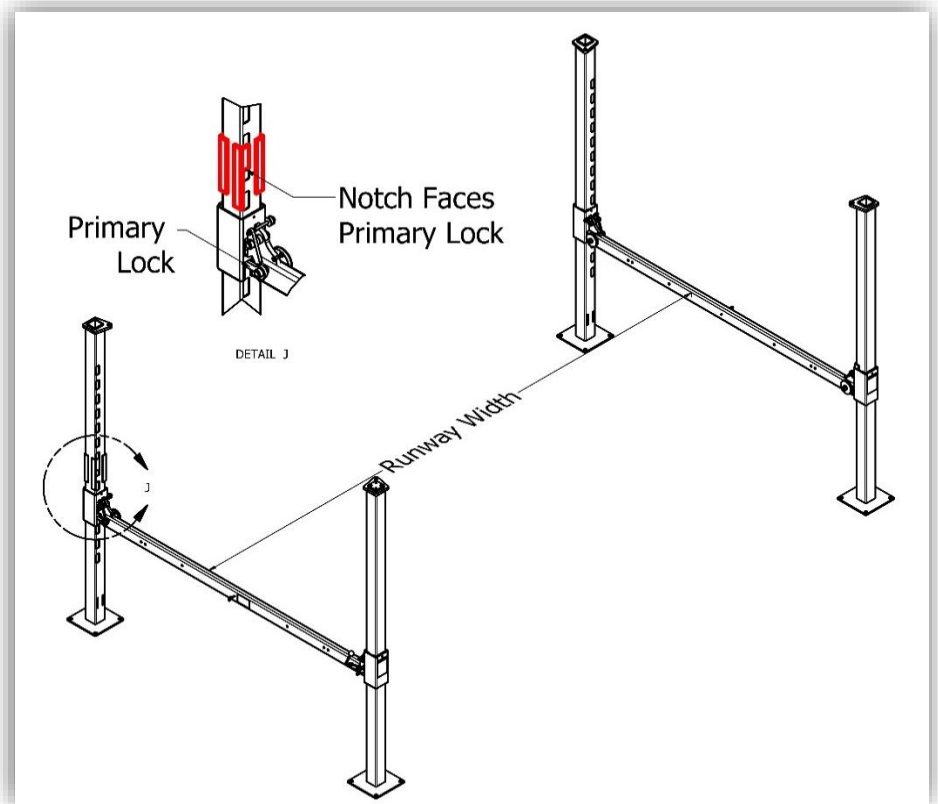


Front and Back Locations

The front and back sections (shown as “Runway Width” in *Figure 3.9*) should be positioned *approximately* to the dimension below.

187 inches

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



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Putting the top layer of crossmembers on.

This step requires the use of a forklift to lift the crossmembers up and onto the legs.

The next step is to get the top layer of crossmembers installed. We will start by installing crossmember 3 above crossmember 1. Crossmember 3 has the longer electrical box with the DC Power jacks on it. Refer to figure 3.10. It is advised that you clamp the crossmembers to the forks on the forklift while the crossmembers rest on the forks.

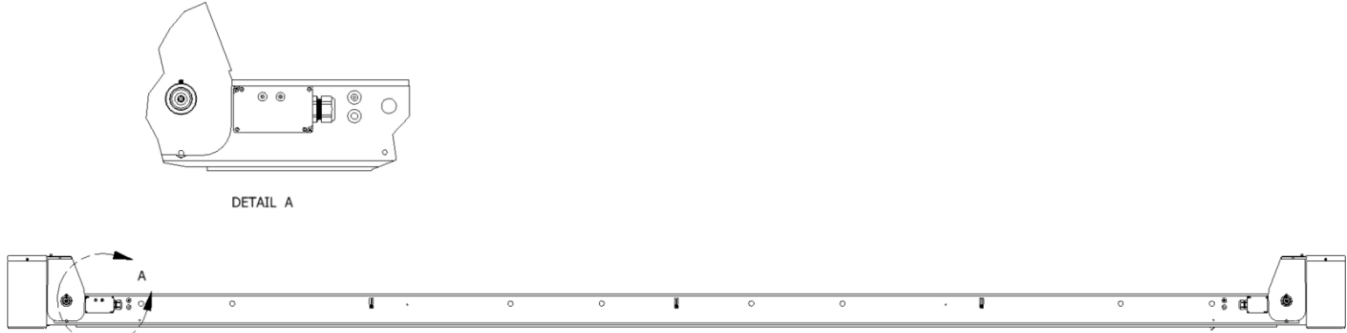


Figure 3.10 Crossmember 3 SXS10000-6-900-00-01

Referring to figure 3.11, this will show a visual representation of what was explained above.

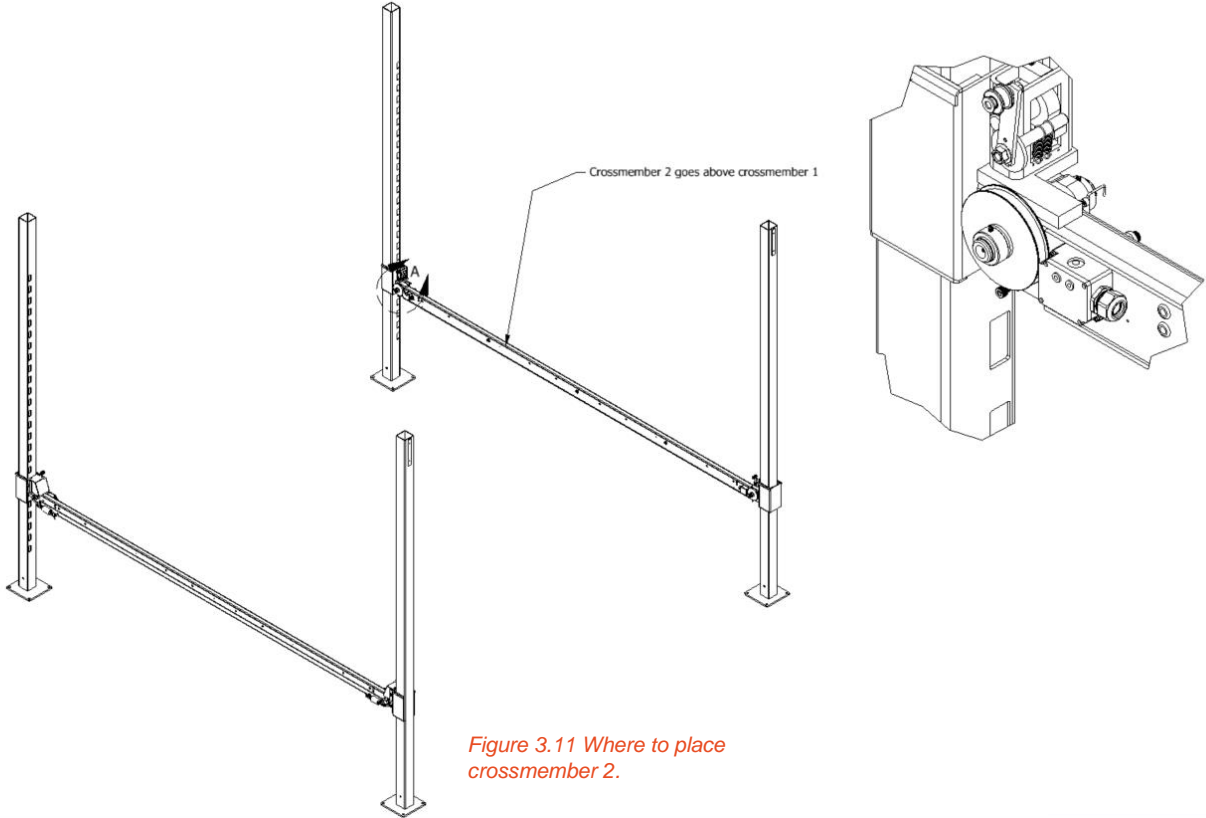


Figure 3.11 Where to place crossmember 2.

You will repeat the same steps from page 26, referring to figure 3.5, the top crossmembers do not have secondary locks. So that the primary locks are held back with a slider and will not catch on to any of the lock holes. Once this is done, locate four of the bolts and nuts used to hold the runways to the shipping bracket. We will use two of the shipping brackets and bolt them to the crossmember.

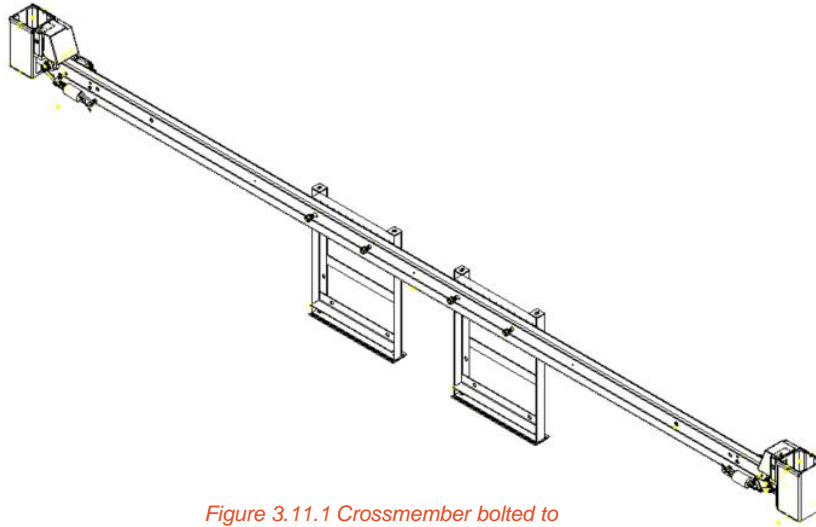


Figure 3.11.1 Crossmember bolted to the shipping brackets

Next you will need to use a forklift and place the forks between the two openings on the bottom of the shipping brackets. Refer to figure 3.11.2 for a visual representation. It is also recommended that you clamp both of the brackets to the forks.

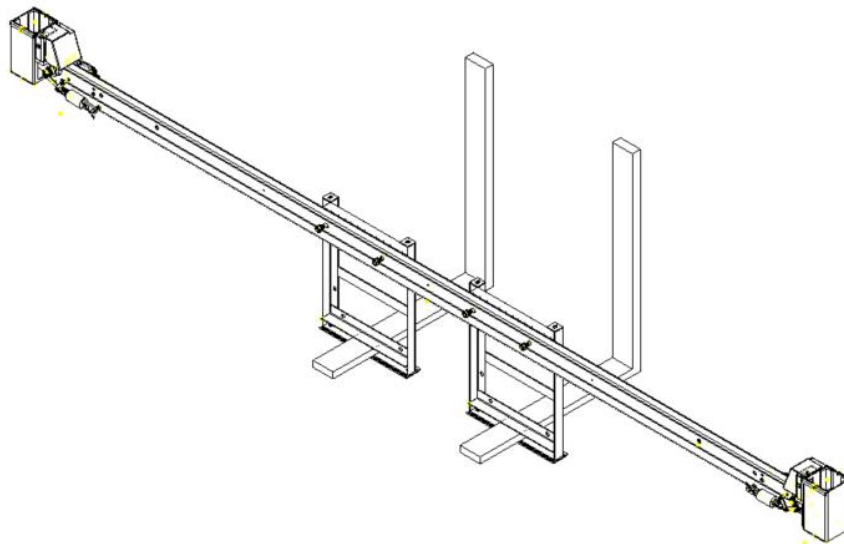


Figure 3.11.2 Crossmember bolted to the shipping brackets with the forklift through the openings.

The next step will be lifting the crossmember up above the two legs. Refer to figure 3.11.3

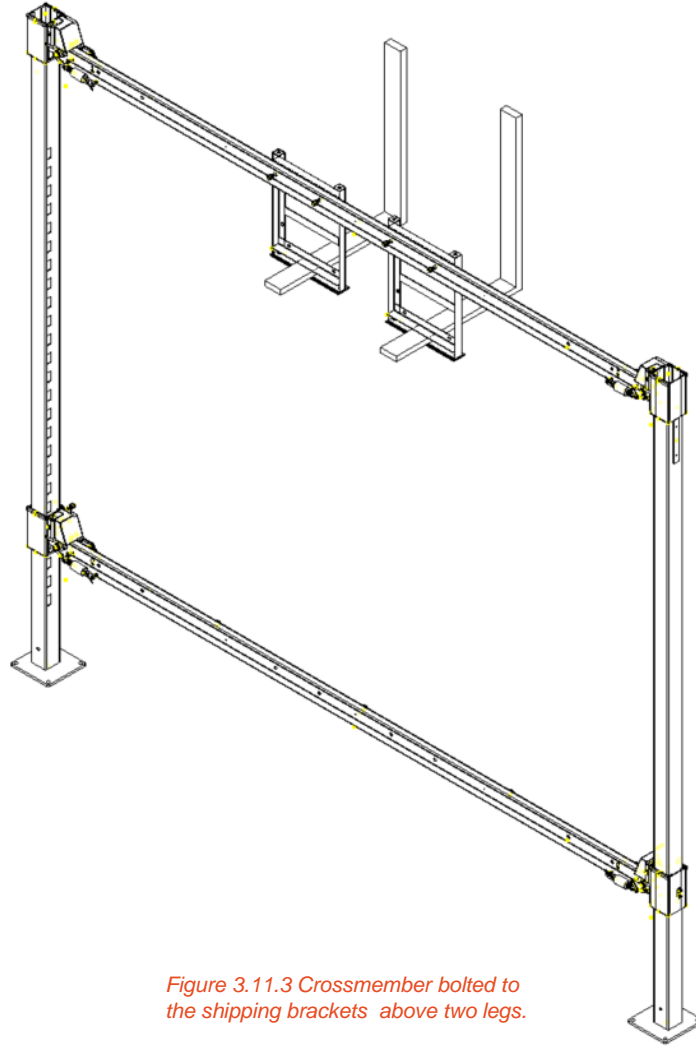


Figure 3.11.3 Crossmember bolted to the shipping brackets above two legs.

Ensure the primary locks are on the same side as the cross member below it. Also, before lowering the crossmember on the legs, stop when about 5" of the sleeve is on the leg. Another person with a 12' ladder will need to place 2 sliders in both sleeves, refer to figure 3.4, page 26, and figure 3.11. Ensure to watch your fingers while doing this.

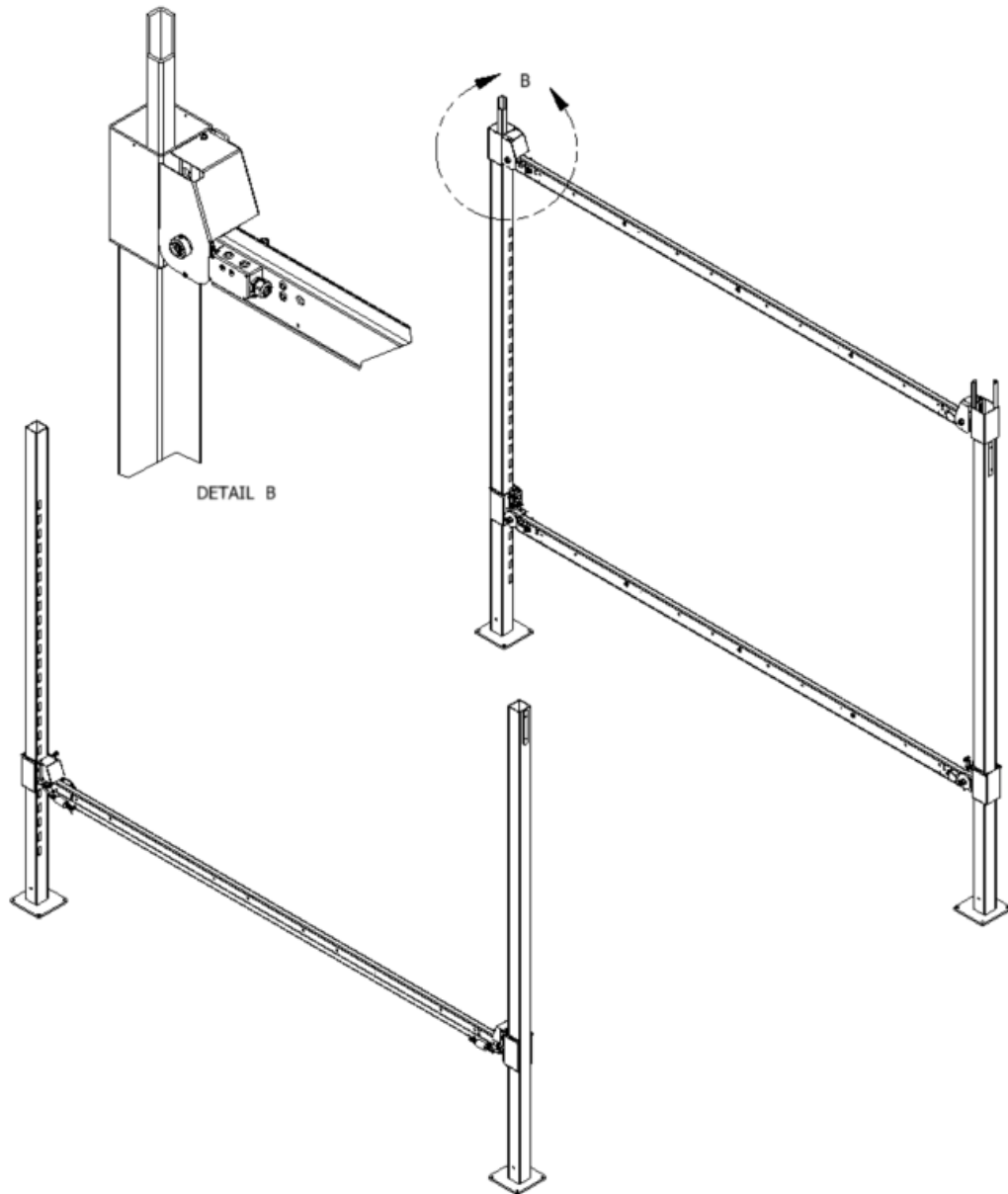


Figure 3.11.4 Crossmember 3 started on the legs with sliders being installed.

Once the 2 sliders are in on both sleeves you may lower the crossmember down. You will want to stop at a minimum of the 4th lock hole above the bottom crossmember or 58.27 in, you can verify the positioning is right by measuring from the bottom of the top sleeve to the bottom of the bottom sleeve and the measurement should be 15.36 in. Putting it higher will not be an issue, you just don't want to be too high as you will need to raise the runways up and onto them later. Remember, you need to remove the slides on both sides of the crossmember, that we used to keep the primary locks held back, so the locks can catch in the lock holes. This is critical and cannot be skipped. Ensure your hands and fingers are clear from being crushed when the forklift lowers the crossmember onto the locks. At this point you can install the remaining 4 slider blocks, 2 more per crossmember. Refer to figure 3.6 for positioning of the slider block with a notch for the locks. Install the slider Block Retainers as shown in figure 3.7 with M6x1x10mm socket head bolts on both sides of the sleeves on both sides of the crossmember. These bolts were threaded into the sleeves, if not locate the hardware box. At this point, unbolt the shipping brackets from the crossmembers.

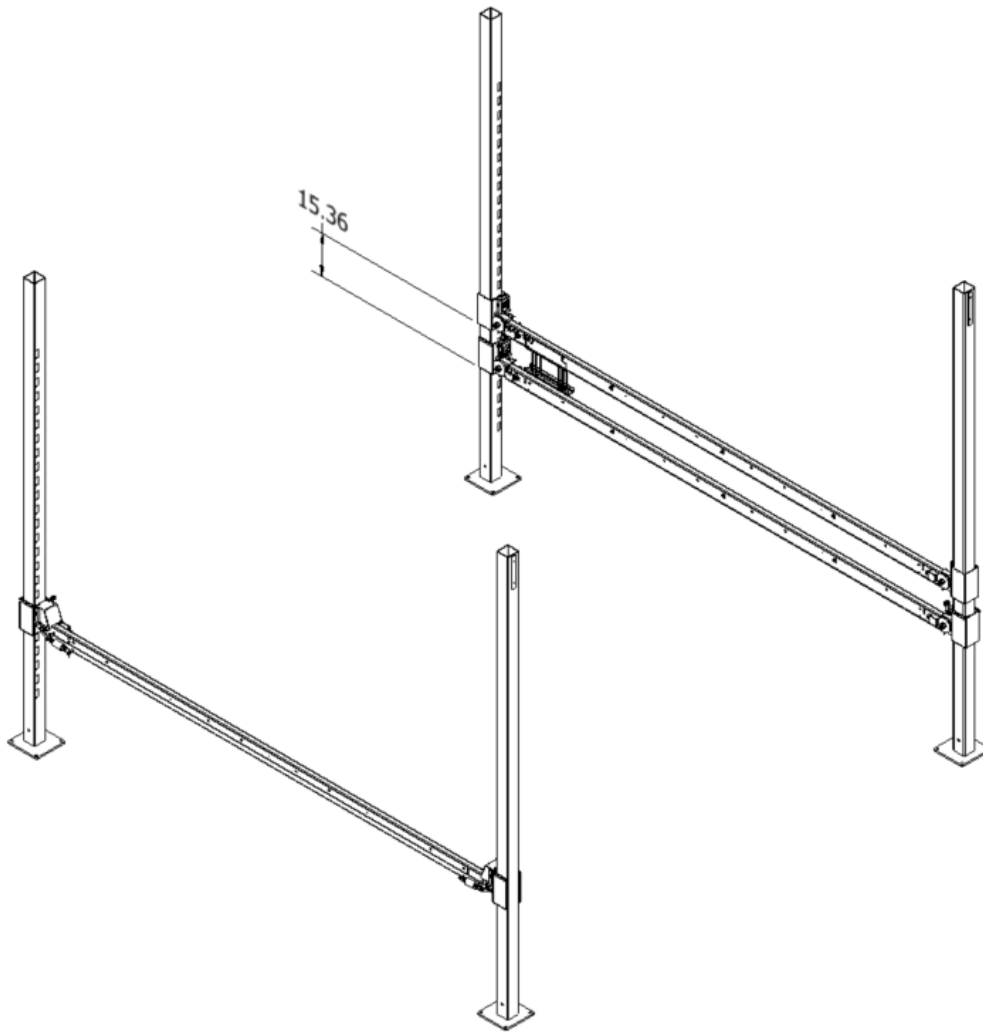


Figure 3.12 Crossmember 3 in position on the legs.

We will start by installing crossmember 4 above crossmember 2. Crossmember 4 has two smaller electrical boxes with no dc power jack. It also does not have a secondary lock. Refer to figure 3.13.

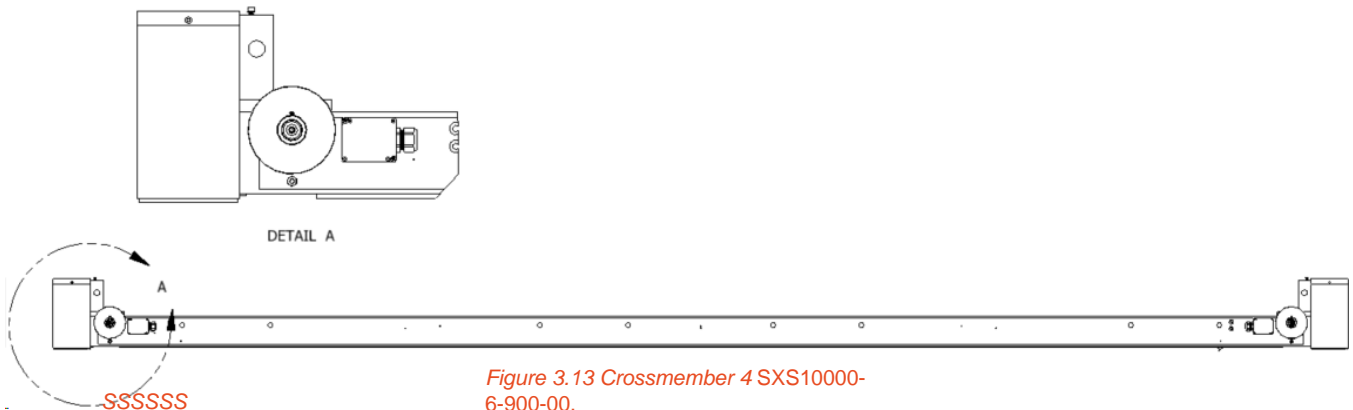


Figure 3.13 Crossmember 4 SXS10000-6-900-00.

Repeat the same steps page 26 to 32 while installing crossmember 4. Refer to figure 3.14 for what it should look like.

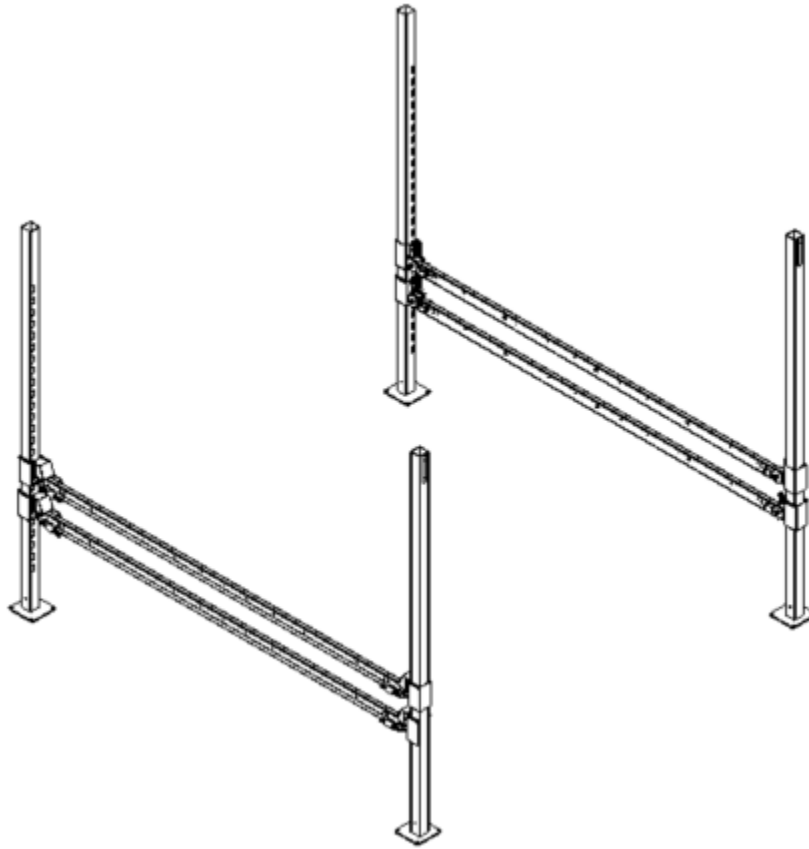


Figure 3.14 Crossmember 3 SXS10000-6-900-00.



Installing the upper crossbars

The Next step is to install the upper crossbars (SS9000XLH-1000N-00). Refer to figure 3.15. This step will require the use of a forklift. The hardware was shipped threaded into the legs.

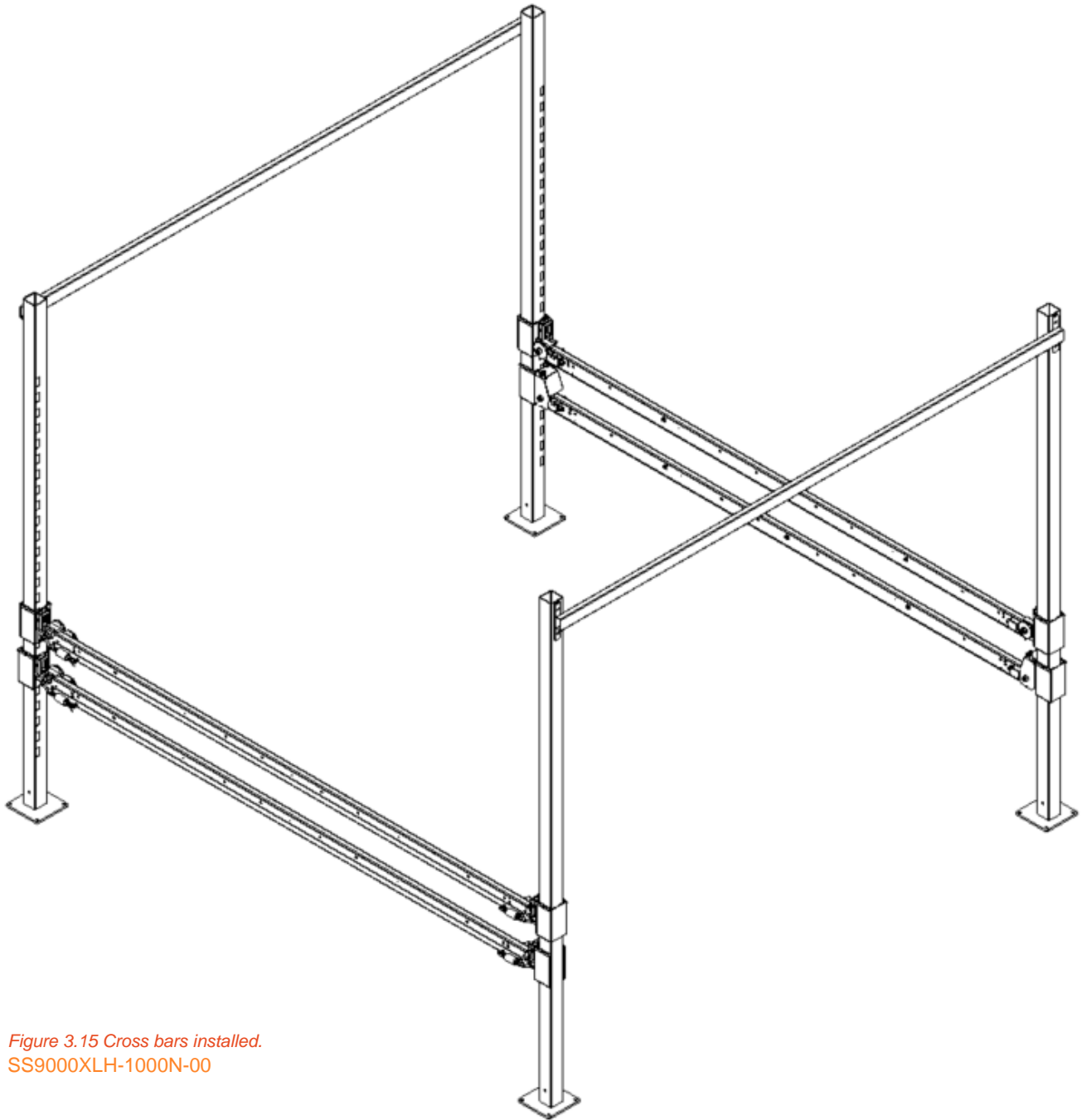


Figure 3.15 Cross bars installed.
SS9000XLH-1000N-00

These crossbars provide additional support to the lift. For this step, you will need 8x M12x1.75x30mm Hex head bolt and 8x M12 Washers. You will use 4 of each per side. The bolts were threaded into the legs, with the washers attached during shipping.

Using the forklift, raise the cross bar up to the bolt holes on the top of the legs on the side closest to the electrical boxes with dc power jacks on them. Refer to figure 3.16 for the cross bar installed with bolts. Do not fully tighten the bolts until after the runways are installed, in case any slight adjustments need to be made between the two leg assemblies.

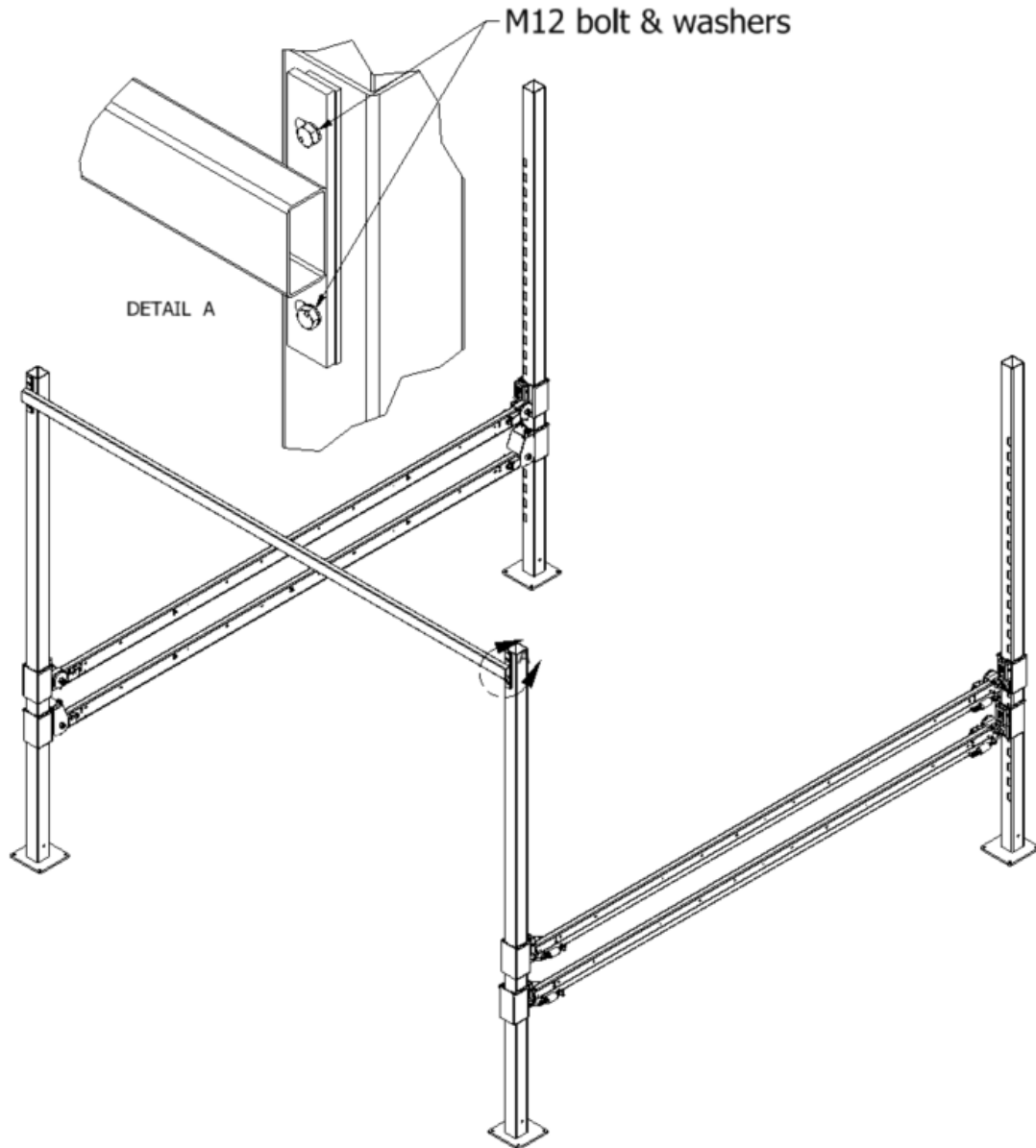


Figure 3.16 Cross bar installed on one side.

Repeat the same steps for the other crossbar.



Installing the Top Caps

You will need a 12-foot ladder for this portion of the step.

The next portion of the step will be to install the top caps. The top caps (2xDX9000XLT-100-03-00 & 2x DX9000XLT-100-04-00) are the pieces the cables will mount to. Refer to figure 3.17. You will receive 4 of them, 2 are for the right-hand legs and 2 are for the left-hand legs. The top caps are found in package 1.

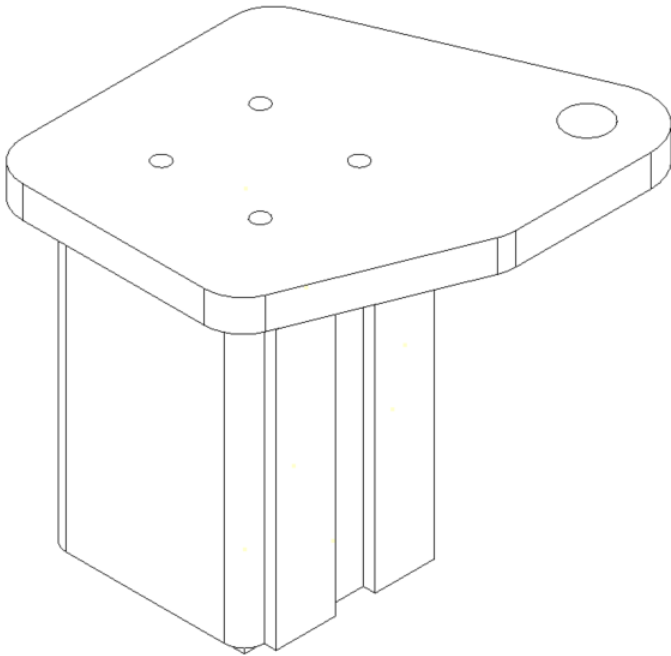


Figure 3.17.1 Top Cap DX9000XLT-100-04-00 Right hand

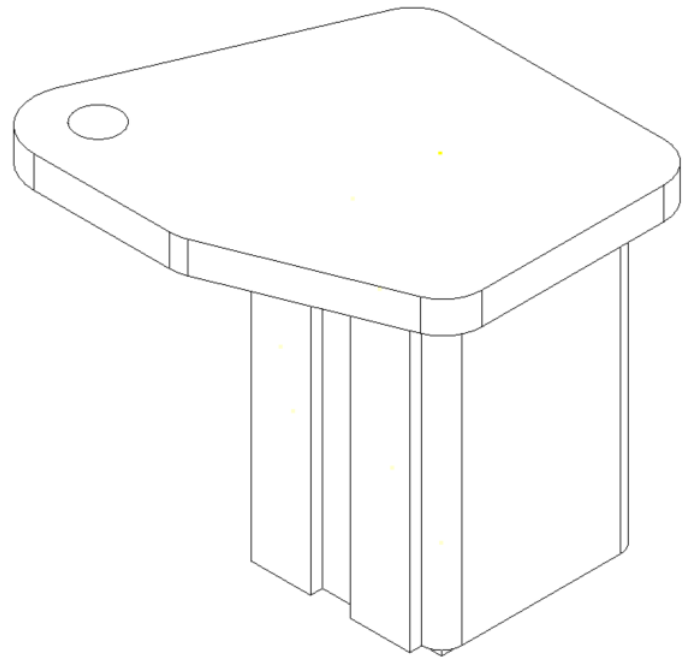
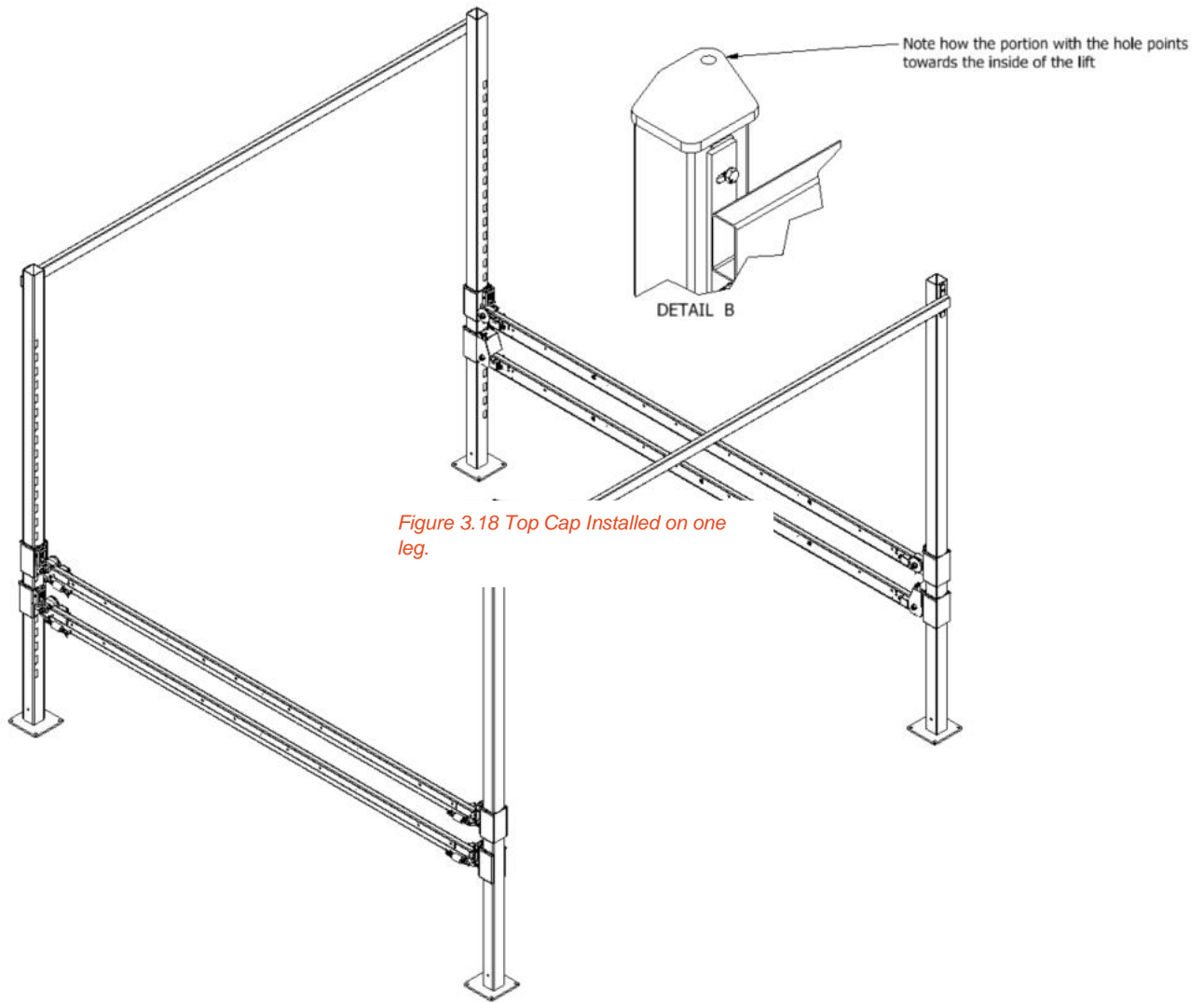


Figure 3.17.1 Top Cap DX9000XLT-100-03-00 Left hand

The top caps are simply installed by placing them in the opening at the top of the legs. Ensure when you place them in the top of the legs that the pointed portion with the hole points towards the inside of the lift, refer to figure 3.18 for the installation of the first top cap. Also ensure that the right-hand endcaps are installed on the right-hand legs, lock holes on the leg are on the right-hand side. Ensure that the left-hand top caps are installed on the left-hand legs, lock holes on the leg are on the left-hand side.



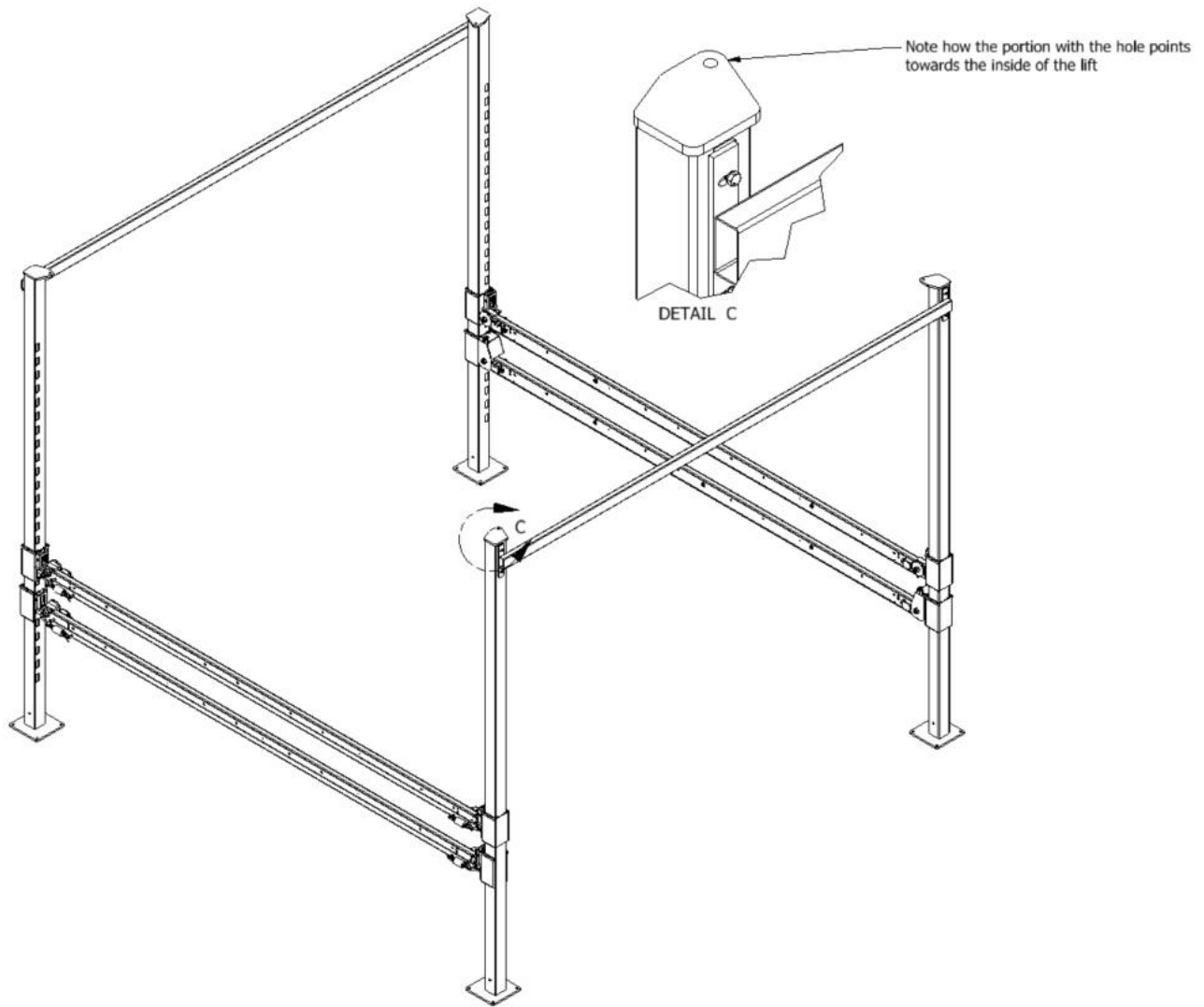


Figure 3.19 All Top Caps Installed

STEP 4: Runway Installation

! DANGER

This step will require the use of a forklift. You will receive 8 runways with your purchase. You will receive a powered runway which has the cylinder in it, the top runway which goes directly above the powered runway, and 3 bottom runways and 3 top runways. You can tell the difference between the 3 top and bottom runways by checking for a formed “u-shaped” piece welded on the underside, these ones are the top runways. The hardware can be found in shipping package 1 in the hardware box. These runways are split between both packages.

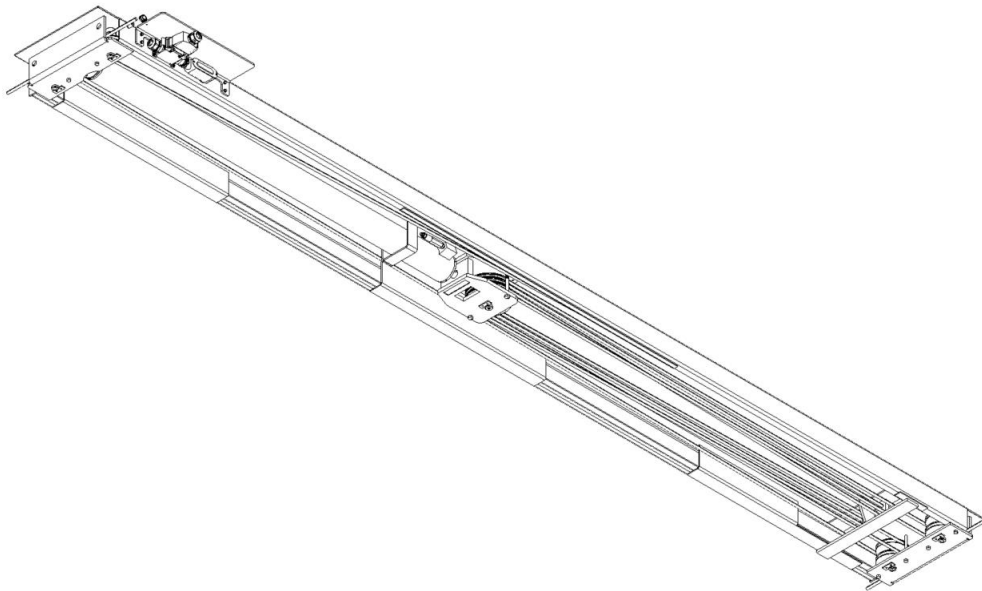


Figure 4.1 Powered runway

The powered runway will be installed first. 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 closest to. Rotate the assembly, if needed, so the hole is pointed outward and the accessory rail welded to the side of the track 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.

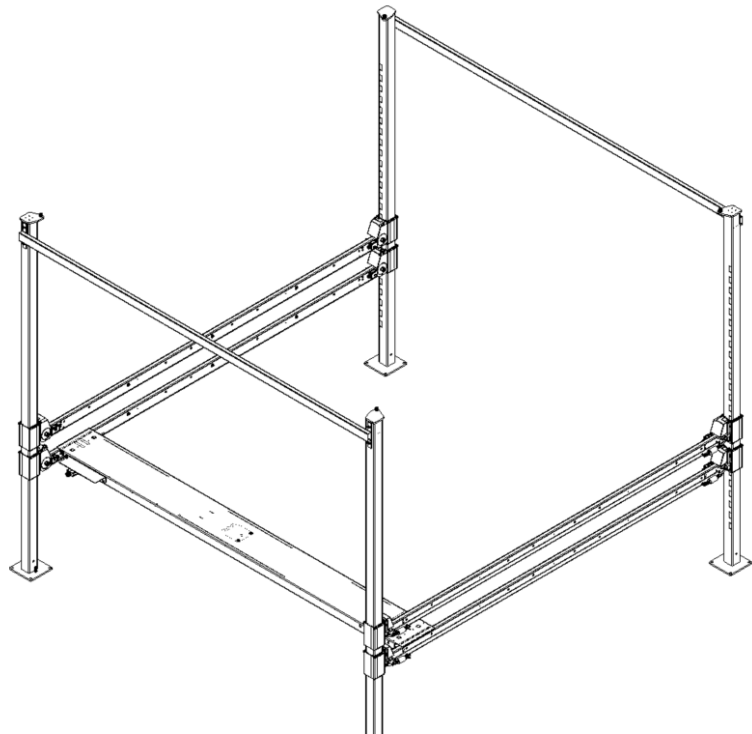


Figure 4.1 powered runway placed on lift.

Find the wheel stop, Ramp retainer, and m18x 2.5x120 mm bolts (4), m18 washers (4), m18 lock washer (4), and m18 x 2.5 nuts (4). Both the wheel stop, and retainer are found in shipping package 2. Assemble as shown in figure 4.2. The nut and washer may be installed by placing through the window where the cables exit the runway and held with an open-ended box wrench. Repeat on the opposite side of the runway. Once the powered runway is secured, repeat the process for the next runway. Ensure the accessory rail on the runway is facing into the lift. Refer to figures 4.2, 4.3 and 4.4. Also note that the electrical connector base needs to face to the outside of the lift. When bolting the runways to the crossmembers together, do not fully tighten them until all runways are assembled.

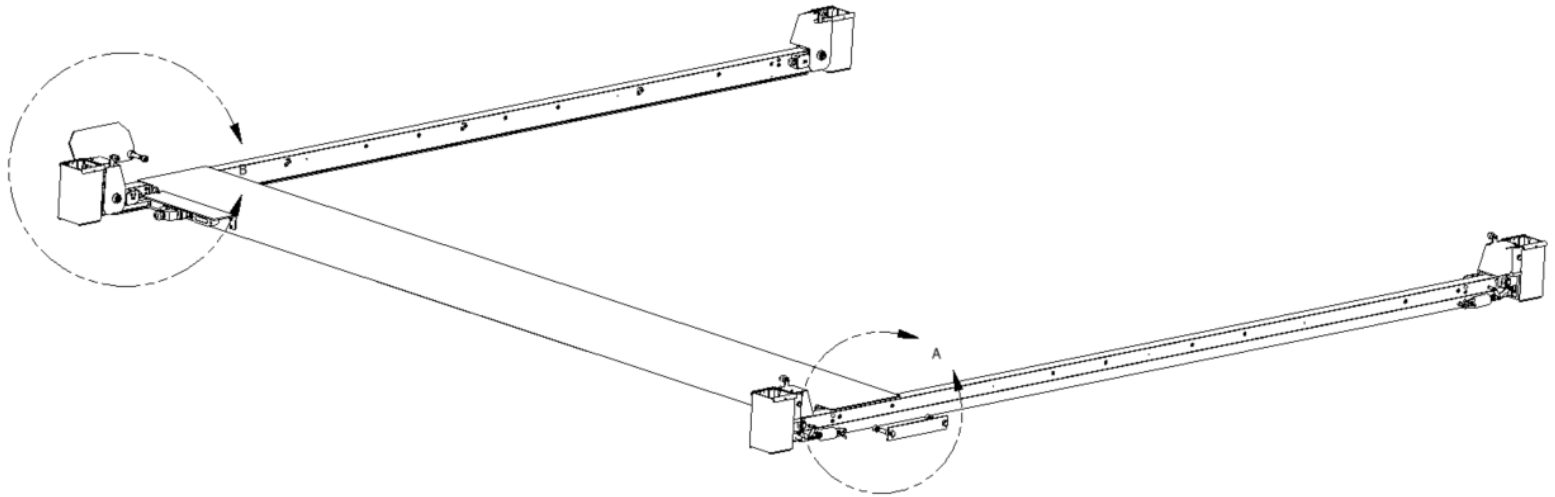


Figure 4.2 powered runway bolted to lower cross member with ramp retainer and wheel stop.

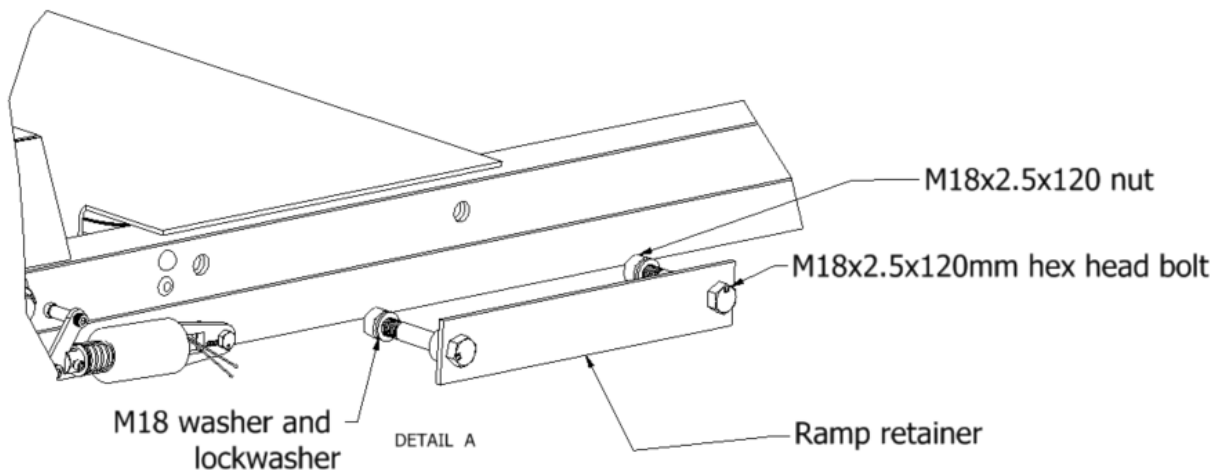


Figure 4.3 Ramp retainer

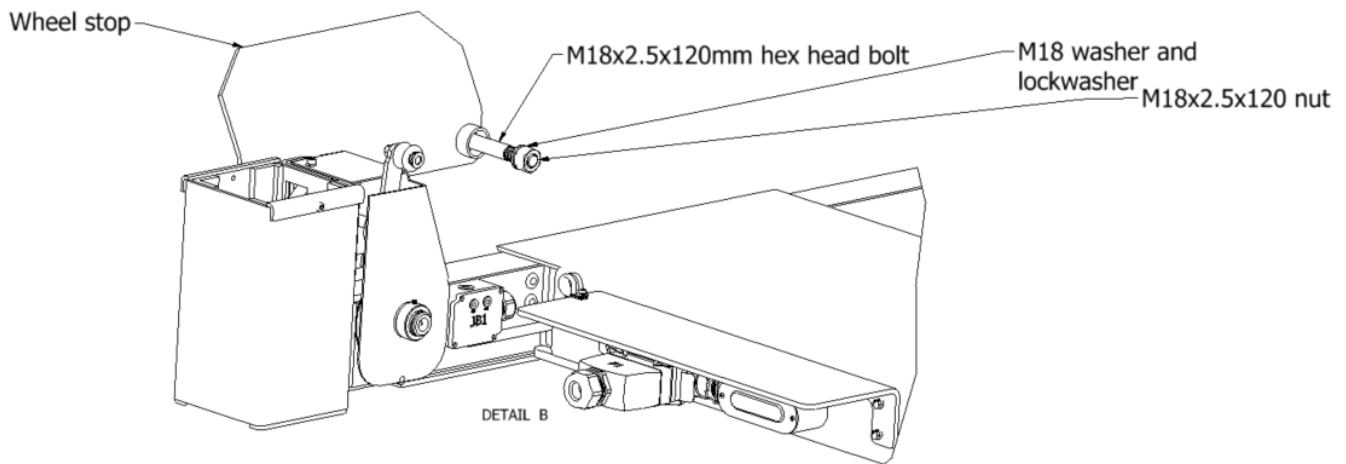


Figure 4.4 Wheel stop

Please note that there will be a coiled cable wired into the side of the receptacle that is wired into a longer electrical box, this box will need to be bolted to the top runway later. Out of the bottom of the electrical box is two plugs that plug, that will plug into the bottom of another longer electrical box that is already installed on the top runway.

The next portion of the step will be to install the runway that goes directly above the powered runway.

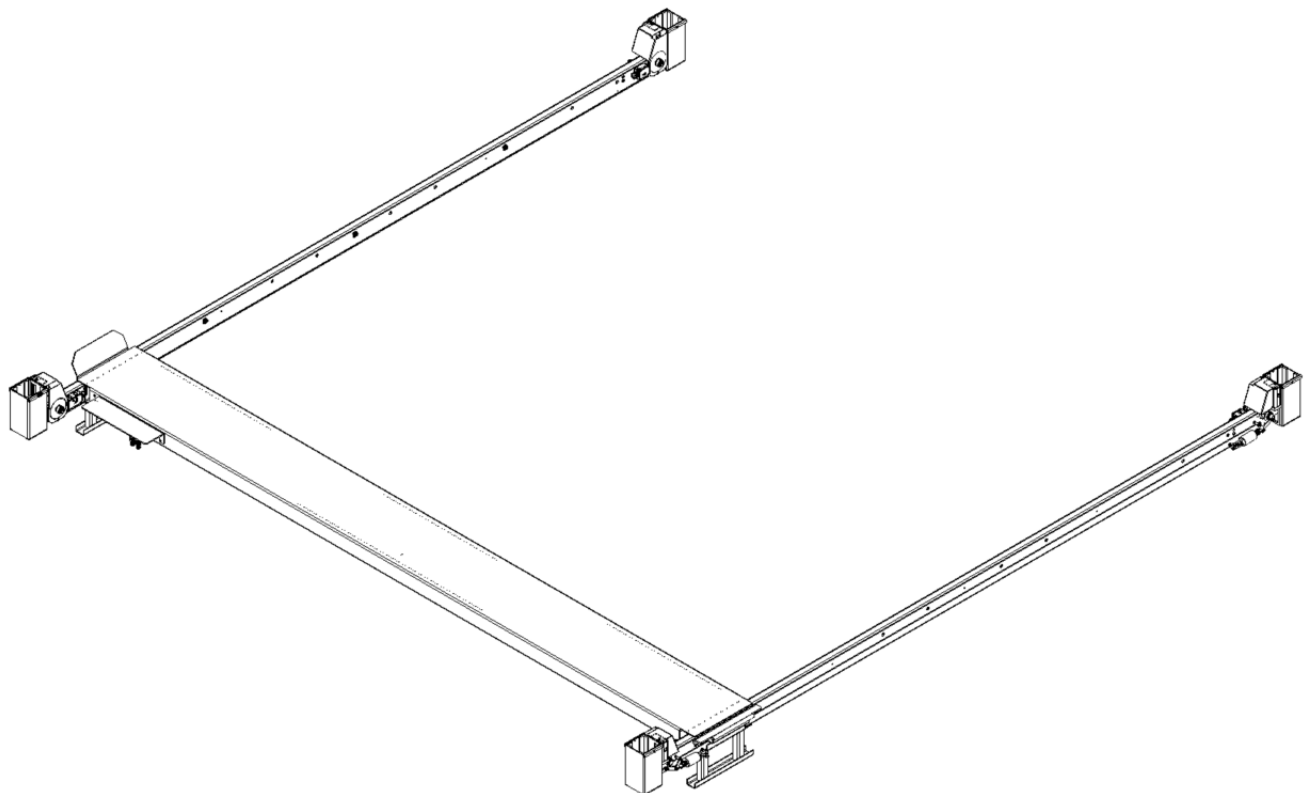


Figure 4.5 Runway above powered runway installed.

Find the wheel stop, ramp mount and m18x 2.5x140 mm bolts (4), m18 washers (4), m18 lock washer (4), and m18 x 2.5 nuts (4). Assemble as shown in figure 4.5. These parts can be found in shipping package 2. The nut and washers may be installed by placing through the window where the cables exit the runway and

held with an open-ended box wrench. Repeat on the opposite side of the runway. The wheel stop is installed in the same spot as the lower runway. In between the runway and crossmember, on both sides, will be a piece that is used to adjust the top layer of the lift's height. Refer to figures 4.6, 4.7, and 4.8.

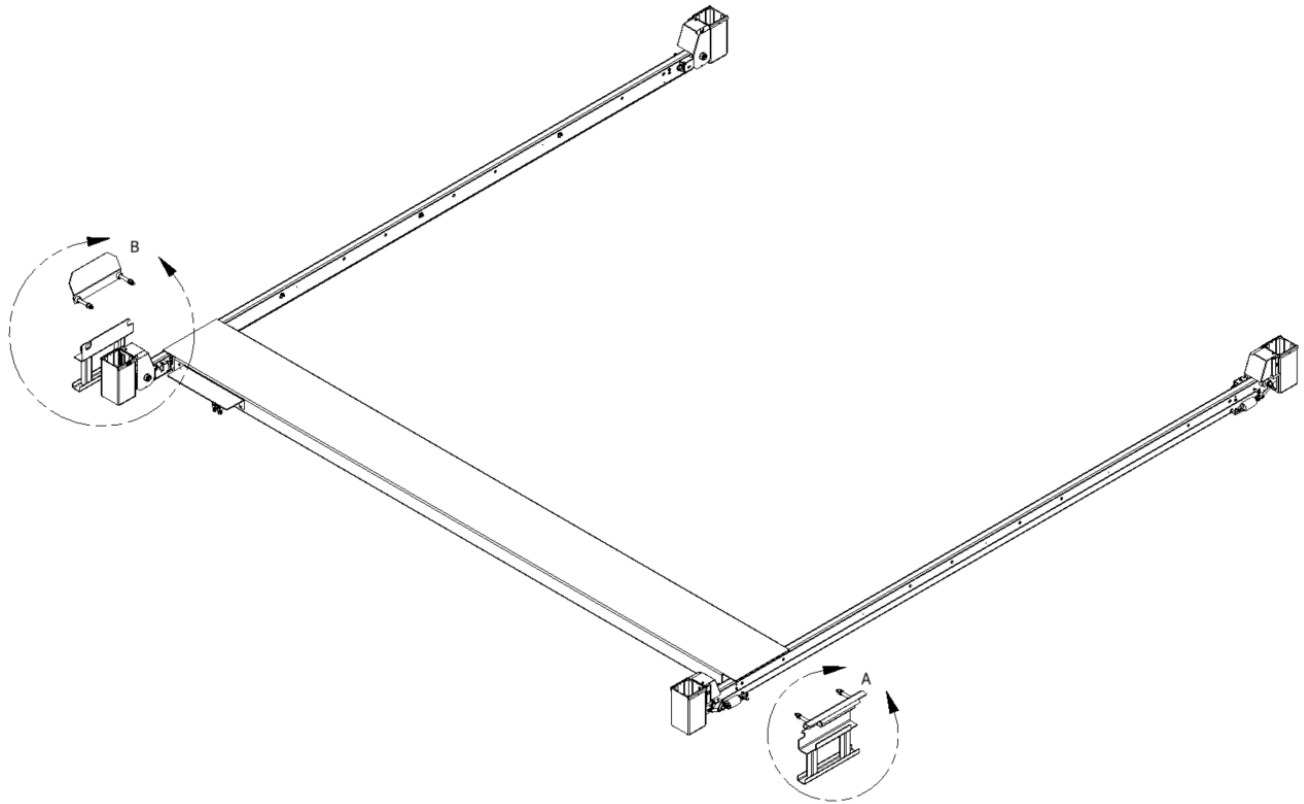


Figure 4.6 Runway above powered runway components.

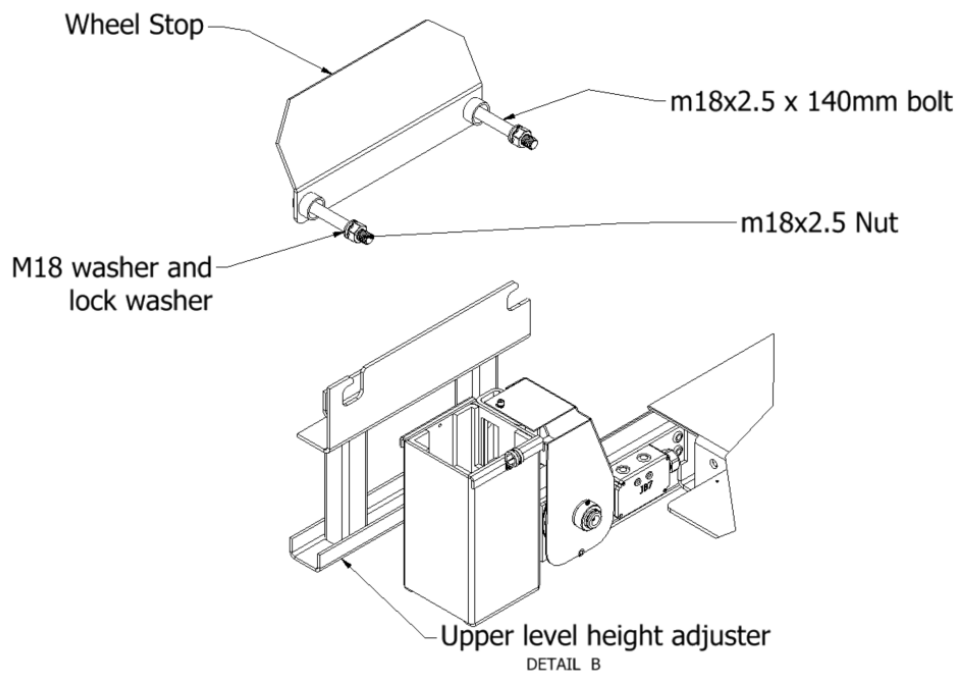


Figure 4.7 Wheel stop.

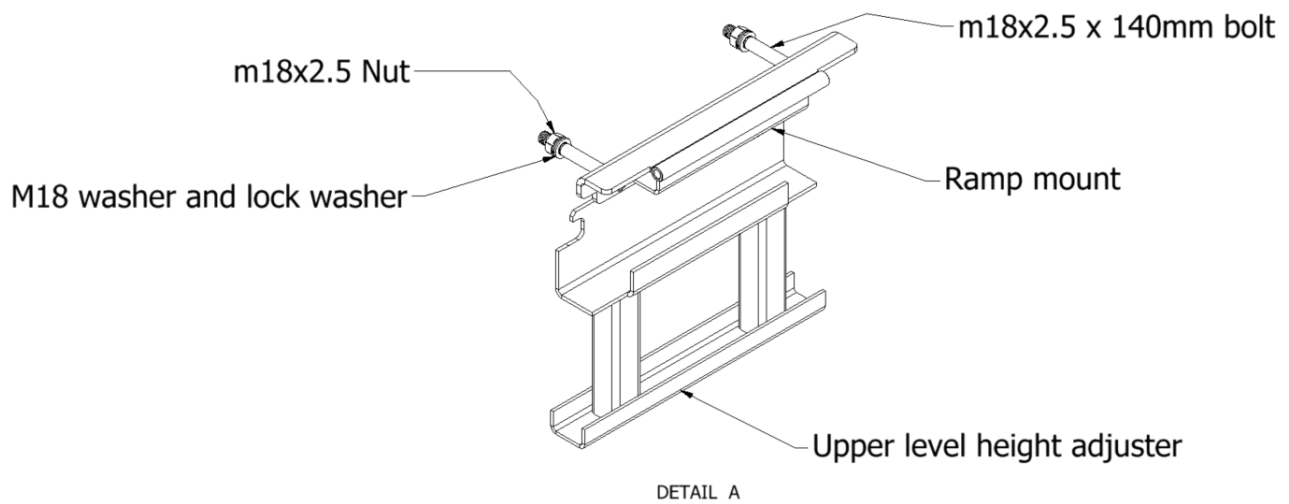


Figure 4.8 Ramp Mount, upper-level adjuster.

At this point you can bolt the electrical box from the bottom powered runway to the top runway. This box is secured to the top runway with M4x0.7x30mm Philips head screw (2). You can also plug the two cords hanging out of the electrical box into the box that was already mounted to the top runway. Refer to the figure below for which each connector lands.

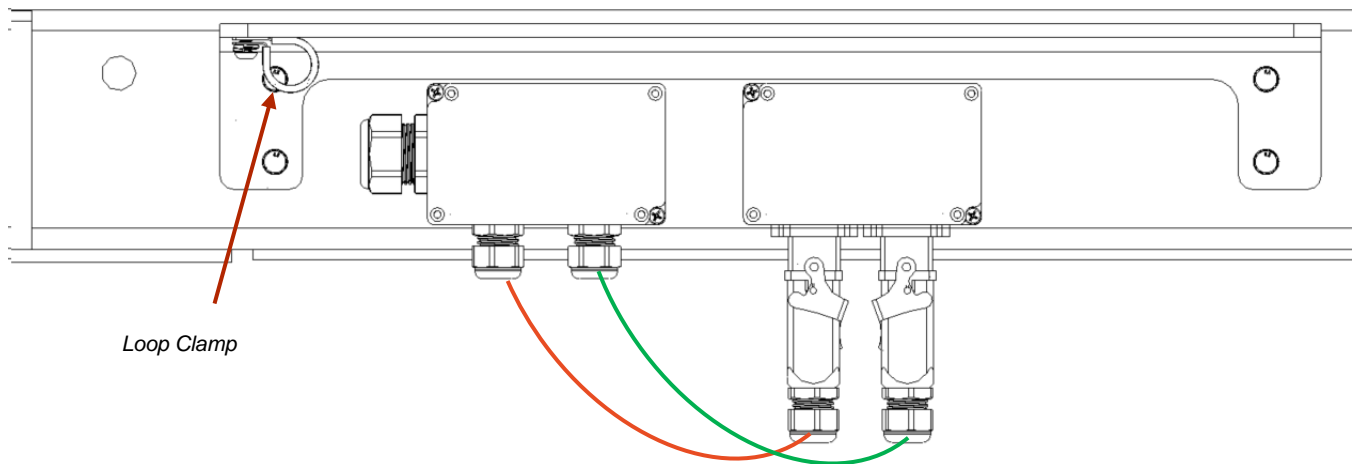


Figure 4.9 Electrical boxes on top runway.

You can also loop the cable from the bottom runway to the top runway through the loop holders on the top and bottom runways. The loop clamps are held on with M6x1.00x10mm Button head bolt, a washer, and a lock washer. Refer to figures 4.9 and 4.10. When using the clamps, pull the wire slightly tight through the clamps. Refer to picture 4.1 and 4.2 for reference.

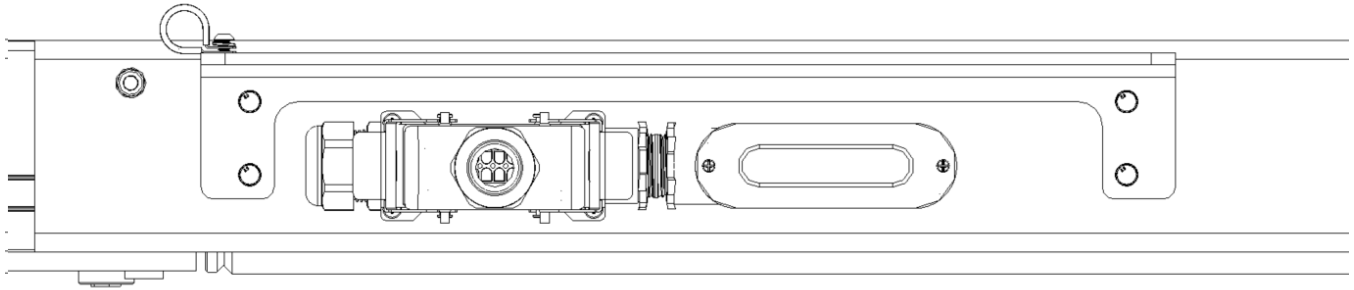


Figure 4.10 Bottom runway cable loop holder



Picture 4.1 Cable pulled slightly tight through loop holder, Top runway.



Picture 4.2 Cable pulled slightly tight through loop holder, bottom runway.

The next step is to install the remainder of the runways. As mentioned earlier there are 3-top and 3-bottom ones excluding the ones already installed. When installing the runways, alternate from bottom to top. Just like how the first 2 were put on the lift. When installing the next two runways, ensure that the accessory rails point towards each other, refer to figures 4.11, 4.12, and 4.13 for reference. Refer to figures 4.12 and 4.13 for reference to the top runways versus the bottom runways. Please note that one of the top runways will have a prewired limit switch installed with a plug end, this will be the last runway you install. The first upper runway also has a prewired limit switch, just for your reference. Repeat the steps from the first portion of this step to install the runways.

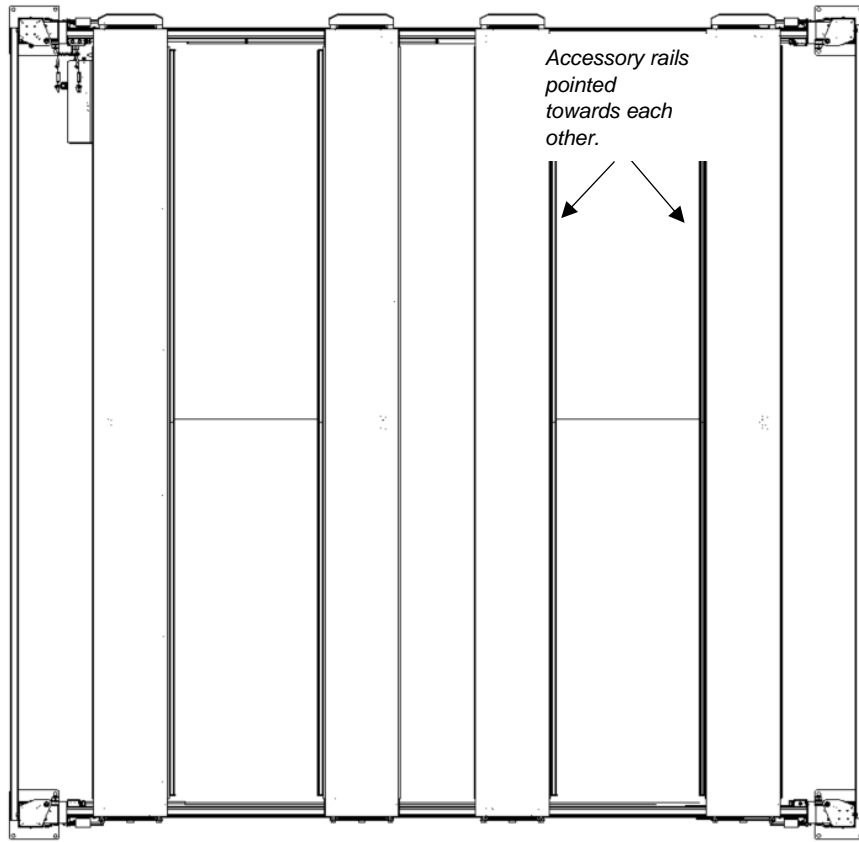


Figure 4.11 Runway's assembled on lift with accessory rails correctly positioned.

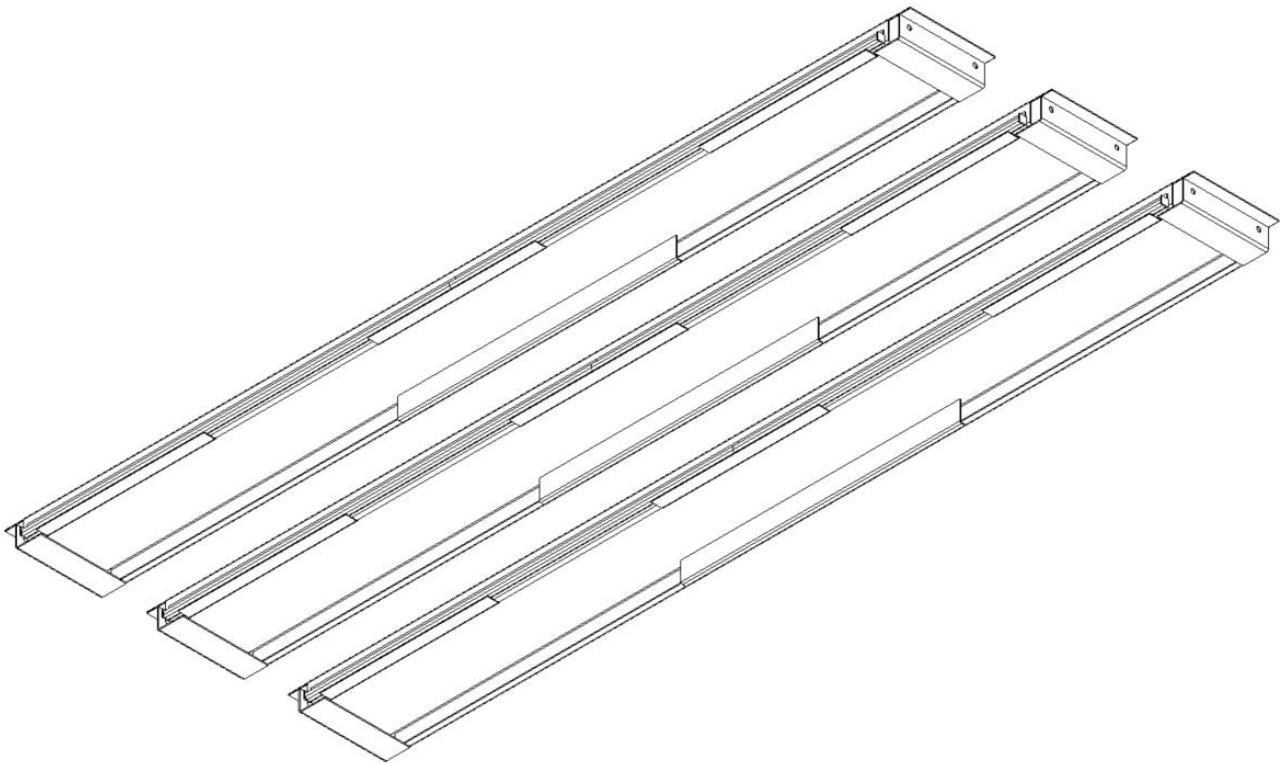


Figure 4.12 Bottom runways

Prewired limit switch

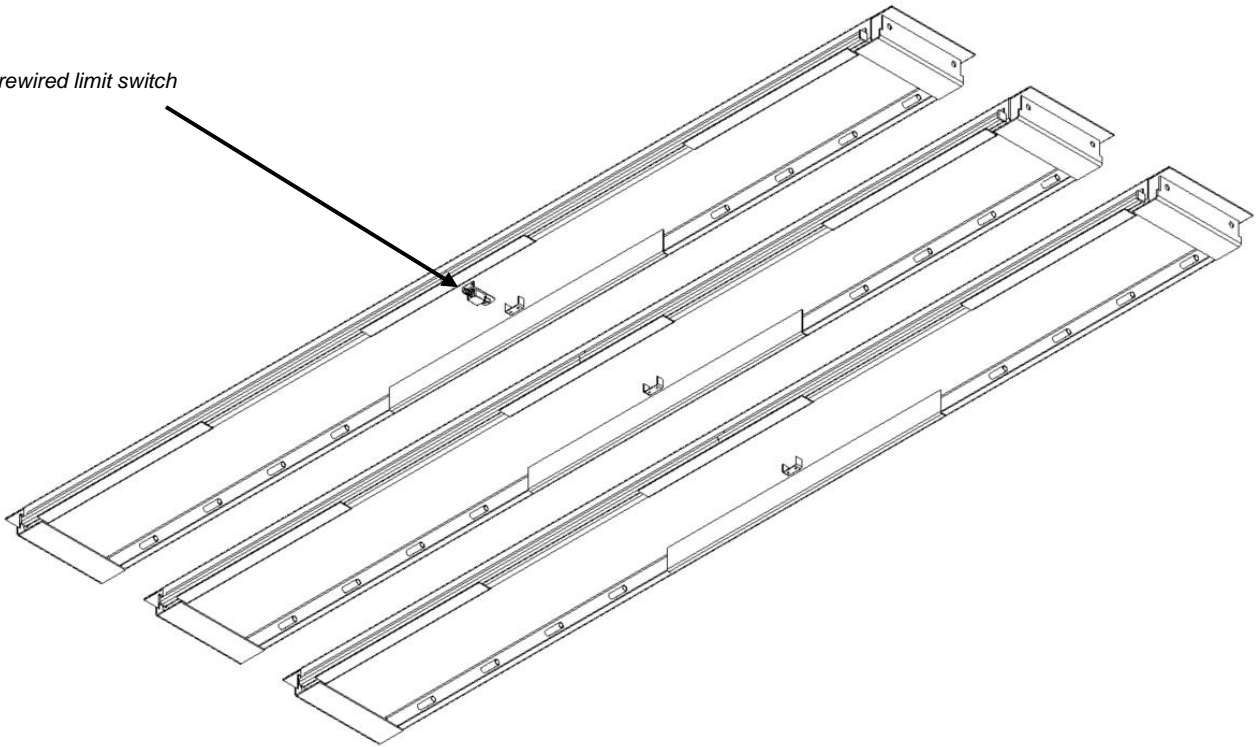


Figure 4.13 Top runways

Once all the runways are installed you can fully tighten all the bolts holding the runways to the crossmembers. You can also fully tighten the bolts holding crossbars to the legs.

Refer to figure 4.14 for a reference to the lift's status.

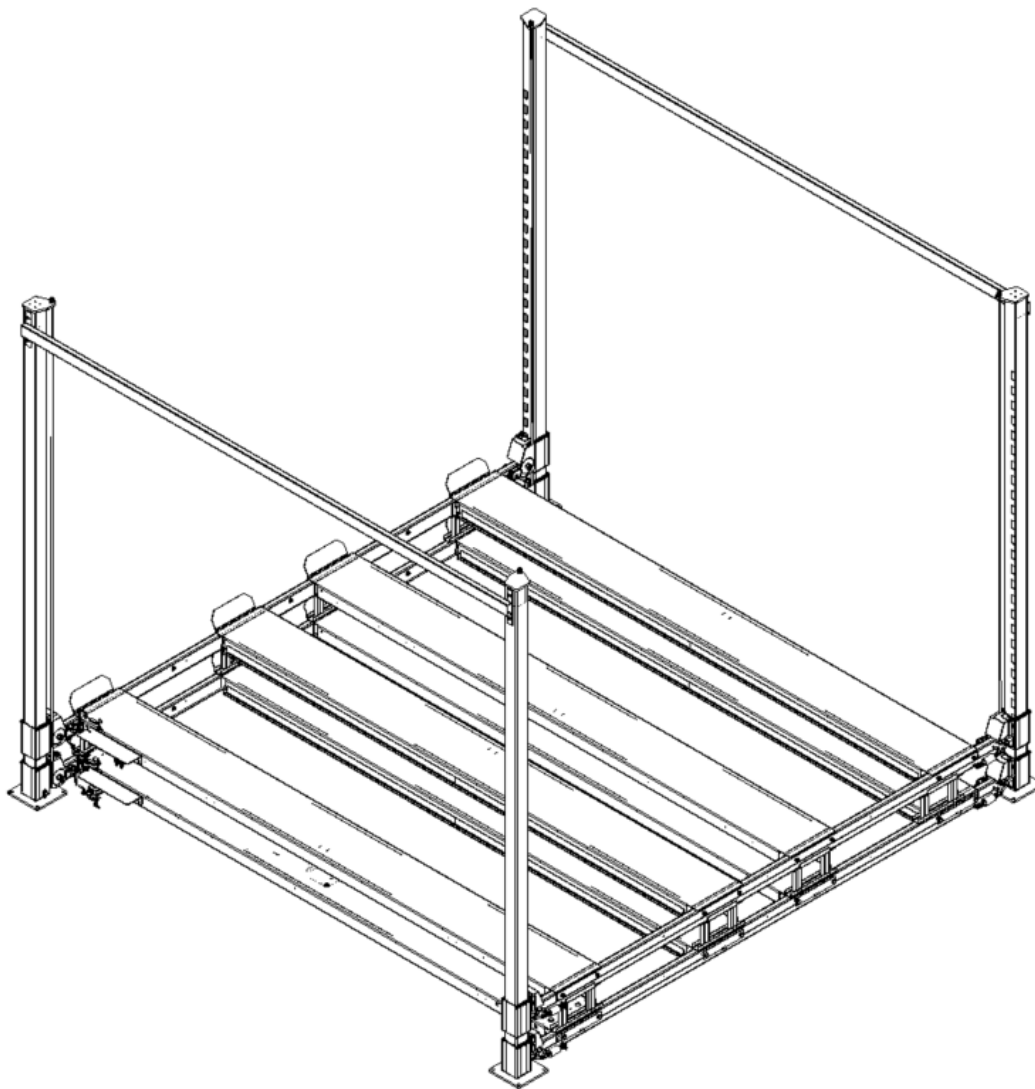


Figure 4.14 Lift with all runways installed.

STEP 5: Wire Rope Routing

A 12-foot ladder is required.

The next step in assembling the lift is routing the 4 cables. The cables will be strung through the larger pulleys attached to the cylinder rod and the cable block on the side opposite of the cylinder. The following directions will be based on looking up at the bottom runway from below, and if you were standing back by the cylinder.

Refer to figure 5.1 for the first wire rope routing. This will be referred to as wire rope 1 and will go to leg 1.

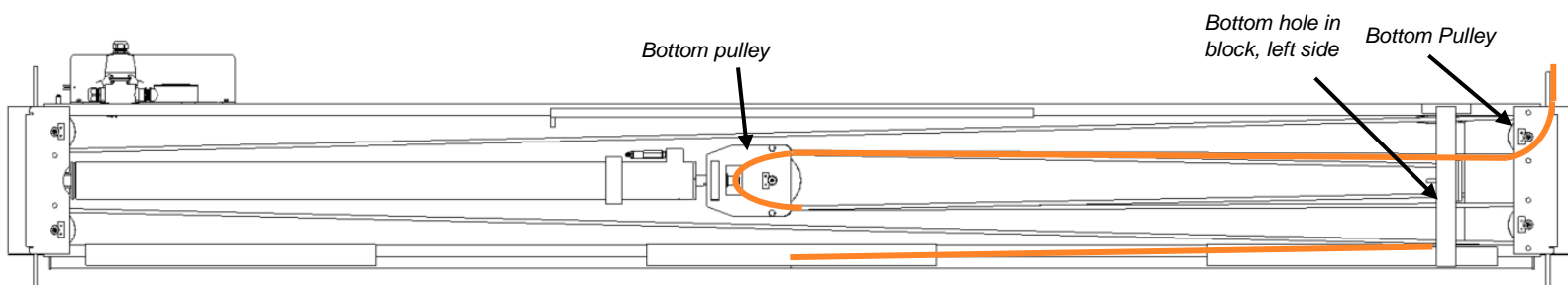


Figure 5.1 wire rope 1

Refer to figure 5.2 for the next wire rope routing. This will be referred to as wire rope 3 and will go to leg 3. On its way to leg 3, it will pass through the runway and caps of the other 3 runways.

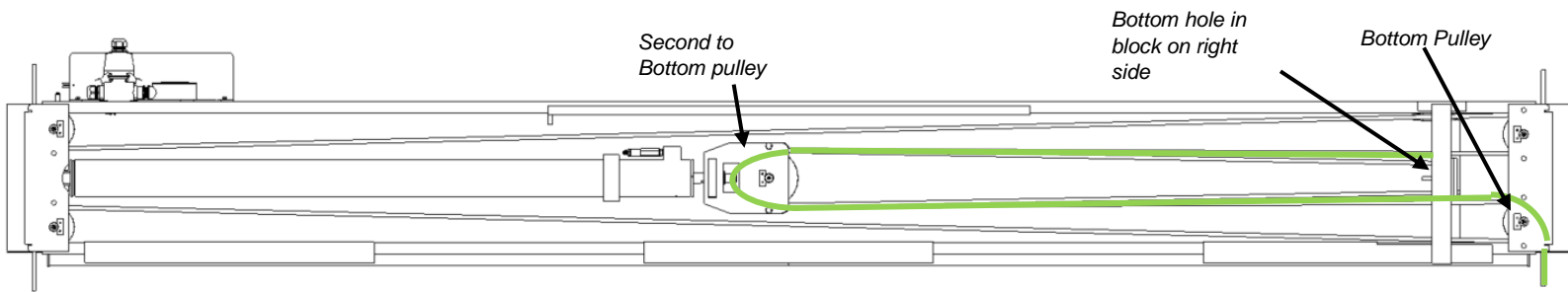


Figure 5.2 wire rope 2

Refer to figure 5.3 for the next wire rope routing. This will be referred to as wire rope 2 and will go to leg 2.

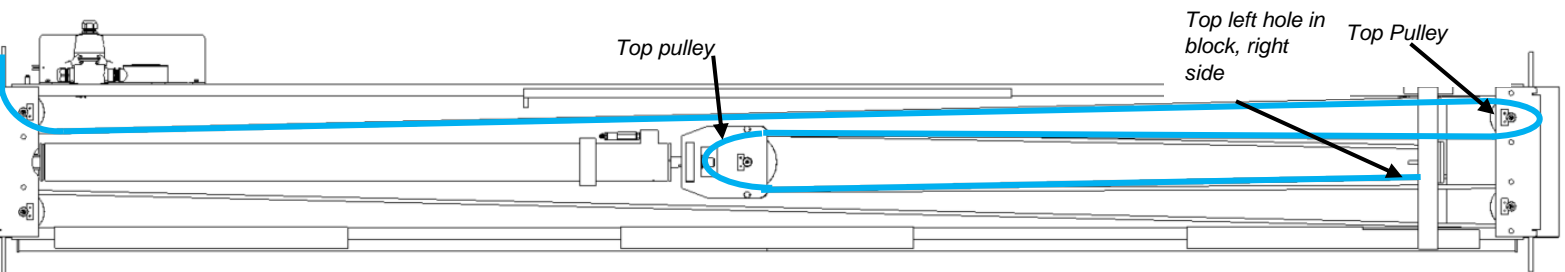


Figure 5.3 wire rope 3

Refer to figure 5.4 for the last wire rope routing. This will be referred to as wire rope 4 and will go to leg 4. On its way to leg 4, it will pass through the runway end caps of the other 3 runways.

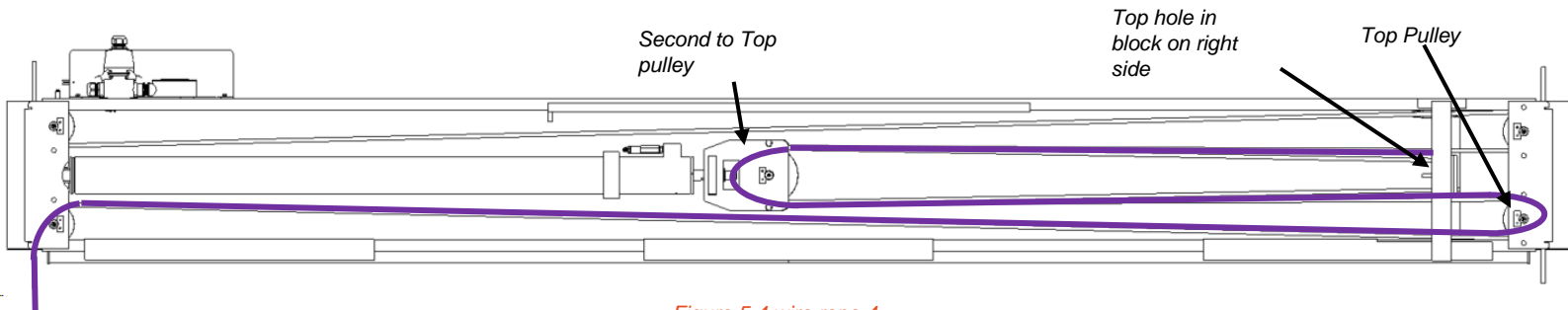


Figure 5.4 wire rope 4

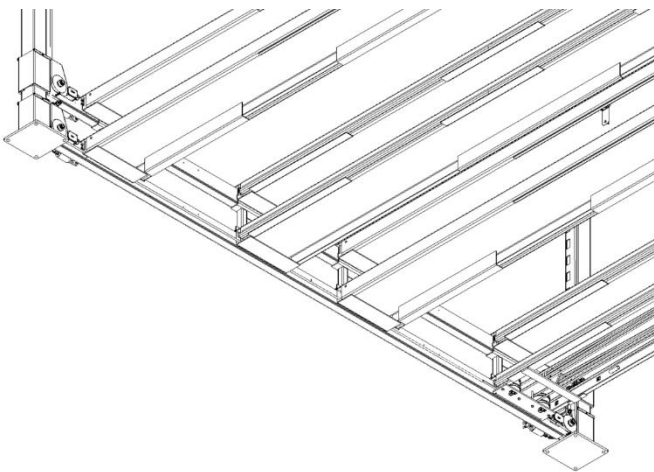


Figure 5.2.1 wire rope running through endcaps

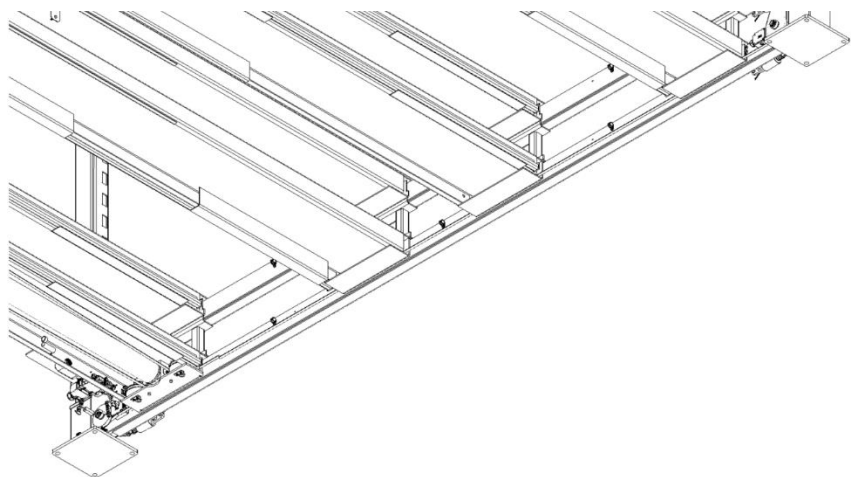


Figure 5.4.1 wire rope running through endcaps

Refer to figure 5.5 for the numbering of legs.

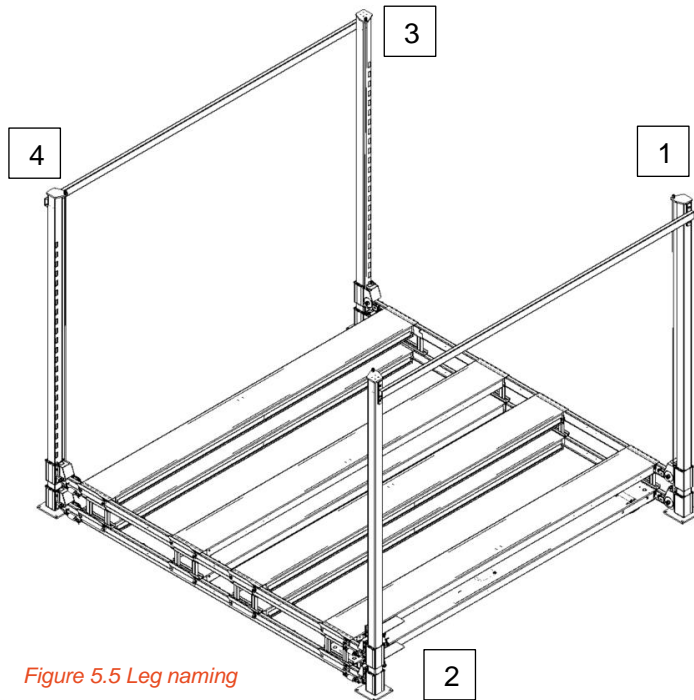


Figure 5.5 Leg naming

When running wire ropes 1-4 through the pulleys on the side farthest from the cylinder. Refer to figures 5.1 to 5.4 for explanations on which pulleys have which wire rope going around. The pins are held in with (2) M6x1.00x12mm button head bolt, (2) m6 lock washers, and a retainer plate. Each pin on the runway has each of these parts. There are a total of 5 pins on the runway. Also note that there are spacers between the two pulleys. There are also 4 guide pin bolts (M10x1.5x Guide pin bolt) that are used to prevent the cables from coming off the pulley. Refer to figures 5.6 and 5.7 for visual reference.

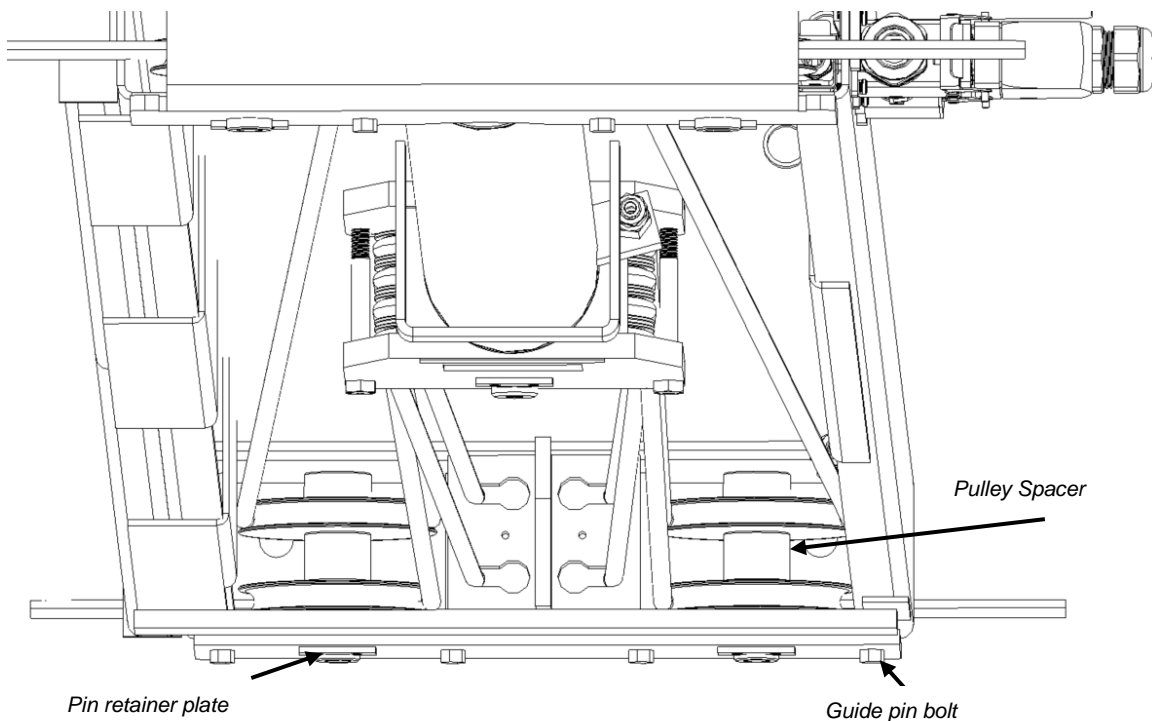


Figure 5.6 pulley assembly 1

The main difference between the side closest to the cylinder and the side opposite is that there is only one pulley on each pin, compared to the side opposite there are 2 pulleys per pin. Also, because only wire rope wraps around one side of the pulley, on the side closest to the cylinder, there only needs to be one guide pin bolt per pulley. Another key difference is that there is a large spacer that prevents the pulley from riding up the pin.

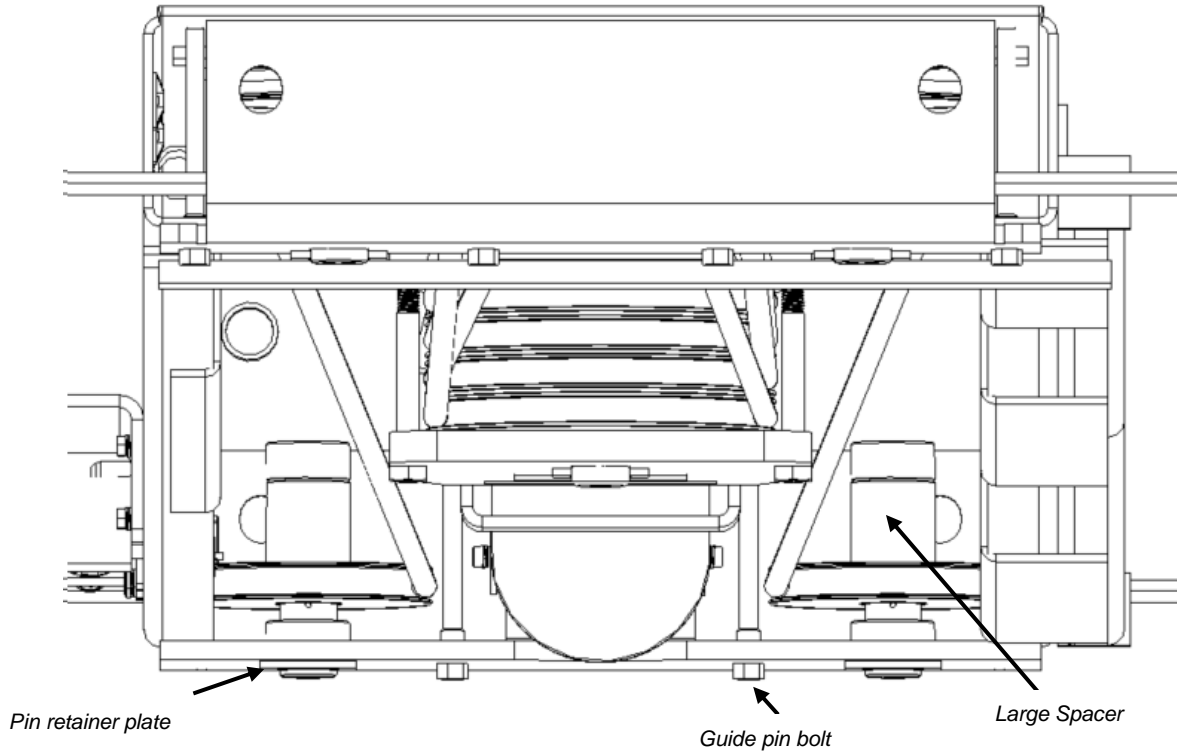


Figure 5.7 pulley assembly 2

Now that we have a little more explanation on the pulley/wire rope routings in the runway and have the wire ropes run around their respective pulleys it is now time to run the wire ropes up to top caps. You will need to locate (8) M8x1.25x35mm socket head bolts and (8) M8x1.25 nuts, these should have been threaded into the crossmembers during shipping, if not locate the hardware box. These bolts and nuts will act as keepers to prevent the wire rope from coming off the pulley. You will also need (8) M20x2.5 Nut, these nuts are for securing the wire rope to the top cap. Refer to figure 5.8 for a visual representation of wire rope 1 going up leg 1 and around the 2 pulleys on the crossmembers. Also, the wire rope needs to be routed around the secondary lock as shown in figure 5.8.1. The wire rope should be in front of the smaller pulley for the secondary lock. Refer to figure 5.9 for a visual representation of wire rope 1 mounted to the top cap of leg 1. Once you have the cable around the 2 pulleys, run it to the top of the leg and thread 2 nuts on to the threaded section, do not fully tighten the top nut as you will need to adjust them later. Do the same thing for the remaining 3 cables.

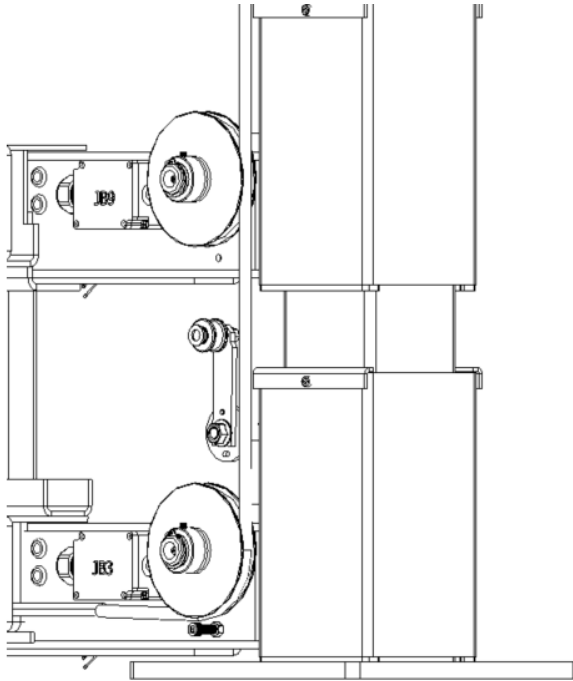


Figure 5.8 Wire rope 1 going up leg 1.

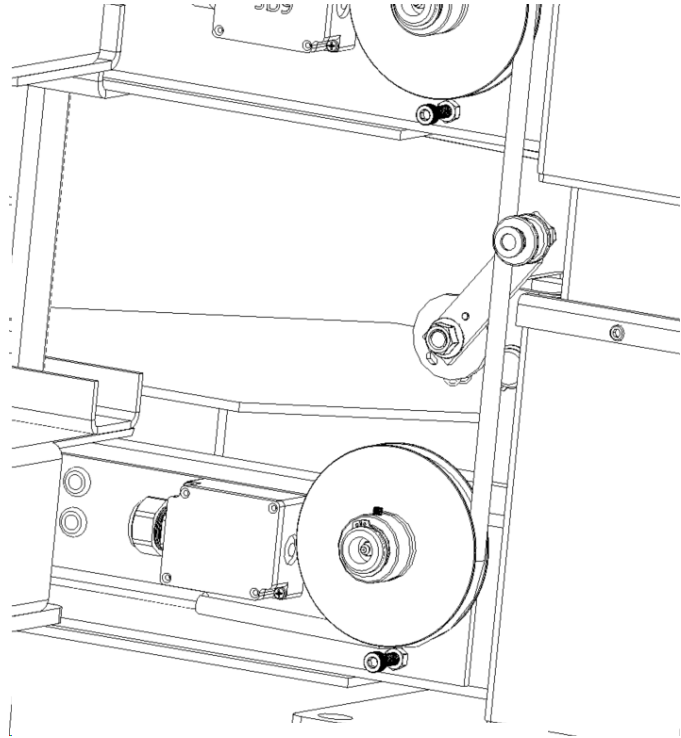


Figure 5.8.1 Proper Routing of wire rope around secondary lock

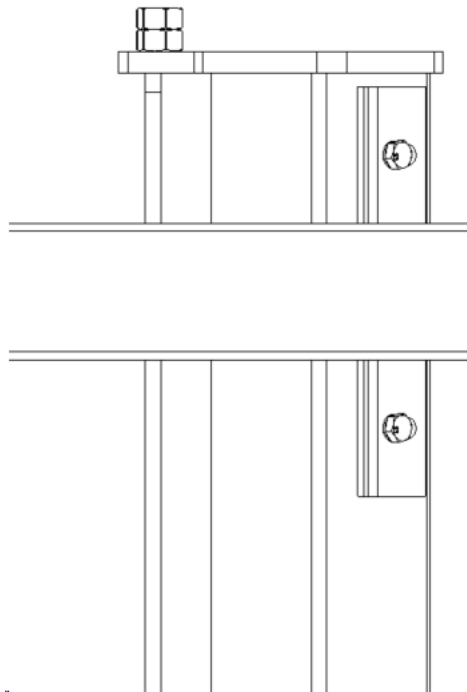


Figure 5.9 Wire rope 1 mounted to top cap 1.

At this point all four wire ropes should be run and mounted to the top caps with the top nuts loose.

STEP 6: Miscellaneous assembly

All key components should be assembled at this point. There are a handful of items that need to be assembled now. The first thing we can do is reassemble all pulley guarding. We removed them in an earlier step to make running the wire ropes and assembling the crossmembers to the legs easier.

You will need to remove the shaft collar and snap ring from each pin to replace the guarding. The guarding is held on with a M6x1.00x12mm socket head bolt and an m6 washer. Refer to figure 6.1 for a visual representation on replacing the guarding.

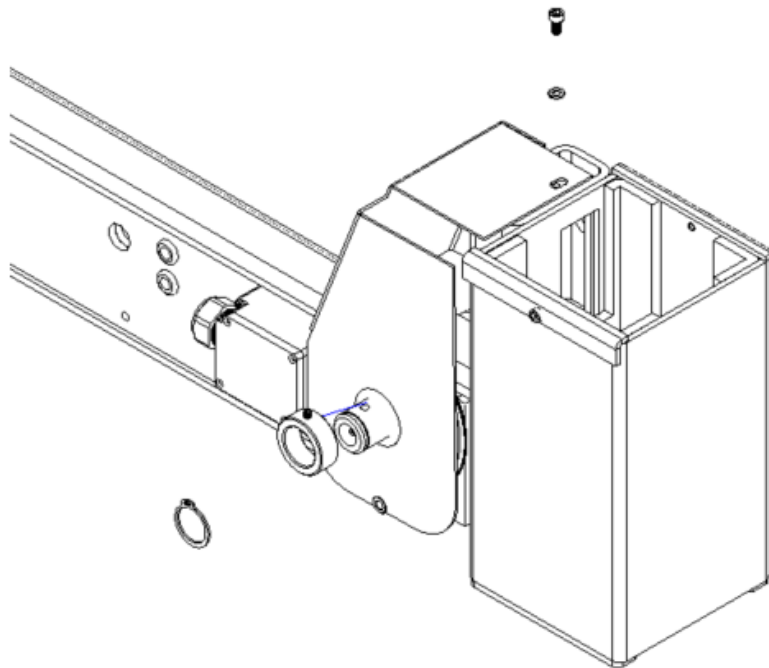


Figure 6.1 Pulley guarding

Another key set of components that need to be installed are the safety bars and brackets. These bars will trip a limit switch if cars are on the lower level, and you attempt to raise the lower level into the top level. This will prevent your vehicle from being damaged, the bars have a foam layer around them to prevent your car from being scuffed. You will need to locate two of the limit switch brackets, two of the brackets with just a hole, eight M6x1.00x20mm Philips head screws, eight m6x1.00 nuts, eight M3x0.5x16mm Philips head screws, eight M3x0.5 nuts, eight M3 washers, eight M3 lock washers, two safety bars with foam on them, and two M8x1.25x30mm bolt As mentioned earlier, the two limit switches are already prewired and just need to be mounted.

Each bracket will be held on with two m6x1.00x20mm Philips head screw and nuts. Refer to figure 6.3 for a visual representation. Each limit switch is held on with four M3x0.5x16mm Philips head screws, washers, lock washers, and nuts. Refer to figure 6.4 for a visual representation. Finally, the bars are held in place with an M8x1.25x30mm bolt. Refer to figure 6.5 for a visual representation.

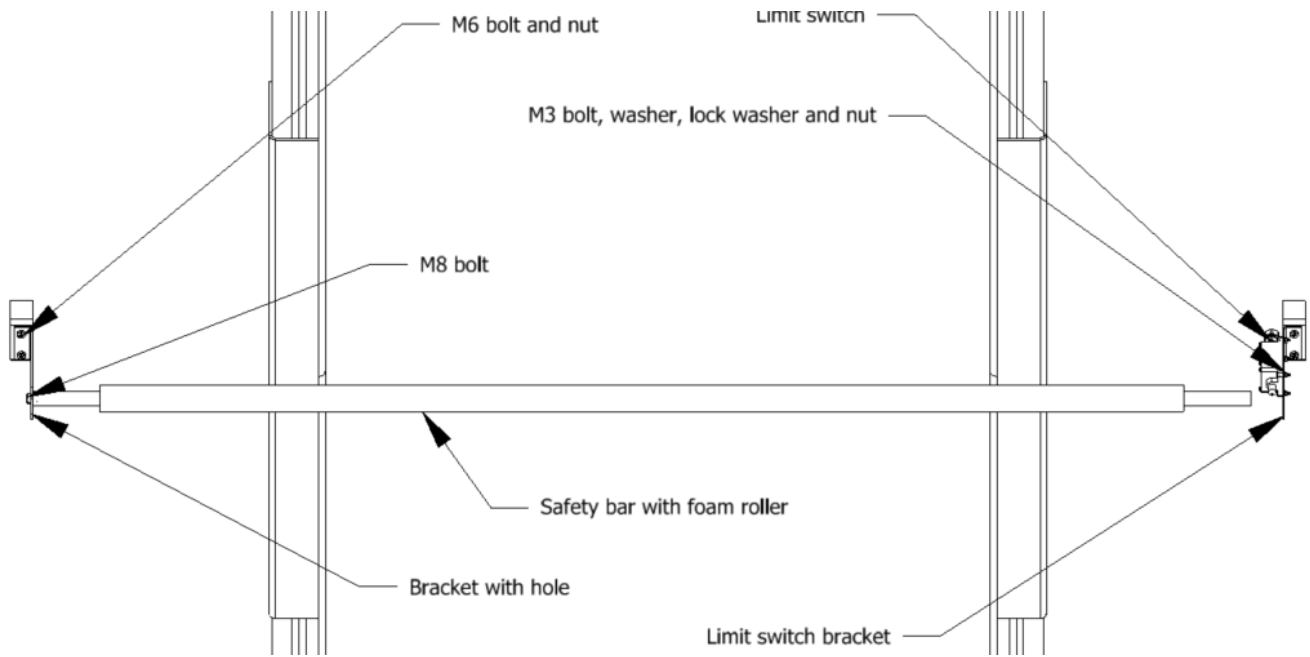


Figure 6.2 Layout of safety bar and components.

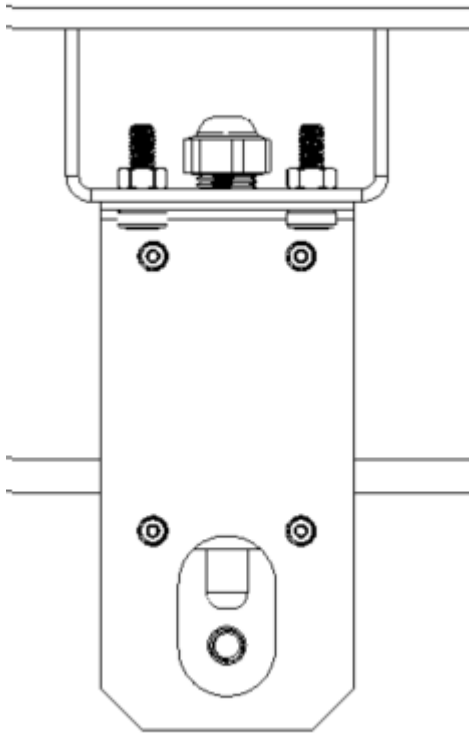


Figure 6.3 Bracket mounted to runway.

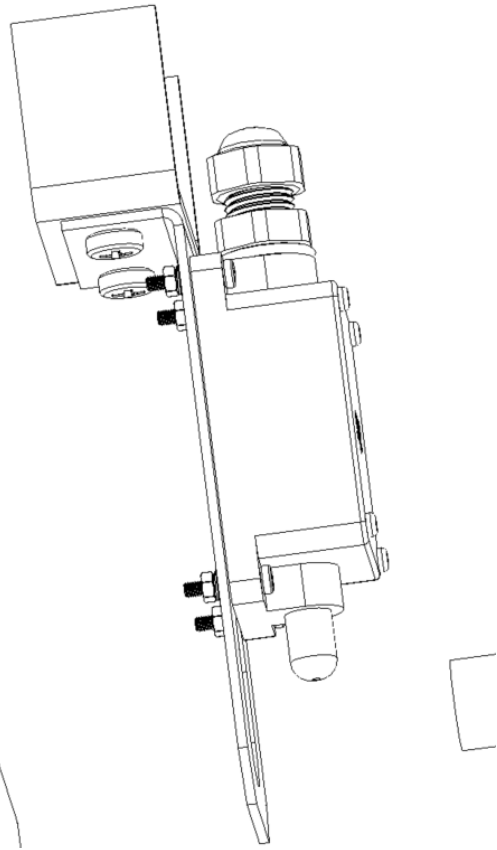


Figure 6.4 Limit switch to Bracket mounted.

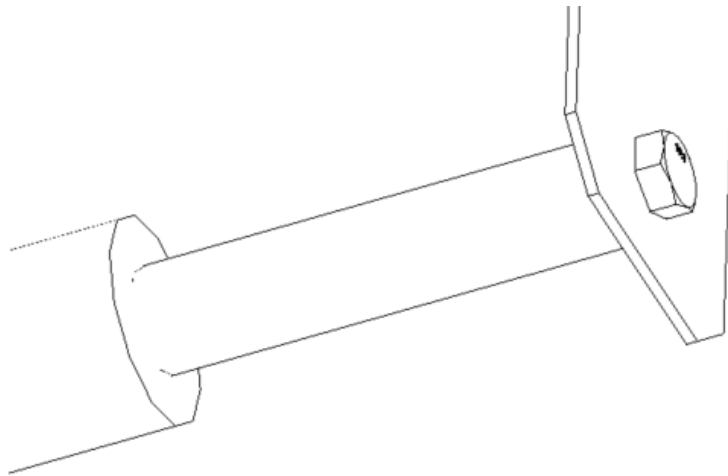


Figure 6.5 Safety bar mounted to bracket.

Drive on ramps



DANGER

Before continuing forward the top-level drive on ramps needs to be installed.

There will be four top level drive on ramps made from steel and two lower-level aluminum drive on ramps. Refer to figure 6.6 for a visual representation. These can be found in package 2.

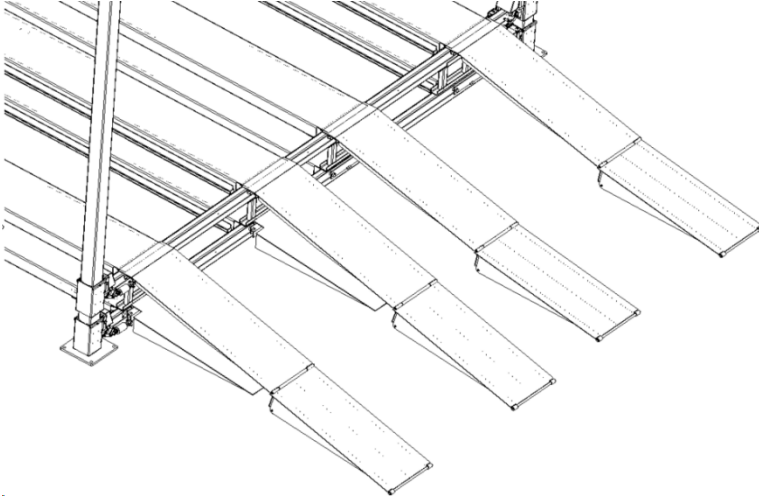


Figure 6.6 Drive on ramps

The aluminum drive on ramps are used for both sets of runways on the bottom layer. The ramps simply slide into the ramp retainers, refer to figure 6.7 for a visual representation. When you are done loading the bottom layer, do not leave the ramps attached when raising the lift.

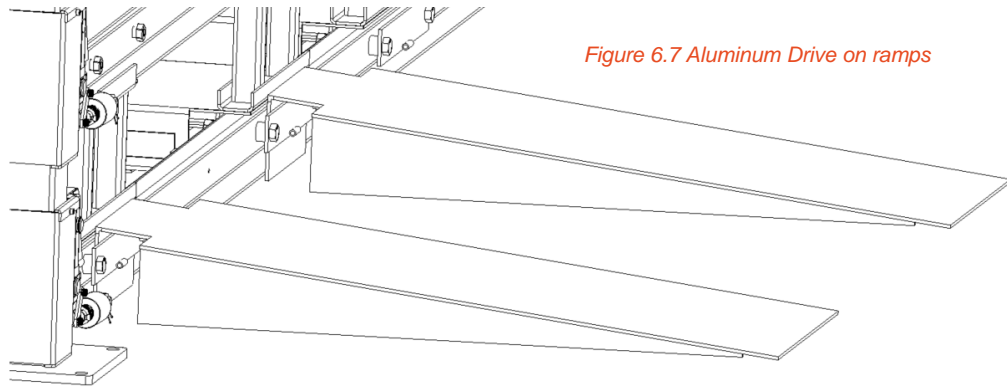


Figure 6.7 Aluminum Drive on ramps

All hardware, if not installed on the ramps from the factory, can be found in the hardware box.

To assemble the top layer upper piece of the ramp, you will need to locate the upper piece of the top layer ramps, a 12mm pin, two 12mm external retaining rings, two rubber wheels, two shoulder bolts and two lock nuts. Refer to figures 6.8 and 6.9 for a visual representation on how to assemble the upper pieces of the top layer ramp. Place the upper piece up against the runway, and line up the tubing on the piece mounted to the runway with the tubes on the upper piece of the ramp. You can slide the 12mm pin through these tubes and secure each side with a retaining ring. Next you can place a shoulder bolt through a hole on the bottom of the ramp. Place the wheel on the bolt and tighten the lock nut down onto the bolt. Do not fully tighten it down, leave it loose enough that the wheel can freely spin on the bolt. Do this for the other side.

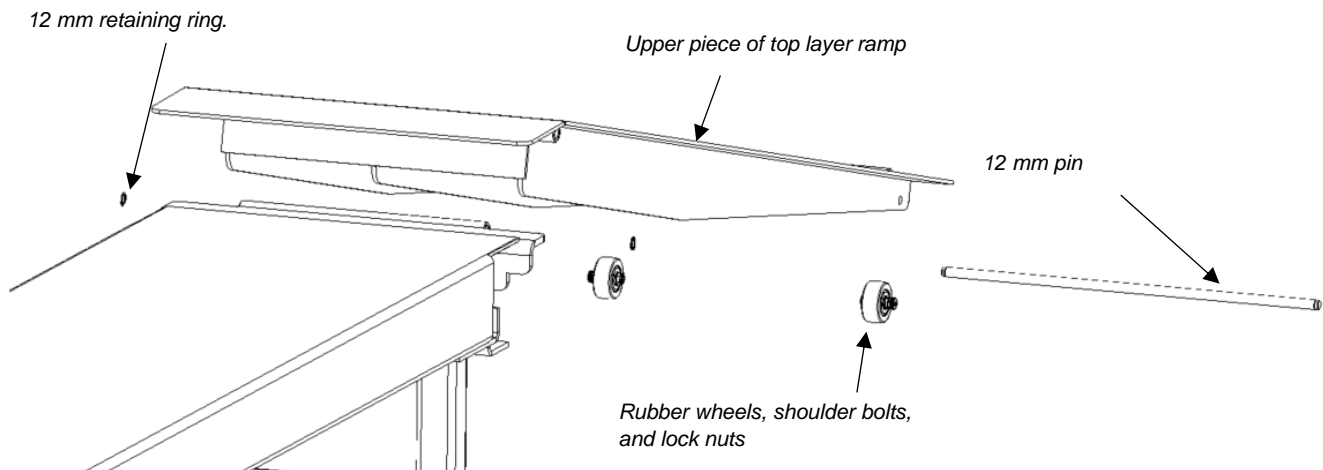


Figure 6.8 Drive on ramps top layer upper pieces.

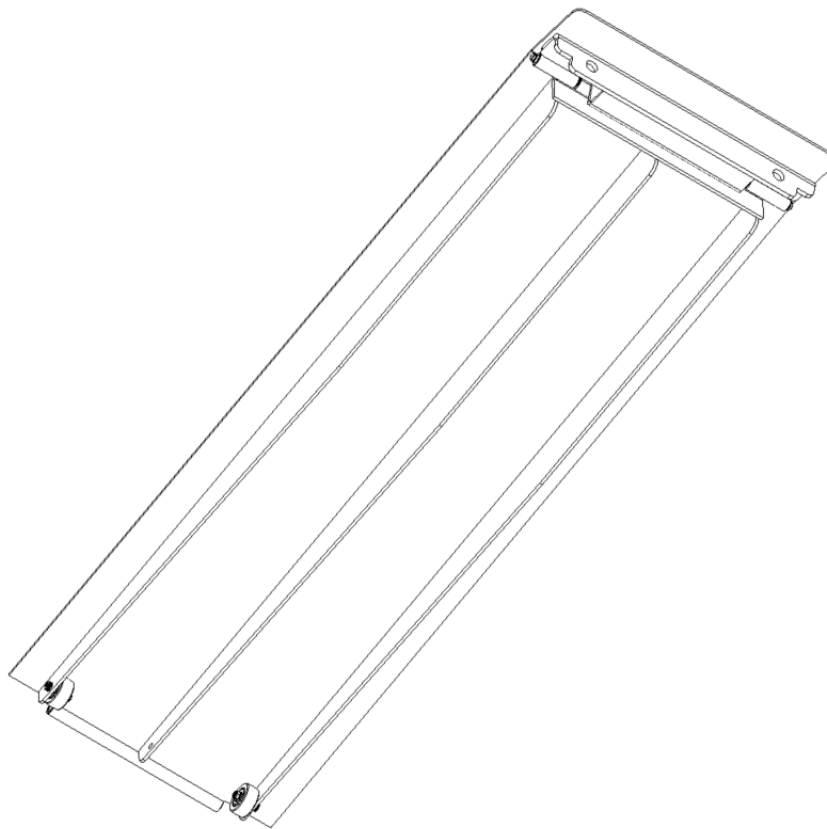


Figure 6.9 Drive on ramps top layer upper piece assembled.

To assemble the top layer lower piece of the ramp, you will need to locate the lower piece of the top layer ramps, a 12mm pin, two 12mm external retaining rings, two 16mm retaining ring two metal rollers, two rubber wheels, two shoulder bolts and two lock nuts. Refer to figures 6.10 and 6.11 for a visual representation on how to assemble the upper pieces of the top layer ramp. Place the lower piece up against the top, and line up the tubing for the two pieces. You can slide the 12mm pin through these tubes and secure each side with a retaining ring. Next you can place a shoulder bolt through a hole on the bottom of the ramp. Place the wheel on the bolt and tighten the lock nut down onto the bolt. Do not fully tighten it

down, leave it loose enough that the wheel can freely spin on the bolt. Do this for the other side. You will also need to place the two metal rollers on the bottom lip of the ramp with secure them in place with two 16mm retaining rings.

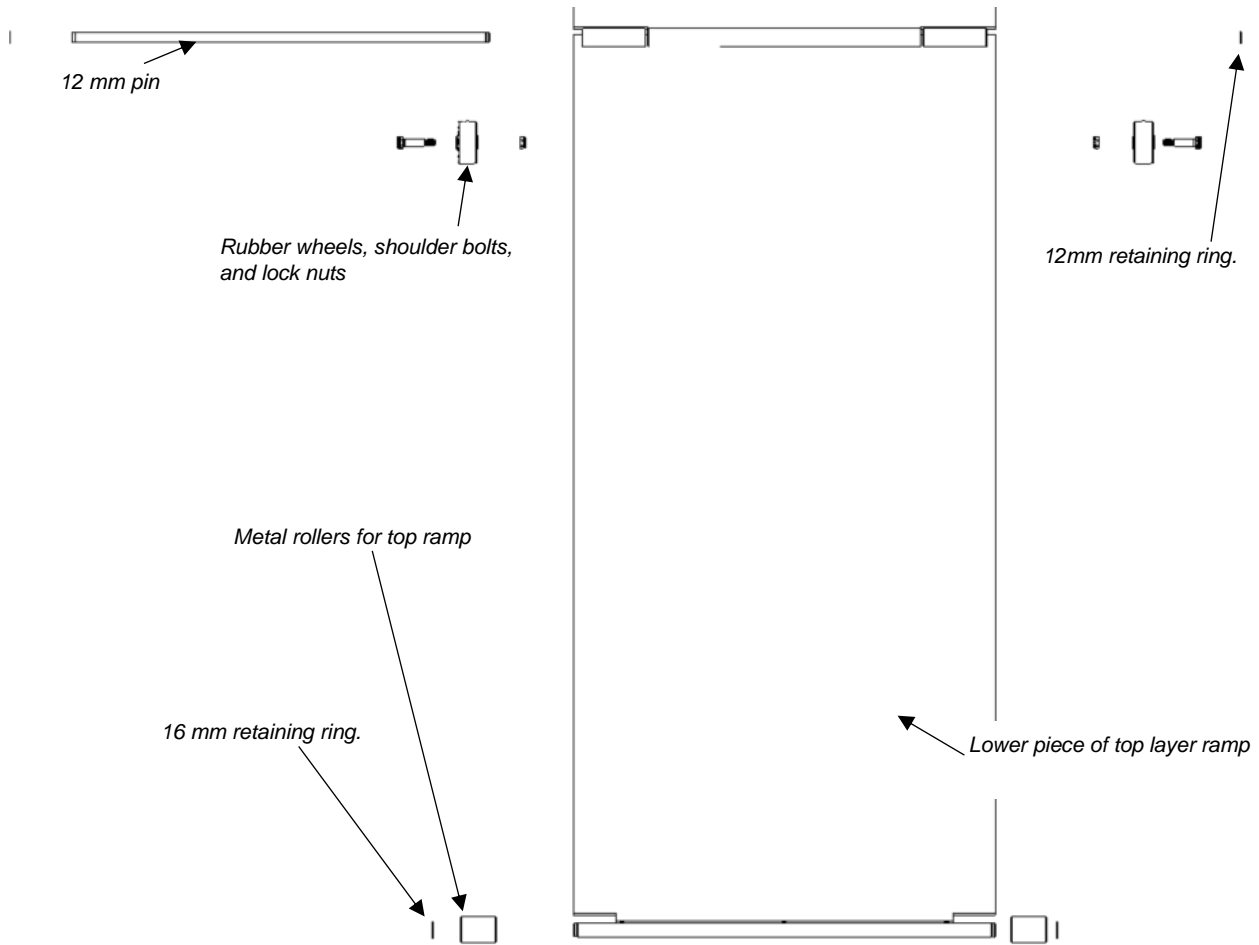


Figure 6.10 Drive on ramps top layer lower piece parts

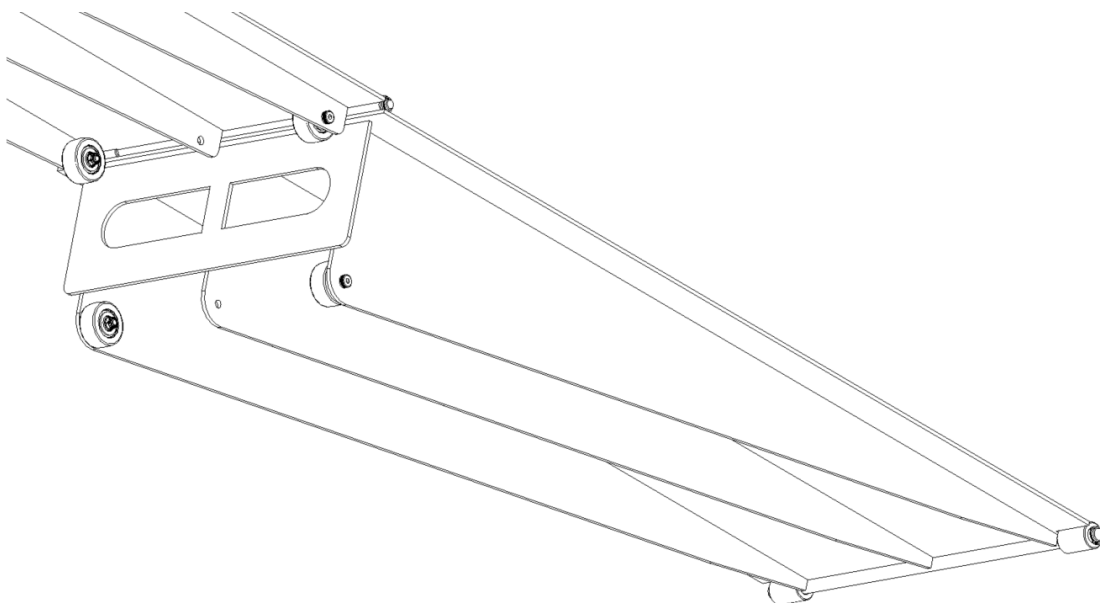


Figure 6.11 Drive on ramps top layer lower piece assembled.

The lower piece of the ramp can fold up and lay on top of the upper piece. Refer to figure 6.12 for a visual representation. Do not raise the lift with the lower piece of the ramp extended out, only raise the lift with the lower piece of the ramp folded up.

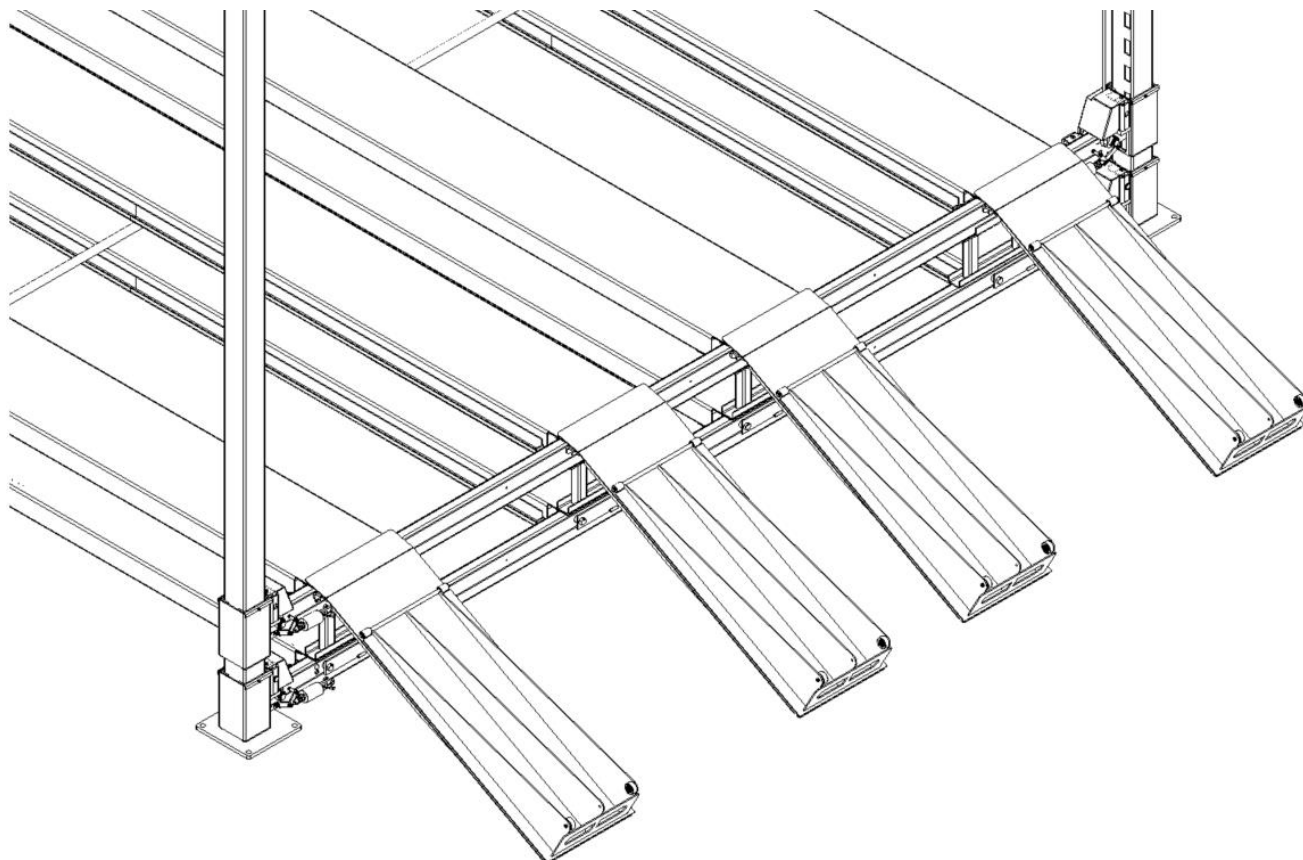


Figure 6.12 Drive on ramps top layer folder up

STEP 7: Electrical Plugs and Cables.

We will now begin connecting the electrical connectors together. There are five electrical connectors located inside the runways. Two of them are in the powered runway, two of them in the runway above the powered runway, and one of them in the top runway on the other side of the lift from the powered runway. Of the five connectors, four are the exact same type. Refer to figure 7.1 for a visual representation of this part.

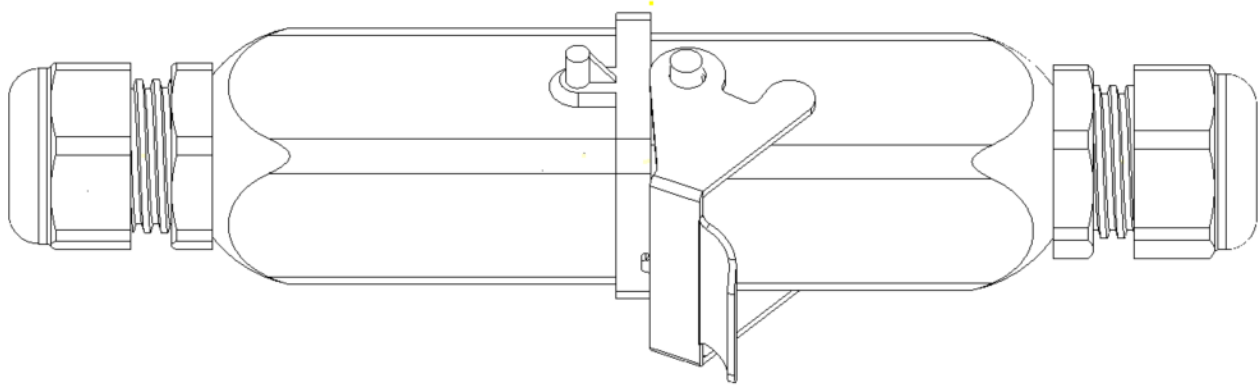


Figure 7.1 Latching electrical connectors.

These connectors have five pins and can only be connected in one way. Once the connectors are connected, use the latch to lock them together.

Attached to each electrical box, closest to the powered runway, on the crossmembers is an electrical connector, these will connect to the connectors inside of the runways. You will need to fish the connectors into the runways, refer to figure 7.2 for a visual representation. You may need to remove a guide pin bolt temporarily to get the connector for leg 1 into the runway. Ensure when putting any guide pin bolt back, that you do not catch the cable on the same side as the wire rope. Refer to figure 7.4 for a visual representation.

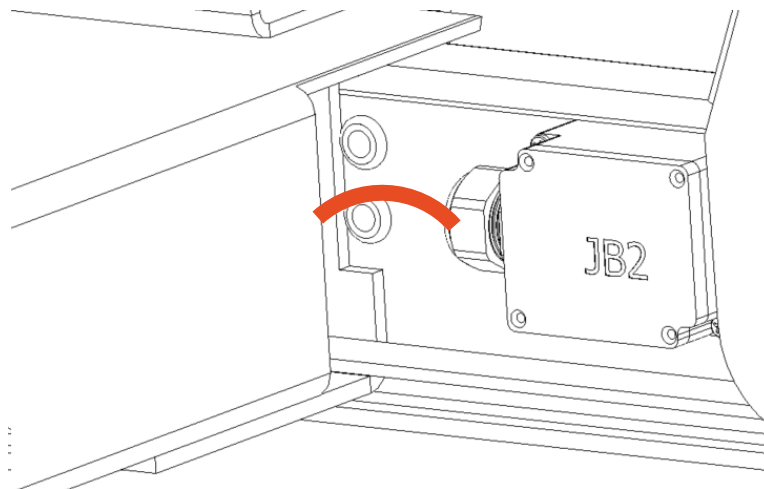


Figure 7.2 Where to fish the connector through.

Another thing to note is that in the powered runway there will be two cords with connectors on them. Refer to figure 7.3 for a visual representation of where they should be run to. The cables need to be run inside of the L-shaped formed pieces of metal welded to the bottom of the runway, they should already be run through there from the factory.

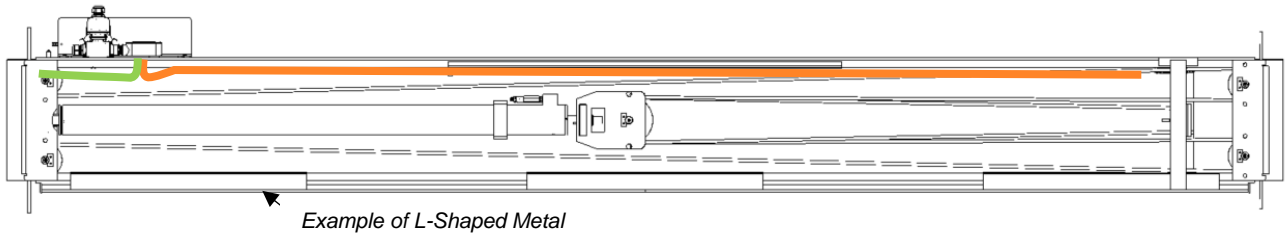


Figure 7.3 Powered runway cables with connectors

Another thing to note is you were provided with ten cable ties and three cable tie holders to secure the cables on the inside of the runways. Two of them must be used to secure the cables going into and out of the connector from leg 1 to the inside of the runway wall. Ensure that there is no slack left in the electrical cable as it could be ripped out by the pulley. Any extra slack can be hidden into one of the L-shaped formed pieces of metal welded to the bottom of the runway or coiled up and cable tied to the other cable tie holder. If you choose to place any extra slack into the L-shaped piece, ensure you still use the cable tie holder to cable tie the cable, this will prevent the cable from moving around. At this point you should have the first connector connected and cable ties securing the cable. Refer to figure 7.4 for a visual representation.

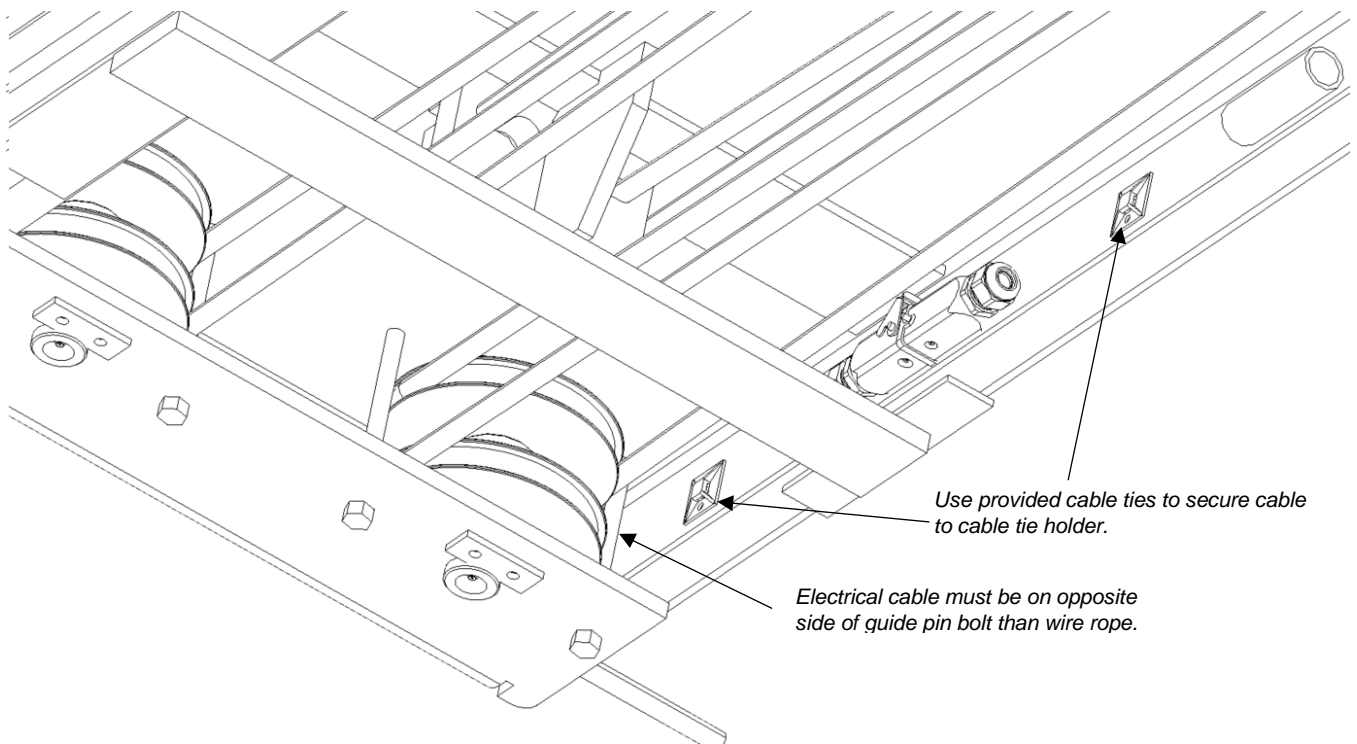
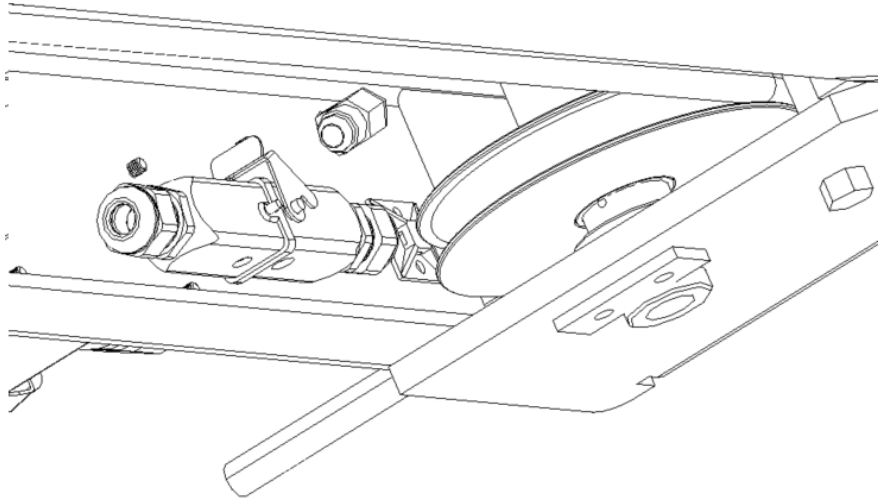


Figure 7.4 Electrical Connector inside runway by leg 1.

There is one more cable to connect in the bottom runway. Refer to figure 7.5 for a visual representation. You will need to place another of the cable tie holders approximately the spot shown and use a cable tie to secure the cable. You can hide the extra cable and as much of the connector as you can inside the L-Shaped piece. Once you have the two pieces of the connectors together, we can move onto the runway directly above the powered runway.



*Figure 7.5 Electrical Connector inside
Powered runway by leg 2*

In the runway above the powered runway there will be four cords, three of them with connectors on them, and one of them prewired to the limit switch. Refer to figure 7.7 for a visual representation of where they should be run to. The cables need to be run inside of the L-shaped formed pieces of metal welded to the bottom of the runway, they should already be run through there from the factory. The cables come from the back of the electrical box on the runway. One of the connectors will look different from the connectors explained earlier. This connector will run to the runway on the other side of the lift, refer to figure 7.6. It will plug into the connector that was prewired into the limit switch on that runway. This cable will run through the end caps of all four runways. Refer to figure 7.7 for a visual representation. You will need three loop clamps, three M6x1.00x10mm Button head bolt, three m6 lock washers, and three m6 washers. The loop clamps will support the cable as it runs through the spans between the runway endcaps. Refer to figure 7.8 for a visual representation. You can use the included zip ties to secure the cable better and prevent it from sagging. Any extra cable can be coiled up, cable tied and hidden inside of the L-pieces welded onto the runways. Once you have this cable run you can connect the two ends together.



Figure 7.6 Connector for limit switch

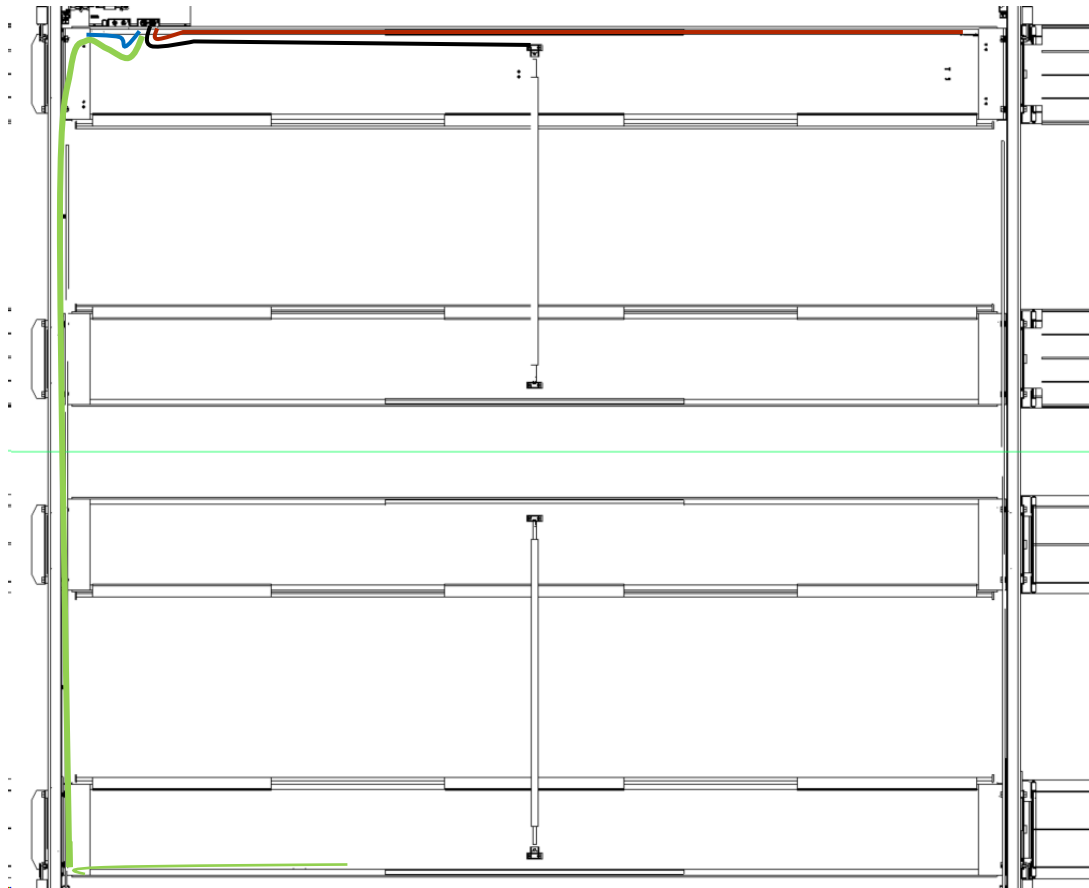


Figure 7.7 Top runway cable paths

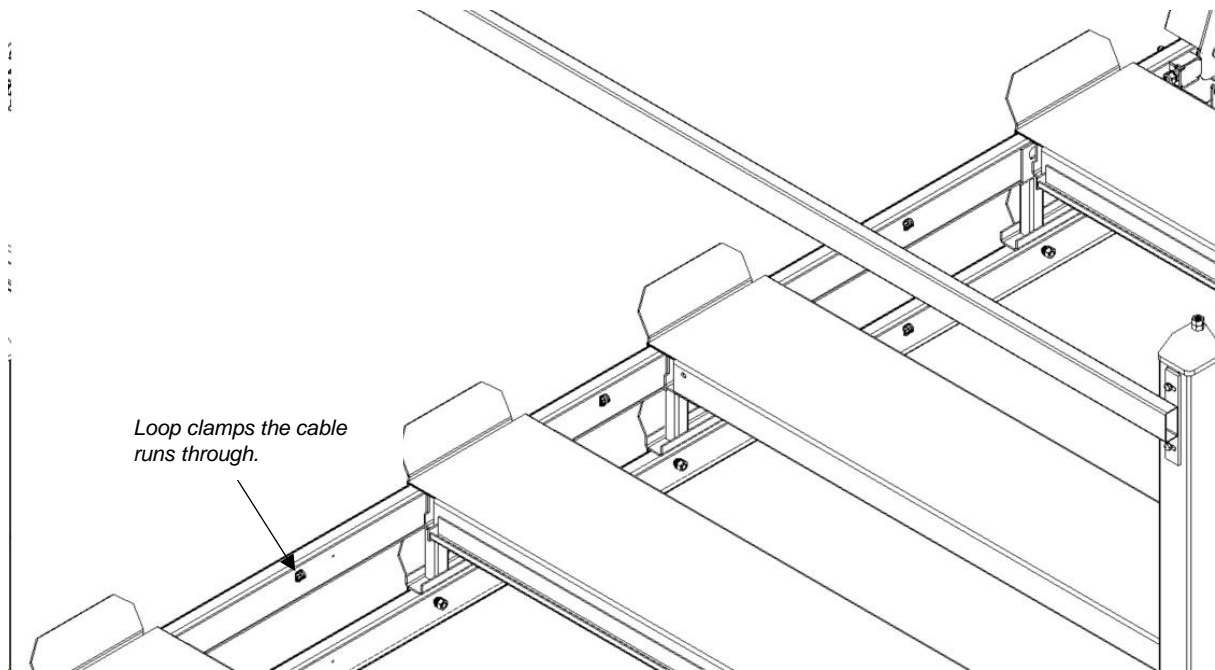


Figure 7.8 Loop clamp positions

There are two more connectors that need to be connected on the top level, refer to figure 7.9 and 7.10 for a visual representation. Any extra cable can coil up and hidden in the L-Shaped pieces. Once these cables are connected, there is one more cable to connect to the lift.

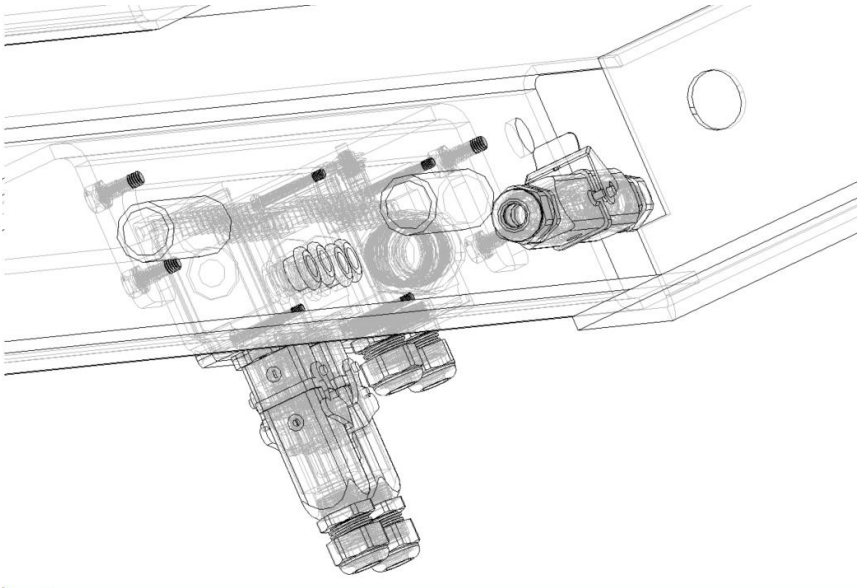


Figure 7.9 Connector by leg 3 in top runway

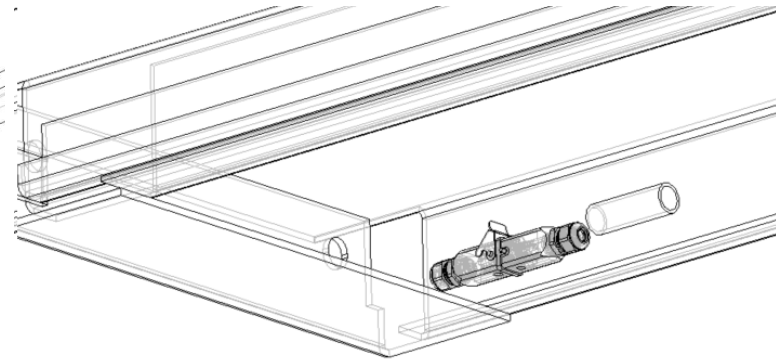


Figure 7.10 Connector by leg 1 in top runway

The last cable that needs to be connected has a much bigger connector on it, and it comes directly from the power unit. Refer to figure 7.11 for a visual representation of the connector plugged into the lift.

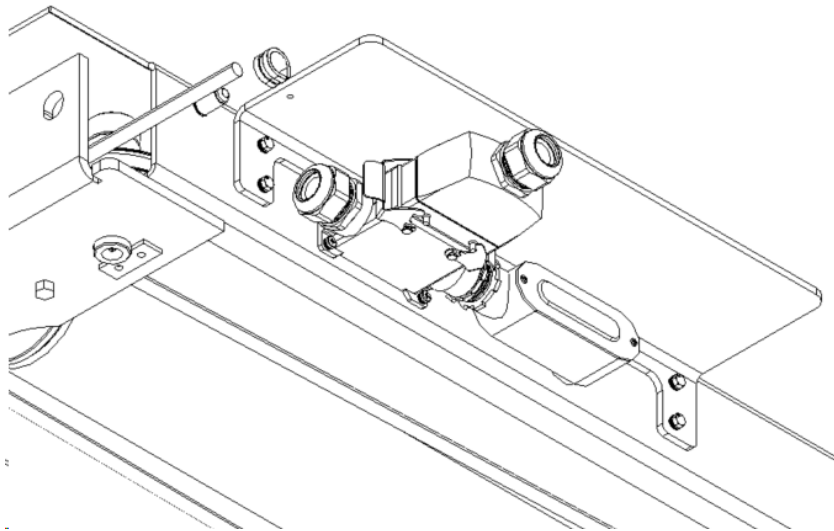


Figure 7.11 Main connector for lift on powered runway

The last thing we can do before moving on, is using two more loop clamps to secure the cable. The cable goes from the bottom runway to the top runway. Refer to figure 7.12 and picture 7.1 for visual representation of how to secure the cable. These loop clamps will use the same bolts that are holding the slider block retainers on. The loop clamps should have been preinstalled from the factory. Make sure to pull the coiled cable slightly tight through the clamps.

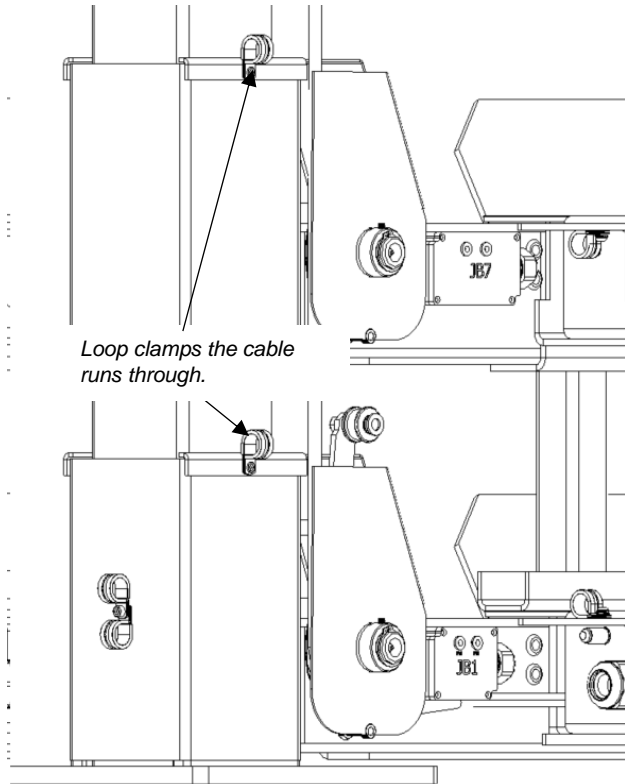


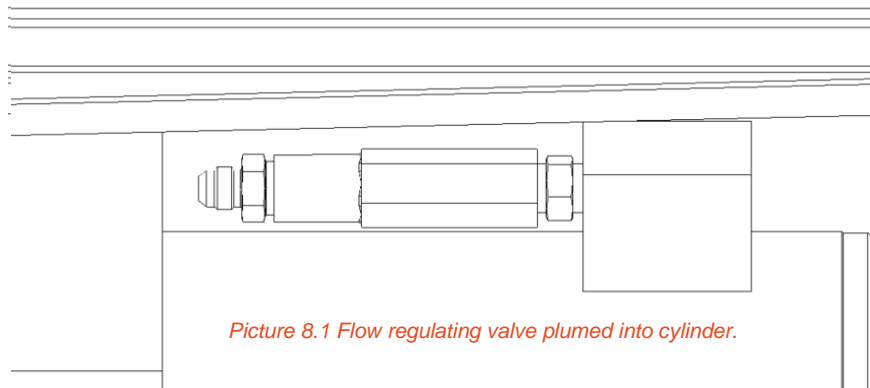
Figure 7.12 Loop clamps for cable from bottom to top runway



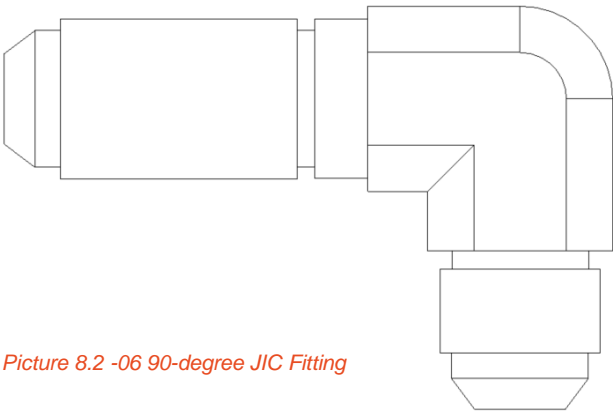
Picture 7.1 Loop clamps for cable from bottom to top runway

STEP 8: Hydraulic Lines.

The next step is to connect all the hydraulic lines. The first hydraulic line we will be connecting is the line from the cylinder to the hole in the side of the powered runway. This line should be run in the factory, but if it isn't we will discuss the steps. On the cylinder, there will be a flow regulating valve that controls how fast the lift will go down. Refer to figure 8.1 for a visual representation.

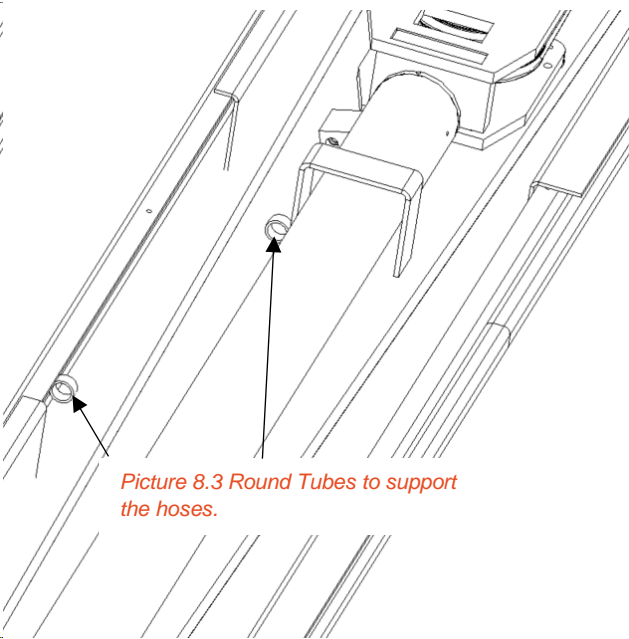


Picture 8.1 Flow regulating valve plumbed into cylinder.

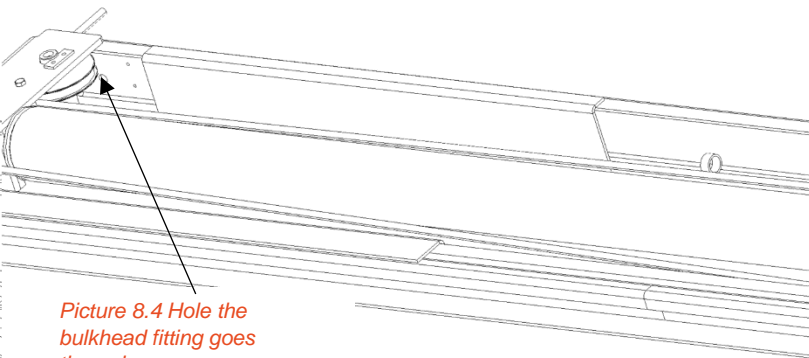


Picture 8.2 -06 90-degree JIC Fitting

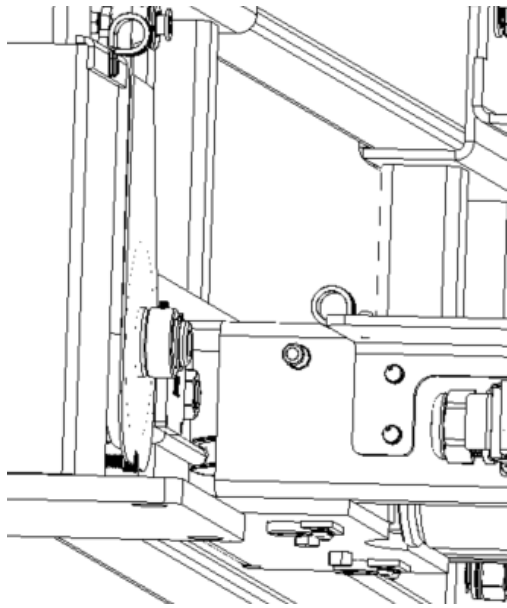
There will be two hydraulic hoses, a longer one and a shorter one. The shorter one will run through the runway. The hoses have -06 JIC Swivel female fittings on them. You can tighten one end of the hose to the fitting on the cylinder. Do not fully tighten the fitting, leave it loose enough that you can still spin the hose by hand. You will also receive a -06 JIC 90-degree bulkhead fitting, this fitting will have a shorter side and a longer side. On the longer side, there should be two nuts. You will need to remove one of the two nuts and leave one of them threaded on almost all the way. The shorter side needs to be attached to the hose that was just attached to the cylinder. Fully tighten this fitting. Refer to figure 8.2 for a visual representation of the fitting. Once you have the fitting connected to the hose you will need to run the hose through the L-Shaped pieces welded to the bottom of the runway. There should be some small pieces of round tubing right around the cylinders area, refer to figure 8.3 for a visual representation, make sure to run the hose through these. Once you have the hose ran through the L-shaped piece, place the long portion of the bulkhead fitting through the hose and secure it in place with the other nut. You can now go back and tighten the hose to the cylinder.



Picture 8.3 Round Tubes to support the hoses.



Picture 8.4 Hole the bulkhead fitting goes through.



The next thing we need to do is connect the longer hose to the fitting sticking out of the runway. Refer to figure 8.5 for a visual representation. After this fitting is tightened, we can run the hose next to the electrical cable going back to the power unit. On the side of the power unit is another -06 JIC bulkhead fitting. You will connect the other end of the hose to it. Refer to figure 8.6 for a visual representation. Once the hose is connected and tightened, we can go back to where the hose and electrical cable go to the lift and secure them to the sleeve of the crossmember with 2 loop clamps and an M6x1.00x10mm socket head bolt. Refer to figure 8.7 and picture 8.1 for a visual representation. The loop clamps and mounting hardware should have been installed on the lift from the factory, if not refer to the hardware box.

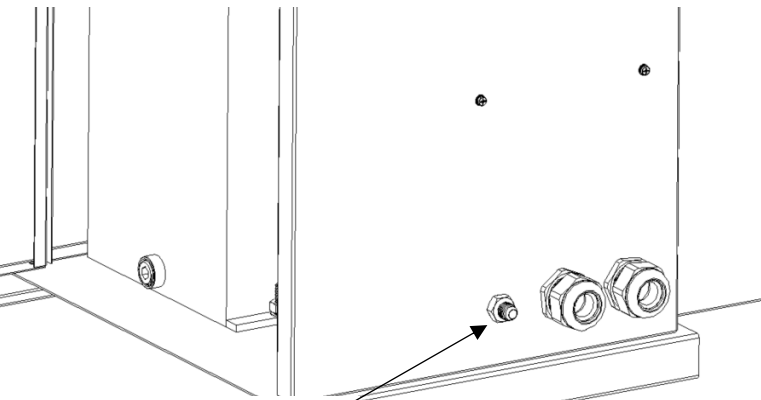


Figure 8.6 Bulkhead fitting on the outside of the Power Unit.

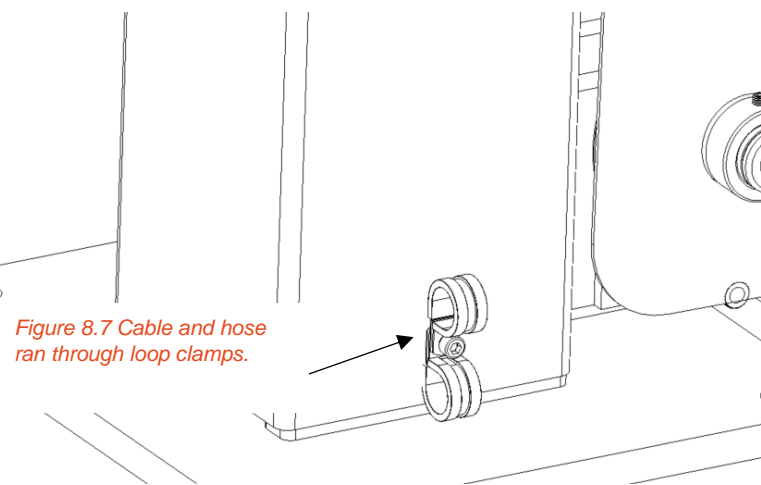


Figure 8.7 Cable and hose run through loop clamps.



Picture 8.1 Cable and hose ran through loop clamps.

The hydraulic hoses in side the power unit are preinstalled for your benefit. There is a ball valve in the power unit for the hydraulic system, ensure that the valve is opened.

Also included in the packaging is an approximately 15-foot piece 1.5" velcro wrap. This wrap is intended to be wrapped around the hydraulic hose and electrical cable coming from the power unit. Refer to picture 8.2 for a visual representation.



Picture 8.2 Cable and hose wrapped in Velcro wrap.

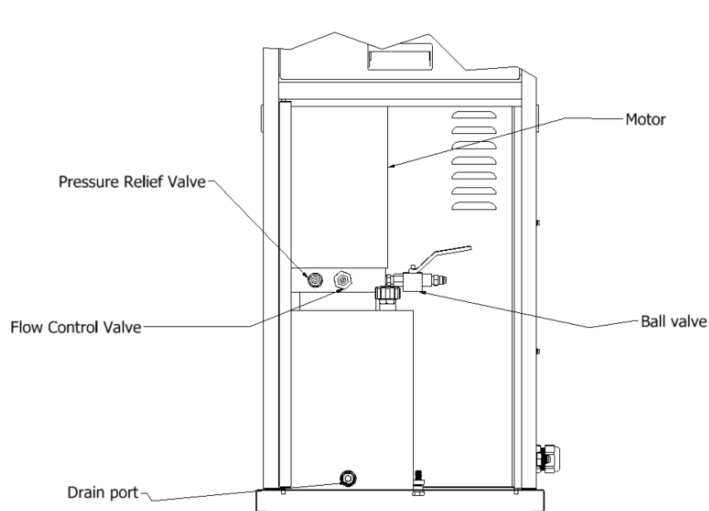


Figure 8.8 Hydraulic components in power unit

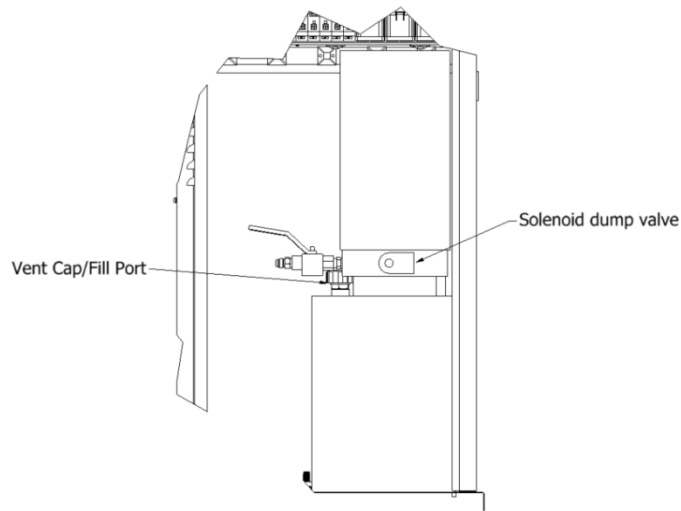
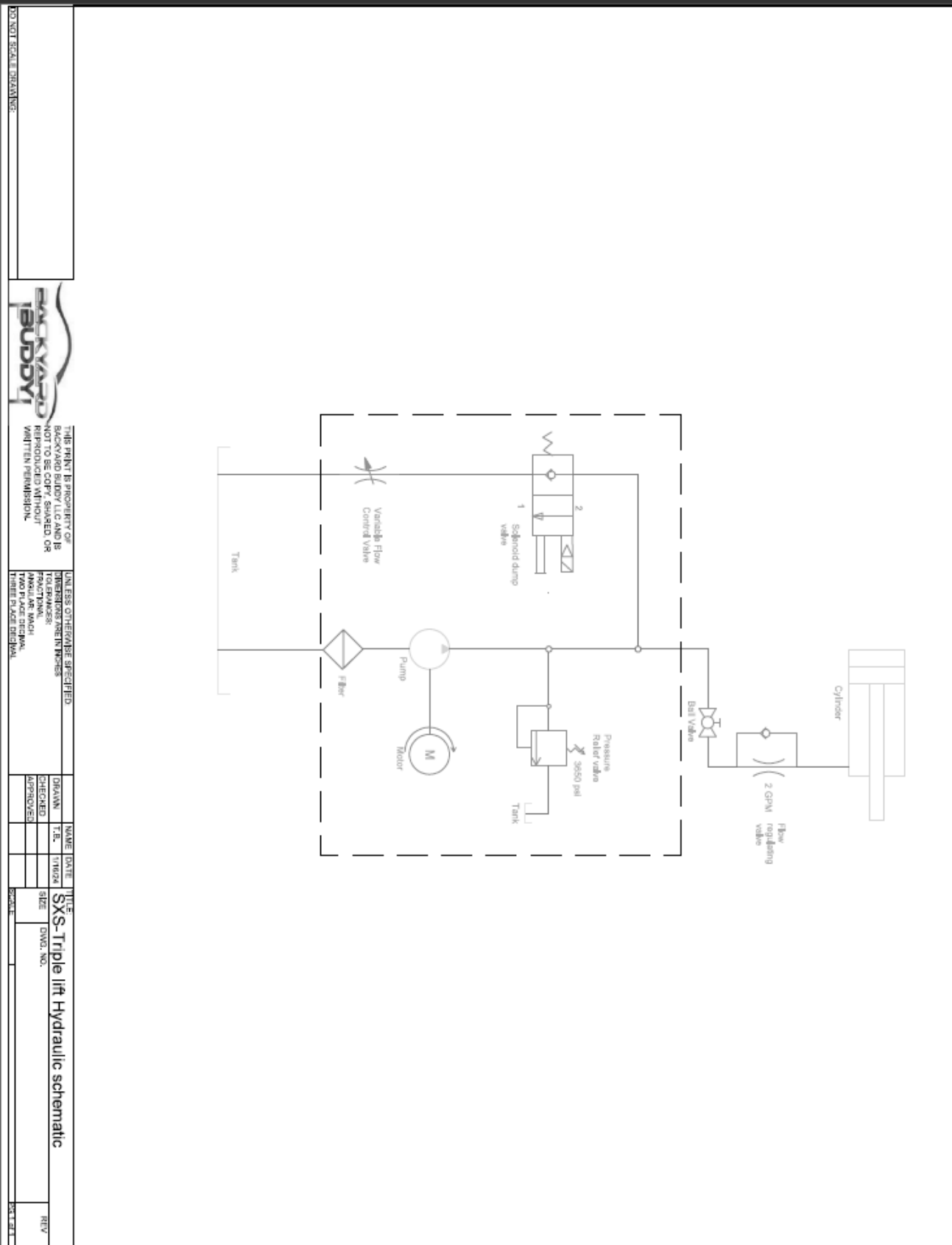


Figure 8.9 Hydraulic components in power unit

Ensure the Ball valve is in the “open” position. The flow control valve and pressure relief valve are set to specific values from the factory **do not adjust them.** If you feel adjustments need to be made contact Advantage Lifts. A schematic of the hydraulic circuit can be found below.



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UNLESS OTHERWISE SPECIFIED TOLERANCES ARE IN INCHES FRACTIONS AND DECIMALS TWO PLACE DECIMAL THREE PLACE DECIMAL

NAME	DATE	TITLE
DESIGNED	T.E.	SXS- Triple lift Hydraulic schematic
CHECKED		
APPROVED		
REV		

STEP 10: Electrical to the lift.

The next step is to have electrical run to the lift. Any electrical wiring must be performed by a qualified and licensed Electrician. For your benefit, an 8/3 multiconductor cable has been provided and prewired into the power unit. On the end of the cable is an L6-30 male end twist lock plug. A female end L6-30 has also been provided for your benefit; this gives you an option of having an electrician wiring the power cable into it. A single phase 240 VAC 30 Amp dedicated breaker is required.

Figure 10.1 will show the layout of the electrical components in the power unit. The time is set at 3.4 seconds.

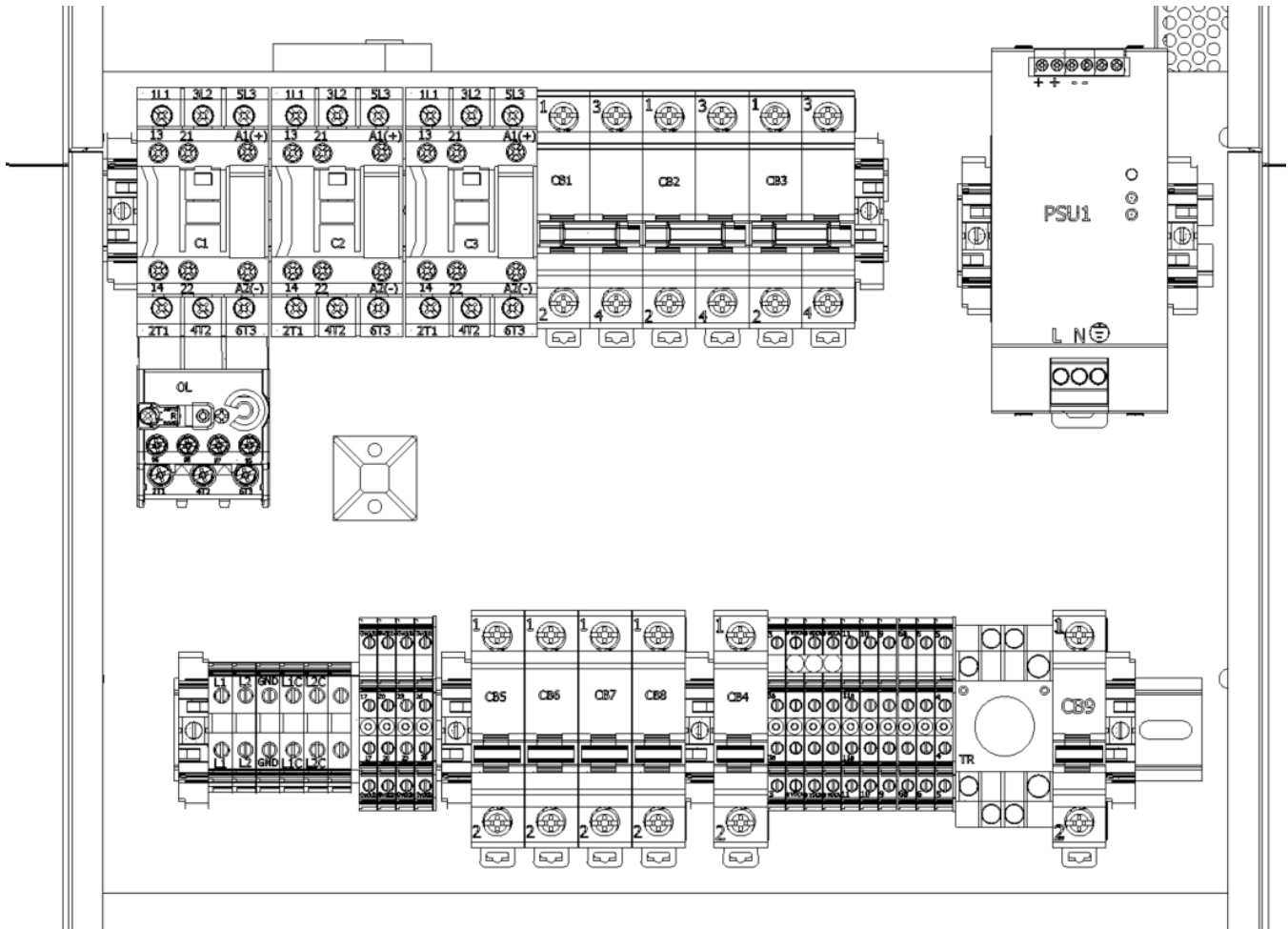


Figure 10.1 Electrical components in power unit

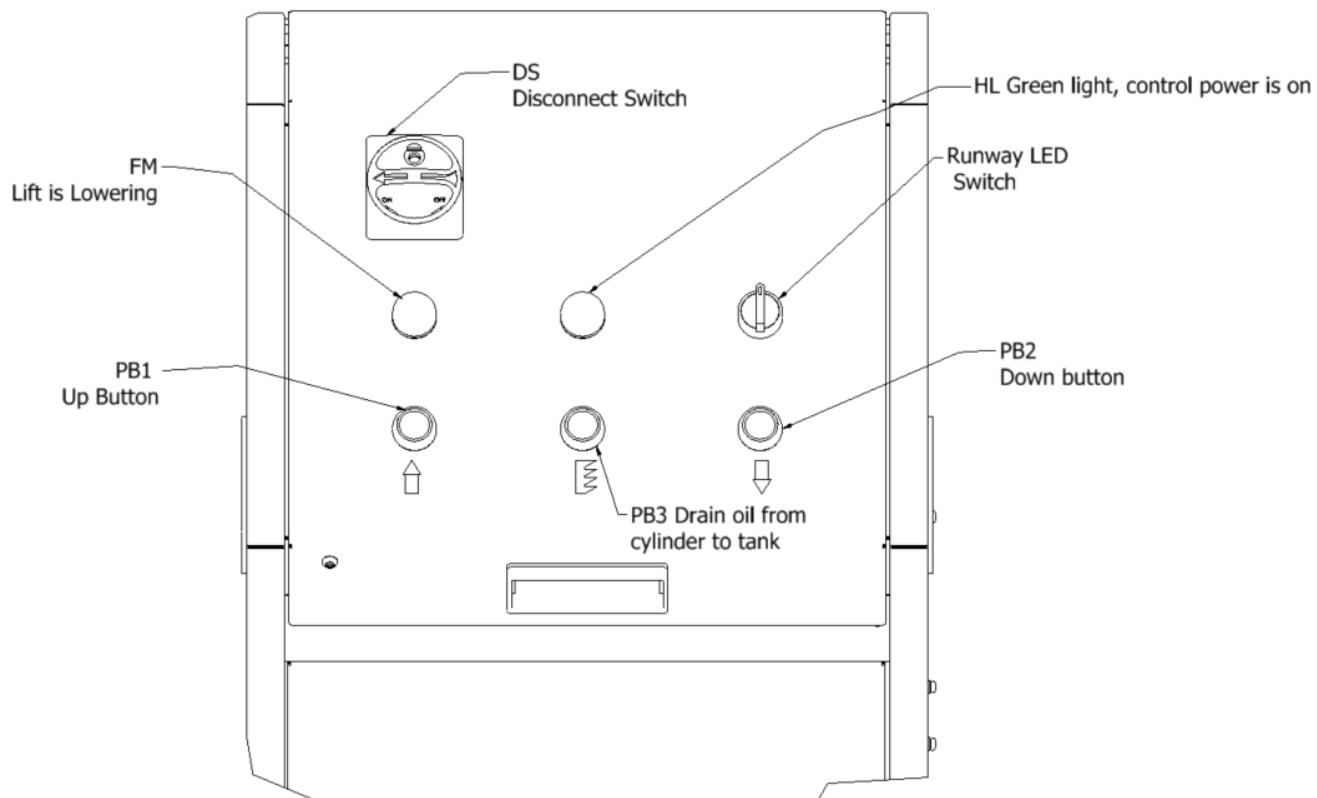


Figure 10.2 Electrical controls on lift

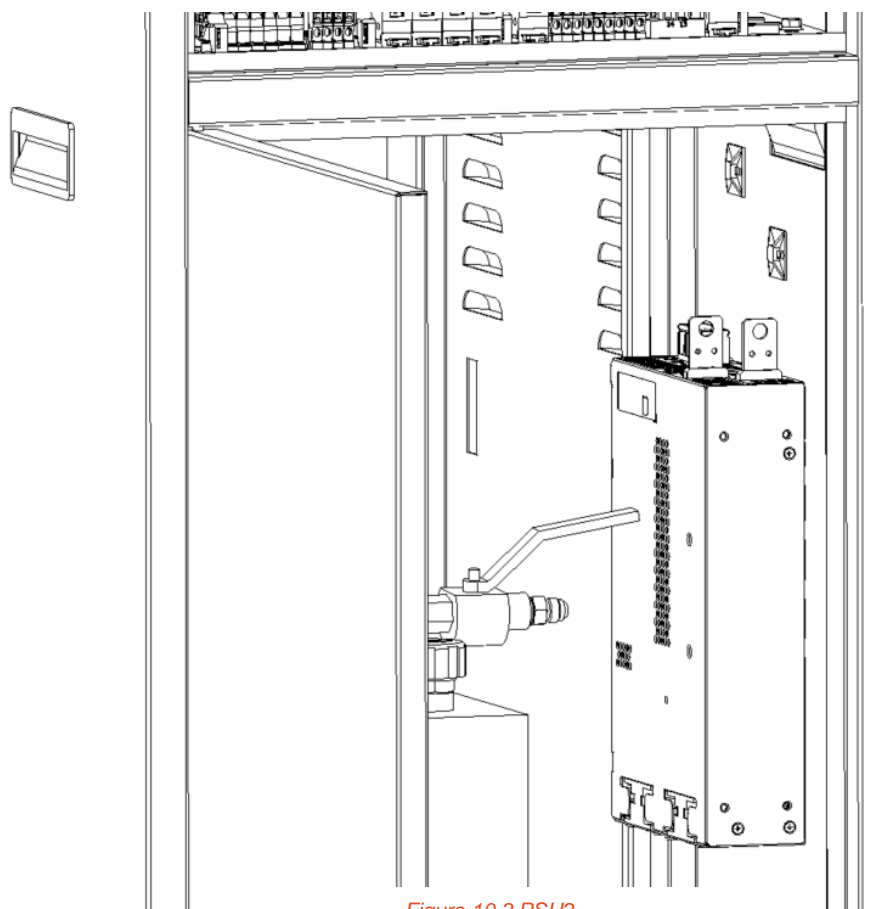


Figure 10.3 PSU2

Description	QTY	Part Number
NO contact block SW1	1	ECX1040-2
Dump Valve Solenoid coil, SV1	1	SXS10000-800-00-18
LIGHT SWITCH SELECTOR sw1	1	SXS10000-800-020
Power Supply 120-240vac to 48 VDC 32A PSU2	1	SXS10000-800-06-02
Red Actuator for 25A-63A Enclosure Disconnect Switch DS1	1	SXS10000-800-06-03
Contactors 25A 24VDC Coil 25A C1-C3	3	SXS10000-800-06-04
Single level terminal block good for 50 amps	6	SXS10000-800-06-05
Double level terminal strip	14	SXS10000-800-06-06
Disconnect Switch, DS	1	SXS10000-800-06-07
End stop	8	SXS10000-800-06-09
Single level terminal block Cover	1	SXS10000-800-06-12
Terminal block cover	2	SXS10000-800-06-13

8-amp C curve circuit breaker CB4, CB9	2	SXS10000-800-06-14
8-amp d curve circuit breaker CB5-CB8	4	SXS10000-800-06-15
4 Amp d curve 2P CB2	1	SXS10000-800-06-16
10 Amp d curve 2P CB3	1	SXS10000-800-06-17
30 Amp d curve 2P CB1	1	SXS10000-800-06-18
Power on HL	1	SXS10000-800-06-19
Up, down, Drain to tank PB1-PB3, Contacts vary by PB refer to schematic	3	SXS10000-800-06-21
Power Supply 120-240Vac to 24VDC Power supply 480W 24VDC out 220 in 480 W 20 AMP	1	SXS10000-800-06-22
Lift going down, China AD16-22DS, FM	1	SXS10000-800-06-23
Overload 15.0A to 23.0A OL1	1	SXS10000-800-06-24
On Delay timer relay TR Base and coil	1	SXS10000-800-06-25
Bar Jumper for terminal strip	1	SXS10000-800-06-27

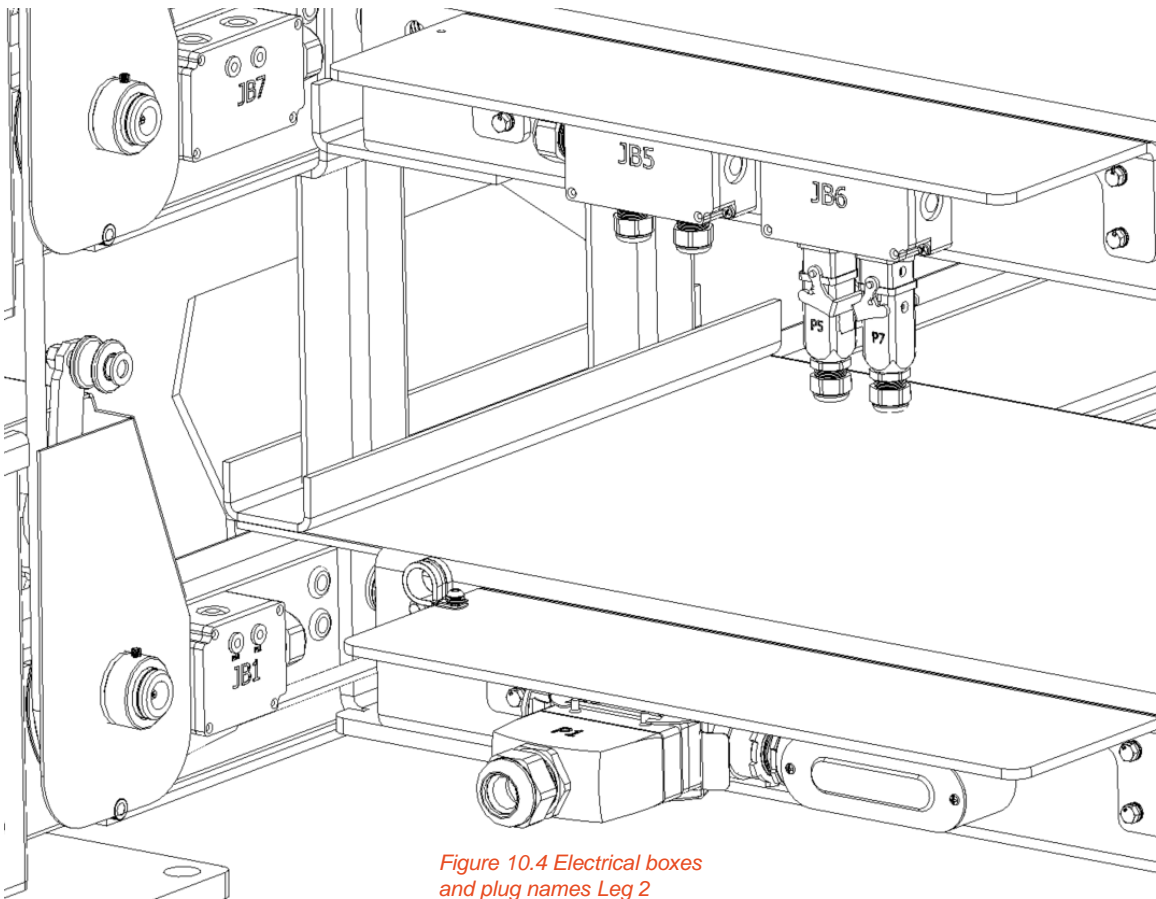


Figure 10.4 Electrical boxes and plug names Leg 2

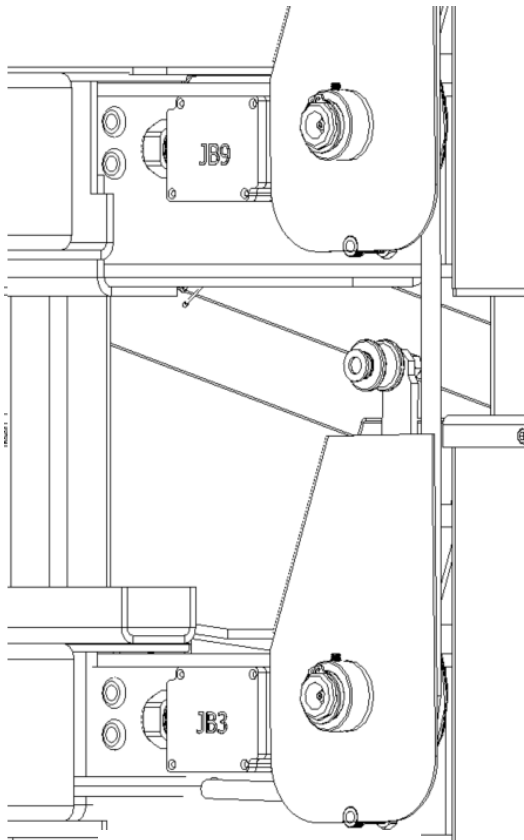


Figure 10.5 Electrical boxes and plug names Leg 1

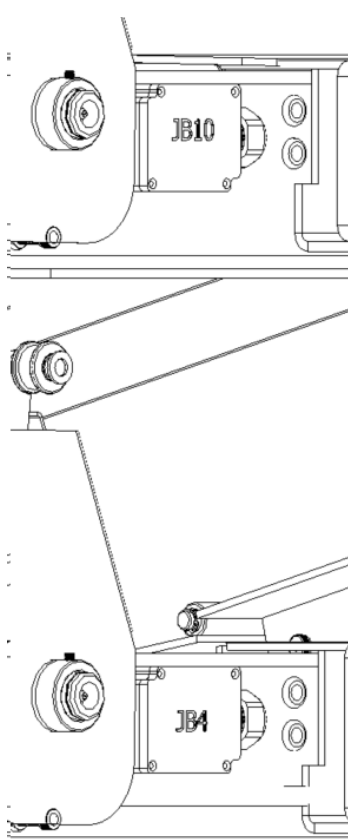


Figure 10.6 Electrical boxes and plug names Leg 3

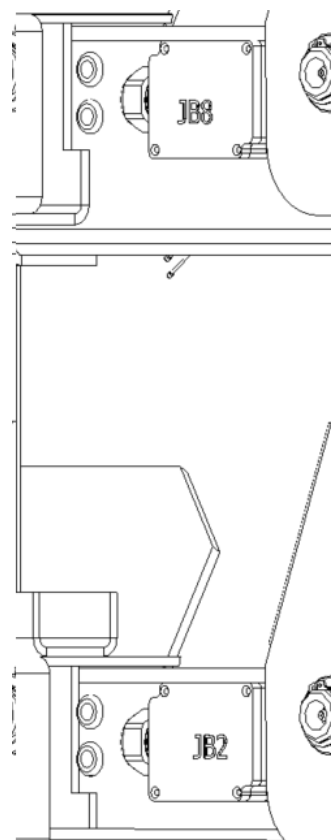


Figure 10.7 Electrical boxes and plug names Leg 4

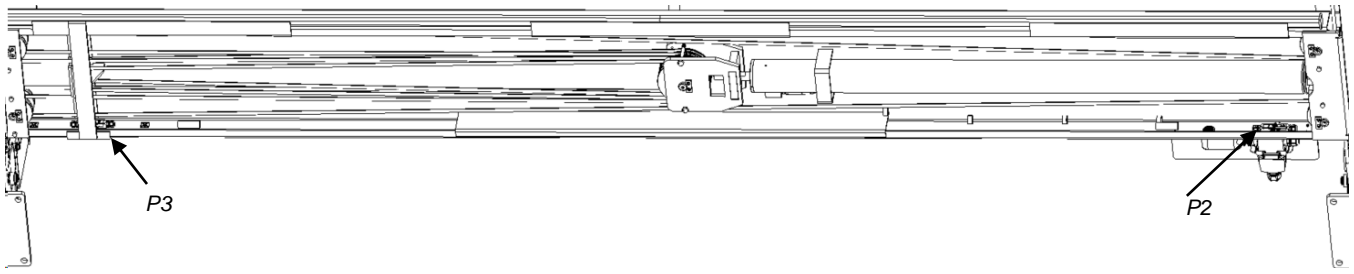


Figure 10.8 Powered runway connectors

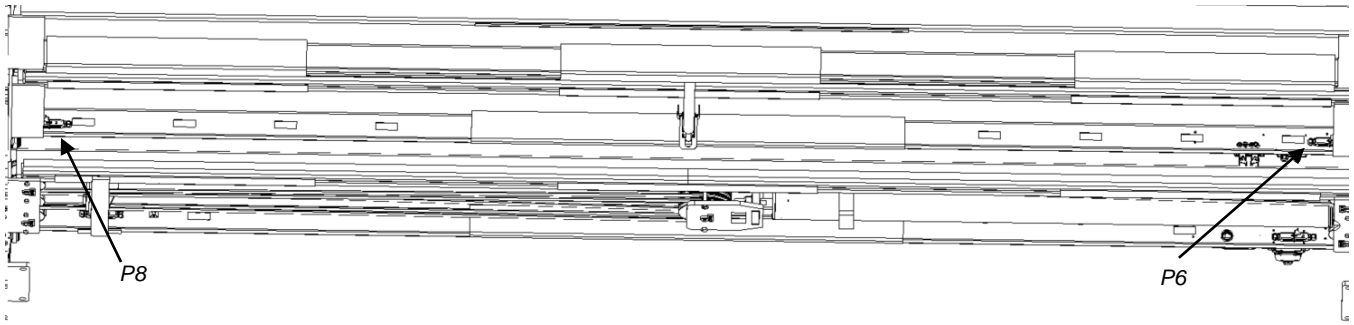


Figure 10.9 Top runway above powered runway connectors

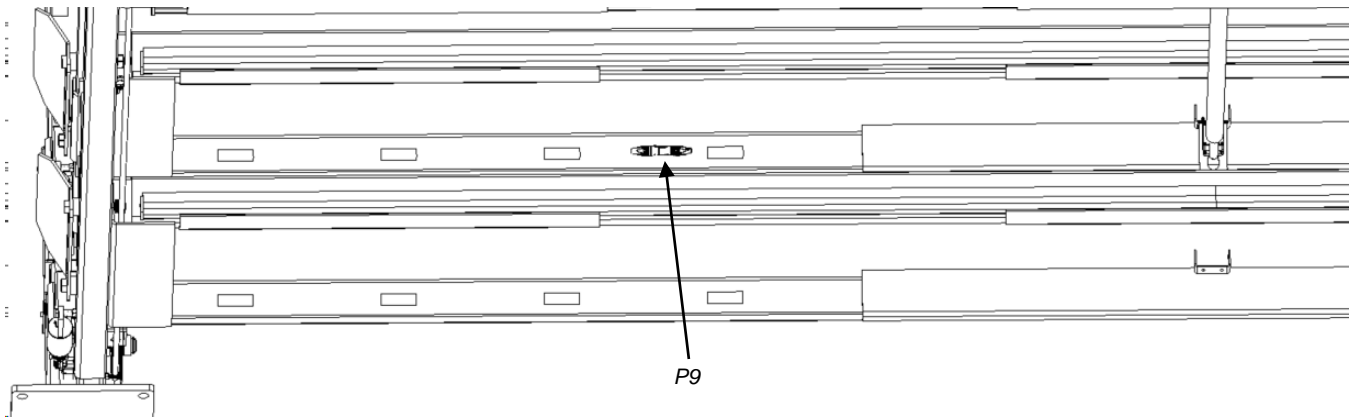


Figure 10.10 Top runway on opposite side of lift from powered runway connectors

A schematic of the electrical circuit can be found on the next page.

STEP 11: Pre-Operation and Maintenance Checks

Before proceeding any further ensure that all hardware, fasteners, and hose fittings are secure and fully tightened. Also ensure all electrical connectors are firmly connected and that the latches on them are properly latched.

The next step is to ensure the wire ropes are properly routed and on the pulleys with the retainer bolts properly installed to prevent the wire ropes from coming off of the pulley.

After this you will need to fill up the hydraulic tank with oil. The only approved hydraulic oil that is to be used with this lift is AW-32. You will need to fill it with approximately 3.75 gallons of oil. Do not overfill the oil as it could blow the cap off of the tank.

This step is not to be done yet. If the lift will not go up any higher even though it can still go up higher (refer to the stroke of the cylinder), you can fill it slightly more. You may need to do this several times, doing it in small amounts will prevent you from over filling the tank. When bringing the lift down pay attention to the vent cap and ensure oil is not coming out of it. Do not

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.

Daily Checks

<input type="checkbox"/>	Confirm all fasteners are in place and tight. (Snap rings, collars, bolts, nuts etc.)
<input type="checkbox"/>	Check the hose/cable going to the lift and the coiled cable going to the top level are free of kinks and that they will not be crushed by the crossmember sleeve when lowering the lift.
<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. Ensure that connectors are connected properly.
<input type="checkbox"/>	Check columns, cables, runways, and base plates are free of dirt, grease, or damage.
<input type="checkbox"/>	Verify the limit switches are operating properly before use to ensure vehicles on the bottom layer do not get damaged.

May be completed by the owner/qualified operator or trained lift service personnel.

Monthly Checks

<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. (See pg.83)
<input type="checkbox"/>	Check pump fluid level, refill if low.
<input type="checkbox"/>	Check anchor bolts (if used, See pg. 84).
<input type="checkbox"/>	Check the cylinder 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. 3.75 Gallons.
<input type="checkbox"/>	Thoroughly check each cable (See pg. 83).

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.
- Replacing electrical Components or wiring.



STEP 12: 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. **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. Refer to figure 12.1 a visual representation of the controls on the power unit.

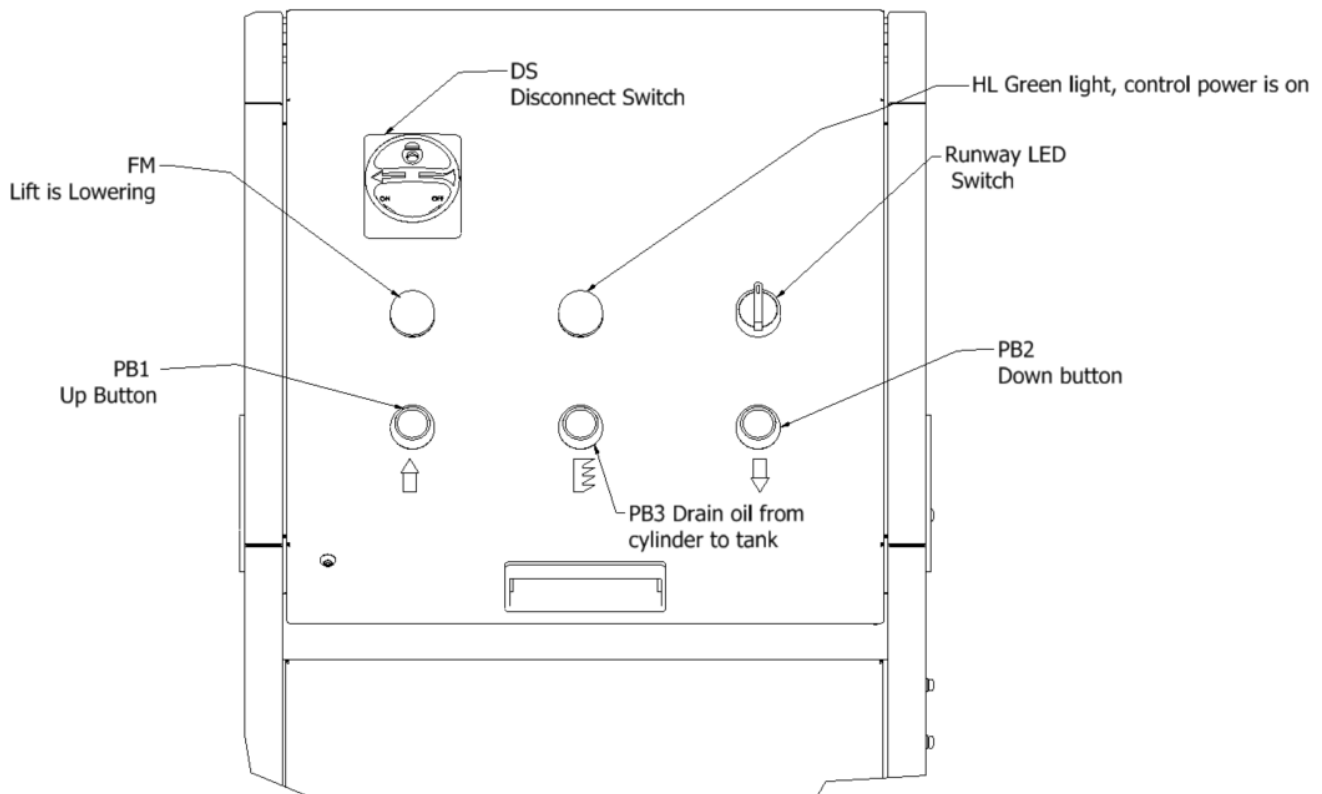


Figure 12.1 Power Unit Features

PB-1 – Will turn the Motor on and cause the lift to rise. It is a momentary Push Button.

PB-2 – Will raise the lift for 3.4 seconds by turning the motor on to get the lift off the locks, then it will turn the motor off and cause the lift to begin lowering by opening the hydraulic dump valve and releasing the electrical primary locks. The button is momentary, and the timer will reset every time you press it.

PB-3 – Will open the hydraulic dump valve to lower the bottom layer onto the lock. This button is momentary.

FM – Alerts the operator that the lift is lowering.

HL – Allow the operator to know that control power is on.

Runway LED Switch SW1 – If the runway LED kit for the triple lift is purchased, this switch can be used to turn the lights on and off. This switch must be turned off when raising the lift. This a maintained switch.

DS – Turns the electricity going to the components on the lift and in the power unit off.

Controls



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 i](#) of this manual.

- Any hydraulic oil leakage, unusual noise, or excessive wear must be fixed before using lift.



Warning: Make sure all four latches release – if not STOP, raise higher until latch is clear.

The electricity to the lift should be on. We will now discuss the controls on how to raise and lower the lift.

Refer to page 10 vehicle clearances.

Do not raise the lift with vehicles until you are completely comfortable with the controls and have leveled the lift. The following instructions are to describe how to make the lift move, do not follow the controls until it is stated in the manual.

To raise the top platform to the top set of lock holes.

1. Press PB1 in and you should hear the motor kick on and see both layers of the lift begin to rise.
 - a. The bottom layer raises the top layer by pushing up against it using the upper-level height adjustment weldments.
2. When the top layers primary locks just clear into the top lock holes press release PB3.
3. Hold PB3, this will drain the hydraulic fluid out of the cylinder and back to the tank.
4. The top layer should catch all four locks on the top set of lock holes.
 - a. If it doesn't catch and you are consistently having this issue, you may need to raise the two layers slightly higher than you were.
5. The bottom layer should continue down for a couple of more seconds.
 - a. You should see all four primary locks caught on the same set of lock holes.

-
6. Once you see all four locks resting in the lock holes, continue to hold PB3 down for an additional 3 seconds to drain more fluid out of the cylinder.
 7. You can now press and hold PB2 down, it should raise the lower layer upwards for 3.4 seconds.
 8. After 3.4 seconds the bottom layer should have moved up enough that the primary locks can kick out of the lock holes and will begin moving down.
 - a. It is crucial to ensure that only the bottom layer is lowering.
 - b. If the top layer is coming down on one or multiple sides, press PB1 and repeat the same steps from earlier.
 - c. You can walk around the lift or have a spotter verify the locks are catching properly.
 - d. Also, you will need to verify the lower layer of the lift is coming down evenly to ensure that none of the primary locks are caught in a lock hole.
 9. If all worked properly, the lower layer of the lift should be coming down.
 10. You can lower the bottom layer all the way to the ground.
 11. Ensure that the hose and cable coming from the power unit are clear of the sleeve and will not be crushed.
 - a. If they will, readjust them and ensure they will not be crushed.

Raising the lower layer of the lift to the desired set of lock holes (refer to page 10), for height requirements.

1. With your vehicles on the lower layer of the lift, press PB1 down until the lower layer 's primary locks just clear into the lock holes on all four legs at the height you want the layer to be and release PB1.
2. Press and hold PB3 down until all 4 primary locks of the lower layer are resting in the lock holes.
3. Ensure that all four corners of the lift come down evenly if all works as it should the lower level should be resting on the locks.
 - i) If you are consistently having an issue with one of the corners not catching, you may need to raise the middle level slightly higher and verify the locks are clearing into the lock holes or ensure that the lift is leveled to the right tolerance.
4. If one corner drops below the others immediately release PB3.
 - i) Press PB1 until all four corners are even again and ensure all four primary locks are clearing into the lock holes.
 - ii) Press and hold PB3 until the lower layer of the lift is sitting securely on the four primary locks.

Lowering the lower layer of the lift.

1. To lower the lower layer of the lift, ensure there are no vehicles below the bottom layer, press and hold PB1 until you see both lower crossmembers begin to move up and release PB1.
2. Press and hold PB2 down, the bottom layer should begin to move up, after 3.4 seconds the lift will begin to lower, and all four primary locks will pull out.
3. You should see all four corners of the lift going down evenly.
4. If you do not release PB2 immediately.
 - a. Use PB1 to raise the lower level back up until it is even, and then press and hold PB2 down.
 - b. If you are consistently having an issue with all four corners coming down evenly, you may need to hold PB1 down until you see both crossmembers move up slightly more or ensure that the lift is leveled to the right tolerance.
5. If all four corners of the lift are lowering continue to hold down the button until the bottom layer is on the ground.
6. Ensure that the hose and cable coming from the power unit are clear of the sleeve and will not be crushed.
 - a. If they will, readjust them and ensure they will not be crushed.

Lowering the Top layer of the lift.

1. To lower the top layer of the lift to the ground, ensure that the lower layer is empty of vehicles, press and hold PB1 and hold it down until it is just below the top layer.
2. Press PB1 until you see both top crossmembers begin to move.
 - a. If you are having consistent issues with one of the corners catching, you will have to raise the lift slightly higher than you were or ensure that the lift is leveled to the right tolerance.
 - b. You should also the “frown” of the bottom crossmembers disappear.
3. After you see both crossmembers begin to move, press, and hold PB2 down, for 3.4 seconds both layers should move up.
4. After that, the eight primary locks will pull out of the lock holes and the lift will begin to lower.
 - a. If any of the corners do not appear to be moving down, immediately release PB2.
 - b. Press PB1 down until all eight primary locks can pull out of the lock holes.
5. Once all eight primary locks have pulled out and the lift is coming down evenly, continue to hold PB2 down until both layers are on the ground.
6. Ensure that the hose and cable coming from the power unit are clear of the sleeve and will not be crushed, as well as the coiled cable.
 - i. If they will, readjust them and ensure they will not be crushed.

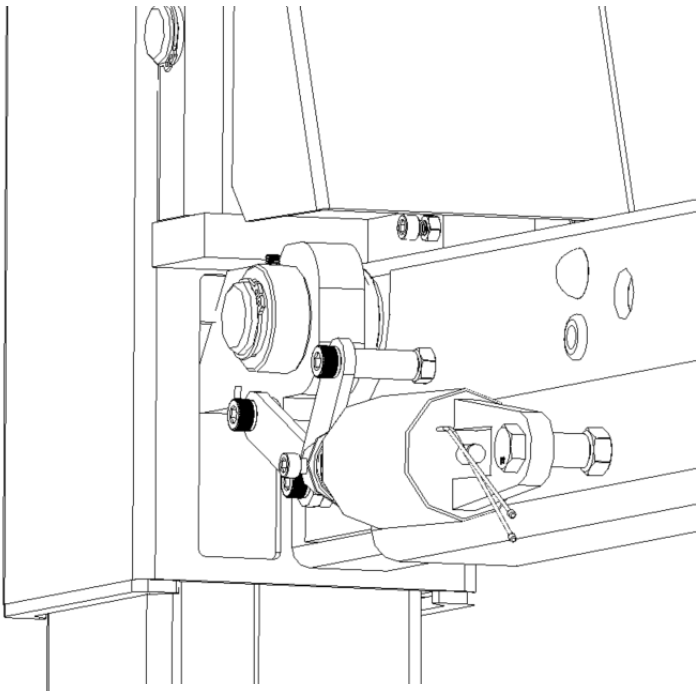


Figure 12.9 Example of primary locks in lock holes

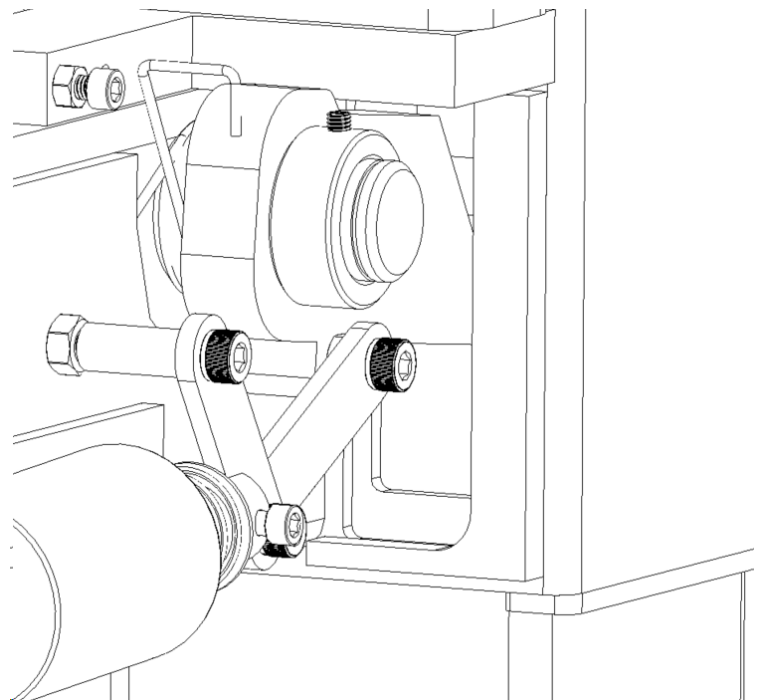


Figure 12.10 Example of primary locks having enough clearance to pull out of the locks.

Leveling the lift.



DANGER

It is now time to level the lift, you will need to do this twice. An initial time without vehicles on it and a second time with vehicles on it. You will need a 12-foot ladder.

To level the lift, raise both layers off the lock, stop the lift when you see the bottom crossmember's sleeve halfway between a lock hole. Count how many lock holes are visible on each leg. Measure from the foot pad on each leg to the bottom of the sleeve. Do this on all four legs. To level the lift all four dimensions, need to be the same. As an example, our dimensions will be 25" on leg 1, 25.5" on leg 2, 25.75" on leg 3, and 26" on leg 4. Lower the lift back down onto the locks. You will have to pick a dimension, for example we will choose leg 2's 25.5". Leg 2 will be the only leg we do not adjust. You will now take the other 3 dimensions and subtract them individually from leg 2's dimension. Leg 1 = 0.5", Leg 3 = -0.25", Leg 4 = -0.5". You will now

need to go up to leg 1's top cap and adjust the cable. Earlier we left the jam nuts loose, take the jam nut off. Measure the amount of threads sticking out from the top of the nut, because the sleeve on leg 1 was below the sleeve on leg 2, we will want to add 0.5" to the number of threads showing out of the nut. Place the jam nut back on top of the other nut but do not fully tighten it. On leg 3 the sleeve is above leg 2's so you will need to remove 0.25" from the number of threads showing. Leg 4 is like leg 3 except you will need to remove 0.5" from the number of threads showing. When you place the jam nuts back on the nuts ensure that there are threads showing past the jam nuts, if not you will need to adjust and re-level as necessary.

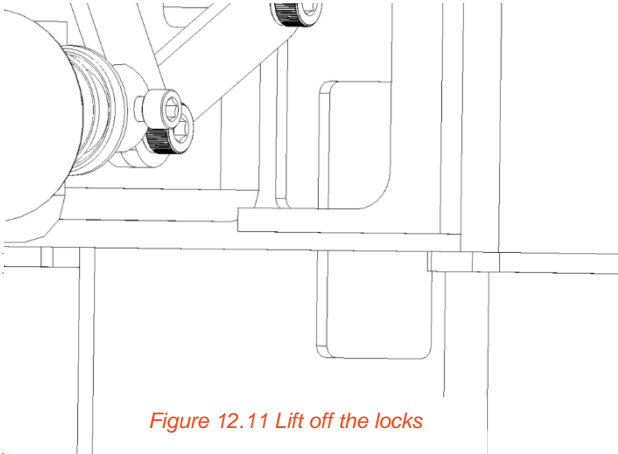


Figure 12.11 Lift off the locks

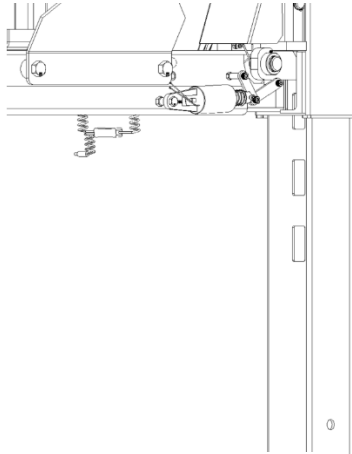


Figure 12.12

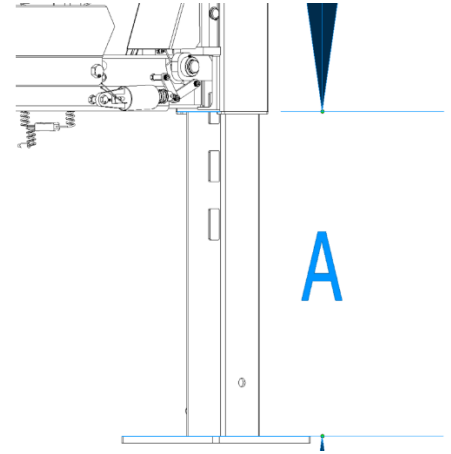


Figure 12.13 Distance from foot pad to bottom of sleeve.

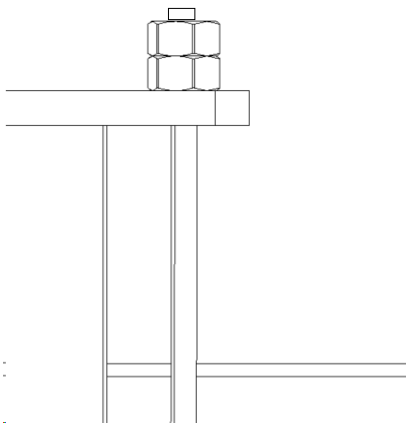


Figure 12.14 wire rope and jam nuts

You will need to raise the lift back off the locks and re-measure all four corners. If the values are not within a tolerance of +/- 1/16" re-adjust again.

At this point, you will want to get familiar with raising and lowering the different levels of the lift. Refer to page 76-78. Once you are familiar with operating the lift, we can level the lift with vehicles on it.



It is now time to lower the lift and place vehicles on the top level. Repeat the steps from earlier and re-level the lift with vehicles. This time ensure to tighten the jam nuts on to the nuts after the lift is leveled.

STEP 13



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



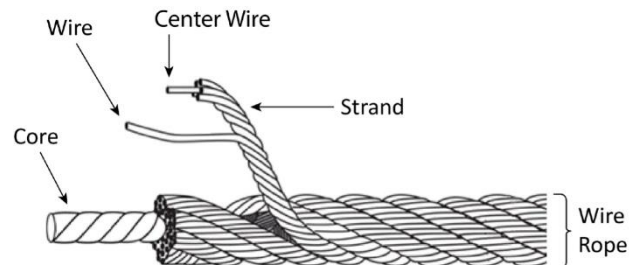
Broken Wires



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 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**.
-

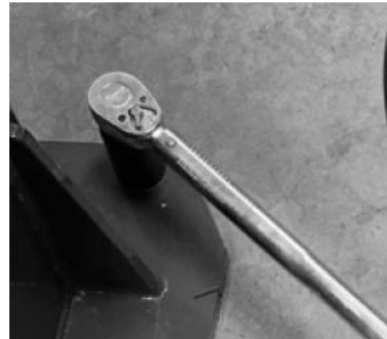
Anchoring Instructions



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.
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 a socket wrench (NOT an impact wrench) tighten each nut 2-4 turns.

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. All electrical troubleshooting must be done by a qualified individual.

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

All electrical issues need to be corrected and troubleshot by a certified electrician or lift installer.

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.

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.

Accessories

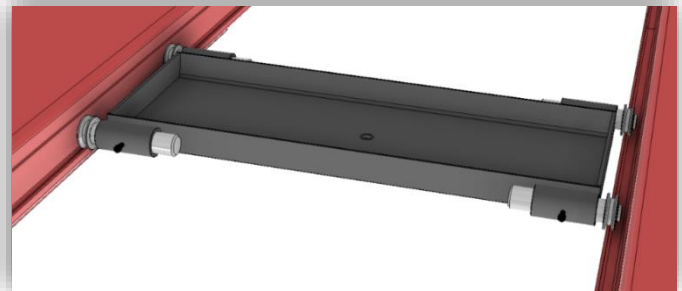
Wheel Chocks (16) included with purchase.

The wheel stops are included with your purchase.



Rolling Jack Platform purchased separately.

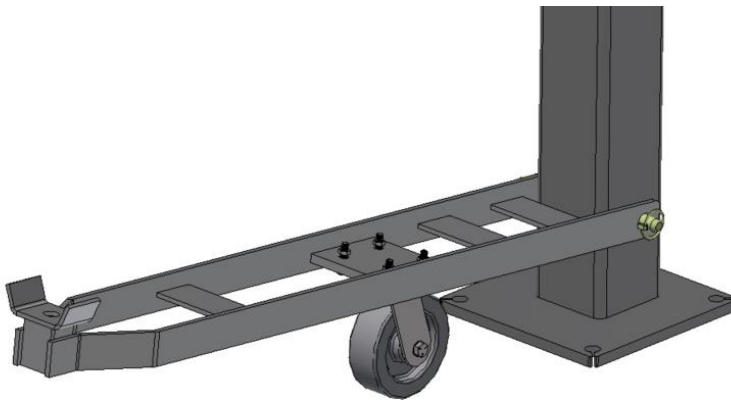
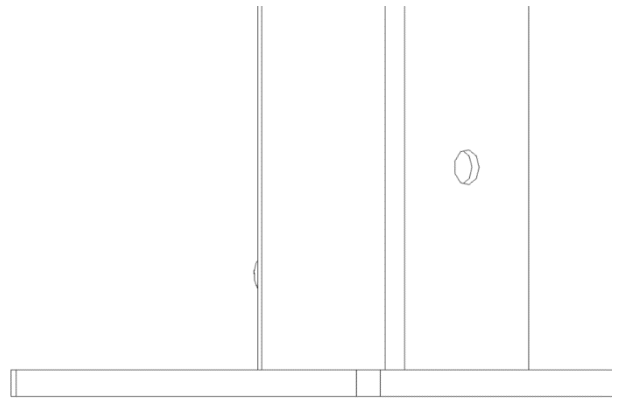
Loosen the set screw on one set of wheels (axles that ride on the same track channel). Confirm the other 2 wheels are tight then place tightened wheels of the Rolling Jack Tray on one set of accessory rails. Slide the loosened axles in or out to allow the wheels to seat properly on the opposite accessory 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). Rated for 4000lbs when placed within 48-inch of a crossmember. Rating decreases 50% for distances greater than 48-inches.



Casters purchased separately.

Casters. Part # 40124.

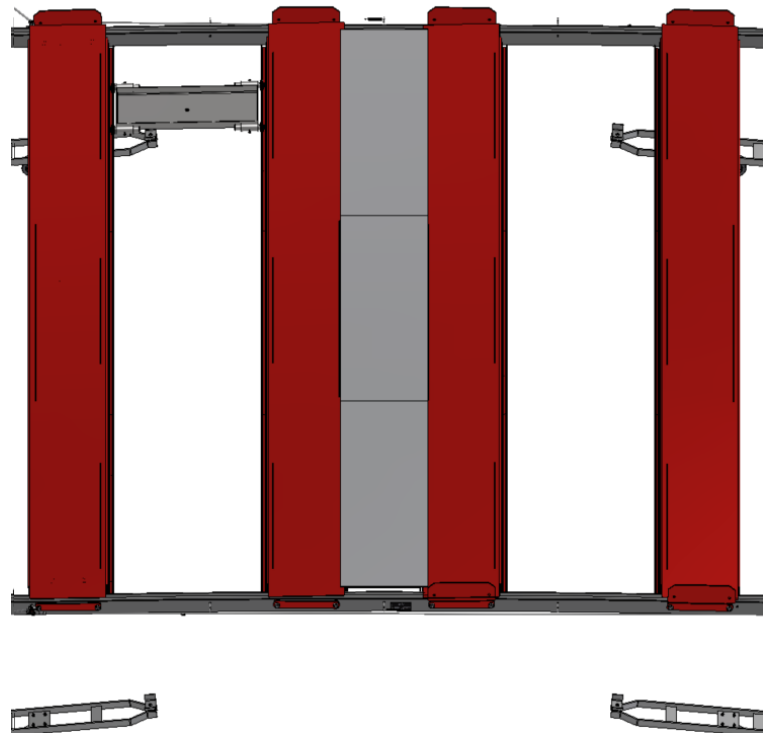
Place the caster bracket around the leg. Insert the caster pin through the caster bracket, leg and then back through the caster bracket. Attach lock the caster pin to the leg using the attached locking feature. The lift may only be moved if completely empty. Remove all vehicles, accessories, or stored 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).



Aluminum Walkways purchased separately.

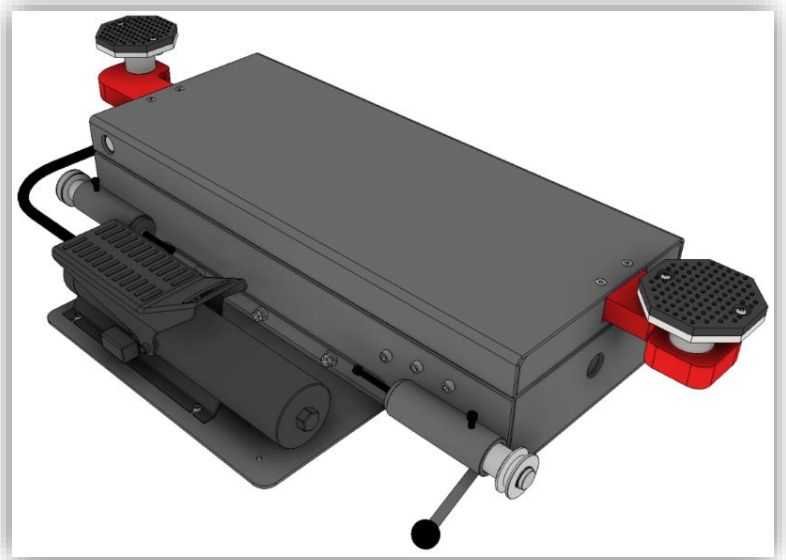
SXS Aluminum Walkway Set. Part # 90066.

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)



Rolling Jack Air Over Hydraulic – purchased separately.

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 Placed on the accessory rails, the RJA allows the user to roll the jack the length of the lift and lift the front or rear of the vehicle. (PN 40130)



Available Accessories

- Air Rolling Jack (RJA, 40130)
- Manual Rolling Jack (RJP, 40032)
- Air Bag Jack (ABJ)
- Magnetic LED Lights triple sxs kit
- Walk way (90066)
- Drip Trays (40082)
- 48-inch Ramps (90054)
- Lock Extenders
- Solid Decks (90065)

These are a few of the available options for your lift; more options may be available.

Contact our sales department for details and pricing.

Sales@AdvantageLifts.com

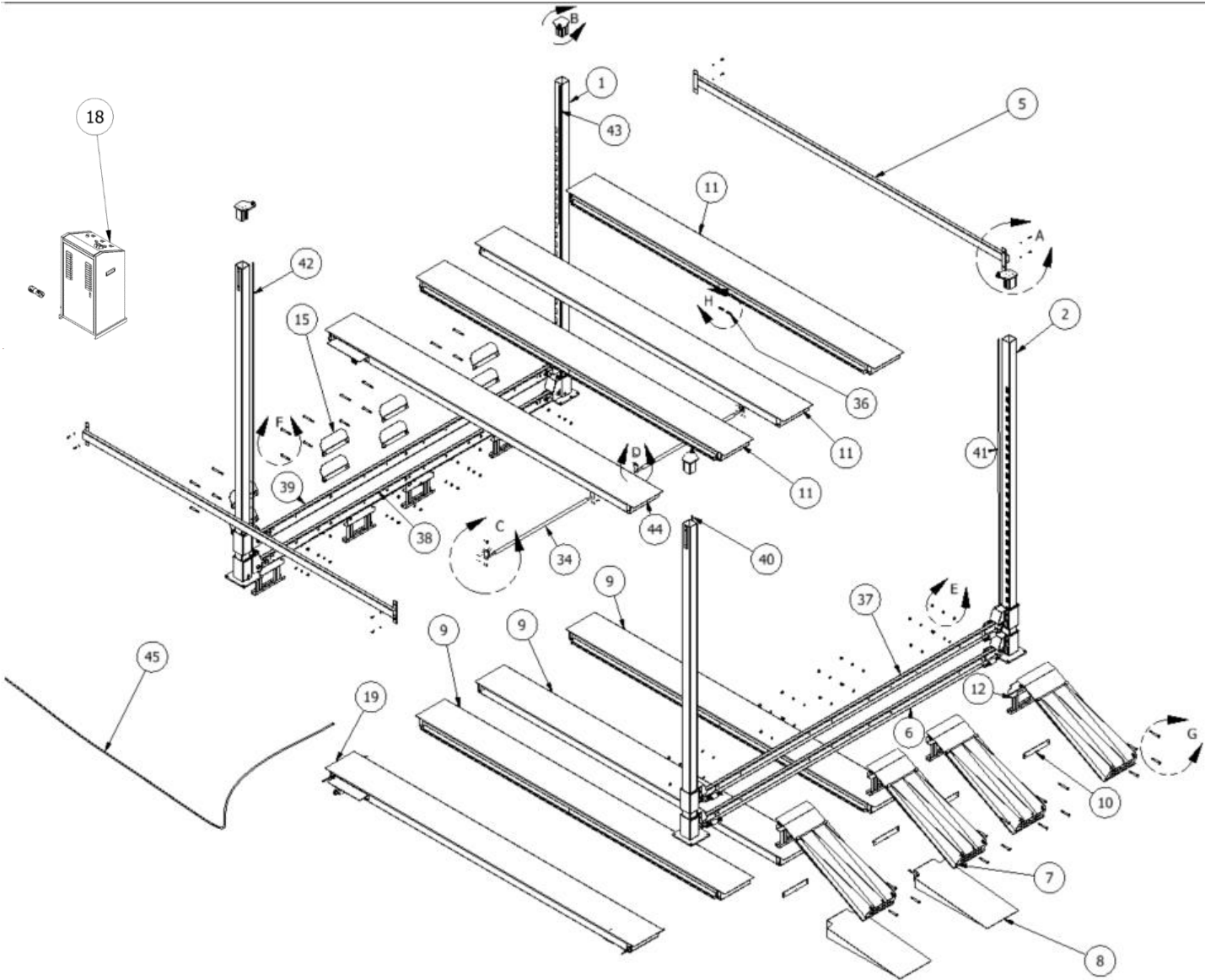
Replacement parts

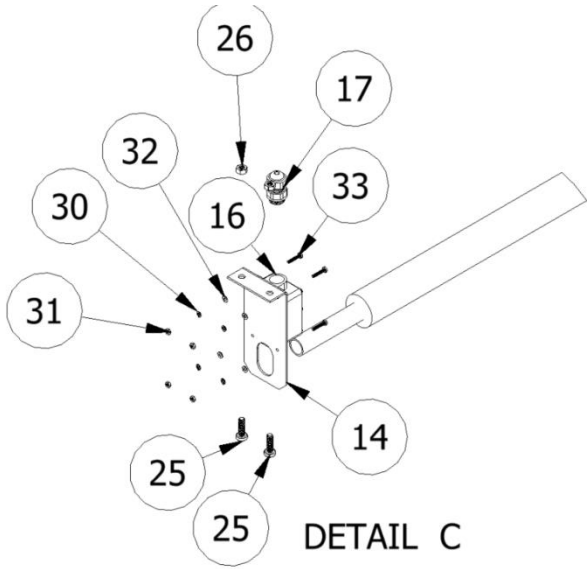
For replacement parts and availability please contact Advantage Lifts at **(763) 300-5730**.

Only use parts approved by the original equipment manufacturer.

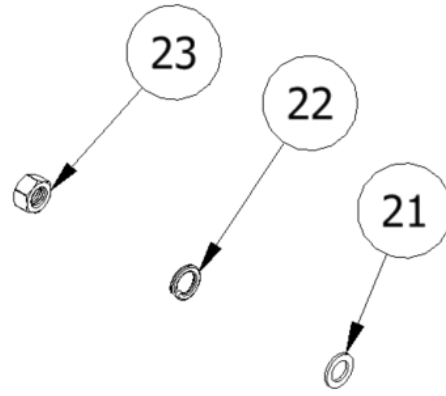
Parts List

Main Lift Overview

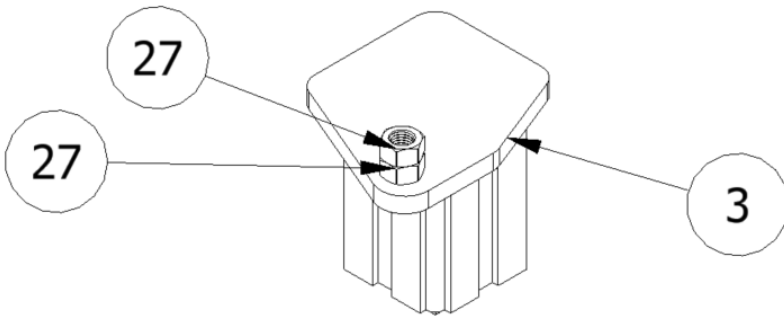




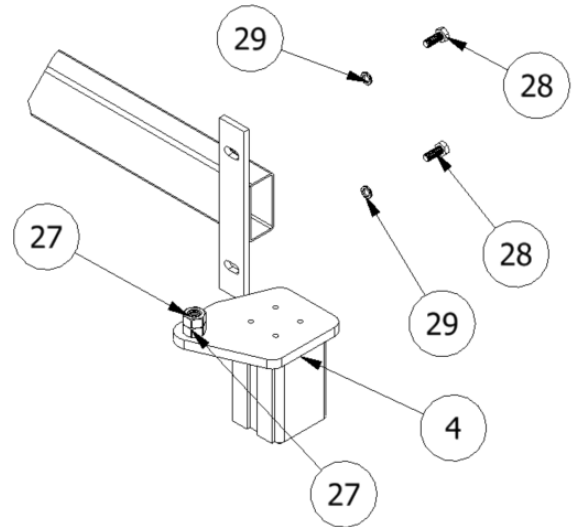
DETAIL C



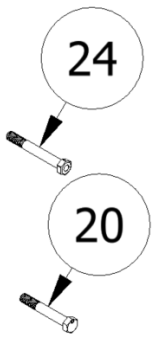
DETAIL E



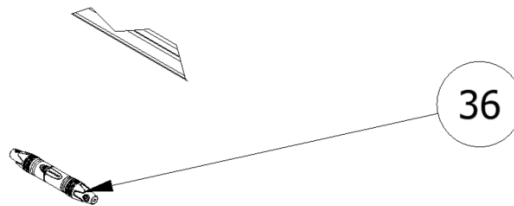
DETAIL B



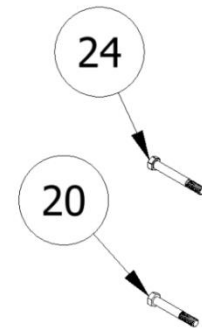
DETAIL A



DETAIL G



DETAIL H

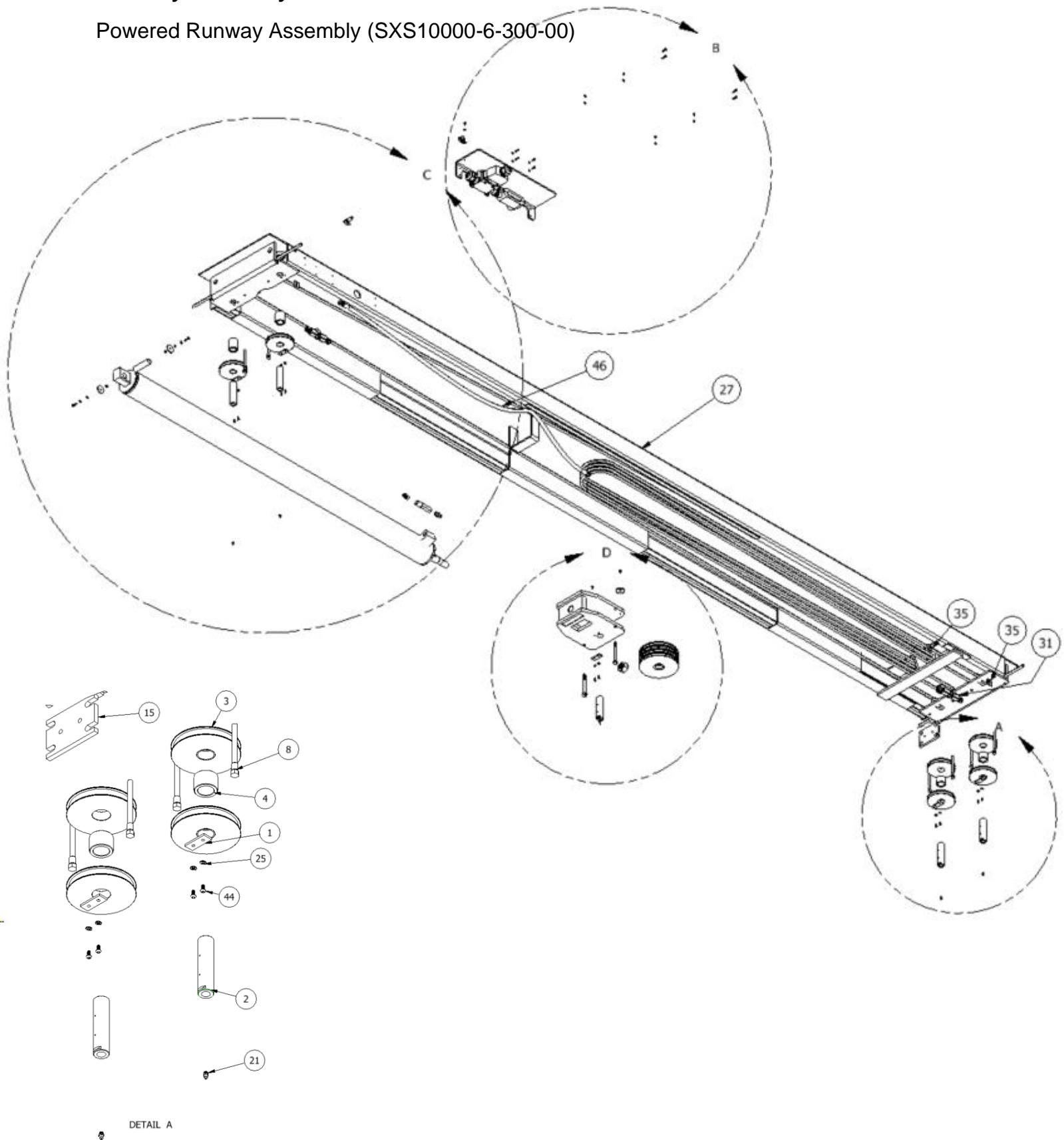


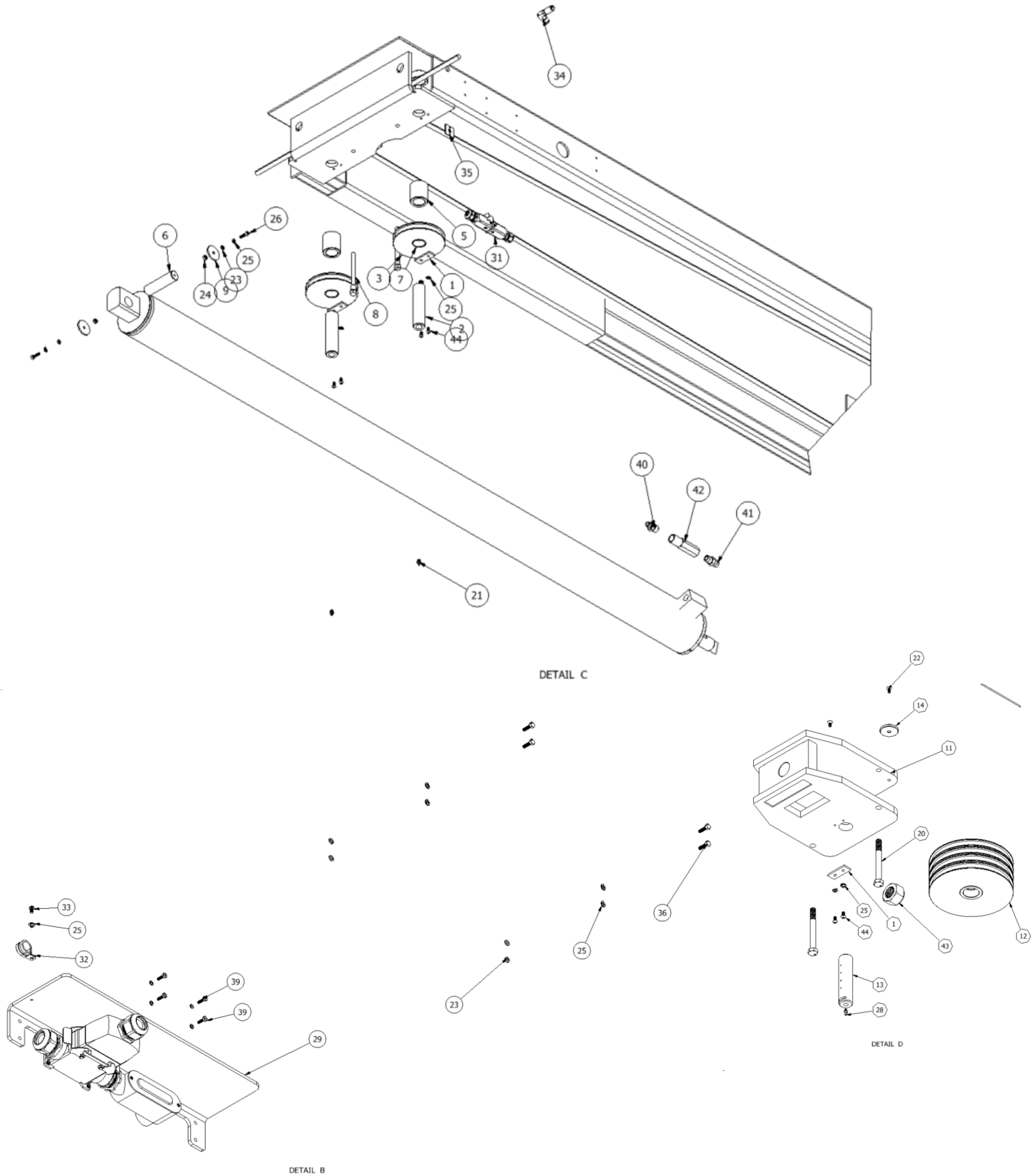
DETAIL F

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	SS7000-3-100-02-00	Left Leg
2	2	SS7000-3-100-01-00	Right Leg
3	2	DX9000XLT-100-03-00	Left Top Cap
4	2	DX9000XLT-100-04-00	Right Top Cap
5	2	SS9000XLH-1000N-00	Cross Bar
6	1	SXS10000-6-200-00	Crossmember 2
7	4	SXS10000-6-400-00	Top Layer Drive on Ramp Assembly
8	2	SXS10000-400-00	Aluminum Drive on Ramp
9	3	SXS10000-300-02-00	Lower Runway Weldment
10	4	SXS10000-6-300-14-00	Ramp Retainer
11	3	SXS10000-6-300-02-00	Top Runway Weldment
12	8	SXS10000-6-300-03-00	Top Level Height Adjustment bracket
13	2	SG40D-4005A1	Safety Bracket Bar Mount
14	2	SG40D-4005B1	Safety Bracket Limit switch mount
15	8	SXS10000-500-00	Wheel Retainer
16	2	AL-112-00-04	LIMIT SWITCH (same as 2 post lift and ones sent with current lift)
17	2	AL-125-00-33	Plastic Submersible Cord Grip, 0.18"-0.39" Cord OD, M16
18	1	SXS10000-700-01	Electrical and pump cabinet
19	1	SXS10000-6-300-00	Power Runway assembly
20	16	SXS10000-6-00-18	M18x2.5x120mm hex head bolt
21	32	SXS10000-6-00-15	M18 Washer
22	32	SXS10000-6-00-13	Steel Split Lock Washer
23	32	SXS10000-6-00-14	M18x2.5 Nut
24	16	SXS10000-6-00-19	M18x2.5x140mm
25	8	SXS10000-6-00-22	M6x1.00x20mm Philips head screw
26	8	SXS10000-6-00-37	M6x1.00 Nut
27	8	SXS10000-6-00-20	M20x2.5 Nut
28	8	SXS10000-6-00-53	M12x1.75x30mm Hex head bolt
29	8	SXS10000-6-00-52	M12 Washer
30	8	SXS10000-6-00-23	M3 Lock Washer
31	8	SXS10000-6-00-25	M3x0.5 nut
32	8	SXS10000-6-00-26	M3 Washer
33	8	SXS10000-6-00-27	M3x0.5x16mm philips head screw
34	2	SXS10000-1100-01	Safety Bar
35	2	SXS10000-6-00-46	M8x1.25x30mm
36	1	SXS10000-800-10	P9 SAFETY SWITCH PLUG
37	1	sxs10000-6-900-00	Crossmember 4
38	1	SXS10000-6-200-00-01	Crossmember 1
39	1	SXS10000-6-900-00-01	Crossmember 3
40	1	„ÖË¿Ép1-1	Cable 1
41	1	„ÖË¿Ép3-1	Cable 3
42	1	„ÖË¿Ép2-1	Cable 2
43	1	„ÖË¿Ép4-1	Cable 4
44	1	sxs10000-6-300-15-00	Top Runway Above Power runway

Runway Assembly's

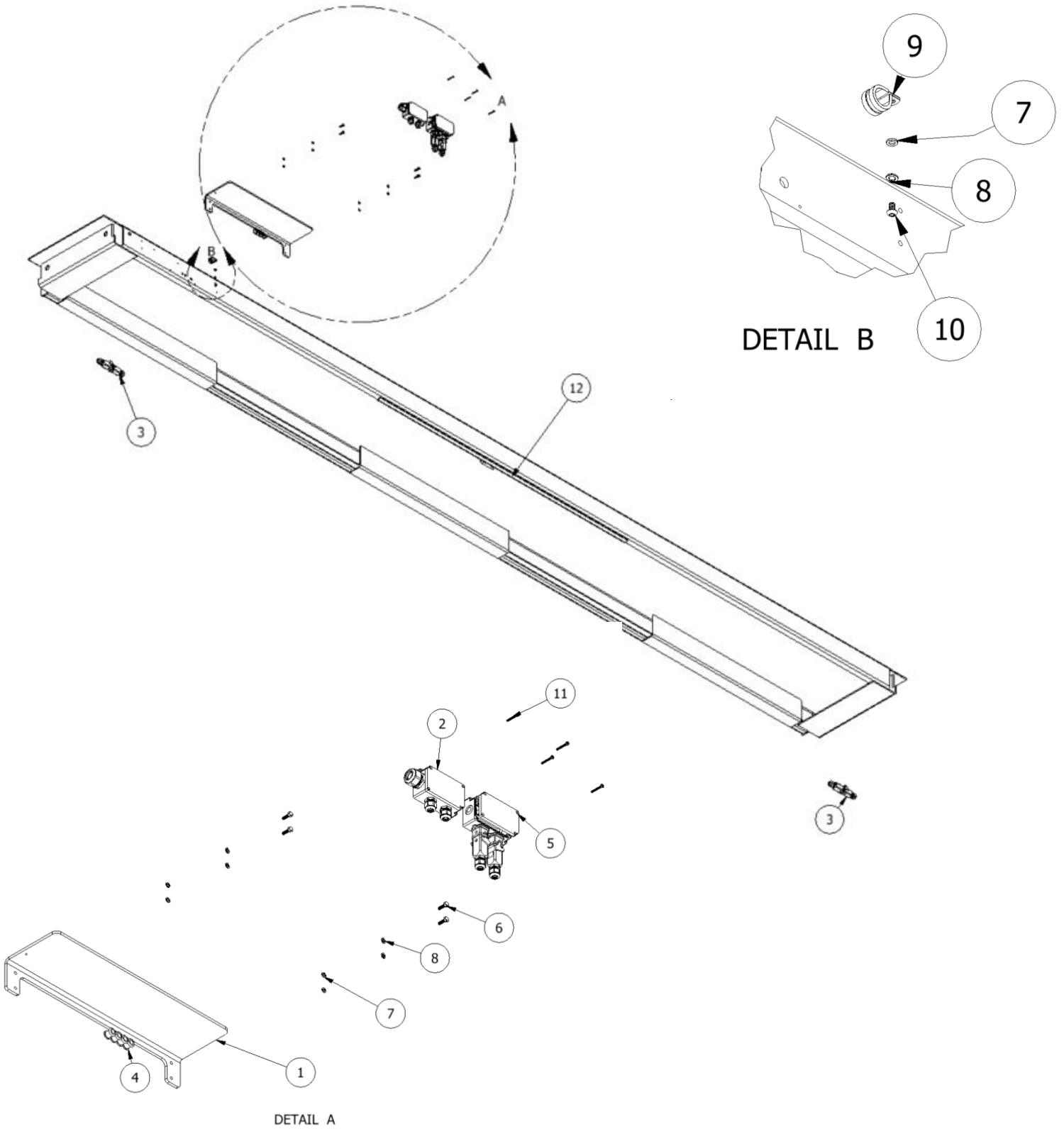
Powered Runway Assembly (SXS10000-6-300-00)





ITEM	QTY	PART NUMBER	DESCRIPTION
1	5	DX9000XLT-300-03	Pin Retainer plate
2	4	DX9000XLT-300-07	Pulley Pin
3	6	DX9000XLT-200-10	Pulley
4	2	DX9000XLT-300-06	Shorter Pulley spacer
5	2	DX9000XLT-300-08	Larger Pulley Spacer
6	1	SS7000HD-300-05NEW	Cylinder Mounting pin
7	5	SF-3018	Pulley Bushing
8	6	DX9000XLT-300-12	M10x1.5x Guide pin bolt
9	2	DX9000XLT-300-05	Oversized M6 Washer
10	1	SS7000-3-01,x	Cylinder
11	1	SS7000S-300-09-00	Pulley Block weldment
12	4	SS7000-3-300-08	Pulley block pulleys
13	1	SS7000S-300-06	Pulley Block Pin
14	2	SS7000S-300-07	Plastic countersunk washer
15	1	SXS10000-6-300-03M	Cable retaining block
20	2	SXS10000-6-00-54	m12x1.75x110mm hex head bolt
21	4	SXS10000-6-00-60	Grease Fitting, M8x1.0
22	2	SXS10000-6-00-21	M6x1.00x12mm socket head bolt
23	8	SXS10000-6-00-34	M6 washer
24	2	SXS10000-6-00-37	M6x1.00 Nut
25	17	SXS10000-6-00-33	M6 lock washer
26	2	SXS10000-6-00-40	M6x1.00x20mm socket head bolt
27	1	SXS10000-6-300-01-00	Powered runway Weldment
28	1	SXS10000-6-00-62	m5X0.8,Grease Fitting
29	1	SXS10000-600-01	Formed Electrical Cover
30	1	SXS10000-800-05	P1
31	2	SXS10000-800-02	P2,P3,P6,P8
32	1	SXS10000-800-00-05	Vibration-Damping Loop Clamp
33	1	SXS10000-6-00-58	M6x1.00x10mm Button head bolt
34	1	SXS10000-1000-01-13	06 Jic to 06 JIC 90 Degree Bulkhead fitting
35	3	SXS10000-800-06-01	Cable tie holders
36	4	SXS10000-6-00-41	M6x1.00x20 mm bolt
37	4	SXS10000-6-00-32	M5 lock washer
38	4	SXS10000-6-00-31	M5 Washer
39	4	SXS10000-6-00-03	M5x0.8x16mm Philips head screw
40	1	SXS10000-1000-01-14	3/8 NPT to 06 JIC
41	1	sxs10000-1000-01-17	3/8 to 3/8 Npt male to male fitting
42	1	23003-2.0	3/8-18 NPTF 2.0gpm
43	1	SXS10000-6-00-17	M27x2 Locknut
44	10	SXS10000-6-00-59	M6x1.00x12mm button head bolt
45	2	SXS10000-6-00-55	M6x1.00x20mm socket head bolt
46	1	SXS10000-1000-01-21	Hydraulic hose in powered runway 06-06

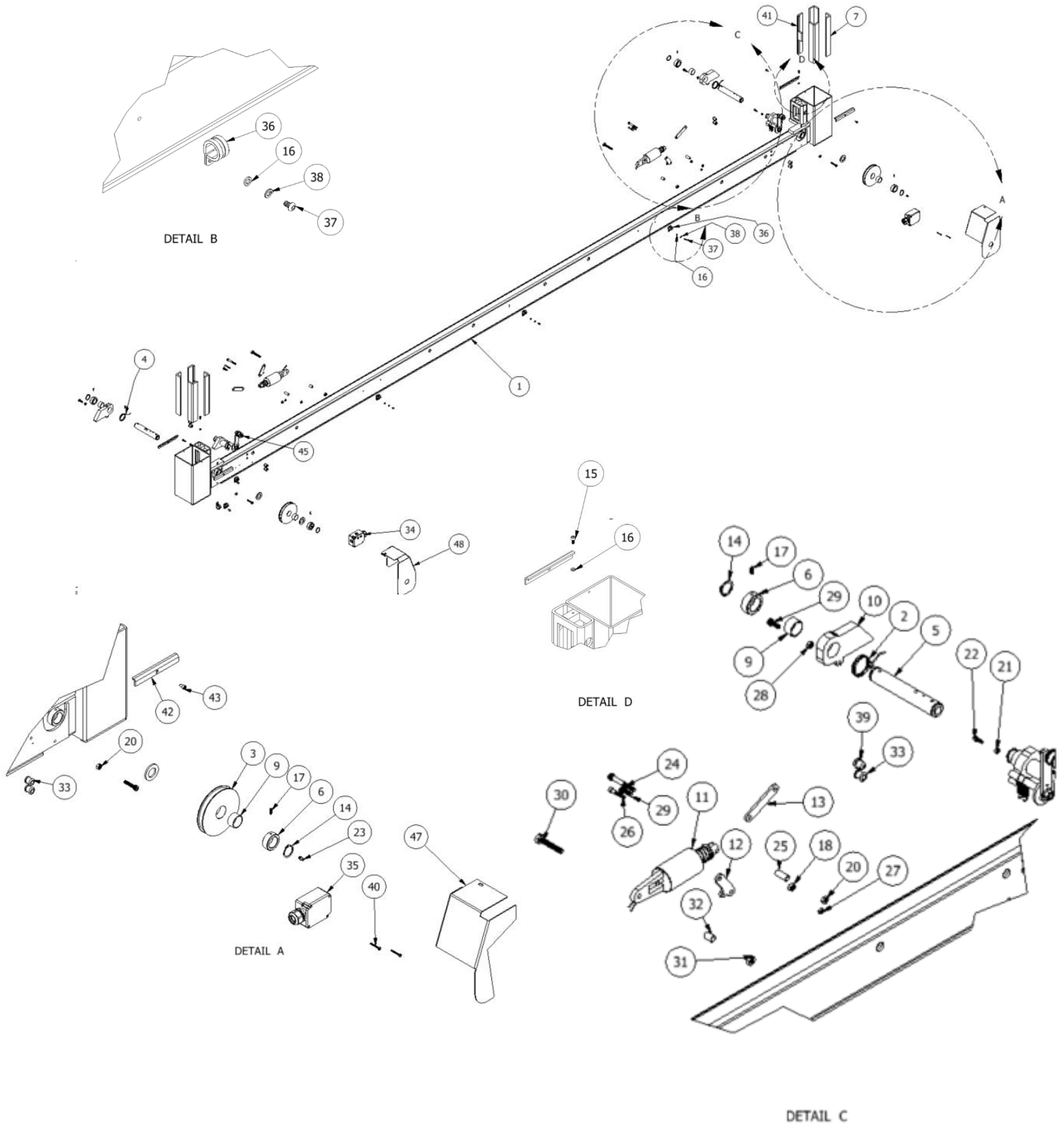
Powered Runway Assembly (SXS10000-6-300-15-00)



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-600-01	Formed Electrical Cover
2	1	SXS10000-800-04	JB5
3	2	SXS10000-800-02	P2,P3,P6,P8
4	4	SXS10000-800-00-04	SBR Rubber Grommet 9/16" Hole Diameter and 1/2" Material Thickness, 3/8" ID
5	1	SXS10000-800-08	JB6
6	4	SXS10000-6-00-41	M6x1.00x20 mm bolt
7	5	SXS10000-6-00-34	M6 washer
8	5	SXS10000-6-00-33	M6 lock washer
9	1	SXS10000-800-00-05	Vibration-Damping Loop Clamp
10	1	SXS10000-6-00-58	M6x1.00x10mm Button head bolt
11	4	SXS10000-6-00-02	M4x0.7x30mm philips head screw
12	1	sxs10000-6-300-15-01-00	Top Runway above powered runway weldment

Crossmember 1 and 3

Crossmember 1 SXS10000-6-200-00-01

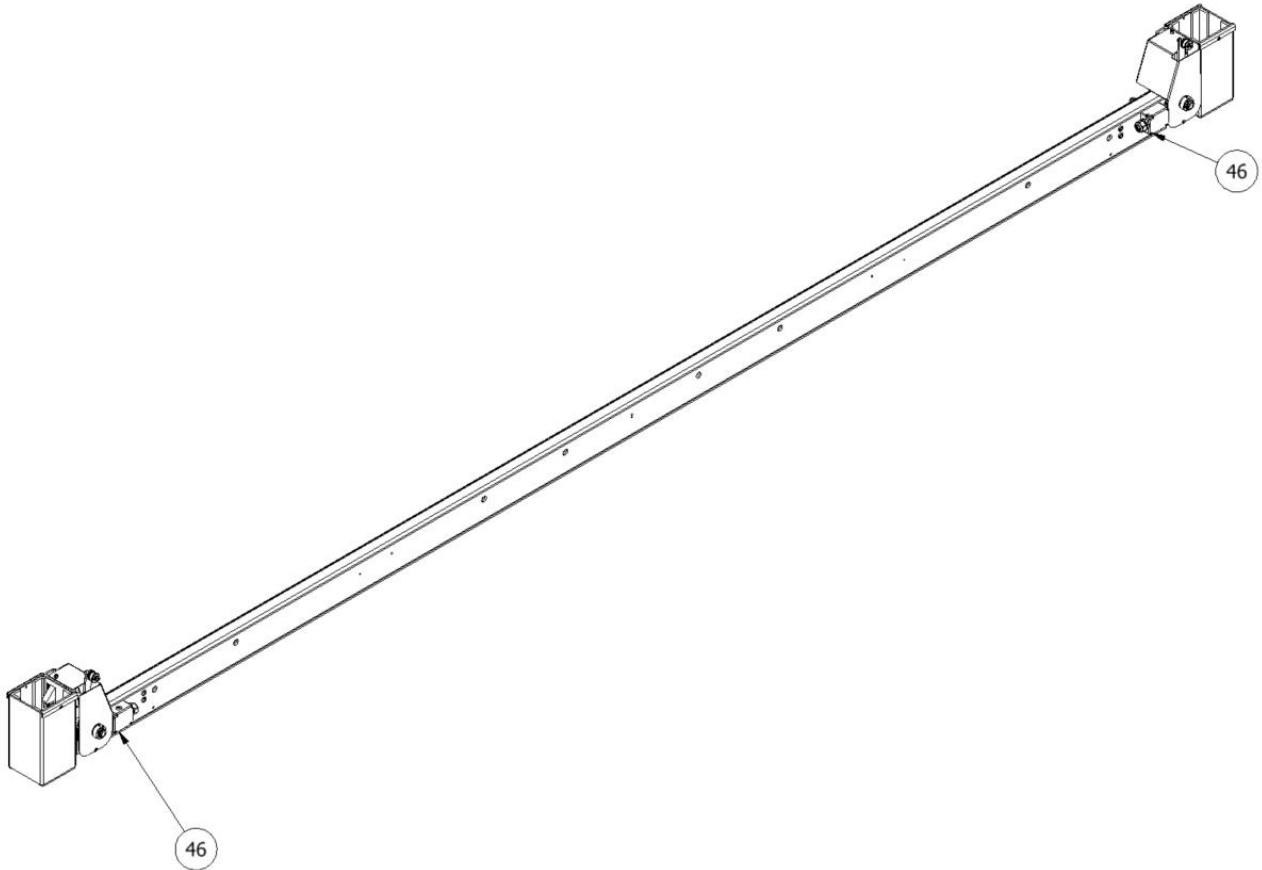


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-6-200-01-00	Cross member 2
2	1	SXS10000-6-200-11	Spring 1
3	2	DX9000XLT-200-10	Pulley
4	1	SXS10000-6-200-08	Spring 2
5	2	DX9000XLT-200-09	Cross Member Pulley pin
6	4	DX9000XLT-200-01-06	Shaft Collar
7	6	SXS10000-200-02	Slider
8	3	SXS10000-6-00-57	Pulley spacers
9	4	SF-3018	Pulley Bushing
10	2	DX9000XLT-200-07	Primary Lock
11	2	MQZ2-40N-25	Electric Lock Release
12	2	SXS10000-6-ST-01	Short lock release bar
13	2	SXS10000-6-ST-02	Long lock release bar
14	4	SXS10000-6-00-01	30mm external retaining ring
15	2	SXS10000-6-00-38	M6x1.00x12mm socket head bolt
16	5	SXS10000-6-00-34	M6 washer
17	6	SXS10000-6-00-05	M6x1.00x16mm set screw
18	2	SXS10000-6-00-09	M8x1.25 Nylon Locknut
19	2	SXS10000-6-00-10	M8ax1.25x35mm socket head bolt
20	4	SXS10000-6-00-45	M8x1.25 Nut
21	2	SXS10000-6-00-37	M6x1.00 Nut
22	2	SXS10000-6-00-39	M6x1.00x16mm socket head bolt
23	2	SXS10000-6-00-60	Grease Fitting, M8x1.0
24	2	SXS10000-6-00-43	M8x1.25x60mm socket head bolt
25	2	SXS10000-6-00-07	12mm od x 1mm wall steel tube
26	2	SXS10000-6-00-35	M6x1.00x35mm socket head bolt
27	2	SXS10000-6-00-36	M6x1.00 Nylon Locknut
28	2	SXS10000-6-00-44	M8x1.25 Jam nut
29	4	SXS10000-6-00-47	M8x1.25x20mm socket head bolt
30	2	SXS10000-6-00-49	M10x1.5x60mm hex head bolt
31	2	SXS10000-6-00-50	M10x1.5 Nut
32	2	SXS10000-6-00-11	14mm od x 1mm wall thick Carbon steel
33	6	SXS10000-800-00-04	SBR Rubber Grommet 9/16" Hole Diameter and 1/2" Material Thickness, 3/8" ID
34	1	SXS10000-800-03	jb1
35	1	SXS10000-800-07	jb2, JB3, jb4, jb9, jb10
36	6	SXS10000-800-00-05	Vibration-Damping Loop Clamp McMaster 3225t6
37	3	SXS10000-6-00-58	M6x1.00x10mm Button head bolt
38	3	SXS10000-6-00-33	M6 lock washer
39	2	SXS10000-800-00-03	Push-In Bumpers 9/16 hole,
40	4	SXS10000-6-00-02	M4x0.7x30mm Philips head screw
41	2	SXS10000-200-02_ÇĐ³ÿ1	Notched slider
42	6	DX9000XLT-200-03_x°ÄäÓÃ	Slider retainer
43	5	SXS10000-6-00-24	M6x1x10mm socket head bolt
44	1	SXS10000-200-06-00	Left-Handed secondary lock assembly
45	1	SXS10000-200-05-00	Right hand secondary lock assembly
47	1	SXS10000-200-14D	Pulley guard Left

48	1	SXS10000-200-13D	Pulley guard right

Crossmember 3 SXS10000-6-200-00

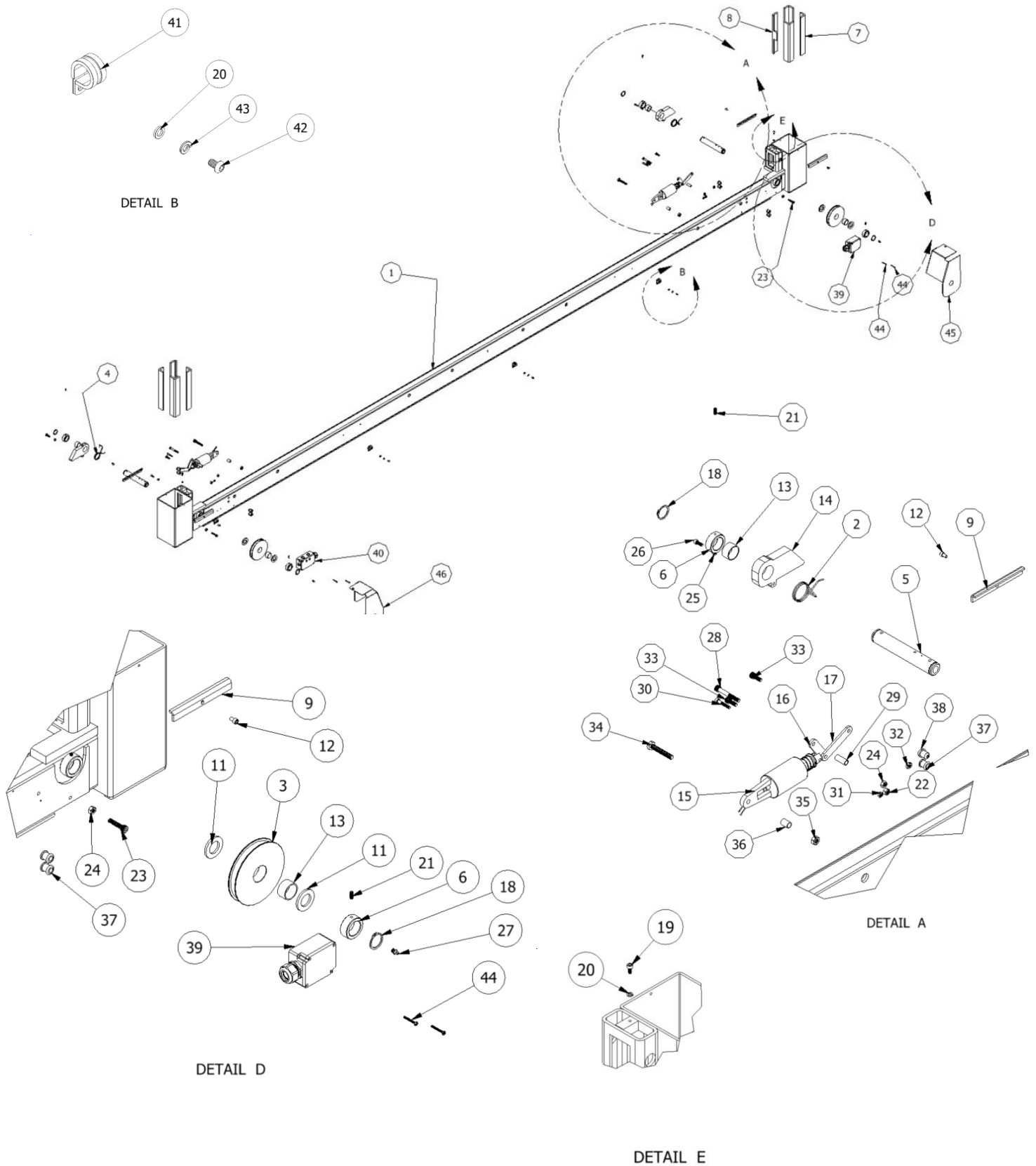
Referring to Crossmember 1's parts list, the only item that differs is item 34. Item 34 on crossmember 3 is SXS10000-800-07. The loop clamp and mounting hardware are not included in this assembly. Item 16 has been reduced to a quantity of 2.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
46	2	SXS10000-800-07	jb2, JB3, jb4, jb9, jb10

Crossmember 2 and 4

Crossmember 2 SXS10000-6-900-00-01

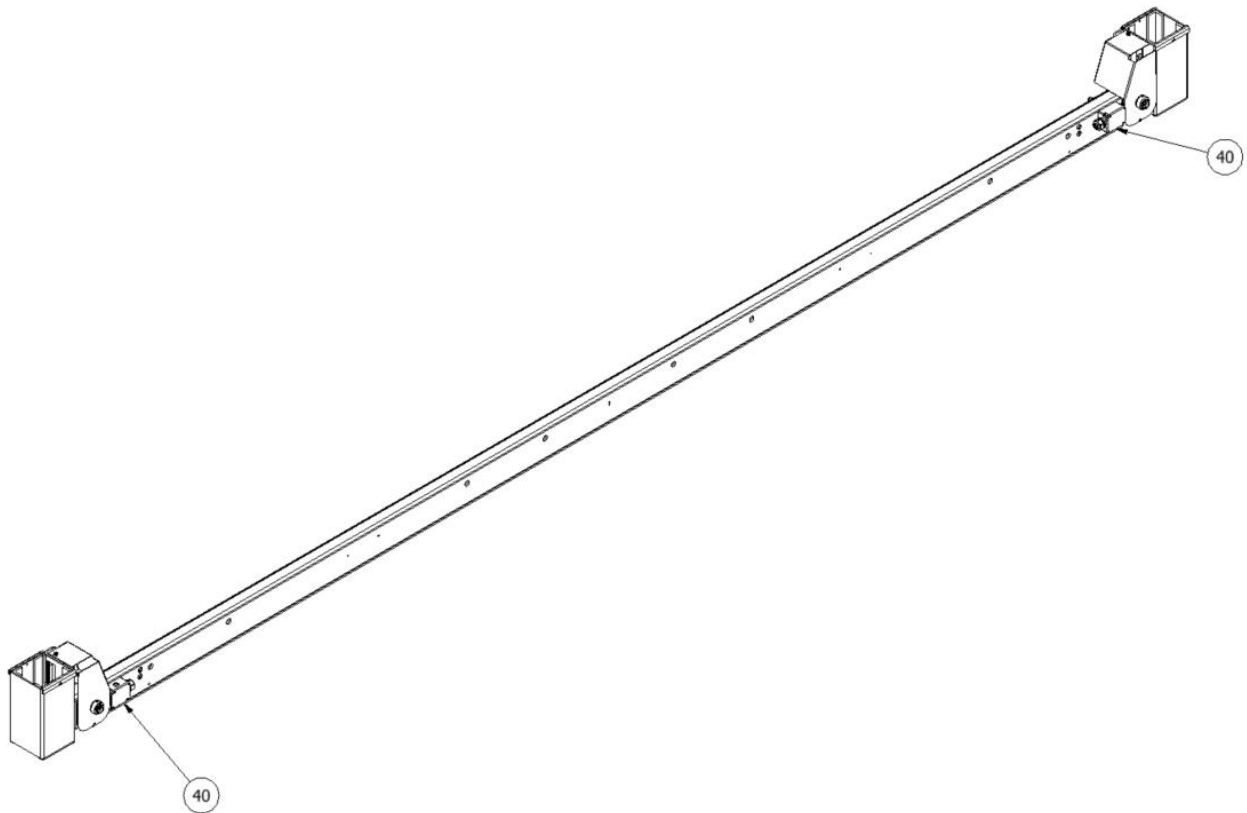


ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-6-200-01-00	Cross member 2
2	1	SXS10000-6-200-11	Spring 1
3	2	DX9000XLT-200-10	Pulley
4	1	SXS10000-6-200-08	Spring 2
5	2	DX9000XLT-200-09	Cross Member Pulley pin
6	4	DX9000XLT-200-01-06	Shaft Collar
7	6	SXS10000-200-02	Slider
8	2	SXS10000-200-02_çĐ³ý1	Notched slider
9	4	DX9000XLT-200-03_x°ÅãÓÃ	Slider retainer
11	4	SXS10000-6-00-57	Pulley spacers
12	4	SXS10000-6-00-24	M6x1x10mm socket head bolt
13	4	SF-3018	Pulley Bushing
14	2	DX9000XLT-200-07	Primary Lock
15	2	MQZ2-40N-25	Electric Lock Release
16	2	SXS10000-6-ST-01	Short lock release bar
17	2	SXS10000-6-ST-02	Long lock release bar
18	4	SXS10000-6-00-01	30mm external retaining ring
19	2	SXS10000-6-00-38	M6x1.00x12mm socket head bolt
20	5	SXS10000-6-00-34	M6 washer
21	6	SXS10000-6-00-05	M6x1.00x16mm set screw
22	2	SXS10000-6-00-09	M8x1.25 Nylon Locknut
23	2	SXS10000-6-00-10	M8ax1.25x35mm socket head bolt
24	4	SXS10000-6-00-45	M8x1.25 Nut
25	2	SXS10000-6-00-37	M6x1.00 Nut
26	2	SXS10000-6-00-39	M6x1.00x16mm socket head bolt
27	2	SXS10000-6-00-60	Grease Fitting, M8x1.0
28	2	SXS10000-6-00-43	M8x1.25x60mm socket head bolt
29	2	SXS10000-6-00-07	12mm od x 1mm wall steel tube
30	2	SXS10000-6-00-35	M6x1.00x35mm socket head bolt
31	2	SXS10000-6-00-36	M6x1.00 Nylon Locknut
32	2	SXS10000-6-00-44	M8x1.25 Jam nut
33	4	SXS10000-6-00-47	M8x1.25x20mm socket head bolt
34	2	SXS10000-6-00-49	M10x1.5x60mm hex head bolt
35	2	SXS10000-6-00-50	M10x1.5 Nut
36	2	SXS10000-6-00-11	14mm od x 1mm wall thick Carbon steel
37	6	SXS10000-800-00-04	SBR Rubber Grommet 9/16" Hole Diameter and 1/2" Material Thickness, 3/8" ID
38	2	SXS10000-800-00-03	Push-In Bumpers 9/16 hole
39	1	SXS10000-800-07	jb2, JB3, jb4, jb9, jb10
40	1	SXS10000-800-09	JB7
41	4	SXS10000-800-00-05	Vibration-Damping Loop Clamp
42	3	SXS10000-6-00-58	M6x1.00x10mm Button head bolt
43	3	SXS10000-6-00-33	M6 lock washer
44	4	SXS10000-6-00-02	M4x0.7x30mm Philips head screw

45	1	SXS10000-200-14D	Pulley guard Left
46	1	SXS10000-200-13D	Pulley guard right

Crossmember 4 SXS10000-6-900-00

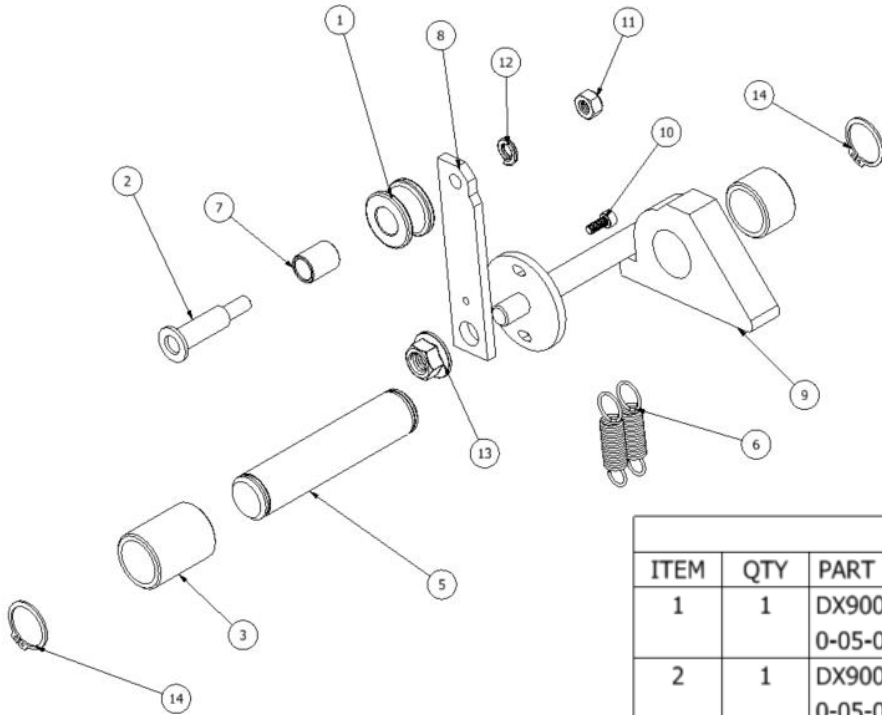
Referring to Crossmember 2's parts list, the only item that differs is item 40. Item 40 on crossmember 4 is SXS10000-800-07. The loop clamp and mounting hardware are not included in this assembly. Item 20 has been reduced to a quantity of 2. Item 38 is also not included; this hole is covered by the top layer ramp mounting plate.



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
40	2	SXS10000-800-07	jb2, JB3, jb4, jb9, jb10

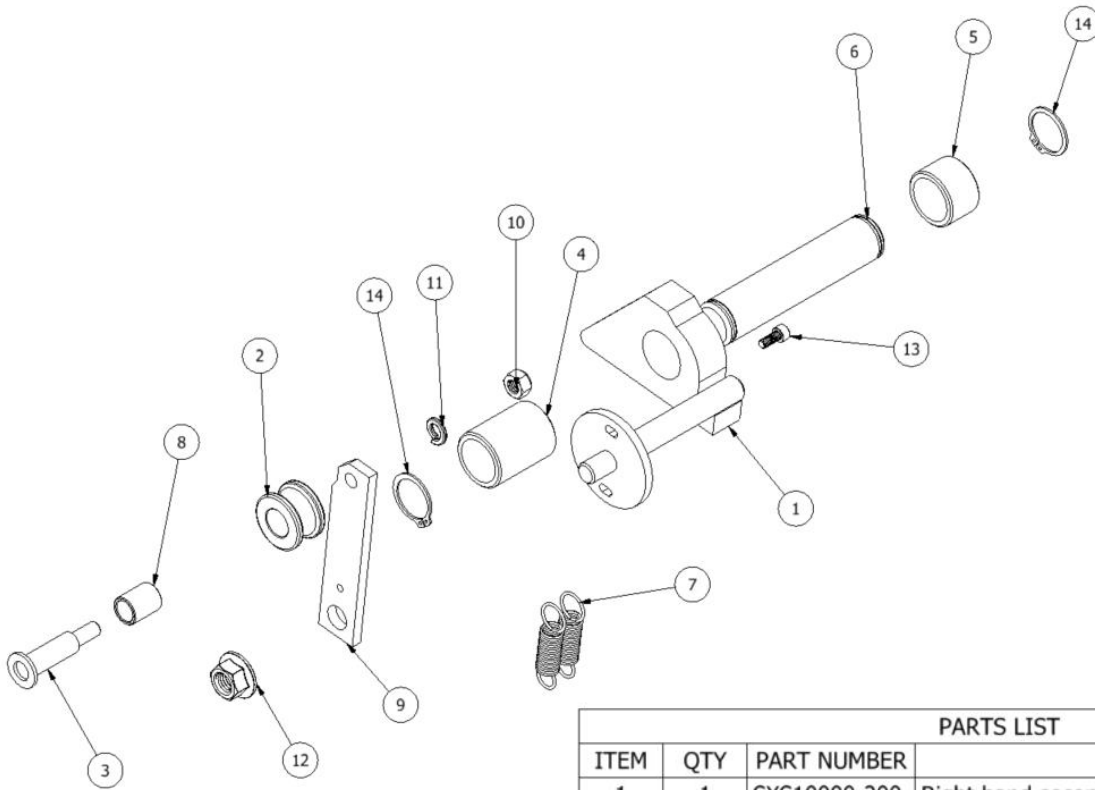
Secondary Lock Assembly

Left Handed Secondary lock Assembly SXS10000-200-06-00



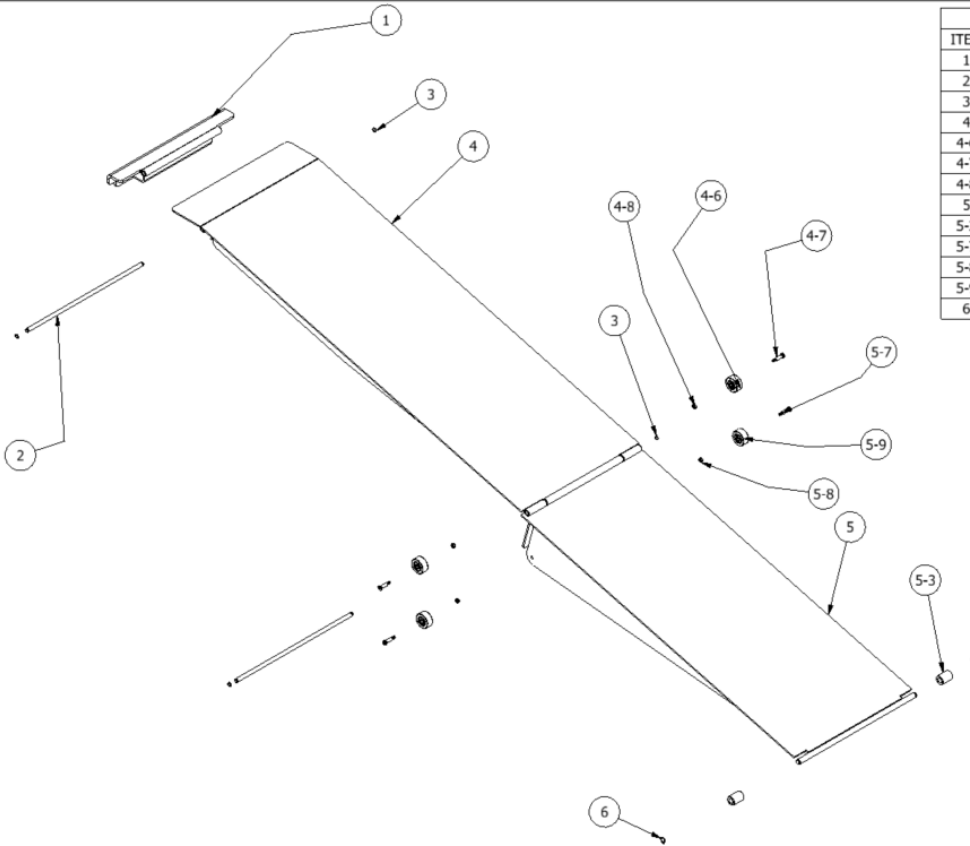
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	DX9000XLT-20 0-05-02	Secondary lock Pulley
2	1	DX9000XLT-20 0-05-03-00	Secondary lock Pulley Pin
3	1	DX9000XLT-20 0-05-04	Large secondary lock spacer
4	1	DX9000XLT-20 0-05-05	Small secondary lock spacer
5	1	DX9000XLT-20 0-05-06	Secondary lock pin
6	2	SS11000-1000- 01	Secondary lock pin
7	1	1011000003	Secondary lock pulley bushing
8	1	SXS10000-200 -05-01-03	Secondary lock arm
9	1	SXS10000-200 -06-01-00	Left Handed secondary lock weldment
10	1	SXS10000-6-0 0-04	M5x0.8x12mm socket head bolt
11	1	SXS10000-6-0 0-09	M8x1.25 Nylon Locknut
12	1	SXS10000-6-0 0-08	M8 Lock Washer
13	1	SXS10000-6-0 0-51	M12x1.75 serated flange nut
14	2	SXS10000-6-0 0-16	25mm External Retaining ring

Right Handed Secondary lock Assembly SXS10000-200-05-00



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-200-05-01-00	Right hand secondary lock weldment
2	1	DX9000XLT-20-0-05-02	Secondary lock Pulley
3	1	DX9000XLT-20-0-05-03-00	Secondary lock Pulley Pin
4	1	DX9000XLT-20-0-05-04	Large secondary lock spacer
5	1	DX9000XLT-20-0-05-05	Small secondary lock spacer
6	1	DX9000XLT-20-0-05-06	Secondary lock pin
7	2	SS11000-1000-01	Secondary lock pin
8	1	16ÖëÖá³Ð	Secondary lock pulley bushing
9	1	SXS10000-200-05-01-03	Secondary lock arm
10	1	SXS10000-6-0-0-09	M8x1.25 Nylon Locknut
11	1	SXS10000-6-0-0-08	M8 Lock Washer
12	1	SXS10000-6-0-0-51	M12x1.75 serrated flange nut
13	1	SXS10000-6-0-0-04	M5x0.8x12mm socket head bolt
14	2	SXS10000-6-0-0-16	25mm External Retaining ring

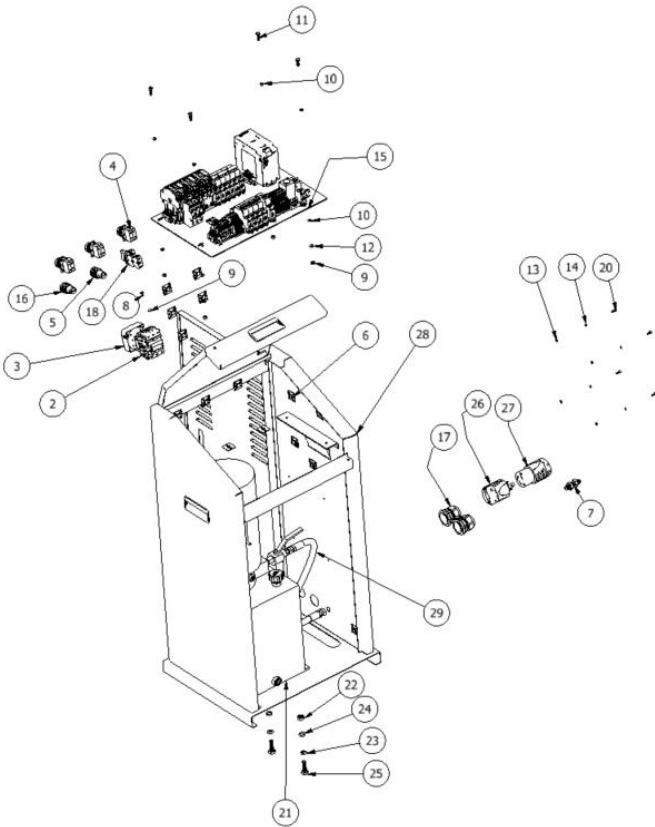
Top layer ramp (SXS10000-6-400-00)



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-6-400-03-00	Top Layer Ramp mount
2	2	SS7000-3-400-05	12 mm pin
3	4	SXS10000-6-00-65	12 mm external retaining ring
4	1	SXS10000-6-400-02-00	Lower Piece of top layer ramp
4-6	2	SXS10000-8369T14	Oil-Resistant Rubber Wheel, McMaster 8369T14
4-7	2	SXS10000-91259A624	Alloy Steel Shoulder Screw
4-8	2	SXS10000-94945A133	High-Strength Steel Thin Nylon-Insert Locknut
5	1	SXS10000-6-400-01-00	Upper Piece of top layer ramp
5-3	2	SS7000-3-400-04	16mm ID Roller
5-7	2	SXS10000-91259A624	Alloy Steel Shoulder Screw
5-8	2	SXS10000-94945A133	High-Strength Steel Thin Nylon-Insert Locknut
5-9	2	SXS10000-8369T14	Oil-Resistant Rubber Wheel, McMaster 8369T14
6	2	SXS10000-6-00-66	16mm External Retaining Ring

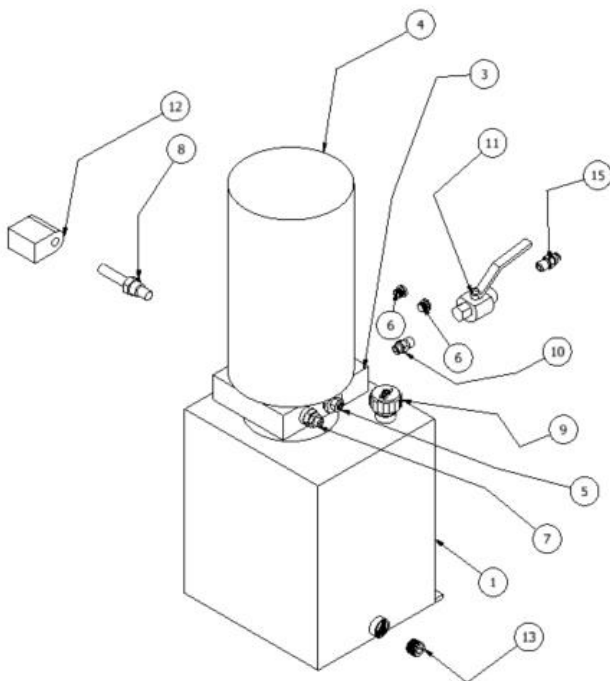
Power Unit and electrical parts

Power Unit Enclosure SXS10000-700-01



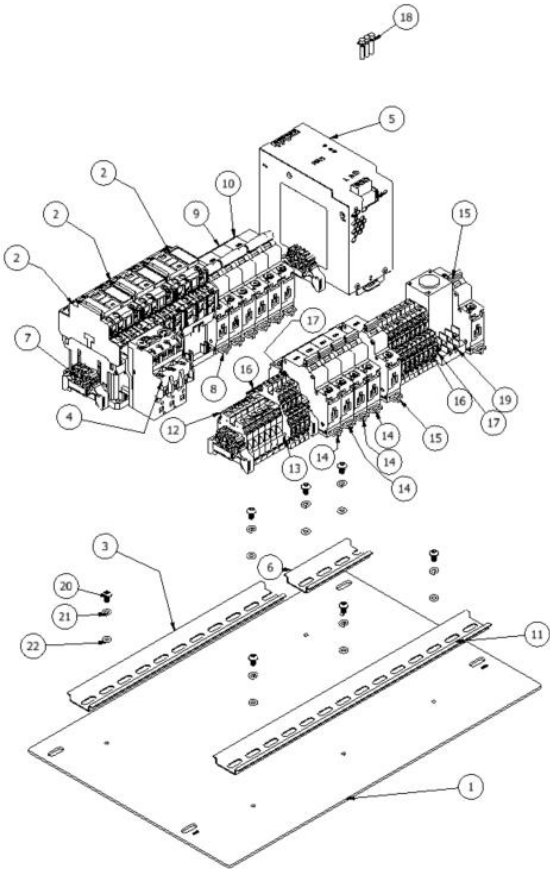
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-06-02	Power Supply 120-240vac to 48 VDC 32A PSU2
2	1	SXS10000-800-06-07	Disconnect Switch DS1
3	1	SXS10000-800-06-03	Red Actuator for 25A-63A Enclosure Disconnect Switch DS1
4	3	SXS10000-800-06-21	Up, down, Drain to tank PB PB1-PB3, Specify NO or NC contacts for replacement
5	1	SXS10000-800-06-19	Power on HL
6	34	SXS10000-800-06-01	Cable tie holders
7	1	SXS10000-6-00-64	06-06 Bulkhead hydraulic fitting
8	1	SXS10000-6-00-06	M6x1.00x8 mm button head bolt
9	5	SXS10000-6-00-37	M6x1.00 Nut
10	8	SXS10000-6-00-34	M6 washer
11	4	SXS10000-6-00-41	M6x1.00x20 mm bolt
12	4	SXS10000-6-00-33	M6 lock washer
13	4	SXS10000-6-00-29	M4 WASHER
14	4	SXS10000-6-00-28	M4 LOCK WASHER
15	1	SXS10000-800-06	Control Panel Plate and components
16	1	SXS10000-800-06-23	Lift going down FM
17	2	SXS10000-800-00-11	Plastic Submersible Cord Grip .51"-0.79" Cord OD, PG-29
18	1	SXS10000-800-020	LIGHT SWITCH SELECTOR sw1
19	1	ECK1040-2	NO contact block SW1
20	4	SXS10000-6-00-61	M4x0.7x12mm philips head screw
21	1	SXS10000-1000-01	Hydraulic tank, Pump, and Motor
22	2	SXS10000-6-00-50	M10x1.5 Nut
23	2	SXS10000-6-00-48	M10 Washer
24	2	SXS10000-6-00-12	M10 Lock Washer
25	2	SXS10000-6-00-63	Medium-Strength Class 8.8 Steel Hex Head Screw
26	1	SXS10000-800-00-16	Turn-Lock Connector Male L6-30
27	1	SXS10000-800-00-17	Turn-Lock Connector Female L6-30
28	1	SXS10000-700	Power unit Enclosure
29	1	SXS10000-1000-01-20	Hydraulic hose in power unit 06-06

Hydraulic Tank SXS10000-1000-01



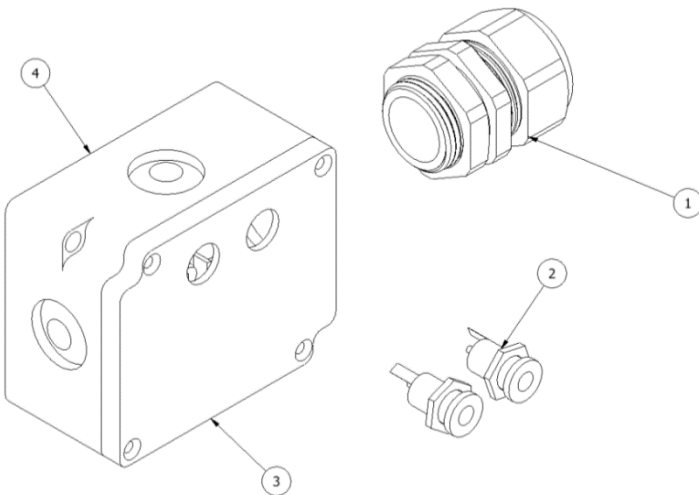
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-1000-01-01	Hydraulic Tank
3	1	SXS10000-1000-01-10	Valve manifold and pump
4	1	SXS10000-1000-01-16	Motor for hydraulic unit
5	1	SXS10000-1000-01-08	Flow Control Valve
6	2	SXS10000-1000-01-02	Hydraulic plug for valve manifold -05
7	1	SXS10000-1000-01-09	Pressure Regulating valve
8	1	SXS10000-1000-01-07	Hydraulic dump Valve
9	1	SXS10000-1000-01-05	Breather Vent
10	1	SXS10000-1000-01-11	05 SAE to 1/4" NPT hydraulic fitting
11	1	SXS10000-1000-01-06	1/4 NPT hydraulic ball valve
12	1	SXS10000-800-00-18	Dump Valve Solenoid coil, SV1
13	1	SXS10000-1000-01-03	Hydraulic tank Drain plug
15	1	SXS10000-1000-01-12	1/4 NPT to 06 JIC

Control Panel Plate and components (SXS10000-800-06)



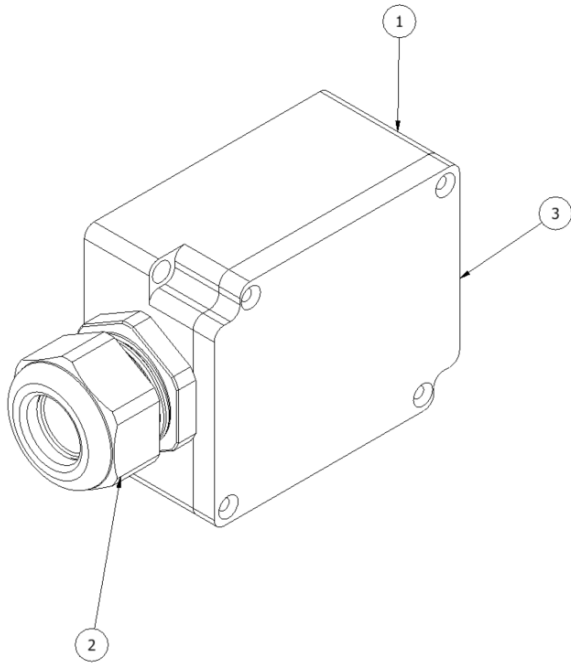
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-06-26	Back Panel Cut from Steel replaces one that came with panel
2	3	SXS10000-800-06-04	Contactor 25A 24VDC Coil 25A C1-C3
3	1	SXS10000-800-06-08	Din Rail 3
4	1	SXS10000-800-06-24	Overload 15.0A to 23.0A OL1
5	1	SXS10000-800-06-22	Power Supply 120-240Vac to 24VDC Power supply 480W 24VDC out 220 in 480 W 20 AMP PSU1
6	1	SXS10000-800-06-11	Din Rail 3
7	8	SXS10000-800-06-09	End stop
8	1	SXS10000-800-06-18	30 Amp d curve 2P CB1
9	1	SXS10000-800-06-16	4 Amp d curve 2P CB2
10	1	SXS10000-800-06-17	10 Amp d curve 2P CB3
11	1	SXS10000-800-06-10	Din Rail 3
12	6	SXS10000-800-06-05	Single level terminal block good for 50 amps
13	1	SXS10000-800-06-12	Single level terminal block Cover
14	4	SXS10000-800-06-15	8 amp d curve circuit breaker CB5-CB8
15	2	SXS10000-800-06-14	8 amp C curve circuit breaker CB4, CB9
16	14	SXS10000-800-06-06	Double level terminal strip
17	2	SXS10000-800-06-13	Terminal block cover
18	1	SXS10000-800-06-27	Bar Jumper for terminal strip
19	1	SXS10000-800-06-25	On Delay timer relay Automation direct TR
20	7	SXS10000-6-00-42	M5 x 0.80 mm Thread, 8 mm Long
21	7	SXS10000-6-00-32	M5 lock washer
22	7	SXS10000-6-00-31	M5 Washer

JB1 (SXS10000-800-03)



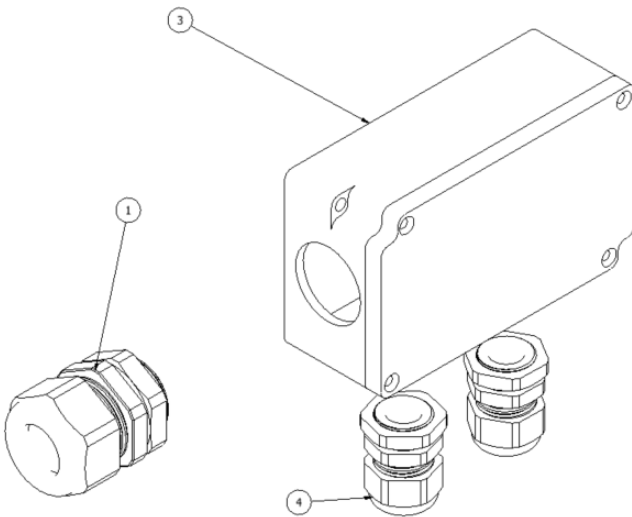
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-00-10	0.51"-0.63" Cord OD, 3/4
2	2	SXS10000-800-00-07	DC power jack 10 A 30VDC 5.5 x 2.1 mm
3	1	SXS10000-800-03-01	Side-Mounted, White ABS Plastic, 6 Circuits
4	1	SXS10000-800-03-02	Side-Mounted, White ABS Plastic, 6 Circuit

JB2, JB3, JB4, JB8, JB9, JB10 (SXS10000-800-07)



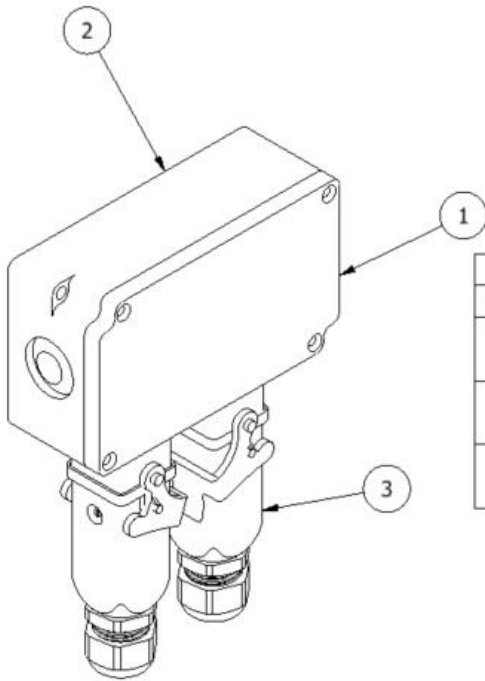
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-03-02	Side-Mounted, White ABS Plastic, 6 Circuit
2	1	SXS10000-800-00-10	0.51"-0.63" Cord OD, 3/4
3	1	SXS10000-800-07-01	Side-Mounted, White ABS Plastic, 6 Circuits, McMaster 1041N346

JB5 (SXS10000-800-04)



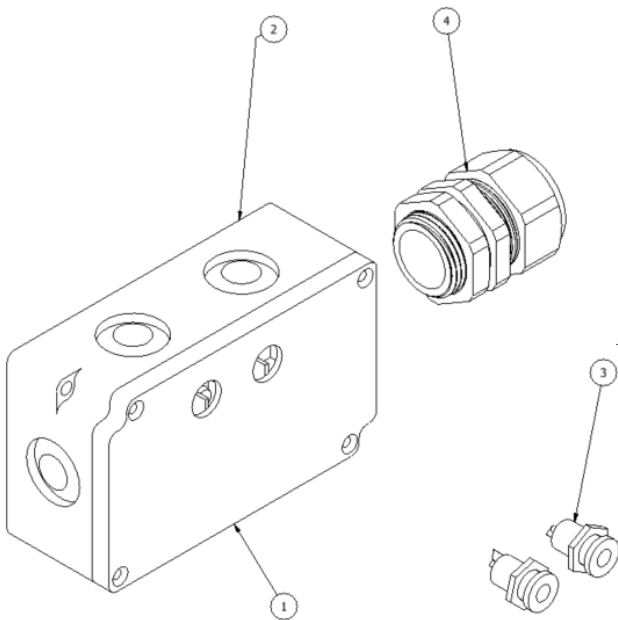
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-00-08	Plastic Submersible Cord Grip, 0.51"-0.71" Cord OD, 3/4 Knockout Size
2	1	SXS10000-800-04-01	Screw Terminal Block Side-Mounted, White ABS Plastic, 10 Circuits
3	1	SXS10000-800-04-02	Screw Terminal Block Side-Mounted, White ABS Plastic, 10 Circuits
4	2	SXS10000-800-00-09	Plastic Submersible Cord Grip 0.2"-0.39" Cord OD, PG-11

JB6 (SXS10000-800-08)



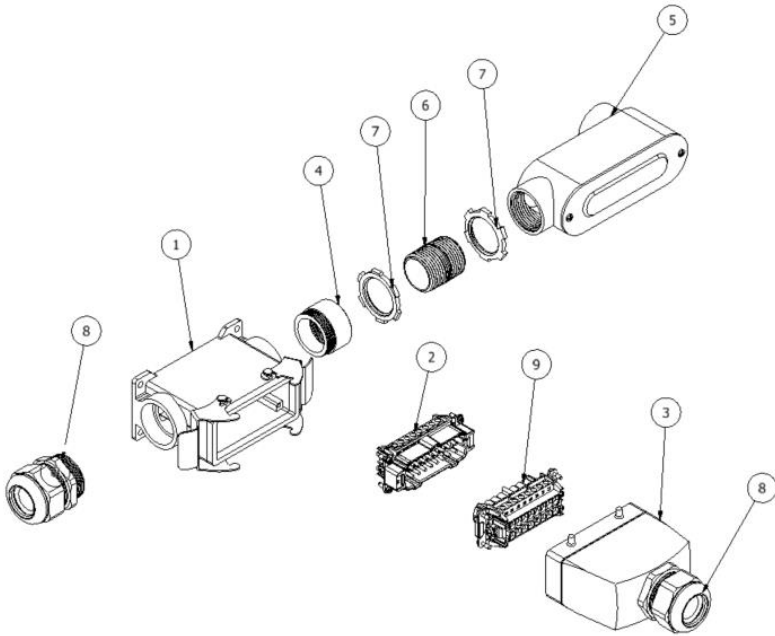
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-04-01	Screw Terminal BlockSide-Mounted, White ABS Plastic, 10 Circuits
2	1	SXS10000-800-08-01	Screw Terminal BlockSide-Mounted, White ABS Plastic, 10 Circuits
3	2	SXS10000-800-01	Bulkhead plug assembly P5, P7

JB7 (SXS10000-800-09)



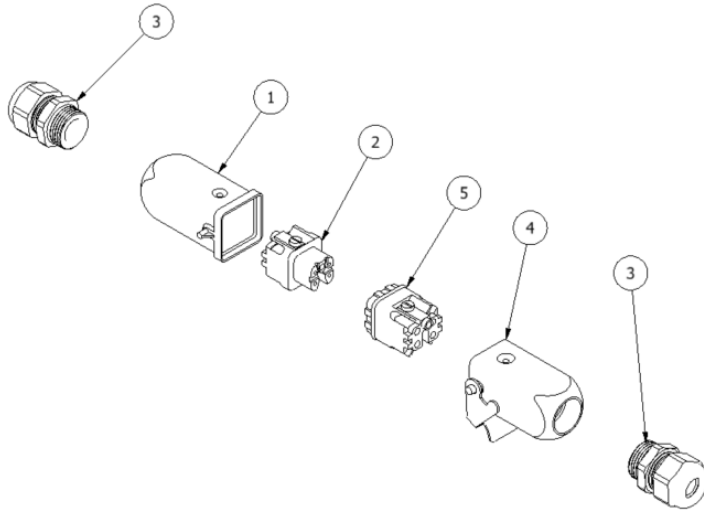
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
2	1	SXS10000-800-09-02	Screw Terminal BlockSide-Mounted, White ABS Plastic, 10 Circuits
1	1	SXS10000-800-09-01	Screw Terminal BlockSide-Mounted, White ABS Plastic, 10 Circuits
3	2	SXS10000-800-00-07	DC power jack 10 A 30VDC 5.5 x 2.1 mm,
4	1	SXS10000-800-00-10	0.51"-0.63" Cord OD, 3/4

P1 (SXS10000-800-05)



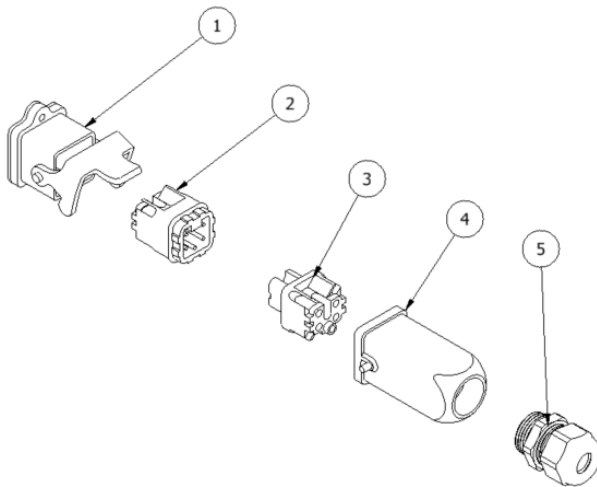
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-05-06	surface mount housing double lever connector housing size pg-29 P1
2	1	SXS10000-800-05-05	male insert 16-pole, screw terminals 16A P1
3	1	SXS10000-800-05-07	ZIPport hood housing 4-peg top entry pg-29 P1
4	1	SXS10000-800-05-08	Pg 29 male to 1in NPT female
5	1	SXS10000-800-05-02	1" NPSM Access Port for Metal Conduit
6	1	SXS10000-800-05-01	1 NPT Male Straight Connector
7	2	SXS10000-800-05-03	1 NPSM Zinc-Plated Steel Locknut
8	2	SXS10000-800-00-11	0.51"-0.79" Cord OD, PG-29
9	1	SXS10000-800-05-04	female insert 16-pole, screw terminals 16A P1

P2, P3, P6, P8 (SXS10000-800-02)



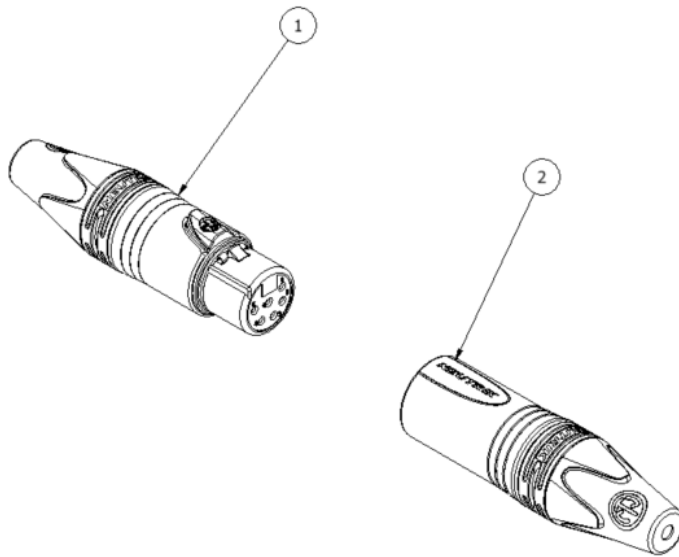
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-00-13	Hood housing 2 peg top entry ABS
2	1	SXS10000-800-00-12	4 pole screw female insert 10A
3	2	SXS10000-800-00-09	0.2"-0.39" Cord OD, PG-11
4	1	SXS10000-800-02-01	coupler housing, single lever, connector housing
5	1	SXS10000-800-00-14	4 pole screw male insert 10A P2,P3, P6, P8

P5, P7 (SXS10000-800-01)



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-01-01	bulkhead housing, single lever
2	1	SXS10000-800-00-14	4 pole screw male insert 10A P2,P3, P6, P8
3	1	SXS10000-800-00-12	4 pole screw female insert 10A
4	1	SXS10000-800-00-13	Hood housing 2 peg top entry ABS
5	1	SXS10000-800-00-09	0.2"-0.39" Cord OD, PG-11

P9 (SXS10000-800-10)



PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SXS10000-800-10-01	Female solder on plug
2	1	SXS10000-800-10-02	Male solder on plug

Electrical Cables

Part #		
SXS10000-800-06-29	16/2 Cable	Varies
SXS10000-800-06-30	16/4 Cable	Varies
SXS10000-800-06-31	16/18 Cable	30 feet
SXS10000-800-06-32	10/3 Cable	6 Feet
SXS10000-800-06-33	8/3 Cable	25 feet
SXS10000-800-06-34	16/8 Coiled Cable	4 feet coiled

For the variable cable lengths, when ordering a replacement, specify the length.

15' of Velcro wrap for cable and hose Part # SXS10000-800-06-35.

15 Cable ties included Part # SXS10000-800-06-36.