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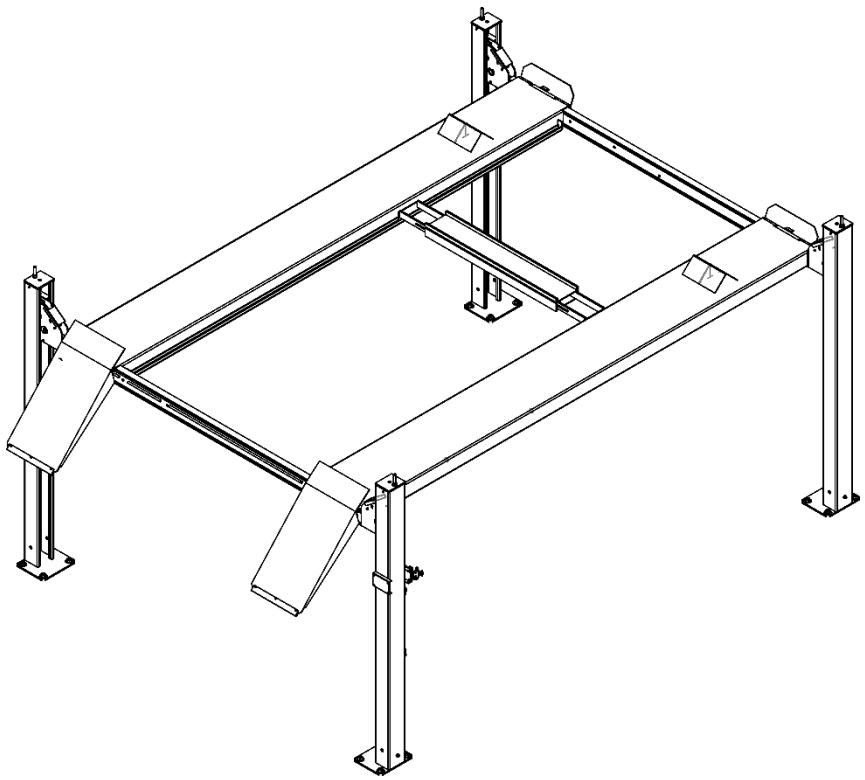
HD-7500 Four-Post Lift

Installation and Operation Manual

Manual P/N 5900174 — Manual Revision C1 — February 2022

Models:

- HD-7500BL
- HD-7500BLX



HD-7500BL shown above.

Designed and engineered by BendPak Inc. in Southern California, USA. Made in China.

DANGER

Save these instructions! Read the *entire* contents of this manual ***before*** using this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death. Make sure all other operators also read this manual. Keep the manual near the product for future reference. ***By proceeding with installation and operation, you agree that you fully understand the contents of this manual and assume full responsibility for product use***.

Manual. HD-7500 Four-Post Lift series, *Installation and Operation Manual*, Manual P/N 5900174, Manual Revision C1, Released February 2022.

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Limitations. Every effort has been made to make sure complete and accurate instructions are included in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. BendPak reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. BendPak is not responsible for typographical errors in this manual. You can always find the latest version of the **manual for your product on the BendPak website**.

Warranty. The BendPak warranty is more than a commitment to you: it is also a commitment to the value of your new product. Contact your nearest BendPak dealer or visit **www.bendpak.com/support/warranty** for full warranty details. Go to **bendpak.com/support/register-your-product/** and fill out the online form to register your product (be sure to click **Submit**).

Safety. Your product was designed and manufactured with safety in mind. However, your safety also depends on proper training and thoughtful operation. Do not install, operate, maintain, or repair the unit without reading and understanding this manual and the labels on the unit; ***do not use your Lift unless you can do so safely!***

Owner Responsibility. In order to maintain your product properly and to ensure everyone's safety, it is the responsibility of the product owner to read and follow these instructions:

- Follow all installation, operation, and maintenance instructions.
- Make sure product installation conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.
- Read and follow all safety instructions; keep them readily available for operators.
- Make sure all operators are properly trained, know how to safely operate the unit, and are properly supervised.
- Do not operate the product until you are certain that all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as specified.
- Service and maintain the unit with approved replacement parts only.
- Keep instructions permanently with the product and make sure all labels are clean and visible.
- **Only use the Lift if it can be used safely!**

Unit Information. Enter the Model Number, Serial Number, and the Date of Manufacture from the label on your unit. This information is required for part or warranty issues.

Model: _____

Serial: _____

Date of Manufacture: _____

Table of Contents

Introduction

This manual describes the following BendPak Four-Post Lifts:

- **HD-7500BL**: Four-Post Lift with an overall width of 132 inches (11 feet), and can raise Vehicles and boats up to 7,500 pounds (3,402 kg).
- **HD-7500BLX**: Has the same overall width as the HD-7500BL, but with a ***higher rise*** and ***extended length***.

This manual is mandatory reading for all users of the HD-7500 Series, including anyone who installs, uses, maintains, repairs, or wants to know more about them.

⚠ **DANGER** Use care when installing, operating, maintaining, or repairing this equipment; failure to do so could result in property damage, product damage, injury, or (in very rare cases) death. Make sure only authorized personnel operate this equipment. All repairs must be performed by an authorized technician. Do not make modifications to the unit; this voids the warranty and increases the chances of injury or property damage. Make sure to read and follow the instructions in this manual and on the labels on the unit.

Keep this manual on or near the equipment so that anyone who uses or services it can read it.

If you are having issues, refer to the **Troubleshooting** section of this manual for assistance.

Technical support and service is available from your dealer, on the Web at **bendpak.com/support**, by email at **support@bendpak.com**, or by phone at **(800) 253-2363**, extension 196.

You may also contact BendPak for parts replacement information at **(800) 253-2363**, extension 191; please have the model and serial number of your unit available.

Shipping Information

Your equipment was carefully checked before shipping. Nevertheless, you should thoroughly inspect the shipment ***before*** you sign to acknowledge that you received it.

When you sign a bill of lading, it tells the carrier that the items on the invoice were received in good condition. *To protect yourself, do not sign until **after** you have inspected the shipment.* If any of the items listed on the bill of lading are missing or are damaged, do not accept the shipment until the carrier makes a notation on the bill of lading that lists the missing and/or damaged goods.

If you discover missing or damaged goods ***after*** you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not make an inspection, 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.

It is difficult to collect for loss or damage after you have given the carrier a signed bill of lading. If this happens to you, file a claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

Safety Considerations

Read this entire manual carefully before installing or using the product. Do not install or operate the product until you are familiar with all operating instructions and warnings. Do not allow anyone else to operate it until they are familiar with all operating instructions and warnings. Keep this manual on or near the product for future reference.

Read and follow the warnings and instructions on the labels on the product. Contact BendPak at **(800) 253-2363** or **support@bendpak.com** if you need replacement labels or a replacement manual.

⚠ **WARNING** **California Proposition 65**. This product can expose you to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. Always use this product in accordance with BendPak's instructions. For more information, visit **www.p65warnings.ca.gov**.

Safety Information

The following safety information applies to the HD-7500 Series:

- The product is a Four Post Lift. Use it only for its intended purpose.
- BendPak recommends referring to the current version of the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for information about safely installing and using your Lift.
- The product may only be operated by authorized, trained persons.
- When the Lift is in use, keep all body parts far away from it.
- Use caution when driving onto wet or icy Drive-up Ramps or Runways. Do not walk on Lift surfaces that are wet or icy.
- Do not make any modifications to the Lift; this voids the warranty and increases the chances of injury or property damage.

- Make sure all operators read and understand this *Installation and Operation Manual*. Keep the manual near the Lift at all times.
- Make an inspection of the Lift ***before*** using it. Check for damaged, worn, or missing parts. Do not use it if you find any of these issues. Instead, take it out of service, then contact an authorized repair facility, your dealer, or BendPak at **(800) 253-2363** or **support@bendpak.com**.
- BendPak recommends making a ***thorough*** inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

Symbols

Following are the symbols used in this manual:

⚠ **DANGER**	Calls attention to an immediate hazard that **will** result in death or severe injury.
⚠ **WARNING**	Calls attention to a hazard or unsafe practice that **could** result in death or severe personal injury.
⚠ **CAUTION**	Calls attention to a hazard or unsafe practice that could result in minor personal injury, product damage, or property damage.
NOTICE	Calls attention to a situation that, if not avoided, could result in product or property damage.
Tip	Calls attention to information that can help you use your product better.

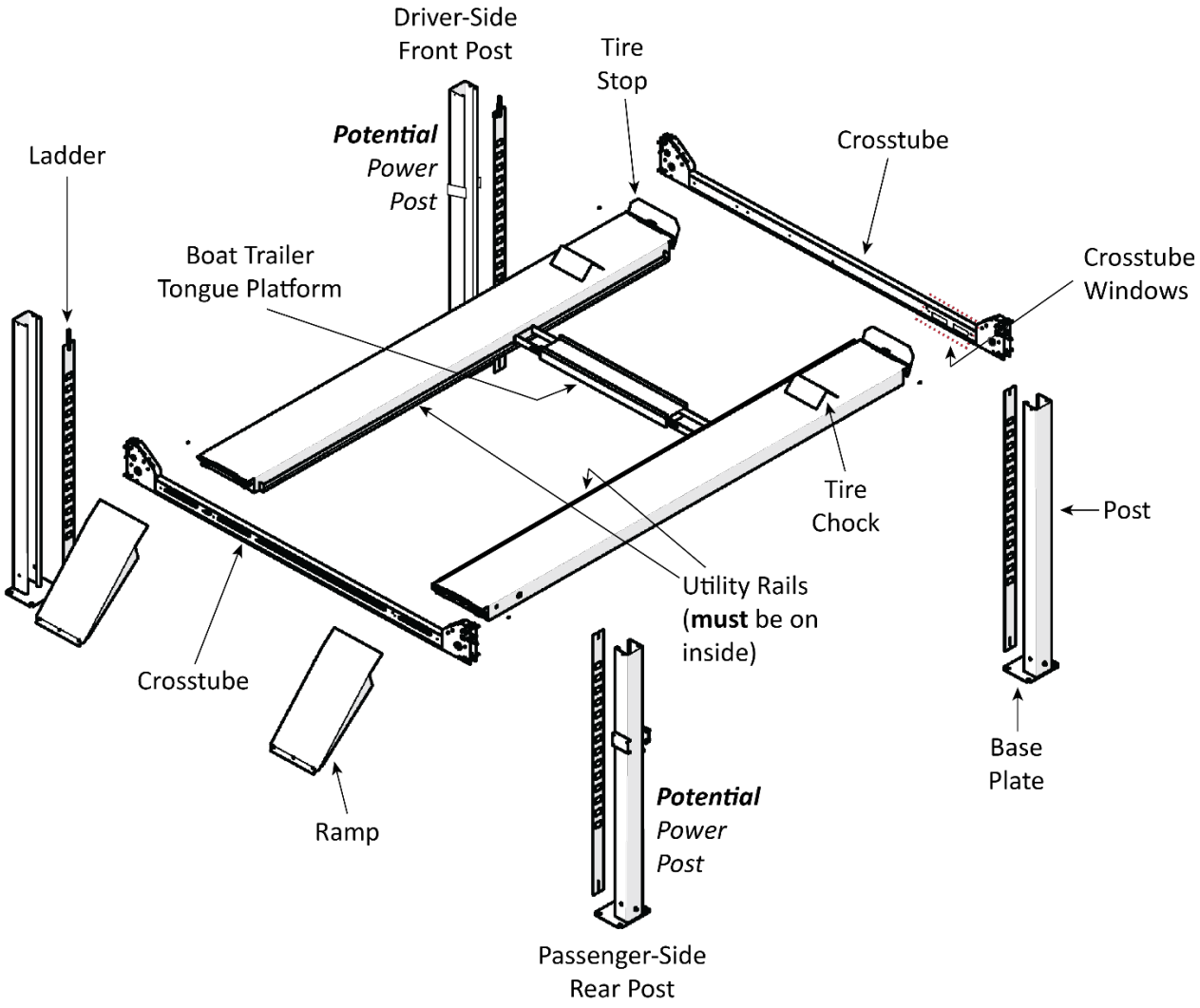
BendPak Inc. assumes **no** liability for damages resulting from:

- Use of the equipment for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak.
- Injury or death caused by modifying, disabling, overriding, or removing safety features.
- Damage to the equipment from external influences.
- Incorrect operation of the equipment.

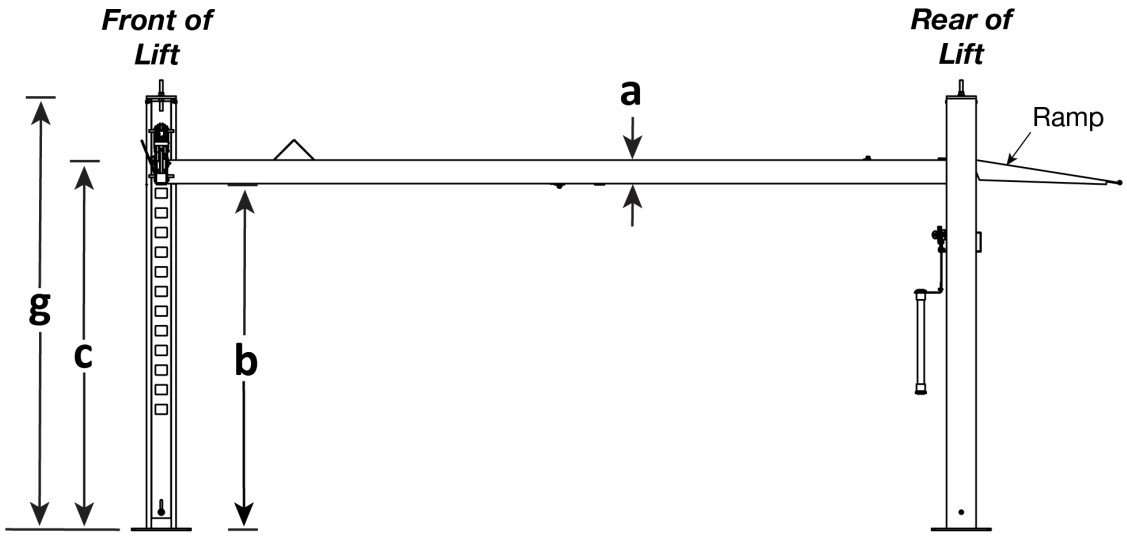
Components

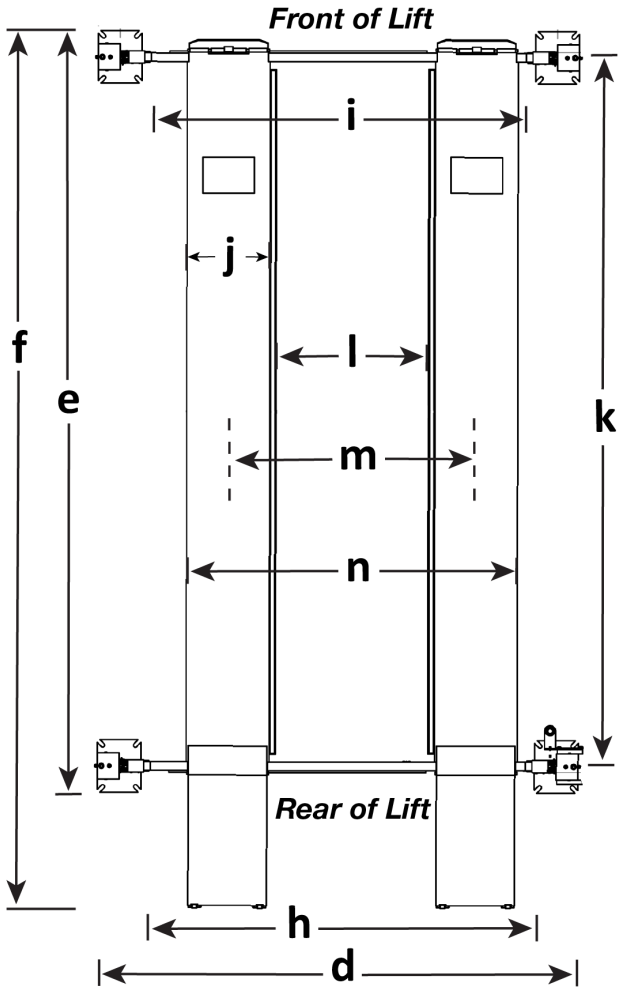
The main components of your Lift include:

- **Power Post**. The Post that holds the Power Unit. ***The Power Post can be in either of two locations***. You can tell the Power Post from the other Posts because it has two Mounting Brackets on it. Mount the Power Unit on one of the two Mounting Brackets.
- **The other three Posts**. These Posts are functionally interchangeable; their Labels are different.
- **Power Unit**. An electric/hydraulic unit that connects to an electric power source and then provides hydraulic power to the Hydraulic Cylinder that raises and lowers the Runways.
- **Lifting Cables**. The two Runways are lifted by .4 inch / 10 mm thick aircraft-quality steel wire rope, *each* of which is rated at 14,400 pounds.
- **Boat Trailer Tongue Platform** (*TC-3000 model*). Sits between the Runways, holds the front wheel of your boat trailer.
- **Powerside Runway**. The Runway next to the Power Post. The Powerside Runway has Lifting Cables and the Hydraulic Cylinder on its underside. You ***must*** put the Powerside Runway next to the Power Post.
- **Offside Runway**. The other Runway. It does not have a Hydraulic Cylinder or Lifting Cables under it.
- **Utility Rails**. Hold the optional Rolling Jacks. Utility Rails ***must*** go on the inside of the Lift.
- **Crosstubes**. One at each end of the Lift. The Crosstubes are hollow; the Lifting Cables that raise and lower the Runways are routed through the Crosstubes. The Crosstubes are not the same: each Crosstube has an opening (called a Window) that faces the inside (orienting the Windows correctly is described in the Installation section). ***Windows must be installed so that they open to the inside of the Lift***. Lifting Cables go into the Crosstubes through the Windows.
- **Ramps**. One for each Runway. Use them to drive onto and off of the Runways. By definition, the Ramp end of the Lift is also the Rear of the Lift.
- **Tire Stops**. Located at the Front of the Lift, Tire Stops prevent the Vehicle's front tires from going any further forward. Additionally, we strongly recommend chocking the Vehicle's rear tires.
- **Safety Locks**. Once engaged, they hold the Runways in position, even if the power goes out or there is a leak in the Hydraulic Hoses. ***Only leave your Lift on the ground or engaged on a Safety Lock.***
- **Pushbutton Air Valve**. Includes a Pushbutton that moves the Safety Locks away from the Ladder so that they do not engage as you lower the Runways. Used only to lower the Runways.
- **Ladder**. A piece of steel that gets installed at the back of each Post.


Driver-Side
Front Post
Tire
Stop
Ladder
Potential
Power
Post
Crosstube
Boat Trailer
Tongue Platform
Crosstube
Windows
Tire
Chock
Post
Utility Rails
(must be on
inside)
Crosstube
Base
Plate
Ramp
Potential
Power
Post
Passenger-Side
Rear Post

Specifications





Model	HD-7500BL	HD-7500BLX
Lifting capacity	7,500 lbs / 3,402 kg	
Maximum capacity front axle	3,750 lbs / 1,701 kg	
Maximum capacity rear axle	3,750 lbs / 1,701 kg	
a Minimum Runway Height	5" / 125 mm	
b Maximum Rise	70" / 1,778 mm	82"/ 2,058 mm
c Maximum Lifting Height	75" / 1,903 mm	87"/ 2,208 mm
d Overall Width	132 in. / 3,353 mm (with fasteners 133.75" / 3,398 mm)	
e Outside Length	174" / 4,418 mm	198" / 5,028 mm
f Overall Length	200.5" / 5,093 mm	224.5" / 5,704 mm
g Height of Post	88" / 2,232 mm	100"/ 2,537 mm
h Distance Between Posts	122" / 3,103 mm	
i Drive-Through Clearance	108.5" / 2,756 mm	
j Runway Width	19" / 482 mm	
k Runway length	164.5" / 4,178 mm	188.5" / 4,788 mm
l Width Between Runways	49.5" – 69.5" / 1,257 mm – 1,765 mm	
m Runway Centerline	68.5" (narrow) *or* 88.5" (wide) / 1,740 mm *or* 2,248 mm	
n Outside Edge of Runways	87.5" (narrow) *or* 107.5" (wide) / 2,223 mm *or* 2,731 mm	
Min. Wheelbase @ rated capacity [1]	115" / 2,921 mm	135" / 3,429 mm
Min. Wheelbase @ 75% capacity [1]	100" / 2,540 mm	115" / 2,921 mm
Min. Wheelbase @ 50% capacity [1]	85" / 2,159 mm	95" / 2,413 mm
Min. Wheelbase @ 25% capacity [1]	70" / 1,778 mm	80" / 2,032 mm
Locking Positions	14 spaced every 4" / 102 mm	17 spaced every 4" / 102 mm
Lifting time	~45 seconds	~50 seconds
Motor	208-230 VAC, 60 Hz, 1 Ph	
Air supply	3 to 25 cfm at 50 to 150 psi	

[1] The Lift supports less weight than its rated capacity when the Vehicle's wheelbase is shorter; this is because the wheels are closer to the middle of the Runways, where there is less strength. For example, the maximum weight allowed on the Lift for a Vehicle with a wheelbase of 95 inches is 50 percent of the Lift's rated capacity or 3,750 lbs with a rated capacity of 7,500 lbs.

Specifications subject to change without notice.

Frequently Asked Questions

Question: What kinds of Vehicles can I put on my Lift?

Answer: Cars, trucks, SUVs; anything that fits on the Runways, up to 7,500 lbs (3,402 kg).

Q: How long does it take to raise or lower my Lift with a Vehicle on it?

A: About 45 to 55 seconds, depending on your model. Longer if there is no weight on it.

Q: Does the Lift have a Front and a Rear?

A: Yes. For a Four-Post Lift, the end ***opposite*** the Ramps is the Front; the end with the Ramps is the Rear.

Q: Do I have to put my Power Unit in a particular location?

A: Yes. Your Power Post (the Post the holds the Power Unit) must be located at either the Driver-Side Front or the Passenger-Side Rear of the Lift. More on this later.

Q: Does the Lift have to be anchored in place?

A: Yes. BendPak strongly recommends that you anchor the Lift; it may be less stable if you do not anchor the Bases.

Q: How high does the ceiling have to be?

A: It depends on the height of the Vehicle you are putting on the Runways and how high you raise the Runways. If you are going to put a tall Vehicle or Boat on the Lift and raise it all the way up, you should check to make sure there is enough room.

Q: Does it matter if I drive my Vehicles in front first or back them in?

A: We recommend driving your Vehicle in front first, because that makes it easier to center the wheels on the Runways. But it is up to you; the Lift works great either way. Also, remember to put the Front wheels up against the Tire Stops and chock the Rear wheels.

Q: Will the Lifting Cables really hold my Vehicle?

A: Yes. Each Lifting Cable is .4 inches thick, aircraft-quality steel ***wire rope***.

Q: Do I need an Air Supply?

A: Yes. An Air Supply (3 to 25 cfm at 50 to 150 psi) is required to disengage the Safety Locks when you want to lower the Lift. Regulate the line to a maximum pressure of 150 psi; the Air Lines could burst or the Safety Locks malfunction at pressures over 150 psi.

Q: How long can I leave a Vehicle on a raised Runway?

A: As long as you want. Once the Lift is engaged on a Safety Lock, gravity holds it in position, so a loss of power or a leaking Hydraulic Hose will not affect the Lift. ***Only leave your Lift either fully lowered or engaged on Safety Locks***.

Q: Can I install my Lift outside?

A: No. Your Lift is approved for indoor installation and use only. ***Outdoor installation is prohibited***.

Installation Checklist

Following are the steps needed to install your Lift. Perform them in the order shown.

☐ 1. Review the Safety Rules.
☐ 2. Make sure you have the necessary Tools.
☐ 3. Plan for electrical work.
☐ 4. Select an Approach.
☐ 5. Choose a Power Post Location.
☐ 6. Check the Clearances.
☐ 7. Select the Installation Location.
☐ 8. Unload and unpack the Lift Components.
☐ 9. Create Chalk Line Guides.
☐ 10. Move the Posts into position.
☐ 11. Install the Crosstubes.
☐ 12. About Safety Locks.
☐ 13. Install the Ladders and Top Caps.
☐ 14. Raise the Crosstubes.
☐ 15. Secure the Ladders.
☐ 16. Remove the Sheaves.
☐ 17. Install the Runways.
☐ 18. Install the first end of the Flex Tube.
☐ 19. Extend the Piston and Route the Lifting Cables.
☐ 20. Install the Power Unit.
☐ 21. About Hydraulic Fluid Contamination.
☐ 22. About Thread Sealants.
☐ 23. Filling the Hydraulic Fluid Reservoir.
☐ 24. Install the second end of the Flex Tube.
☐ 25. Working with Compression Fittings and Tubing.
☐ 26. Install the Pushbutton Air Valve and connect the Air Line.
☐ 27. Connect the Return Line.
☐ 28. Connect the Hydraulic Hose.
☐ 29. Contact the Electrician.
☐ 30. Connect to a power source (***Electrician required***).
☐ 31. Install the Power Disconnect Switch and Thermal Disconnect Switch (***Electrician required***).
☐ 32. About Effective Embedment.
☐ 33. Anchor the Posts.
☐ 34. Perform final leveling.
☐ 35. Install the Accessories.
☐ 36. Lubricate the Lift.
☐ 37. Perform an Operational Test.
☐ 38. Review the Final Checklist.

Installation

The installation process takes multiple steps. Perform them in the order listed.

Read the entire Installation section before beginning the install; this gives you a better understanding of the process as a whole.

⚠ **WARNING** ***Only use the factory-supplied parts that came with your Lift***. If you use parts from a different source, you void your warranty and compromise the safety of everyone who installs or uses the Lift. If you are missing parts, visit **bendpak.com/support** or call **(800) 253-2363**, extension 191.

Being Safe

While installing this equipment, your safety depends on proper training and thoughtful operation.

⚠ **WARNING** Do not install this equipment unless you have automotive Lift installation training. Always use proper lifting tools, such as a Forklift or Shop Crane, to move heavy components. Do not install this equipment without reading and understanding this manual and the safety labels on the unit.

Only fully trained personnel should be involved in installing this equipment. Pay attention at all times. Use appropriate tools and lifting equipment. Stay clear of moving parts.

BendPak recommends referring to the current version of the ANSI/ALI ALIS Standard *Safety Requirements for Installation and Service* for more information about safely installing, using, and servicing your Lift.

⚠ **WARNING** You must wear appropriate protective equipment ***at all times*** during installation: gloves, steel-toe work boots, eye protection, back belts, and hearing protection.

Tools

You may need some or all of the following tools and supplies:

- Rotary hammer drill (or similar)
- ¾ inch carbide bit (conforming to ANSI B212.15)
- Hammer, crow bar, and two sawhorses
- Four-foot level and 12-foot ladder
- Open-end wrench set, SAE and metric
- Socket and ratchet set, SAE and metric
- Hex key wrench set
- Medium crescent wrench, torque wrench, pipe wrench
- Chalk line
- Medium-sized flat screwdriver and needle-nose pliers
- Tape measure (25 feet or above)
- Forklift, shop crane, or heavy-duty rolling dolly
- Red and White Lithium Grease

Planning for Electrical Work

You will need to have a licensed, certified Electrician available at some point during the installation.

⚠ **DANGER** All electrical work ***must*** be performed by a licensed, certified Electrician.

Notify your Electrician in advance so that they come prepared with appropriate components for connecting to the power source, a Power Disconnect Switch, and a Thermal Disconnect Switch. Refer to **Contacting the Electrician** for more information.

Your Electrician needs to:

- **Connect the Power Unit to an electric power source**. An electric power source is required. The Power Unit comes with a Pigtail for wiring to a power source. Have your Electrician connect a power cord with appropriate plug to the electrical box on the Lift (for connection to a power outlet) or have them wire it directly into the electrical system at the Lift location.

  Note that *installing* the Power Unit and *connecting* the Power Unit to the power source are separate procedures and are done at different times in the installation process. You do ***not*** need an Electrician to *install* the Power Unit, but an Electrician is ***required*** to connect the Power Unit to the power source.

- **Install a Power Disconnect Switch**. This switch ensures you can quickly and completely interrupt electrical power to the Lift in the event of an electrical circuit fault, emergency situation, or when equipment is undergoing service or maintenance. Put it within sight and reach of the Lift operator.
- **Install a Thermal Disconnect Switch**. This switch ensures the equipment shuts down in the event of an overload or an overheated motor.

Note: These components are not supplied with the Lift.

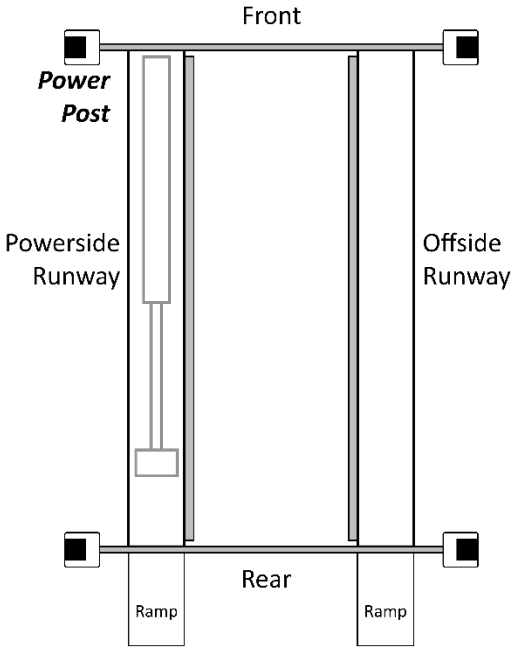
Selecting a Power Post Location

You need to pick a Power Post location now, near the beginning of the installation process, as its location impacts other aspects of the installation.

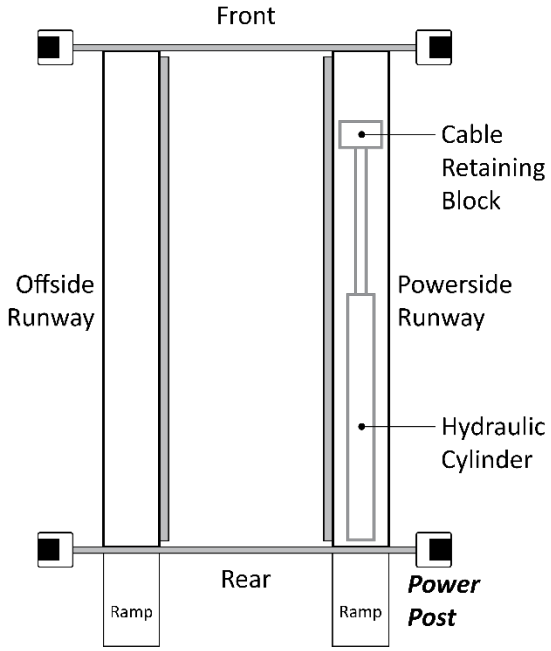
You have two options for Power Post location: **Driver-Side Front** or **Passenger-Side Rear**.

Note: The Power Post location decision has no impact on the Approach direction or where the Front and Rear of the Lift are. It does impact other aspects of the installation, however.

Power Post Location: Driver-Side Front



Power Post Location: Passenger-Side Rear

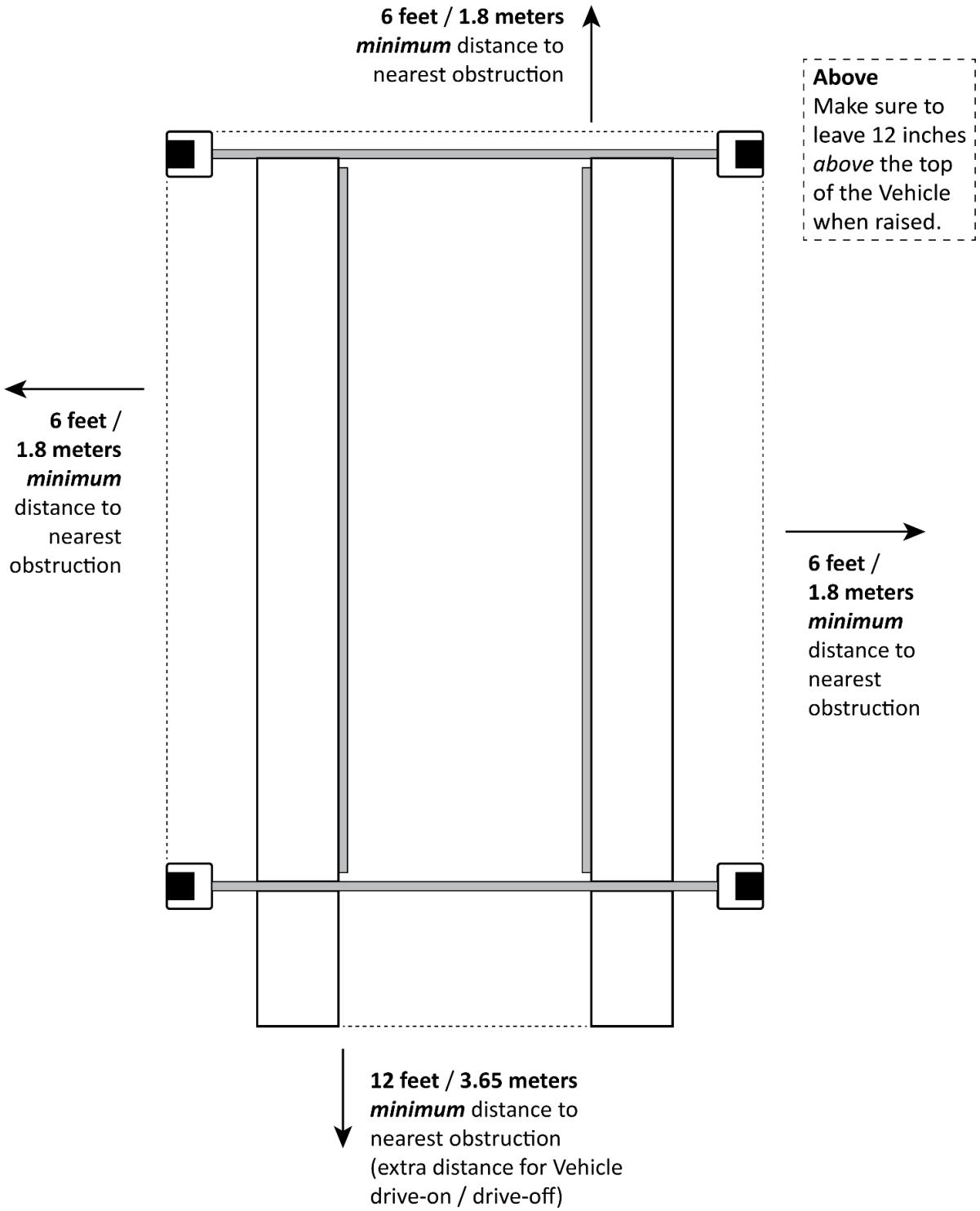


*Drawing not to scale. Not all components shown. Powerside Runway (which has the Hydraulic Cylinder under it) **must** be installed next to the Power Post, no matter which Power Post location you choose.*

Most customers choose their Power Post location based on either preference (one option makes more sense for their shop than the other does) or easier access to the power source.

Checking Clearances

For safety purposes, a certain amount of clear space around the Lift is ***required***.



Drawing is a top view. Not to scale. Not all components shown.

Selecting a Location

When selecting the location for your Lift, consider:

- **Architectural plans**. Consult the architectural plans for your desired installation location. Make sure there are no issues between what you want to do and what the plans show.
- **Available space**. Make sure there is enough space for the Lift: front, back, sides, and ***above***. Refer to **Specifications** for measurements.
- **Overhead obstructions**. Check for overhead obstructions such as building supports, heaters, electrical lines, low ceilings, hanging lights, and so on. ***You do not want the Vehicles on the Lift hitting obstructions***.
- **Side and front clearances**. You must leave room around the Lift. Leave at least six feet (72 inches / 1.8 meters) clear on both sides and the front of the Lift, and no obstructions at all at the Rear of the Lift (so you can safely drive Vehicles onto the Runways).
- **Power**. You need an appropriate power source for the Power Unit.
- **Outdoor installations**. Your Lift is approved for **indoor** installation and use ***only***.
- **Floor**. Only install the Lift on a flat, Concrete floor; do not install on asphalt or any other surface. The surface must be level; do not install if the surface has more than three degrees of slope.

⚠ **WARNING** Installing your Lift on a surface with more than three degrees of slope could lead to injury or even death. Only install the Lift on a level floor. If your floor is not level, consider making the floor level or using a different location.

- **Shimming**. If your Concrete floor is not completely level, you can use Shims under the bases of the Posts, as needed, to level the Lift.

  To estimate your Shim requirements, use a transit level and targets to check for flatness. Use the provided Shims as necessary.

NOTICE Do not shim a Post more than half an inch using the provided Shims and Anchor Bolts. A maximum shim of 2 inches is possible by ordering optional Shim Plates. Contact BendPak at **(800) 253-2363**, extension 191 to order.

- **Concrete specifications**. Do not install the Lift on cracked or defective Concrete. Make sure the Concrete is at least 4.25 inches thick, 3,000 PSI, and cured for a minimum of 28 days. Do not install Anchor Bolts within six inches of cracks, expansion joints, or other defects in the Concrete.

⚠ **CAUTION** BendPak lifts are supplied with installation instructions and Concrete anchors that meet the criteria set by the current version of the American National Standard "Automotive Lifts – Safety Requirements for Construction, Testing, and Validation", ANSI/ALI ALCTV. You are responsible for any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

Be sure to check your Concrete floor for the possibility of it being a ***post-tension slab***. In this case, you must contact the building architect before drilling. Using ground penetrating radar may help you find the tensioned steel.

⚠ **WARNING** Cutting through a tensioned cable can result in injury or death. Do not drill into a post-tension slab unless the building architect confirms you are not going to hit tensioned steel or you have located it using ground penetrating radar. ***If colored sheath comes up during drilling, stop drilling immediately***.

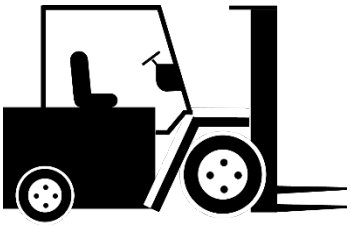
Unloading and Unpacking

Try to have the components of the Lift unloaded near the installation location.

Once the components are unloaded, they are your responsibility to move around. As the Lift includes a number of heavy pieces, the closer you unload them to the installation location, the better off you are.

⚠ CAUTION Some Lift components are very heavy; if handled incorrectly, they can damage materials like tile, sandstone, and brick. Try to handle the Lift components twice: once when delivered and once when moved into position. You must have a Forklift or Shop Crane to move them into position. Use care when moving them.

⚠ WARNING The Posts and Runways are delivered with stabilizing structures on each end. Be very careful when removing these stabilizing structures; the Posts and Runways can shift or even fall. If they fall on a person, they could cause serious injury.

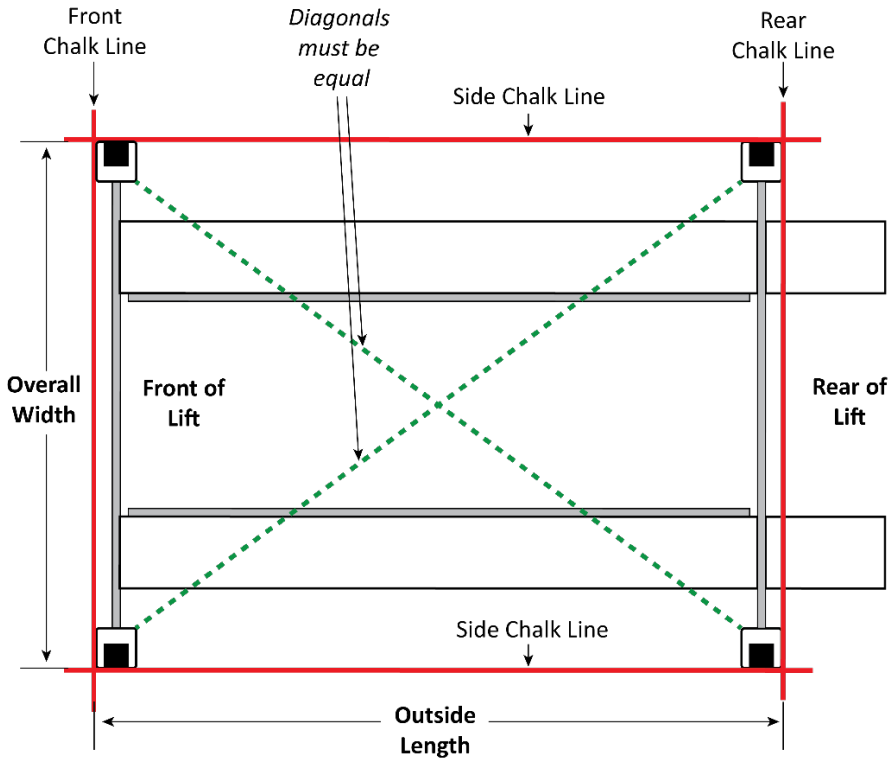


Creating Chalk Line Guides

Create Chalk Line Guides so that the outside edges of all four Post bases fit into the four corners created by the Chalk Line Guides.

Refer to **Specifications** to determine the **Overall Width** and ***Outside* Length** values for your Lift.

Note: Do ***not*** use the ***Overall* Length** value; this includes the Ramps, which are not taken into consideration for creating Chalk Line Guides.



Drawing is a top view. Not to scale. Not all components shown.

To create Chalk Line Guides:

1. Create the Front Chalk Line where you want the Front of the Lift.

   Make the Front Chalk Line longer, by 12 inches on each end, than the **Overall Width** setting.

2. Create the two side Chalk Lines at 90° angles to the Front Chalk Line and parallel to each other. Make the side Chalk Lines longer (by 12 inches on each end) than the **Outside Length** setting.

   The Side Chalk Lines ***must*** be parallel to each other.

   Measure to verify that they are parallel.

3. Create the Rear Chalk Line parallel to the Front Chalk Line. Make the Rear Chalk Line longer than the **Overall Width** setting for your Lift model.

   The Front and Rear Chalk Lines ***must*** also be parallel to each other.

   Measure to verify that they are parallel.

4. Before moving the Posts into position, measure ***diagonally*** to make sure the two diagonal measurements are the same. ***Do not forget to check the diagonals.***

5. When you move the Posts into position, put the outside edges of the bases inside the corners created by the Chalk Line Guides.

Moving the Posts into Position

Use a Forklift or Shop Crane to move the Posts. You need to have ***at least two people*** work together to stand up the Posts.

⚠ **DANGER** The Posts are heavy and awkward; be very careful when handling them. If they fall on a person, they will cause injury.

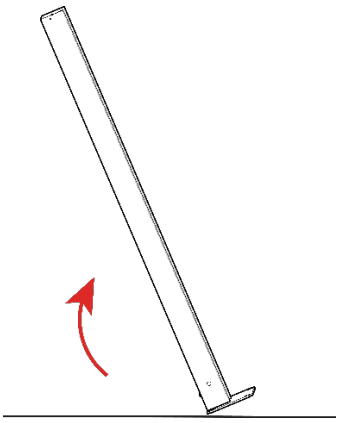
To move the Posts into position:

1. Using a Forklift or Shop Crane, move the four Posts, one at a time, to the inside corners of the Chalk Line Guides.

Important: Position the Power Post at the location you chose earlier. The other three Posts can go at any of the remaining Post locations.

2. Stand up each Post.

   Have ***at least two people*** work together to stand up a Post.



⚠ **WARNING** Be very careful when walking around the Posts; they are not anchored down at this point, so it is possible to knock them over, which could cause significant injury.

3. ***Do not anchor the Posts at this point***.

   You may or may not be anchoring the Posts at all, depending on whether or not you are going to be using the optional Caster Kit. But even if you are planning on anchoring the Posts *eventually*, ***do not anchor the Posts*** **now**.

Installing the Crosstubes

Your Lift has two Crosstubes; ***they are similar, but not the same***:

- **One with Two *Large* Windows**: This Crosstube has two ***Large*** Windows, and must be installed at the Cable Retainer Block end of the Powerside Runway.
- **One with Two *Small* Windows**: This Crosstube has two ***Small*** Windows, and must be installed adjacent to the Power Post.

Both Crosstubes are hollow, which allows the Lifting Cables to be run through them to the Posts.

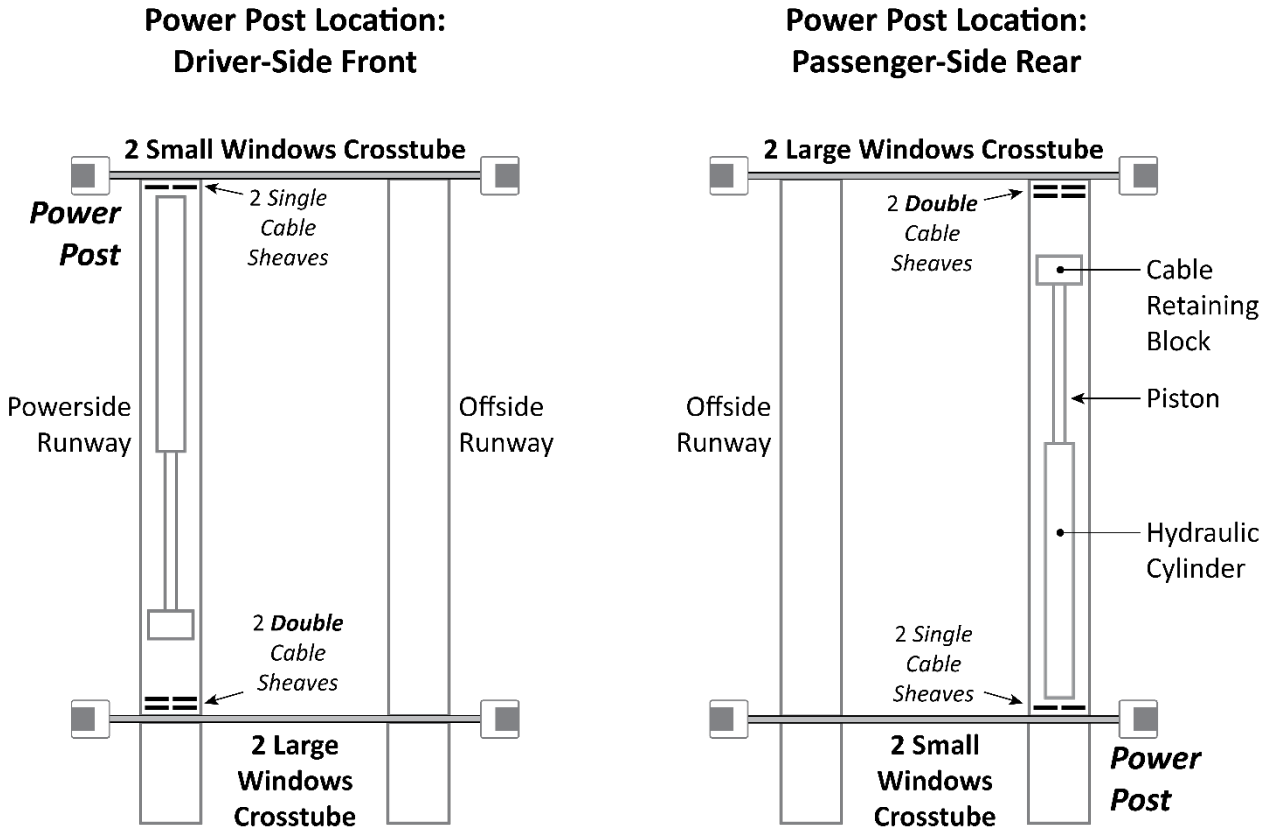
Tip It is possible to install the Crosstubes **incorrectly** in several different ways. Take your time and get it right the first time.

Both Crosstubes ***must*** be installed so that the Windows open to the **inside** of the Lift.

Important: Your Power Post location impacts Crosstube installation. The Crosstube with two Small Windows ***must*** be installed next to the Power Post. The location of the Ramps do not come into play when determining where the Crosstubes get installed.

Crosstubes ***must*** be installed so that their Windows are on the Powerside Runway side of the Lift.

The following drawing shows the two Crosstube setups based on Power Post location.



Top view. Drawing not to scale. Some components not shown. The location of the Ramps does not change based on Power Post location, but the Powerside Runway and Crosstube locations do. Windows are in the Crosstubes; they are shown here at the ends of the Powerside Runway for clarity.

To install the Crosstubes:

1. Orient the Crosstubes in their ***required*** locations:
   - The Crosstube with two Large Windows must be on the Cable Retainer Block end of the Powerside Runway with both Windows facing the inside of the Lift.
   - The Crosstube with two Small Windows must be located next to the Power Post with both Windows facing the inside of the Lift.

   Both Windows *must* be on the ends of the Powerside Runway and facing the inside of the Lift.
2. Lean over the ***two*** Posts at one end of the Lift (some people put them on Sawhorses, some people let them lay on the ground), slide the Crosstube into place, then stand the Posts back up again (make sure to put them back into their correct locations).

   or

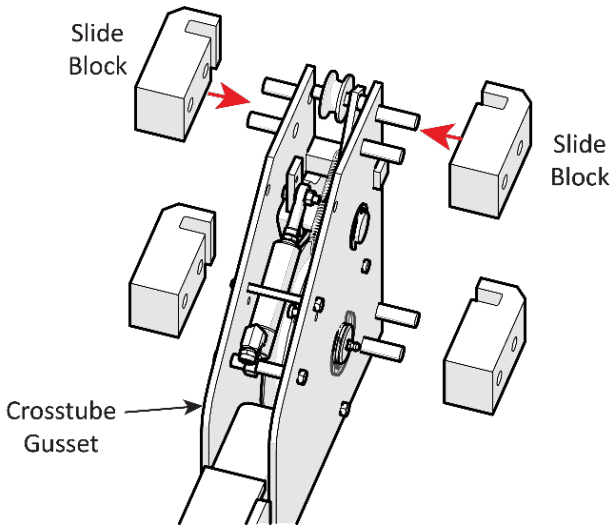
   Using a Forklift or Shop Crane, raise a Crosstube above the top of the two Posts, then slide the Crosstube down into place.
3. Perform Step 2 for the second Crosstube.

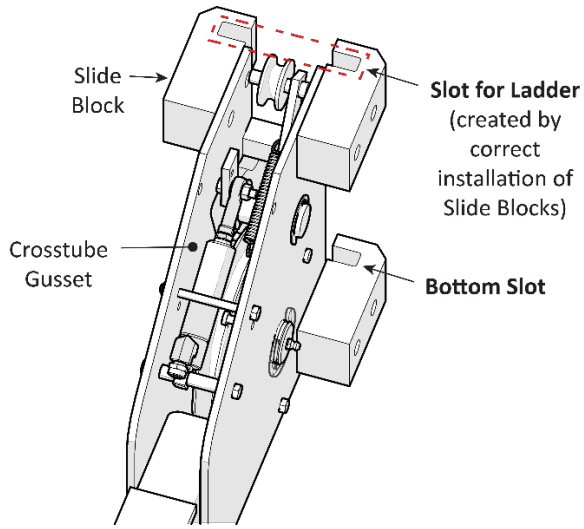
About Slide Blocks

The black Slide Blocks in the corners on the ends of the Crosstubes come installed from the factory. If they fall off or do not come installed, put them into place so that each pair creates a Slot into which the Ladder for each Post will be installed later in the installation procedure.

In the drawings below, the drawing on the left shows how two Slide Blocks get put into position; the drawing on the right shows the Slot created by the two Slide Blocks when they are installed. There are two Slots per Crosstube Gusset, one at the top and one at the bottom.

*The Ladder **must** go through **both** Slots.*





Important: It is easy to see the top Slot created by the Slide Blocks. It is difficult to see the bottom Slot, but it is ***required*** that the Ladder go through ***both*** Slots.

About Safety Locks

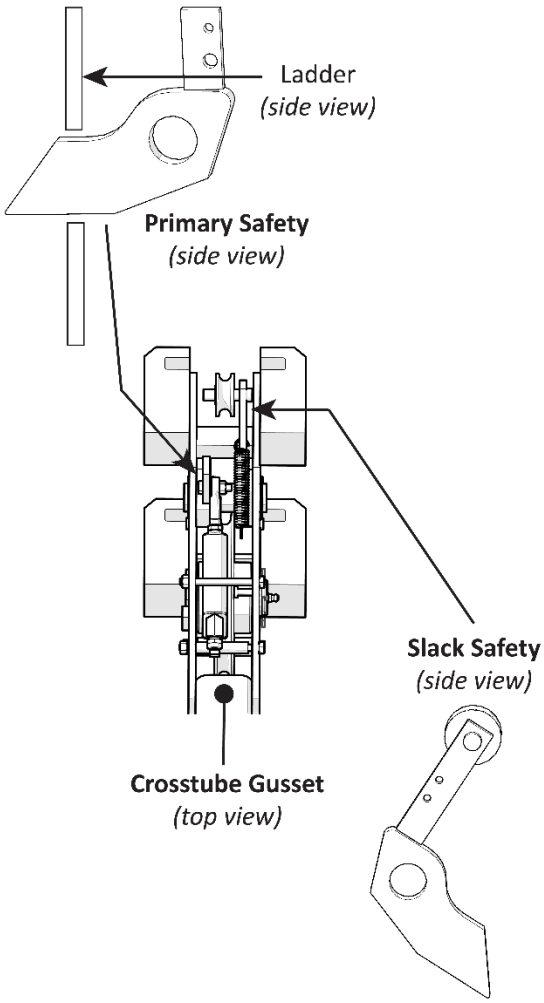
Safety Locks hold the Runways in place. Once engaged, Safety Locks hold the Runways in place, even if the power goes out or the Hydraulic Hoses break or leak.

Important: Simply raising the Runways does not ***engage*** them on the Primary Safety Locks. You must back the Runways down onto the Safety Locks to engage them.

⚠ **WARNING** Safety Locks are dependent on correct installation of the Ladders. Pay careful attention when installing the Ladders, thus ensuring correct operation of the Safety Locks on your Lift.

The Ladders are steel pieces with holes spaced every four inches. As you raise the Runways, the Primary Safety Locks move into the holes in the Ladder. When you move the Runways back down after passing a Safety Lock hole, the Safety Lock engages. Once they are engaged, Safety Locks stay engaged until you lower the Runways.

⚠ **WARNING** Always leave the Runways either fully lowered or engaged on Primary Safety Locks. When you engage the Safety Locks at a desired height, check to make sure that all four Safety Locks are engaged at the same height.



So how do the Runways come down if the Primary Safety Locks are engaged? To lower the Runways, you raise them a few inches (to get them off the Primary Safety Locks), then *press and hold down* the Pushbutton Air Valve. While you hold down the pushbutton, the Primary Safety Locks are moved away from the Safety Lock holes in the Ladders; they are prevented from engaging, which allows the Runways to be lowered.

Out of abundance of caution, your Lift has a second, independent Safety Lock system called the Slack Safety. In total, your Lift has two Safety systems:

- **Primary Safety Locks**. Located at the ends of each of the four Crosstubes, the Primary Safety Locks hold the Runways in place *once they are engaged*. Primary Safety Locks are used over 99 percent of the time. Once engaged, Primary Safety Locks hold the Runways in place, even if the power goes out or the Hydraulic Hoses break or leak.
- **Slack Safety Locks**. Also located at the ends of each of the four Crosstubes, the Slack Safety Locks are a backup system in case any of the four Lifting Cables ever breaks (which is a rare occurrence). During normal operation, the Lifting Cables prevent the Slack Safety Locks from engaging, but if a Lifting Cable breaks while the Lift is not engaged on its Primary Safety Locks, the Slack Safety Lock next to the broken Lifting Cable immediately engages at the next Safety Lock position in the Ladder.

Installing the Ladders and Top Cap

Your Lift has four Ladders (one per Post); each Ladder gets installed on the inside back of a Post. Ladders are secured at the top and the bottom of the Post. All four Ladders are identical.

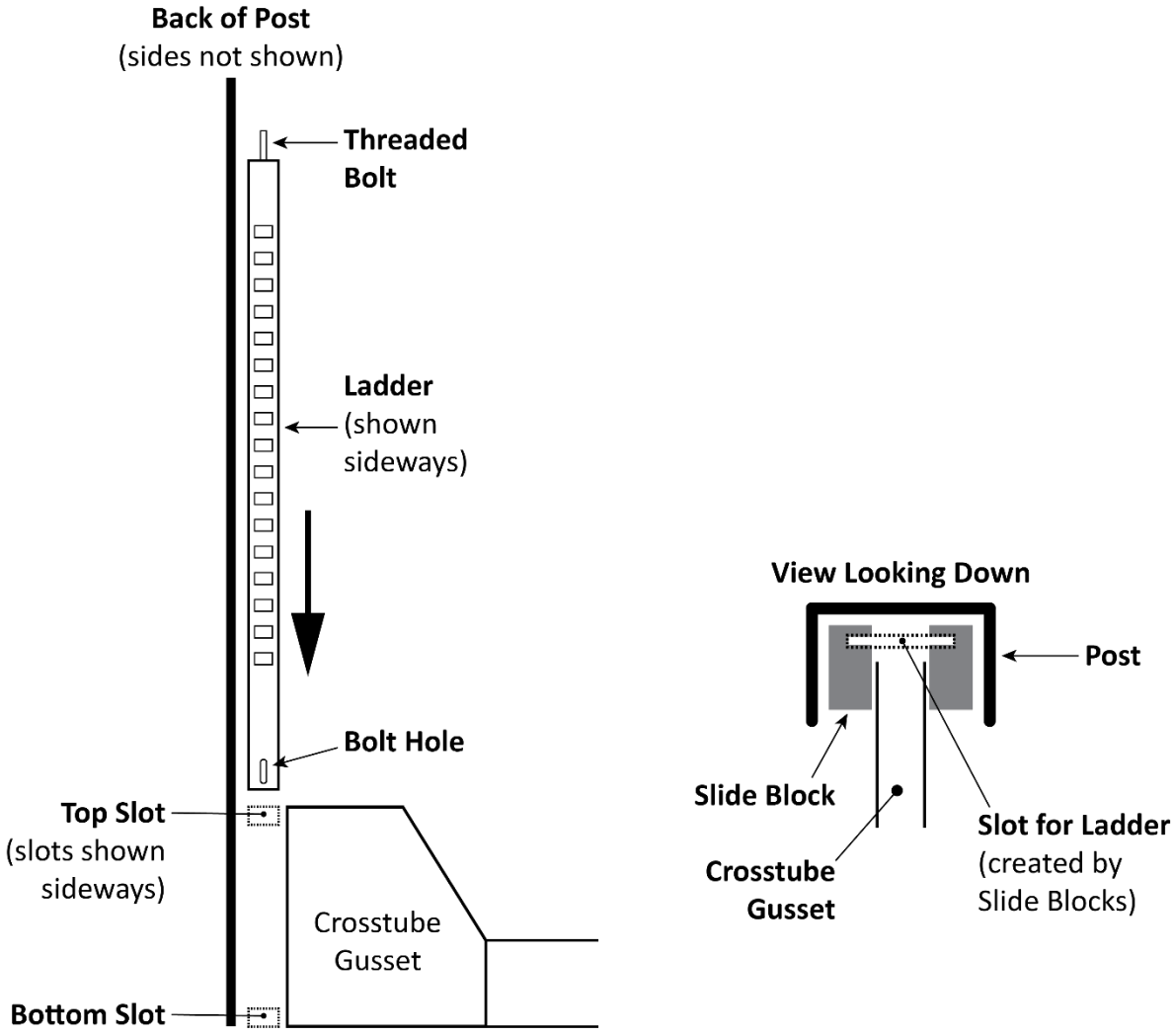
It is ***not*** necessary to slide the Ladders in from the very top of the Post.

The Top Caps secure the Ladder at the top of each Post and hold the ends of the Lifting Cables.

Note: It is much easier to secure the bottom of the Ladders once the Crosstubes have been raised, so that portion of installing the Ladders is described in **Securing the Ladders**.

Each Ladder has a Bolt Hole at the bottom and a Threaded Bolt at the top.

⚠ **WARNING** Make sure to install the Ladders correctly. If they are not installed correctly, the Safety Locks on your Lift may not hold the weight of a Vehicle, putting anyone under and around the Lift in danger.



Notto scale. Not all components shown. Front and side views combined. Make sure to install each Ladder through ***both Slots*** *on each Crosstube Gusset.*

To install the Ladders and the Top Cap:

1. Take a Ladder and slide it down the back of a Post, with the Bolt Hole end at the bottom.

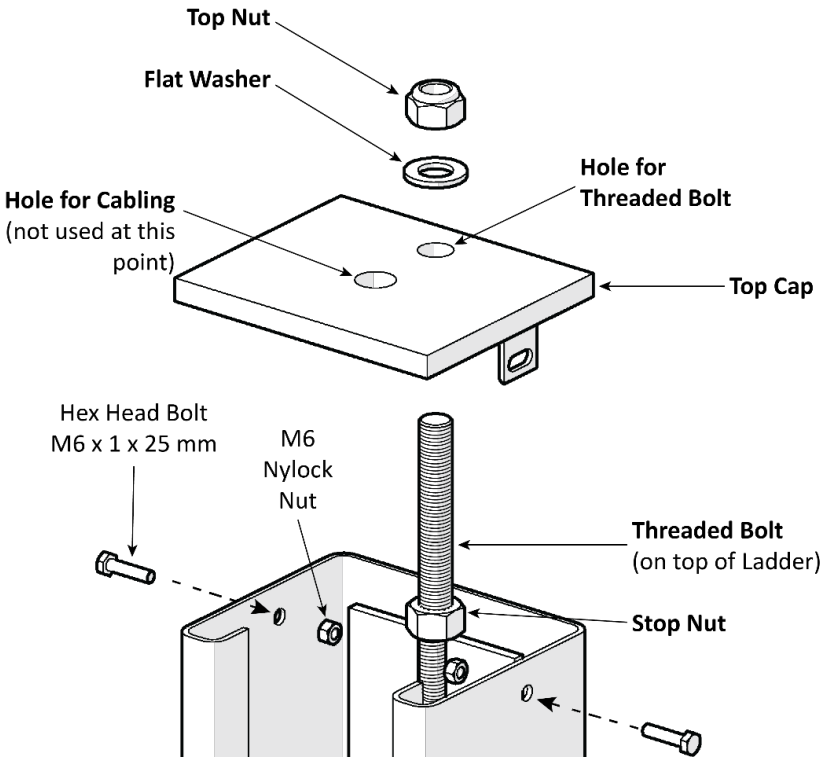
   Make sure the Ladder goes through ***both*** Slots on each Gusset. There is a Slot at the top of the Gusset and another Slot at the bottom of the Gusset; both are formed by the Slide Blocks.

   Important: It is easy to see the top Slot created by the Slide Blocks. It is difficult to see the bottom Slot, but it is ***required*** that the Ladder go through *both* Slots.

   If the Ladder misses a Slot or the Slide Blocks were not installed correctly, your Safety Locks will ***not*** function correctly.

⚠ **WARNING** Make sure all four Ladders go through ***both*** Slots created by the Slide Blocks.

2. Install the other three Ladders the same way.
3. ***Moving to the top of the Ladders***, move the Stop Nut half of the way down towards the top of the Ladder.



4. Put a Top Cap onto the top of the Post: put the Threaded Bolt on the top of the Ladder through the appropriate hole, put the tabs on the side of the Top Cap inside the Post, and secure the Top Cap on both sides with one Hex Head Bolt and one Nyloc Nut per side.
5. Once the Top Cap is secure, move the Stop Nut up until it contacts the underside of the Top Cap, then add a Flat Washer and Nyloc Nut to the top of the Top Cap and tighten. Hand tighten only.

   You are looking for about an inch of thread above the top of the Top Nut.

   Note: The other hole in the middle of the Top Cap is for the Lifting Cable, installed later.
6. Install the other three Top Caps the same way.

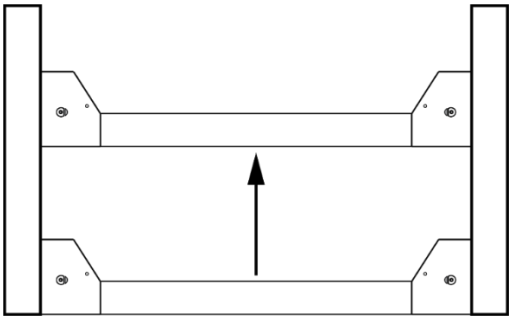
Raising the Crosstubes

At this point in the installation you need to manually raise the Crosstubes, as this makes it easier to complete the rest of the installation tasks. Both Crosstubes need to be raised the exact same amount, to the exact same height.

To raise the Crosstubes:

1. Using a Forklift or Shop Crane, ***carefully*** raise each Crosstube.

   You probably want to raise the Crosstubes at least two feet off the ground, to have enough room to work under them when routing the Lifting Cables, Return Line, Air Lines, and Hydraulic Hose.



Important: The Slack Safety Locks will automatically engage when you raise the Crosstubes. They ***cannot*** be engaged as you continue with the installation, so *they must be disengaged*.

2. To disengage the Slack Safety Locks after raising a Crosstube: raise and hold one end of a Crosstube until the Primary and Slack Safety Locks are disengaged, push and hold the Slack Safety Roller in toward the Safety Ladder (this moves the Slack Safety Lock so it cannot engage), lower the end of the Crosstube, then release the Slack Safety Roller.

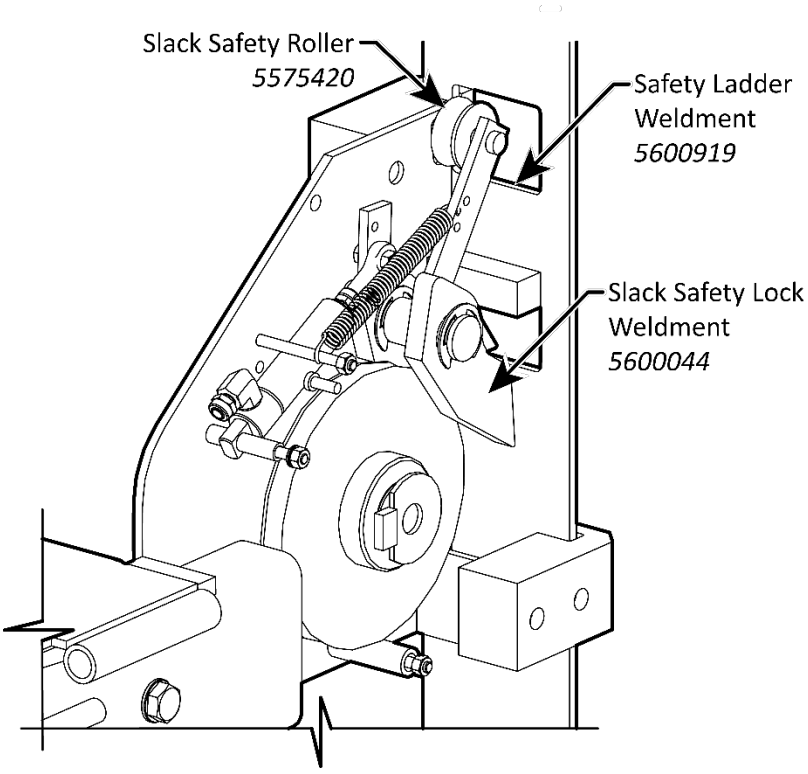


Figure not to scale. Components removed for clarity.

The Primary Safety Lock is now engaged, but the Slack Safety Lock is *not.*

3. Disengage the other three Slack Safety Locks as done in Step 2.
4. Once both Crosstubes are raised, ***all four Primary Safety Locks are engaged***, and all four Slack Safety Locks have been **disengaged**, you can continue with the installation.

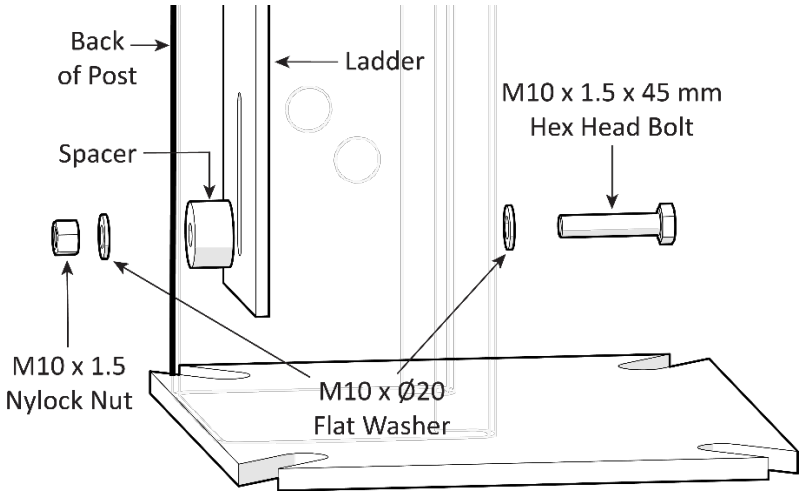
Securing the Ladders

Because it is much easier to secure the Ladders at the bottom of each Post ***after*** the Crosstubes have been raised, that procedure is described here.

Note: The following procedure assumes that the Ladders are in place and secured at the top. If this is ***not*** the case, return to **Installing the Ladders and Top Cap**.

To secure the Ladders:

1. Locate a Bolt, Washer, Spacer, second Washer, and Nut for each Ladder.



Side View. Not drawn to scale. Not all components are shown.

2. Put a Washer next to the Bolt head, then insert the Bolt just through the elongated hole near the bottom of the Ladder.
3. Put the Spacer into position between the Ladder and the back of the Post.
4. Push the Bolt through the Spacer and then through the back of the Post.
5. Take the second Washer and the Nut and install them on the end of the Bolt; secure the Nut.
6. Perform the same procedure to secure the other three Ladders on the Lift.

   Note: Do not securely tighten the Top Nut at the top of the Top Cap at this point. The Top Nut and the Stop Nut will be used later to make sure the Lift is level. They can be securely tightened after you do the final leveling of the Lift; refer to **Final Leveling** for additional information.

⚠ **WARNING** Make sure all four Ladders are correctly installed and secured. If not, the Lift may not be able to hold a Vehicle, which is a danger to anyone under the Vehicle or around it.

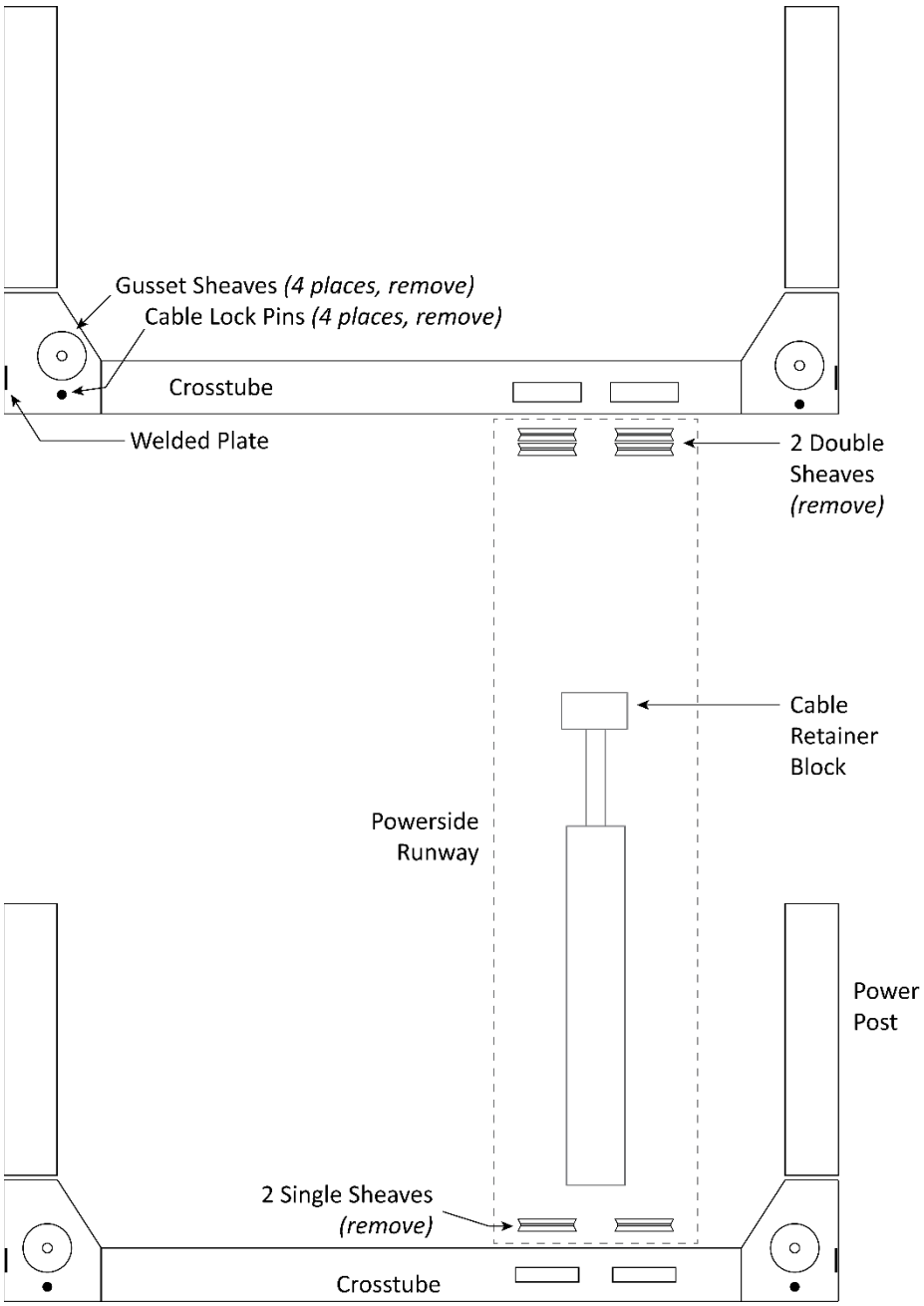
7. Verify the Primary Safety Locks are engaged.

⚠ **WARNING** Do not continue with the installation until you have visually confirmed that all four Primary Safety Locks are engaged. If they are not engaged, the Runways could move or fall, possibly causing personal injury (even death) or product damage.

Removing Sheaves

In order to route the Lifting Cables, you first need to remove the Cable Sheaves on the underside of the Powerside Runway, the two Side Sheaves, and the four Gusset Sheaves and their Lock Pins.

Important When you remove the Sheaves, ***keep all of the components together***. You will be reinstalling them at the same location, using the same components.



Not to scale. Not all components shown. Combines top and side views.

Installing the Runways

Your Lift has two Runways:

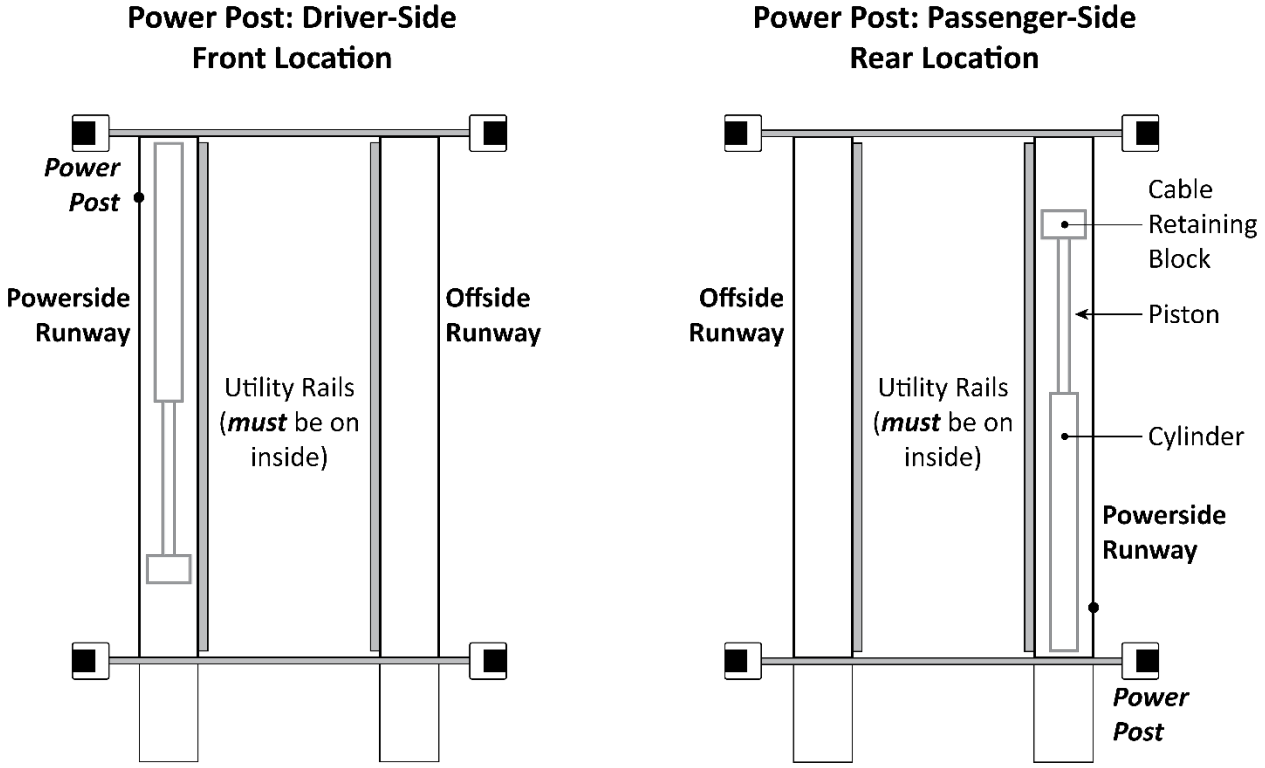
- **Powerside Runway**: Has the Lift's Hydraulic Cylinder underneath it. Gets bolted into position. Has a hole on the outside (on the Cylinder end) that lets you route the Hydraulic Hose, Air Lines, and Return Line to the Power Unit. Lifting Cable routing ends under the Powerside Runway.
- **Offside Runway**: Gets bolted into position. Does not have a Hydraulic Cylinder under it, nor are there any Lifting Cables under it.

Orient the two Runways this way:

- Utility Rails on the inside
- Find the Powerside Runway by looking under the two Runways (only the Powerside Runway has a Hydraulic Cylinder underneath it) and put it next to the Power Post.
- There is also a ~1.5 inch wide hole in the outside of the Powerside Runway near the Power Post. There are other holes in the Runways, but they are smaller and used with accessories only.

The Ramp locations do not change based on Power Post location, but the location and orientation of the Powerside Runway does.

The following drawing shows the correct orientation of the Runways for both Power Post locations.



Not to scale. Not all components shown. Tops of Runways not shown.

Use a Forklift or Shop Crane to raise the Runways and move them into position.

⚠ **WARNING** Pay close attention when moving the Runways into position; they are heavy and long, and could shift position or fall, potentially causing serious injury.

To install the Runways:

1. Correctly orient the Powerside Runway and the Offside Runway.

   See the previous page for more information.

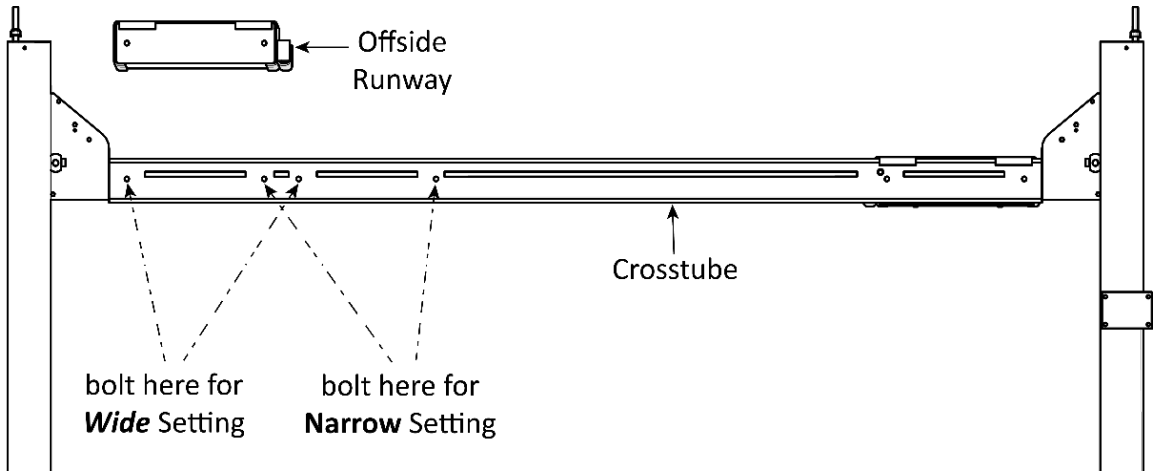
2. On the underside of the Powerside Runway, make sure the Sheaves have been removed.
3. Use a Forklift or Shop Crane to pick up the Powerside Runway and move it into place on the Powerside of the Lift.

   Make sure the Utility Rail is on the inside.

4. Bolt the Powerside Runway into place, two Bolts on each end going into the Crosstubes.
5. Using a Forklift or Shop Crane, pick up the Offside Runway and move it into place.

   Make sure the Utility Rail is on the inside.

   The following drawing shows the Offside Runway being installed in the Wide Setting.



6. Bolt the Offside Runway into place.
7. Make sure the Primary Safety Locks are engaged.

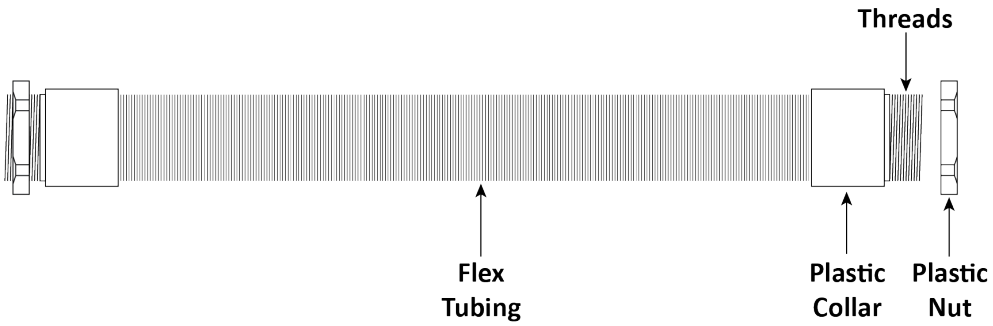
⚠ **WARNING** Do not continue with the installation until you have visually confirmed that all four Primary Safety Locks are engaged. If they are not engaged, the Runways could move or fall, possibly causing personal injury (even death) or product damage.

Installing the First End of the Flex Tube

The Flex Tube is a flexible, black tube that attaches to a hole on the Powerside Runway on one end and to the bottom of the Flex Tube Bracket Plate (near the Power Unit) on the other end. Both ends of the Flex Tube are the same.

The Flex Tube consolidates and protects three lines that come out from under the Powerside Runway on their way to the Power Unit: the Return Line, the Air Line, and the Hydraulic Hose.

The following drawing shows the Flex Tube.

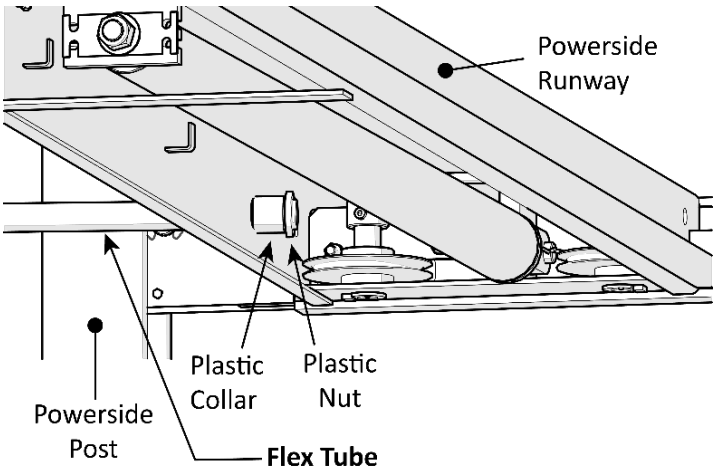


Not to scale. Not all components shown.

To install the Flex Tube to the Powerside Runway:

1. Remove and retain the Plastic Nut from one end of the Flex Tube. It does not matter which end.
2. Holding the Flex Tube by the Plastic Collar, put the Threads on the end of the Flex Tube through the hole on the side of the Powerside Runway.

   The following drawing shows the Flex Tube in place on the side of the Powerside Runway.



   The Threads go into the hole until they are accessible from the inside, the rest of the Flex Tube stays outside.
3. On the inside of the Powerside Runway, screw the Plastic Nut back onto the Threads of the Flex Tube and tighten it.
4. Let the other end of the Flex Tube hang in place for now.

Extend the Piston

Before routing the Lifting Cables, extend the Piston on the Hydraulic Cylinder.

To extend the Piston:

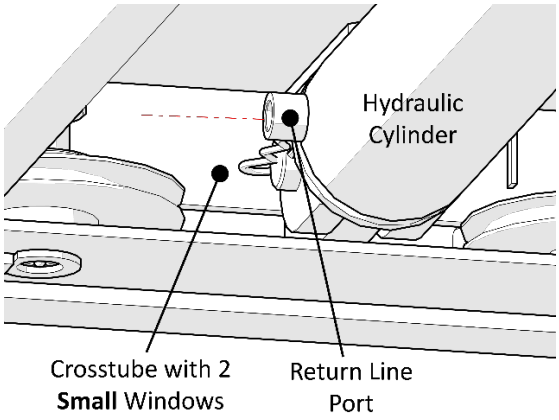
1. Remove the Shipping Plug from the Return Line Port on the Hydraulic Cylinder.

   The Return Line Port is on the Cylinder end closest to where the Power Unit will be.

2. Attach an air pressure source to the Return Line Port and use the air pressure to extend the Hydraulic Cylinder's Piston; ***do not exceed 50 psi***.

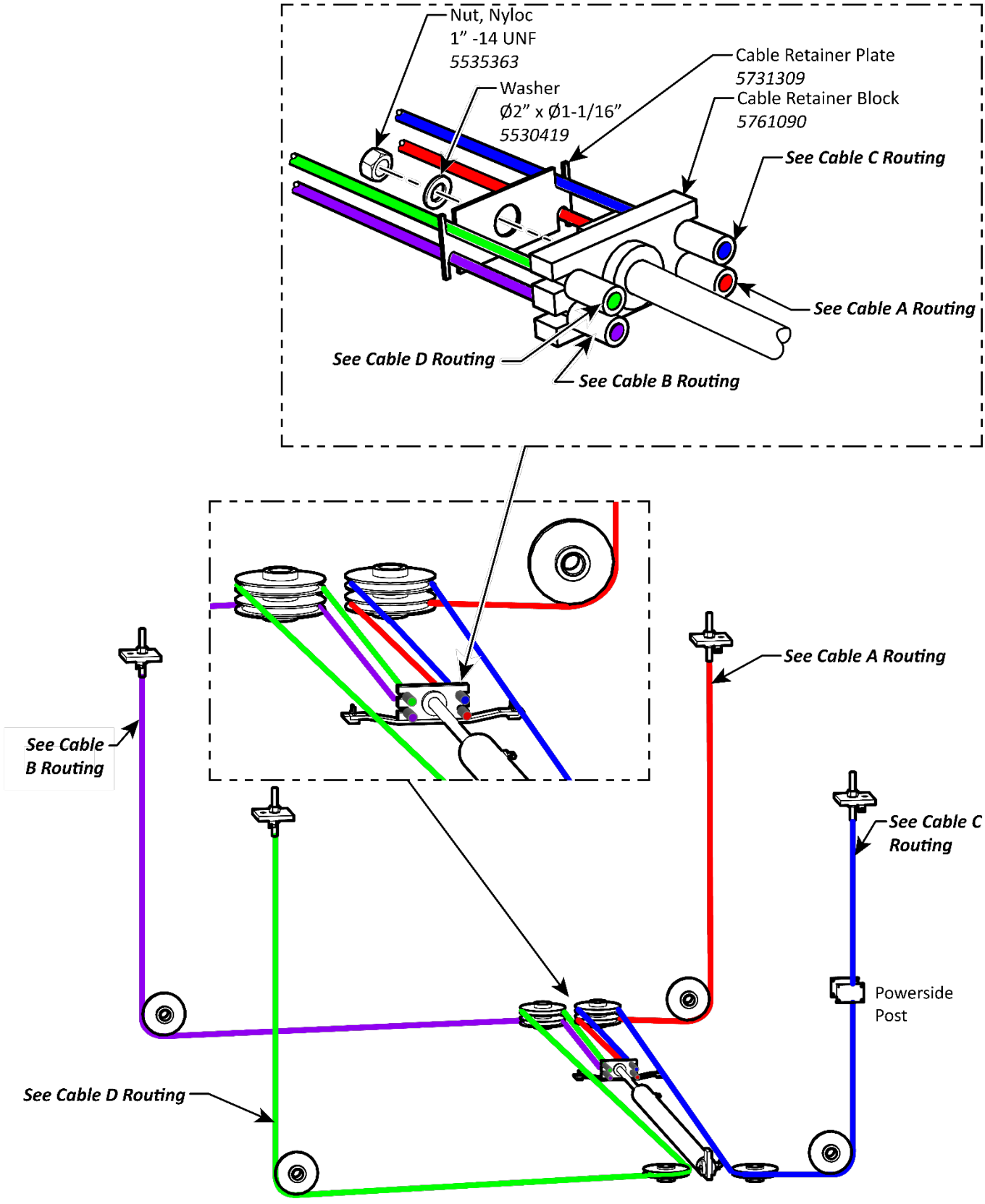
3. If the Cylinder does not move, stop using air pressure; instead use a pulling device (such as a Come Along Tool) to extend the Piston; be careful not to damage the Piston.

4. Reinstall the Shipping Plug onto the Return Line Port.



Routing the Lifting Cables

The figure below provides an overview of the routing for all four Lifting Cables. *View this manual in color at https://www.bendpak.com/car-lifts/four-post-lifts/hd-7500blx/*



HD-7500BL		
Cable	**Description**	**Part Number**
A	10 x 2,922 mm	5595031
B	10 x 5,169 mm	5595174
C	10 x 7,046 mm	5595028
D	10 x 9,293 mm	5595189

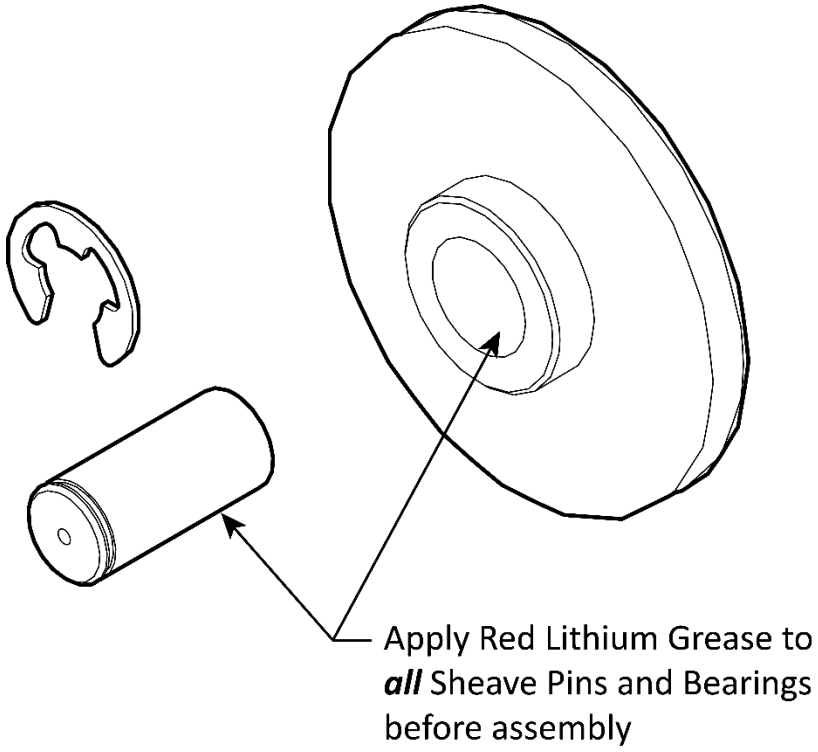
HD-7500BLX		
Cable	**Description**	**Part Number**
A	10 x 3,228 mm	5595351
B	10 x 5,471 mm	5595191
C	10 x 7,960 mm	5595348
D	10 x 10,220 mm	5595349

To route Lifting Cables A and C:

1. ***Starting with Lifting Cable A***, move the entire Cable to just under the Medium Window it goes through, near the bottom of Post A; make sure you have the correct Lifting Cable.
2. Remove the Nut and Washer from the Threaded End (but keep it nearby, you will need it soon).
3. Route the Threaded End of Lifting Cable A into its Medium Window on the Crosstube, push it towards Post A, and then pull the Threaded End out of the Crosstube at the bottom of the Gusset.
4. Route the Threaded End of Lifting Cable A ***under*** where the Gusset Sheave will go when it is reinstalled, then route it up towards the top of the Post past the top of the Crosstube Gusset.

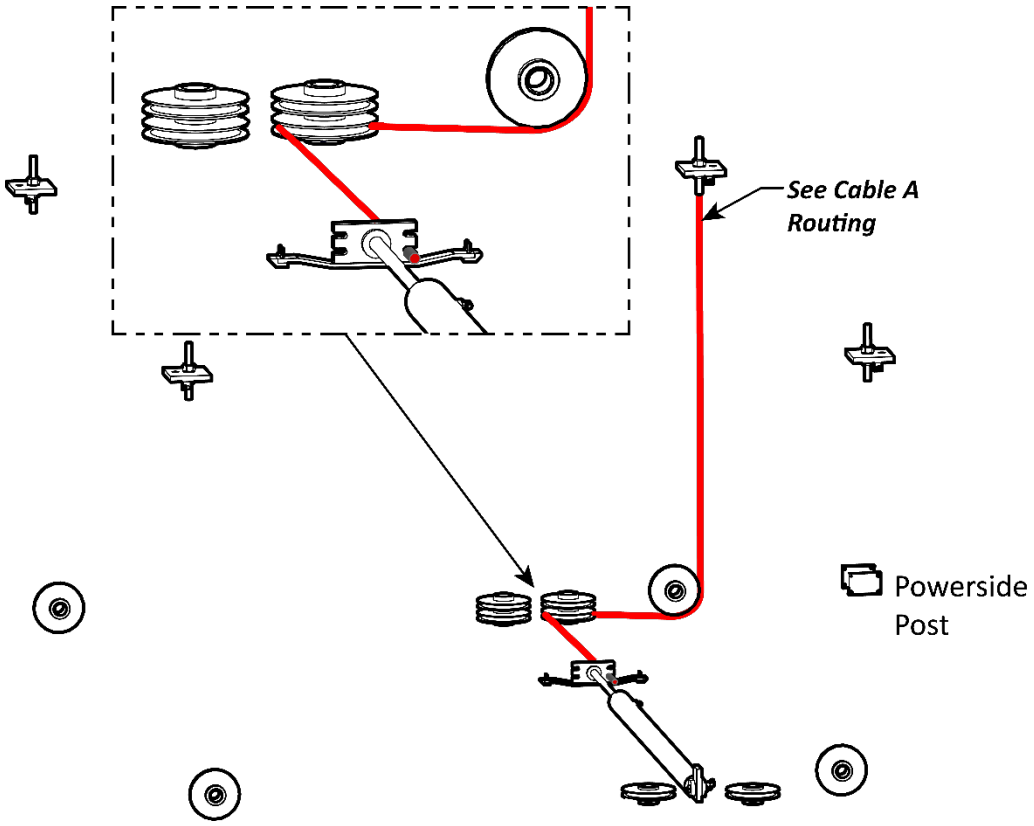
   Important: When routing a Lifting Cable in its Post, it must go ***under*** where the Gusset Sheave will be positioned then, when the Cable heads up toward the top of the Post, it must run between the Gusset Sheave and the Slack Safety Sheave.

   Important: Before re-installing any Sheave, lubricate the Pin and Bearing using a liberal amount of Red Lithium Grease.



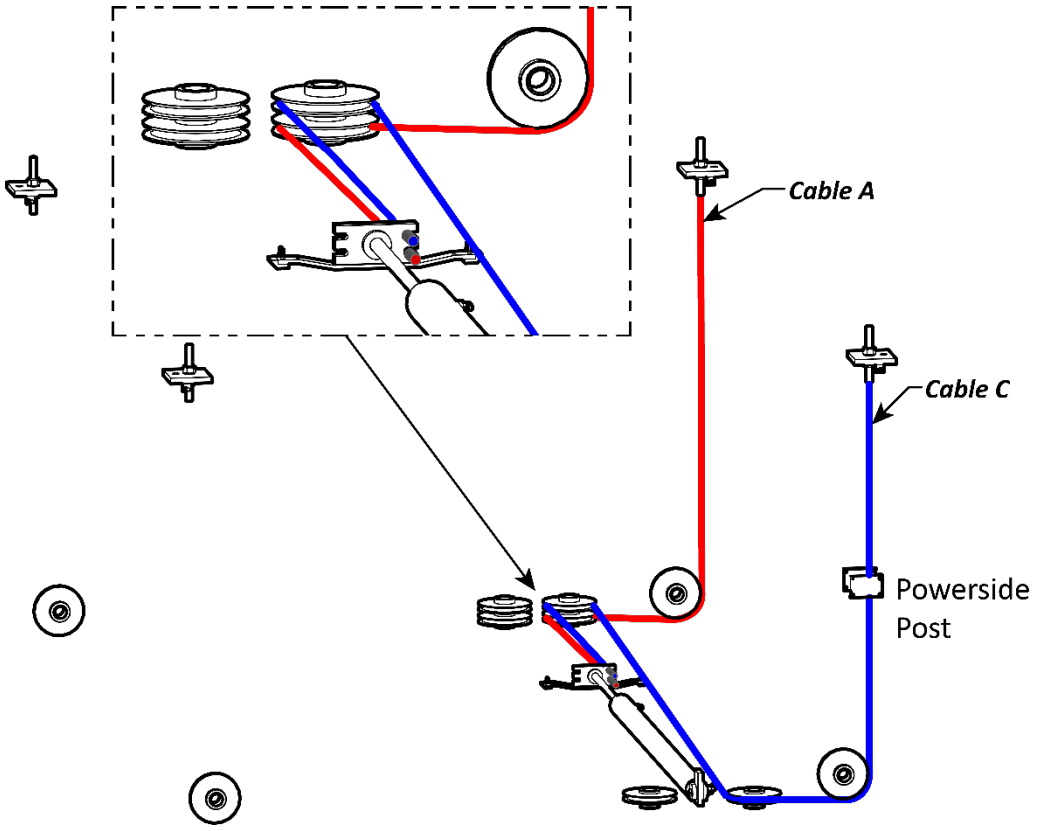
5. With the Lifting Cable in place, reinstall the Gusset Sheave and the Cable Lock Pin in Post A.
6. Push the Threaded End of Lifting Cable A up to and through the Top Cap (at the top of the Post) and ***hand tighten*** it in place with the Nut and Washer you removed earlier.

   You only want to hand tighten the Nut at this point so that there is little play in the cabling. We will securely tighten all four Nuts later in the installation procedure.



Components removed for clarity. Not to scale.

7. ***Switching to Lifting Cable C***, repeat Steps 1 through 7 for Lifting Cable C, starting at the Small Window near the bottom of Post C (the Power Post).
8. Reinstall the Cable Sheave and then make sure Lifting Cable C is correctly positioned in the Cable Sheave in the Small Window.
9. Under the Powerside Runway, move the rest of Lifting Cable C back towards the Crosstube with Medium Windows.
10. Push Lifting Cables A and C into the Medium Window where the Double Cable Sheave goes and pull the Button ends towards the Tie Plate.
11. With the Cables in place in the Medium Window, reinstall the Double Cable Sheave; make sure Lifting Cable A sits in the Bottom Cable Sheave, and Cable C is in the top Sheave.

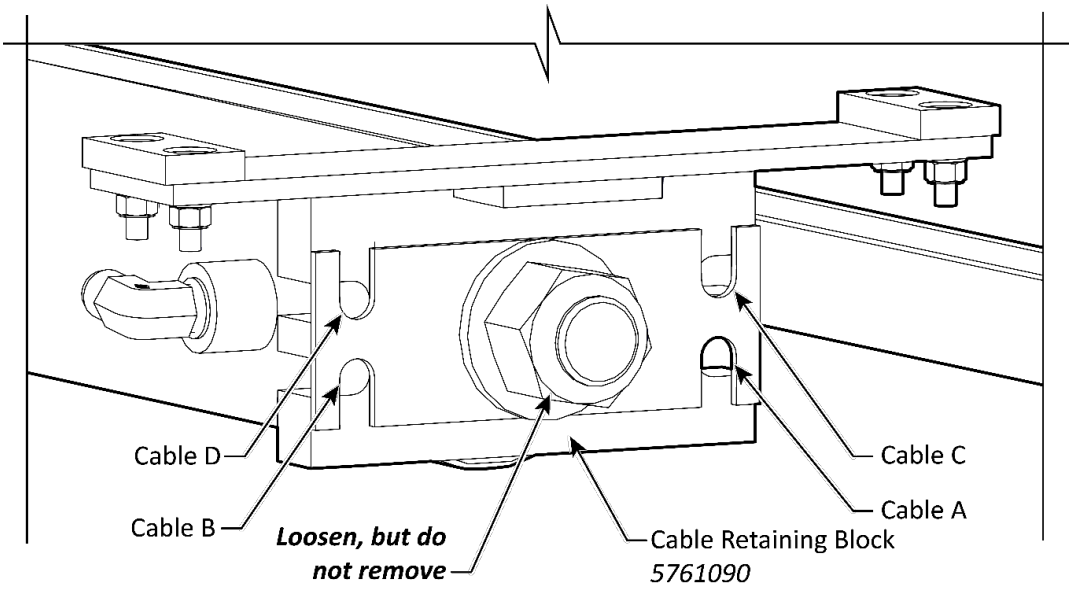


Components removed for clarity. Not to scale.

12. By the Hydraulic Cylinder, loosen the Retaining Plate enough to give you room to slip the Button End of each Cable into its spot on the Retainer Block.

    Do not take the Retaining Plate off, just loosen the Retaining Plate enough to give you enough room to slip the Button End of each Lifting Cable into place.

13. Pull the Button Ends of Lifting Cables A and C back towards the middle of the Runway, past the Retaining Plate, and into its slot on the Cable Retaining Block.



Not to scale. Components removed for clarity.

Note Routing Lifting Cables B and D is the same process as routing Lifting Cables A and C, just to the other two Posts and using a different set of Sheaves. Refer to the drawings in the previous section.

Installing the Power Unit

This section describes how to ***install***, but not make the connections to, the Power Unit for your Lift. An Electrician is ***not*** needed to *install* the Power Unit; however, an Electrician ***is*** required to *connect* the Power Unit to its power source.

The Power Unit ***must*** be installed on the Power Post: attach it to one of the two Mounting Brackets, whichever is more convenient for the location.

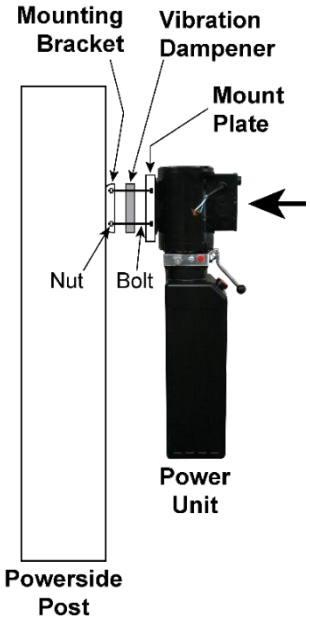
Important: Many people install the Flex Tube Bracket Plate and/or the Zero Angle Bracket at the same time as they install the Power Unit. Read **Installing the Second End of the Flex Tube** and **Installing the Pushbutton Air Valve** for more information to see if this makes sense for your installation.

⚠ DANGER Risk of explosion: The Power Unit has internal arcing or parts that may spark and should not be exposed to flammable vapors. Never expose the Power Unit motor to rain or other damp environments. Damage to the motor caused by water is ***not*** covered by the warranty.

Tip The Power Unit is heavy. BendPak recommends having one person hold the Power Unit while another person bolts it into place.

To install the Power Unit:

1. Find the four supplied Hex Head Bolts, Flat Washers, Nyloc Nuts, and the Vibration Dampener.
2. Line up the holes on the Vibration Dampener with the four holes in the Mounting Bracket.
3. If you are going to install the Flex Tube Bracket Plate and/or the Zero Angle Bracket at the same time as the Power Unit, now is the time to put them into place.
4. Put a Flat Washer onto each of the four Hex Head Bolts, slide the Bolts through the back of the Mounting Bracket and through the holes in the Vibration Dampener, then put on the Nyloc Nuts to secure the Power Unit in place.



IMPORTANT! PLEASE READ NOW

Hydraulic Fluid Contamination

Hydraulic Fluid Contamination poses a serious issue for your Lift; contaminants such as water, dirt, or debris can get into the Hydraulic Hoses and Fittings on your Lift, making your new Lift inoperable.

Your Lift is shipped with clean components; however, BendPak strongly recommends that you clean all Hydraulic Hoses and Fittings prior to making connections. It is better and less costly to take these extra steps now so that you do not need to take your Lift out of service later to fix issues that could have been prevented at the time of installation.

There are several ways to clean Hydraulic Hoses and Fittings:

- **Compressed Air**. Use an air compressor to blow out contaminants from each Hydraulic Hose and Fitting prior to installation. Clean, dry air is preferred. Wear eye protection (safety glasses, goggles, or face shield) when using compressed air for cleaning. Never point an air hose nozzle at any part of your body or any other person.
- **Fluid Flushing**. As long as the Hydraulic Fluid is clean and compatible with the system fluid, you can flush Hoses and Fittings to create turbulent flow and remove particulates. Always ensure that the fluid itself is contaminant-free.

Some additional steps that will help keep the Hydraulic Fluid clean:

- **Remove old thread seal tape**. Some ports on the Hydraulic Cylinders are shipped with temporary plugs secured with thread seal tape, so make sure to thoroughly remove any leftover thread seal tape that may inadvertently enter the Hydraulic System.
- **Use a liquid thread sealant only**. Teflon paste-type thread sealant or Loctite™ 5452 thread sealant is recommended for all NPT Fittings. Do not over tighten NPT Fittings or they may crack. Never use thread seal tape on JIC Fittings or ORB O-Ring Fittings.
- **Always use clean equipment**. If you use a dirty bucket or funnel to transfer the Hydraulic Fluid into the Hydraulic Fluid Reservoir, the contaminants will likely be introduced into the Fluid. When using cleaning rags, use a lint-free rag.
- **Proper storage**. Keep the Hydraulic Fluid sealed in its container until ready for use; store the Fluid in a clean, dry, and cool area.
- **Cover the Hoses and Fittings**. Before installation, do not leave the ends of the Fittings exposed; the same applies for the Hydraulic Hoses. As a general rule, keep the Hydraulic Hoses and Fittings capped and kept clean in a clean area until ready for use.
- **Filter the new Hydraulic Fluid**. Just because it is new does not necessarily mean it is *clean*. Use an offline filtration cart or kidney loop system to make sure the Hydraulic Fluid is clean before being transferred into the Hydraulic Fluid Reservoir (even using a heavy duty nylon mesh screen is better than trusting what is left at the bottom of the barrel).
- **Avoid mixing different types of Hydraulic Fluid**. If Hydraulic Fluid needs to be replaced, make sure to flush the Hydraulic System of the old Hydraulic Fluid before you add the replacement Fluid; do not mix the two together.

About Thread Sealants

Liquid Thread Sealant lubricates and fills the gaps between the Fitting threads, and leaves no residue that could contaminate the Hydraulic Fluid. Other types of Thread Sealants (like Teflon Tape) can shred during installation or removal and eventually enter the Hydraulic System.

Thread Sealant can be used with most Hydraulic Fittings, although you probably only need to use with NPT connectors.

To apply Thread Sealant:

1. Make sure the Fittings and connectors you are going to use are clean and dry.

   If you are adding Thread Sealant to a Fitting or connector that has already been used with a different sealant, use a wire brush to thoroughly remove the old sealant before adding more.

2. Apply a small amount of Thread Sealant to the first four threads of the Fitting.

⚠ **WARNING** Always wear the proper protective equipment when handling Thread Sealant.

   You only need a small amount because the sealant spreads to the other threads as it is tightened into place.

   If you put too much, the excess liquid will be pushed out when the Fitting is tightened; use a rag to wipe the excess.

3. Tighten the Fitting into the connector; do ***not*** over tighten the Fitting.
4. Allow the manufacturer-recommended curing time before pressurizing the system.

Filling the Hydraulic Fluid Reservoir

The Hydraulic Fluid reservoir on the Power Unit must be filled with Hydraulic Fluid or automatic transmission fluid before you begin normal operation of the Lift. ***When you receive the Lift, the fluid reservoir is empty.***

The Power Unit will ***not*** work correctly until it is filled with approved Hydraulic Fluid.

Approved fluids are any general purpose ISO-32, ISO-46, or ISO-68 hydraulic fluid, approved automatic transmission fluids such as Dexron III, Dexron VI, Mercon V, Mercon LV, or any synthetic multi-Vehicle automatic transmission fluid.

⚠ **WARNING** Do not run your Power Unit without Hydraulic Fluid; you will damage it.

To fill the Reservoir with Hydraulic Fluid:

1. Remove the Reservoir Cap and set it aside.

   Make sure to keep the Reservoir Cap clean; you do not want any contaminants getting into the Hydraulic Fluid Reservoir.

2. Fill the Hydraulic Fluid Reservoir on the Power Unit with the appropriate amount of approved fluids.

   The Hydraulic Reservoir holds from 3.5 to 4.5 gallons, depending on your Power Unit:

   - **5585280**: 3.7 gallons / 14 liters
   - **5585247**: 3.7 gallons / 14 liters
   - **5585106**: 3.5 gallons / 13.25 liters

– **5585014**: 3.7 gallons / 14 liters

Use care to keep the fluid clean when filling the reservoir.

Do not connect the Power Unit to a power source at this point.

3. Replace the Reservoir Cap.

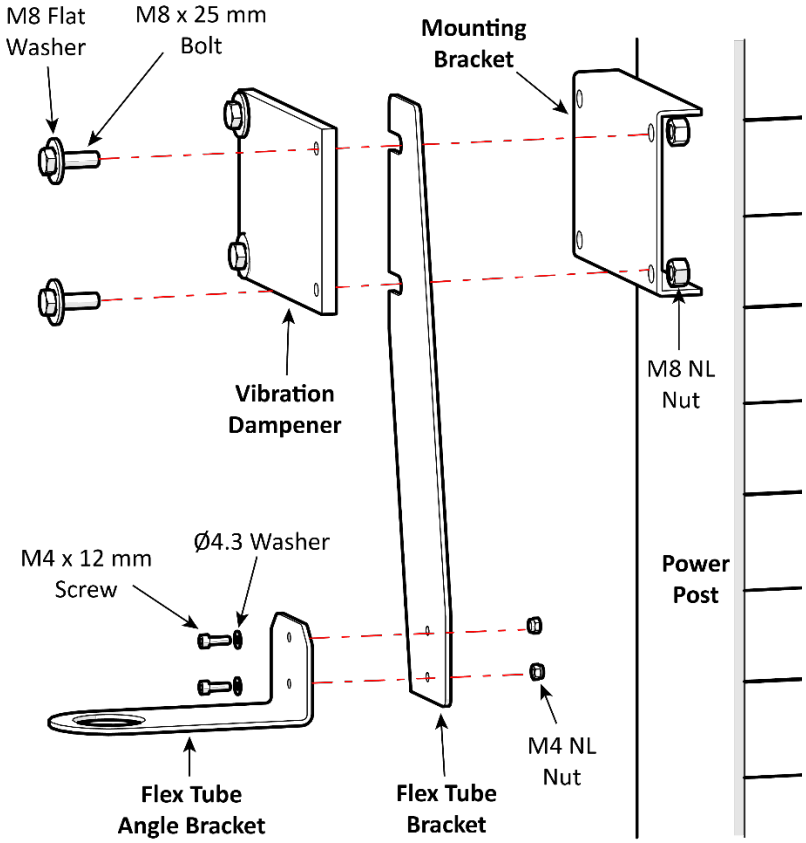
Installing the Second End of the Flex Tube

Once the Power Unit is installed, you can install the second end of the Flex Tube (the other end was connected to the Powerside Runway earlier in the installation).

To install the Flex Tube:

1. Find the Flex Tube Bracket Plate and the Flex Tube Angle Plate. The Flex Tube is already nearby.
2. Install the Flex Tube Bracket Plate.

   Note: It is common to install the Flex Tube Bracket Plate between the Mounting Bracket and the Back Plate. This allows the Zero Angle Bracket (which holds the Pushbutton Air Valve and is described in the next section) to be installed between the Back Plate and the retaining Nut. This configuration is common, but it is not required.



Side view of where the Power Unit attaches to the Power Post. Power Unit not shown.

3. Connect the Flex Tube Angle Plate to the Flex Tube Bracket Plate so that the hole for the Flex Tube is best positioned for connecting the Return Line, the Air Line, and the Hydraulic Hose.

   The Flex Tube Angle Plate can be connected on either side of the Flex Tube Bracket Plate.

4. When the Flex Tube Angle Plate is in place, unscrew the Plastic Nut from the end of the Flex Tube.
5. Holding the Flex Tube by the Plastic Collar, put the Threads through the hole on the Flex Tube Angle Plate ***from underneath***.
6. Screw the Plastic Nut back onto the Threads and tighten.

Working with Compression Fittings and Tubing

Your Lift comes with a roll of ¼ inch, black, polyethylene Tubing (also called Poly-Flo® Tubing) that is used with Compression Fittings in two ways: for the Return Line and for the Air Lines.

Important: While both lines use Tubing and Compression Fittings, the Return Line and Air Lines are used for completely separate purposes; do not connect the two together.

Note: Compression Fittings are different from Hydraulic Fittings. This section covers Compression Fittings only.

The components involved with Compression Fittings include:

- **¼ inch, black, polyethylene Tubing**. You use a single piece of Tubing for the Return Line. The Air Lines require multiple Tubing pieces. Create the Tubing pieces for both the Return Line and the Air Lines by cutting lengths from the long roll of Tubing supplied with your Lift.
- **Elbow Compression Fittings**. The Return Line uses two Elbow Compression Fittings, one at each end.
- **Tee Compression Fittings**. The Air Lines require three Tee Compression Fittings.
- **Nuts, Ferrules, Rods, and Threads**. Each connector on Elbow and Tee Compression Fittings have a Nut, Ferrule, Rod, and Threads (see drawing below). The Nut holds the Tubing and Fitting together. The Ferrule compresses when you tighten the Nut on the Threads to make a secure connection. The Rod goes inside the Tubing so that nothing leaks out.

The following drawing shows the components of a connector on a Tee Compression Fitting.

Important: ***Ferrules can only be tightened once***. When you tighten the Nut on the Threads, the Ferrule gets compressed; it literally changes shape and ***cannot*** be used again.

To connect Tubing to a Compression Fitting:

1. Push the Tubing through the Nut and over the Rod.

   Do not push hard; you only need the Tubing to go a little way over the Rod. You cannot see the Ferrule at this point, but the Tubing must go through the Ferrule and over the Rod.
2. Slide the Nut on the Tubing ***away from the Fitting***, if the Nut is still on the Threads, unscrew it from the Threads and then slide it away from the Fitting. See the drawing above.
3. Slide the Ferrule over the Tubing, away from the Fitting and towards the Nut.

4. With the Nut and the Ferrule out of the way, push the Tubing further over the Rod until it stops.
5. Slide the Ferrule and the Nut back to the Threads on the Fitting.

   The Ferrule goes around the Rod and under the Threads. The Nut goes onto the Threads.
6. Tighten the Nut.

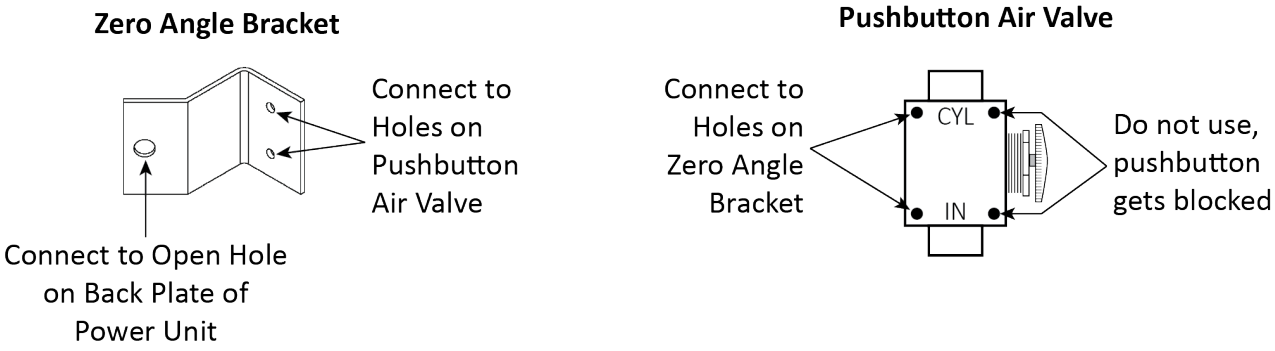
   Remember that the Ferrule can only be used once; do not tighten the Nut until everything is ready.

Installing the Pushbutton Air Valve

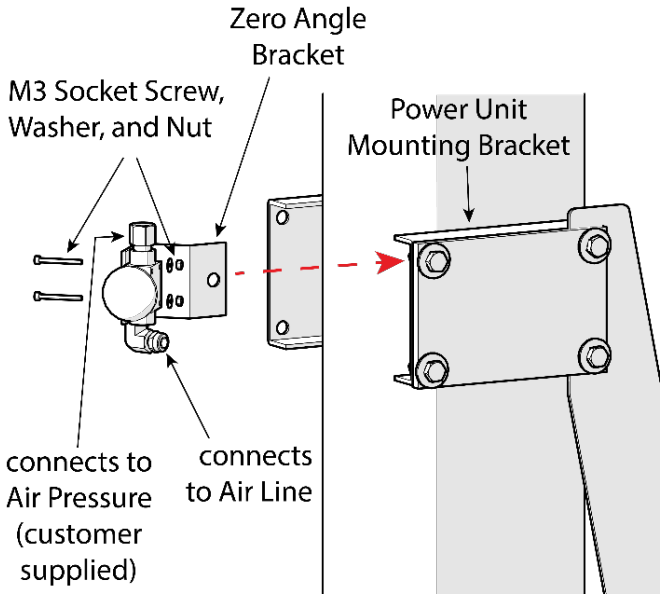
The Pushbutton Air Valve is used to lower the Runways. It can go on either side of the Power Unit, whichever is easier to access for the Lift operator.

Once the pushbutton is in place, you need to connect it to both the Air Line (which is coming out of the Flex Tube) and the customer-supplied air pressure. ***An Air Supply (3 to 25 cfm at 50 to 150 psi) is required.***

The following drawing shows the Zero Angle Bracket and where it connects.



The following drawing shows the Pushbutton Air Valve and its connections.



The components involved include:

- **Zero Angle Bracket**. Attaches at the Mounting Bracket on the Power Post or to other available holes on the Back Plate of the Power Unit. Holds the Pushbutton Air Valve, so be sure to orient the Zero Angle Bracket so that the Pushbutton Air Valve can be easily reached by the Lift operator.
- **Pushbutton Air Valve**. Used to lower the Runways.
- **Air Line Compression Elbow Fitting**. Connects the Pushbutton Air Valve to the Air Line coming out of the Flex Tube.
- **Straight Expander Fitting**. Connects the Pushbutton Air Valve to the customer-supplied air pressure.

To install the Pushbutton Air Valve:

1. Find the necessary components: Zero Angle Bracket, Pushbutton Air Valve, Air Line Compression Elbow Fitting, and Straight Expander Fitting.
2. Connect the Zero Angle Bracket at the desired location (if it has not already been connected).

   It can attach to an available hole on the Back Plate of the Power Unit or to one of the Bolts that connect the Power Unit to the Mounting Bracket on the Power Post.
3. Connect the Pushbutton Air Valve to the Zero Angle Bracket.

   Use the two holes on the Pushbutton Air Valve on the side away from the actual pushbutton. If you use the holes next to the pushbutton, the Zero Angle Bracket interferes with the pushbutton when you try to use it.
4. Connect the Air Line Compression Elbow Fitting and the Straight Expander Fitting to the appropriate locations on the Pushbutton Air Valve.

   The elbow fitting connects to the opening labelled **CYL**. The straight fitting to the opening labelled **IN**. See the drawing above.
5. Attach the Air Line (coming out of the Flex Tube) to the compression fitting on the elbow fitting and the customer-supplied air to the straight fitting.

Important: The Return Line also comes out of the Flex Tube and is the same kind of tubing as the Air Line. ***Do not attach the Return Line to the Pushbutton Air Valve by mistake***. Double check to make sure you are attaching the Air Line to the Pushbutton Air Valve.

Installing the Air Lines

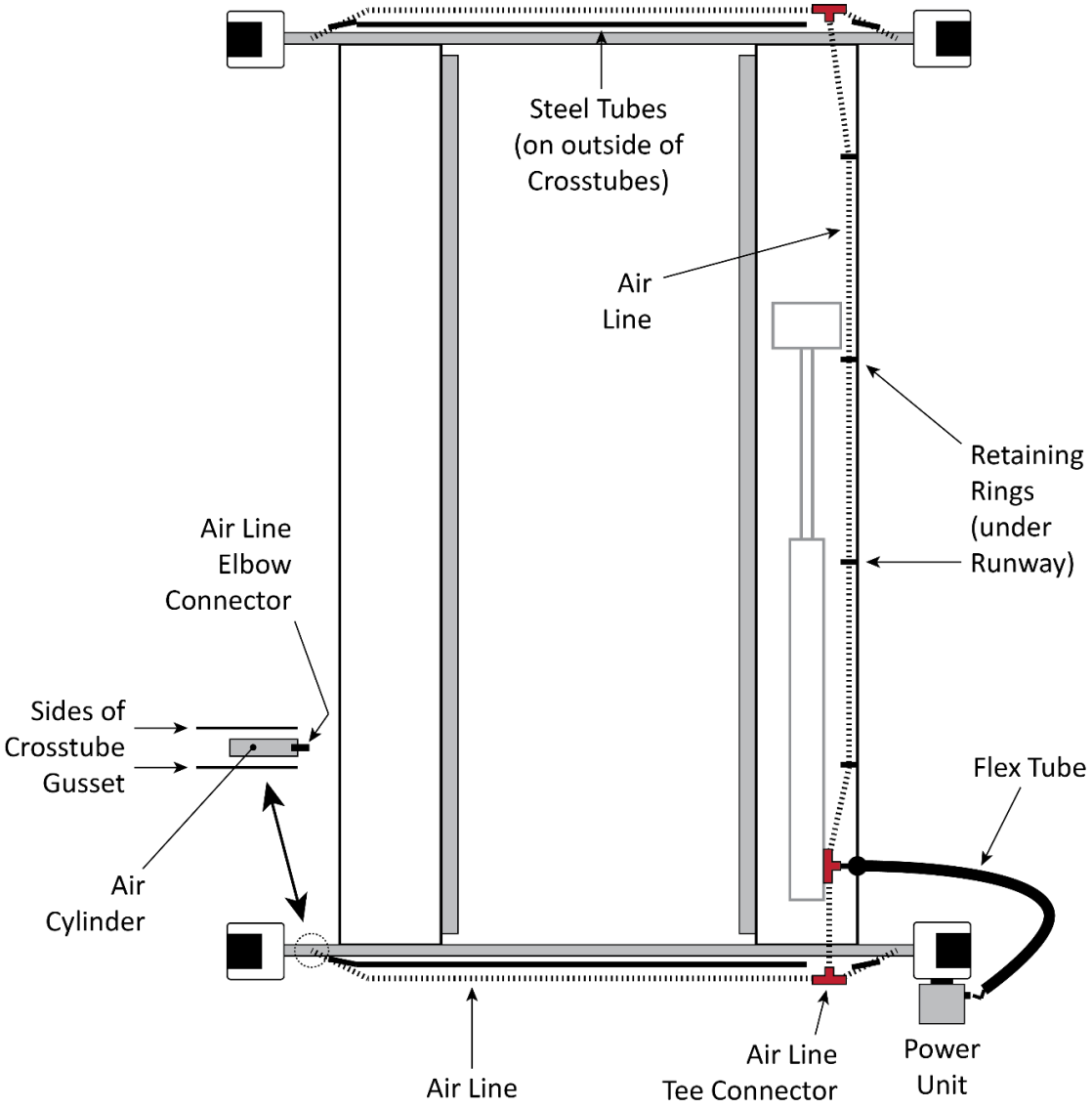
This section describes how to install the Air Lines, but not how to connect them to the Power Unit (as it is not yet installed).The Air Lines use air pressure to disengage the Safety Locks so you can lower the Runways.

You will need more of the ¼ inch, black, polyethylene Tubing that came with the Lift and three Air Line Tee Connectors to install the Air Lines.

An Air Supply (3 to 25 cfm at 50 to 150 psi) is required to disengage the Safety Locks. Regulate the line to a maximum pressure of 150 psi.

⚠ **CAUTION** Do not let the Air Supply exceed 150 psi; the Air Lines could burst or the Safety Locks malfunction.

Important: Do not confuse the Air Lines with the Return Line. They use the same Tubing and fittings, but they are used for completely different things; the two systems ***must not*** be connected to each other.



Drawing not to scale. Some components not shown. Air Lines shown outside Steel Tubes for clarity.

The Air Line Elbow Connectors on the Air Cylinders come installed from the factory.

Important: Do not confuse the Air Lines with the Return Line. They use the same Tubing and fittings, but they are used for completely different things; the two systems ***must not*** be connected to each other.

To install the Air Lines:

1. Find the roll of supplied ¼ inch, black, polyethylene Tubing and three Air Line Tee Connectors.
2. Measure the distances for each of the seven (7) Tubing pieces you will need (see the drawing on the previous page).
3. Cut seven pieces of Tubing to the measured lengths from the roll of Tubing.
4. Connect the various pieces of Tubing to the Air Line Tee Connectors on the Lift.

   Refer to the drawing on the previous page for the locations of the Tubing pieces.

   Make sure to position the three Air Line Tee Connectors as shown in the drawing.

   Also make sure to route the long Tubing piece that goes under the Powerside Runway through the Retaining Rings. You need to make sure the Air Lines stay out of the way of the Lifting Cables.

⚠ **CAUTION** Make sure to route the Tubing pieces on the ***outside*** of the Front and Rear Crosstubes *through the Steel Tubes* on the Crosstubes. This keeps the Tubing and the Tee Connectors from being disturbed as you use the Lift. This is important, because if the Air Lines are disturbed, the Safety Locks on the Lift may not work correctly. If you notice that Tubing has become disconnected from an Air Line Tee Connector, take the Lift out of service and get the Air Lines fixed.

   Refer to **Working with Compression Fittings and Tubing** for more information about connecting the Tubing to the Air Line Tee Connectors.

5. Leave the Power Unit end of the Air Line hanging out of the Flex Tube for now.

   It will be connected to the Pushbutton Air Valve later in the installation process.

Installing the Return Line

The Return Line takes excess Hydraulic Fluid coming out of the Hydraulic Cylinder and sends it back into the Fluid Reservoir on the Power Unit.

The Return Line is a single piece of ¼ inch, black, polyethylene Tubing with Elbow Compression Fittings on each end.

Important: The Return Line uses the same ¼ inch, black, polyethylene Tubing as the Air Lines. Be sure not to confuse the two: the Return Line and the Air Lines do completely different things and ***must*** be kept separate from each other.

The following drawing shows how to connect the Return Line.

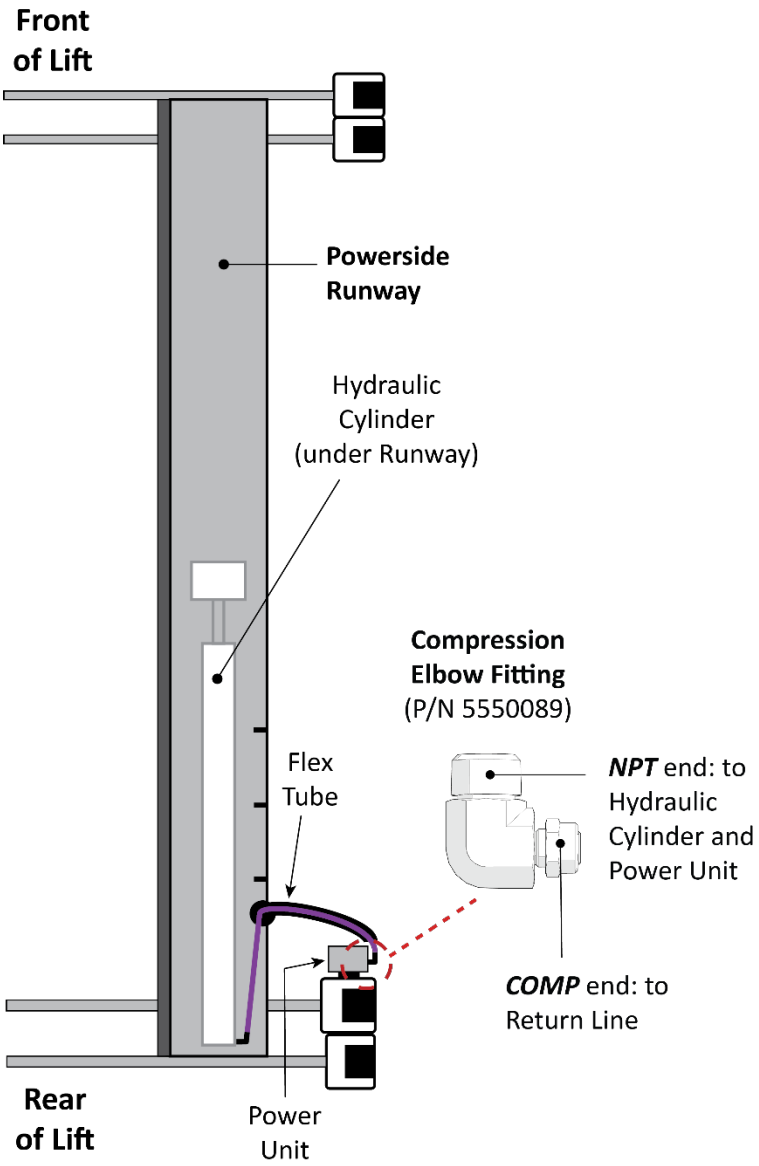
To install the Return Line:

1. Measure the distance from the Return Line Port on the Hydraulic Cylinder to the Hydraulic Return Port on the Power Unit.
2. Cut a piece of Tubing to the measured length from the roll of Tubing that comes with the Lift.

   It is better to cut the Tubing a little too long rather than a little too short.
3. Route the Tubing from the Hydraulic Cylinder, through the Retaining Rings on the underside of the Powerside Runway, through the Flex Tube, and out next to where the Power Unit will be installed.
4. Remove the Shipping Plug from the Return Line Port on the Hydraulic Cylinder.
5. Connect and tighten the NPT end of the Elbow fitting to the Return Line Port and the COMP end connects to one end of the Return Line.

   Use Liquid Thread Sealant on NPT threads only.

   Refer to **Working with Compression Fittings and Tubing** for instructions.
6. Take the second Compression Elbow Fitting and connect the NPT end to the Power Unit, and the COMP end to the other end of the Return Line (coming out of the Flex Tube).



Top View of Powerside Runway. Drawing not to scale. Some components not shown or exaggerated for clarity.

Installing the Hydraulic Hose

The Hydraulic Hose moves Hydraulic Fluid from the Power Unit to the Hydraulic Cylinder.

The following drawing shows how to connect the Curved End of the Hydraulic Hose to the Hydraulic Cylinder.

To install the Hydraulic Hose:

1. Find the Hydraulic Hose and two Hydraulic Fittings.
2. Push the Hydraulic Hose through the Flex Tube with the Curved end going to the Hydraulic Cylinder and the Straight end going to the Power Unit.

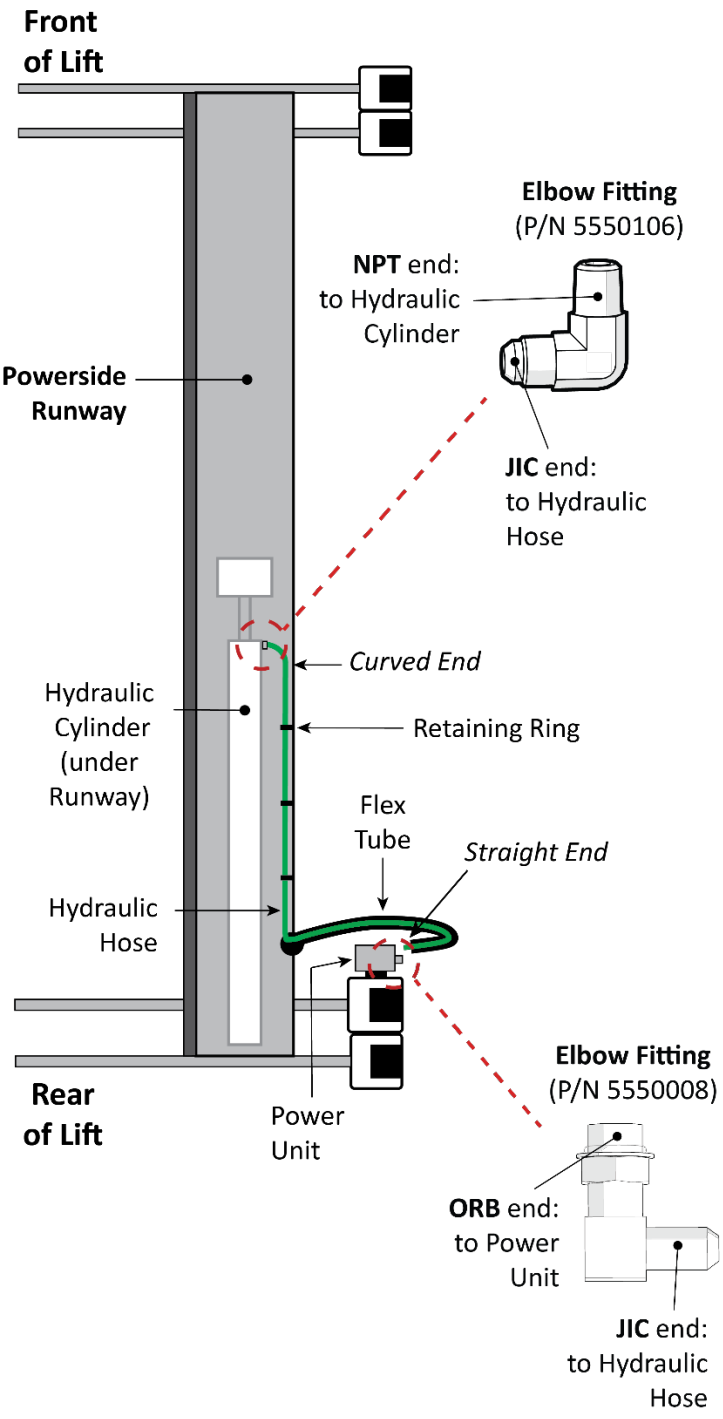
   Make sure to route the Hydraulic Hose through the Retaining Clips along the side of the Runway.
3. On the Hydraulic Cylinder, remove the Shipping Plug from the Port at the Piston / Retainer Block end.
4. Attach the NPT connector of the JIC x NPT Fitting to the Hydraulic Cylinder Port (where you just removed the Shipping Plug) and tighten it.

   Use Liquid Thread Sealant on the NPT threads only.

Tip Leave the JIC end pointing up; this will help keeping the Hydraulic Hose up and away from where the Lifting Cables will be installed.

5. Attach the Curved end of the Hydraulic Hose to the JIC connector that is facing up and tighten it.
6. Locate the Hydraulic Pressure Port on the Power Unit you want to use and remove the Shipping Plug.

   See **Connecting to a Power Source** for Port locations.
7. Connect the ORB end of the ORB x JIC Fitting to the Power Unit Port and the JIC end to the Straight end of the Hydraulic Hose.
8. Securely tighten all connections.



Top view of the Powerside Runway. Drawing not to scale. Some components not shown or exaggerated for clarity.

Contacting the Electrician

As mentioned previously, there are installation tasks that ***require*** a certified Electrician.

⚠ **DANGER** All wiring ***must*** be performed by a licensed, certified Electrician.

The Electrician needs to:

- **Connect the Power Unit to an appropriate power source**. A power source is required. Refer to **Connecting to a Power Source** for more information.
- **Install a Power Disconnect Switch**. Ensures you can quickly and completely interrupt electrical power to the Lift in the event of an electrical circuit fault, emergency situation, or when equipment is undergoing service or maintenance. You must put it within sight and easy reach of the Lift operator. Refer to **Install a Power Disconnect Switch** for more information.
- **Install a Thermal Disconnect Switch**. Ensures the equipment shuts down in the event of an overload or an overheated motor. Refer to **Install a Thermal Disconnect Switch** for more information. Note that the Power Unit that comes with the Lift is ***not*** thermally protected.

The electrician is responsible for providing:

- an appropriate cable and plug to attach to the Power Unit, for connection to a wall outlet ***or*** an appropriate cable that attaches the Power Unit to the facility's electrical system
- a Power Disconnect Switch
- a Thermal Disconnect Switch

Electrical Information

- Improper electrical installation can damage the Power Unit motor, which is not covered by the warranty.
- The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them after connecting to a power source.
- Use a separate circuit breaker for each Power Unit.
- Protect each circuit with a time delay fuse or circuit breaker:
  - For a 208 to 230 VAC, *single phase* circuit, use a 25 amp fuse.
  - For a 208 to 230 VAC, *three phase* circuit, use a 20 amp fuse.

Connecting to a Power Source

⚠ **DANGER** All wiring ***must*** be performed by a licensed, certified Electrician. Do not perform any maintenance or installation on the Lift without first making sure that main electrical power has been disconnected from the Lift and cannot be re-energized until all procedures are complete. The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them after connecting to a power source.

Important: Make clear to your Electrician that all electrical work ***must*** conform to applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.

Make clear to your Electrician that all electrical work ***must*** conform to applicable local, state and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.

To connect the Lift to a power source:

1. Locate the Pigtail coming out of the Electrical Box on the Power Unit.
2. Open the Electrical Box, ***remove the Pigtail***, and then either wire the Power Unit directly into the facility's electrical system or wire a power cord with appropriate plug *inside the Electrical box* where the Pigtail was wired.

   Wiring information is either on the outside of the Power Unit under the Electrical Box or inside the cover of the Electrical Box. Have the Electrician use that wiring information to wire the Power Unit to the power source.

   You can also find the Wiring Diagram for your Power Unit in **Wiring Diagrams**.
3. Close the Electrical Box.

Installing a Power Disconnect Switch

⚠ **WARNING** A main Power Disconnect Switch is ***not*** provided with this equipment.

A Power Disconnect Switch is a National Electrical Code (NEC) requirement. They are designed to interrupt electrical power in the event of an electrical circuit fault, emergency situation, or when equipment is undergoing service or maintenance.

BendPak strongly recommends that you install a Power Disconnect Switch that is properly rated for the incoming power.

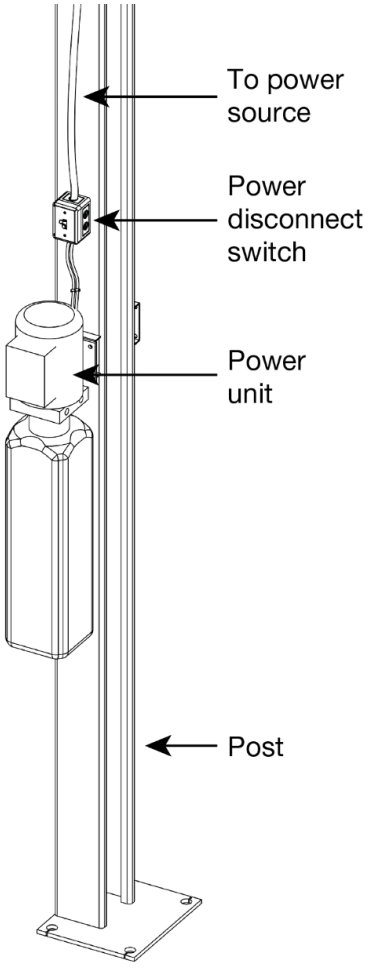
⚠ **DANGER** All wiring ***must*** be performed by a licensed, certified Electrician.

Your Power Disconnect Switch must be readily accessible and installed so that it is in easy reach of the Lift operator. It must be clearly and legibly marked to indicate its purpose.

The drawing to the right shows a toggle Power Disconnect Switch between the Lift's power source and its Power Unit. A quick flip of the switch immediately cuts power to the Lift.

Make sure to have a licensed, certified Electrician install the Power Disconnect Switch.

Make sure the Electrician selects a UL-listed Power Disconnect Switch.



Installing a Thermal Disconnect Switch

⚠ **WARNING** The Lift's motor does ***not*** have thermal overload protection.

Connect a motor Thermal Disconnect Switch or overload device that will make sure the equipment shuts down in the event of an overload or an overheated motor.

⚠ **DANGER** All wiring ***must*** be performed by a licensed, certified Electrician.

High electrical running current that exceeds the motor's full load amperage rating (FLA) may result in permanent damage to the motor.

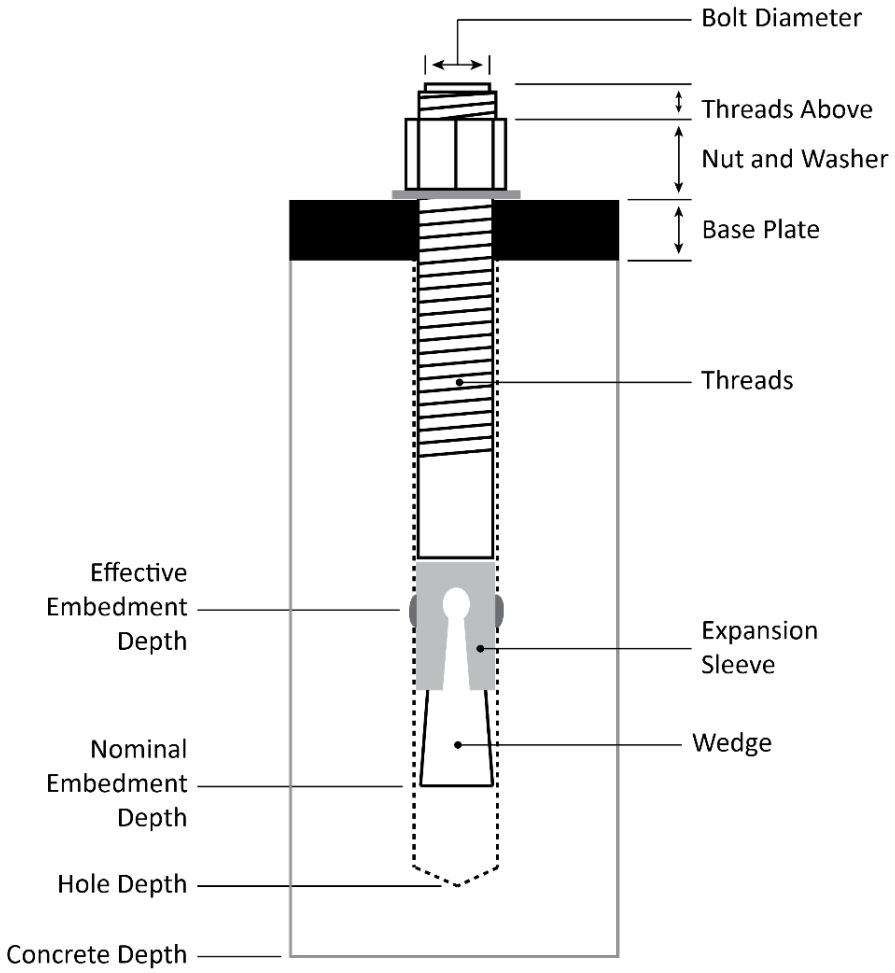
BendPak strongly recommends you ***not*** exceed the rated duty cycle of the Lift's motor.

About Effective Embedment

Anchor Bolts (also called Wedge Anchors) get their holding strength from how far down into the Hole the Anchor Bolt's Expansion Sleeve presses into the Concrete (called Effective Embedment) and how forcefully the Expansion Sleeve presses into the Concrete (based on the width of the hole and how much Torque is applied).

The further down into the Hole you get the Expansion Sleeve, the greater the Effective Embedment and thus the greater the holding strength of the Anchor Bolt. The hole should be drilled the same width as the Anchor Bolt with no wobbling. The correct amount of Torque is a range; too little Torque and the Anchor Bolts hold with less strength, too much Torque and you could damage the Concrete and lessen the Anchor Bolt's holding strength.

Note: Some people confuse Effective Embedment with *Nominal* Embedment, which is how far down into the Hole the *bottom* of the Anchor Bolt is. The two are ***not*** the same; Nominal Embedment does not tell you anything about the holding strength of the Anchor Bolt.



Make sure to carefully follow the specifications and instructions in **Anchoring the Posts**.

⚠ **WARNING** Use only the Anchor Bolts that came with your Lift. Only install your Lift on a Concrete floor. Make sure to get the correct amount of Effective Embedment and use the correct amount of Torque.

Anchoring the Posts

If you are going to, but have not done so already, you need to anchor the Lift's four Posts. Install one Anchor Bolt in each corner of each Base Plate, 16 Anchor Bolts total. Anchoring is optional.

Concrete specifications are:

- **Depth**: 4.25 in (108 mm) thick
- **PSI**: 3,000 PSI, minimum
- **Cured**: 28 days, minimum

Anchor Bolt specifications are:

- **Length**: 4.75 in (120.5 mm)
- **Diameter**: .75 in (19 mm)
- **Anchor Torque**: 85 – 95 pound feet (do *not* Torque less than 80 or more than 105)

⚠ **WARNING** Your Concrete and Anchor Bolts ***must*** meet these specifications. Only install your Lift on a Concrete surface. If you install a Lift on asphalt or any other surface, or your Concrete or Anchor Bolts do not meet these specifications, it could lead to product damage, Vehicle damage, personal injury, or even loss of life.

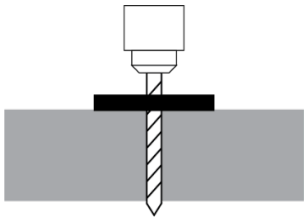
BendPak Lifts are supplied with installation instructions and Concrete fasteners meeting the criteria as prescribed by the current version of the American National Standard "Automotive Lifts – Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV.

⚠ **WARNING** Use only the Anchor Bolts that came with your Lift. If you use components from a different source, you void your warranty and compromise the safety of everyone who installs or operates the Lift.

Lift buyers are responsible for conforming to all regional, structural, and seismic anchoring requirements specified by any other agencies and/or codes, such as the Uniform Building Code and/or International Building Code.

To anchor the Posts:

1. Locate the hardware you will need: four Anchor Bolts, four Nuts, and four washers ***per Post***.
2. Using the Base Plates as guides, drill the holes for the Anchor Bolts—one hole in each corner of the Base Plate, so four holes total per Base Plate.



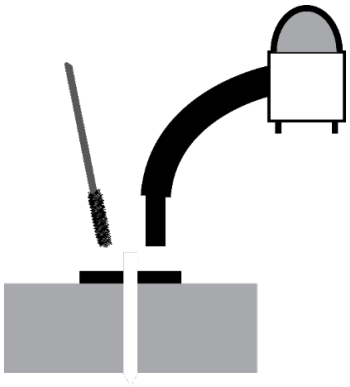
Go in straight, in the center of the hole; do not let the drill wobble.

Use a carbide bit (conforming to ANSI B212.15).

The diameter of the drill bit must be the same as the diameter of the Anchor Bolt. So if you are using a ¾ inch diameter Anchor Bolt, for example, use a ¾ inch diameter drill bit.

Important: The holding strength of an Anchor Bolt is partly based on the how cleanly the Expansion Sleeve presses against the Concrete. If the hole is dirty, the Expansion Sleeve does not press as cleanly. If the hole is too wide, the Expansion Sleeve does not press with as much force. Both result in less holding strength.

3. Vacuum each hole clean.



BendPak recommends using a vacuum to get the hole very clean. You can also use a wire brush, hand pump, or compressed air; just ***make sure to thoroughly clean each hole***.

Do ***not*** ream the hole. Do ***not*** make the hole any wider than the drill bit made it.

4. Plumb each Post; install any needed Shims.

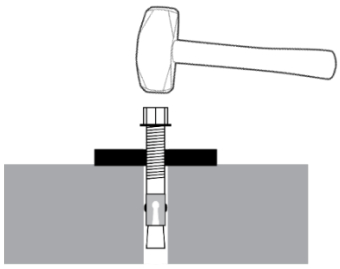
   Do not shim a Post more than half an inch using the provided Shims. A maximum of 2 inches is possible by ordering optional Shim Plates. Contact BendPak at **(800) 253-2363**, extension 191 to order. Please have the model and serial number of your Lift available.

   Take your time while plumbing and shimming the Posts; ***it is important to make the Lift level as possible.***

5. Make sure the Washer and Nut are in place, ***with the top of the Nut flush with the top of the Anchor Bolt***, then insert the Anchor Bolt into the hole.

6. Hammer or mallet the Anchor Bolt the rest of the way down into the hole.

   Stop when the Washer is snug against the Base Plate.

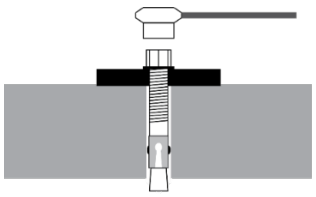


The Expansion Sleeve of the Anchor Bolt may prevent the Anchor Bolt from passing through the hole in the Base Plate too far; this is normal.

Even using a hammer or mallet, the Anchor Bolt should only go into the hole *part* of the way; this is normal. If the Anchor Bolt goes **all** the way in with little or no resistance, the hole is too wide.

Once past the hole in the Base Plate, the Anchor Bolt eventually stops going down into the hole as the Expansion Sleeve contacts the sides of the hole; this is normal.

7. Torque each Nut ***clockwise*** to the recommended installation torque, 85 – 95 pound feet, using a Torque Wrench.



Important: Do ***not*** use an impact wrench to torque the Anchor Bolts.

Do not torque past 105 pound feet; you could damage the Concrete.

Wrenching the Nut forces the Wedge up, forcing out the Expansion Sleeve and pressing it tightly against the Concrete.

Final Leveling

It is very important that the Lift's Runways are level, or as close to level as possible. The following procedure describes how to fine tune how level your Lift is.

The goal is that the four Safety Locks on the Lift engage at the same time.

To complete a final leveling on the Lift:

1. Raise your Lift to the first Safety Lock position (the Primary Safety Locks, not the Slack Safety Locks).
2. Use a transit level or other leveling mechanism to evaluate how level the Posts and Runways are to each other.
3. If you need to adjust a Runway, use the Top Nut and Stop Nut on the Top Cap of each Post to make adjustments to the Ladder in that Post (which impacts the levelness of the Runway and when the Safety Locks engage).
4. Raise the Lift to full height, listening as the Safety Locks engage.

   If you hear the Safety Locks engaging at the same time, no further adjustments are necessary.

   If the Safety Locks are not engaging at the same time, check the leveling, make necessary adjustments, and then raise the Lift again and listen as the Safety Locks engage.
5. When you are satisfied the Lift is level, firmly secure the Nuts at the top of each Post.

Installing Accessories

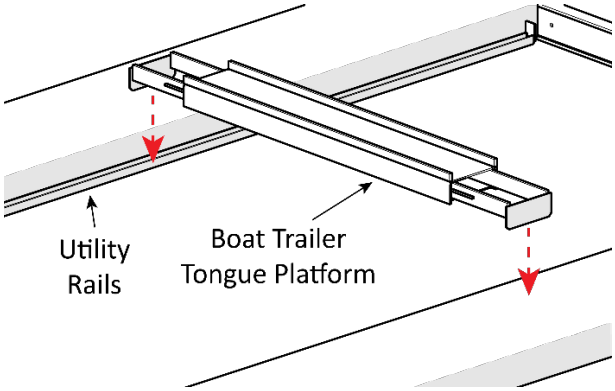
The accessories available for your Lift include:

- **Boat Trailer Tongue Platform** (*TC-3000 model*). Sits between the Runways, holds the front wheel of your boat trailer.
- **Gusset Covers**. Yellow, Plastic Covers that are installed on top of the Crosstube Gussets.
- **Tire Stops**. Installed at the Front of the Lift. Hold the Tires of the Vehicle in position. BendPak recommends chocking the rear Tires, so that the Vehicle stays in place. Included with the Lift.
- **Ramps**. Installed at the Rear of the Lift. Allow Vehicles to be easily driven onto the Runways. Included with the Lift.
- **Caster Kit**. Gets your Lift up off the ground and allows you to move it.

Boat Trailer Tongue Platform

The Boat Trailer Tongue Platform extends 20 inches, from 48 to 68 inches between the Runways.

The Boat Trailer Tongue Platform can support up to 3,000 lbs.; do ***not*** exceed the lifting capacity.

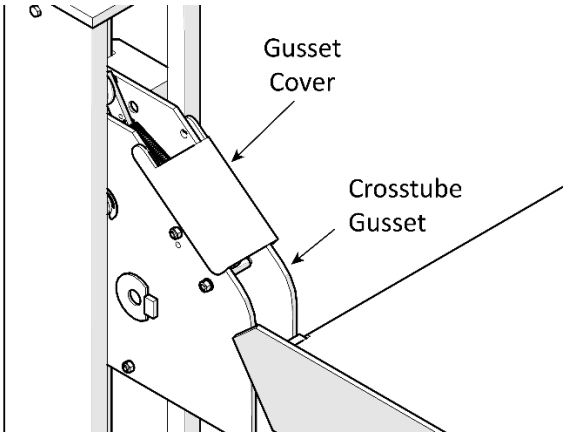


To install the Boat Trailer Tongue Platform:

1. Locate the Boat Trailer Tongue Platform.
2. Have two people ***carefully*** raise the Boat Trailer Platform and orient it appropriately between the Lift's two Runways.
3. Lower the Boat Trailer Platform to just above the Utility Rails, and adjust the Extendable Bases to the correct width.
4. Lower the Boat Trailer Platform onto the Utility Rails, making sure that the Extendable Bases are sitting securely in the Utility Rails.

Gusset Covers

Gusset Covers go on top of the Crosstube Gussets; one per Crosstube. 4 Gusset Covers total.



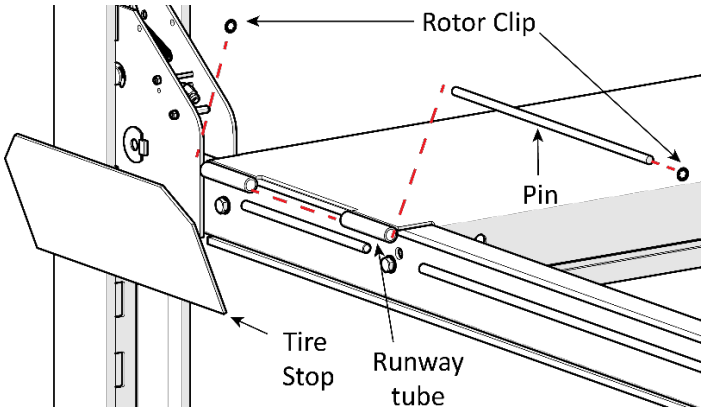
To install the Gusset Covers:

1. Locate the four Plastic Covers from the Parts Box that came with your Lift.
2. Align the Covers with the openings in the Gusset, one at each end of the Crosstube, then push the Cover into place.

   Do the same for the remaining covers.

Tire Stops

Tire Stops are attached on the Front of the Lift. They prevent the tires of the Vehicle on the Lift from going too far forward.

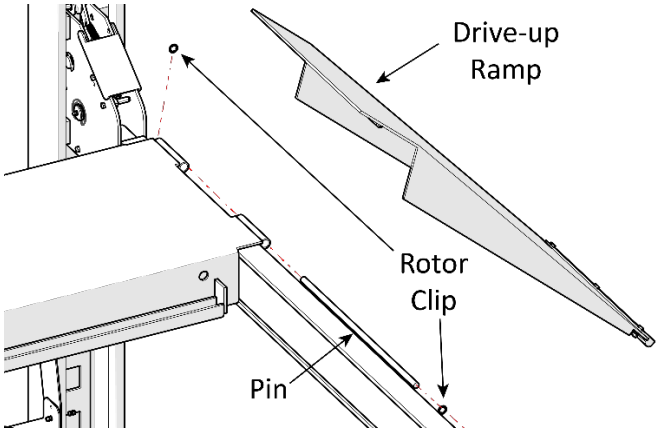


To install the Tire Stops:

1. Locate the two Tire Stops, two Tire Stop Pins, and four Rotor Clips.
2. Put one Tire Stop in position between the Tubes attached to the Runway, then put the Tire Stop Pin all the way through the Tire Stop and the Tubes.
3. Secure the Tire Stop with Rotor Clips on each end of the Tire Stop Pin.
4. Repeat Steps 2 and 3 for the second Tire Stop.

Ramps

Your Lift comes with two steel Ramps, for driving Vehicles onto the Runways.



To install the Ramps:

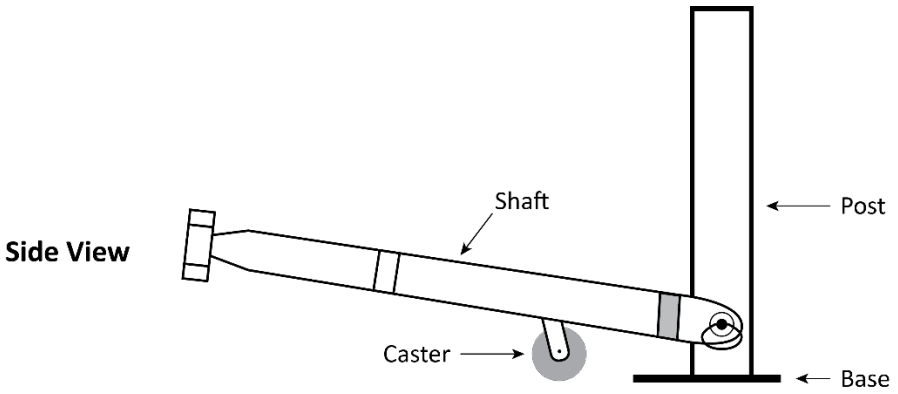
1. Find the required components: two Ramps, two Ramp Pins, and four Rotor Clips.
2. Put a Ramp into position on the end of a Runway at the Rear of the Lift, with the Tube on the bottom of the Ramp between the two Tubes on the end of the Runway.
3. Slide a Ramp Pin through the three Tubes, then install Rotor Clips on both ends of the Ramp Pin.

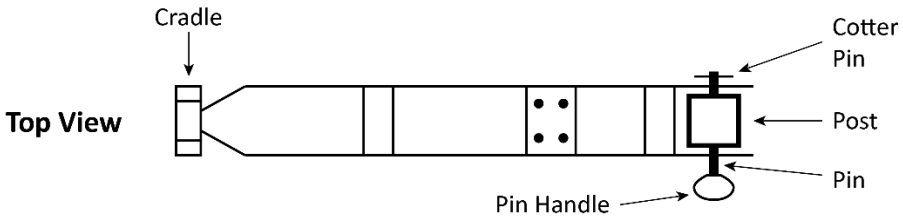
   Note: The Ramps are heavy and awkward, so you may want to consider having two people install them; one to hold the Ramp, the other to put the components into place.
4. Repeat Steps 2 and 3 for the other Ramp.

Caster Kit

The Caster Kit includes four assemblies, each of which goes under one of the Lift's four Posts. When the Lift is raised by the Caster Kit assemblies, you can move it to the desired location.

Important: Only put the Caster Kit assemblies into position to move the Lift. When you are done moving the Lift, remove the Caster Kit assemblies.





To move your Lift with the Caster Kit:

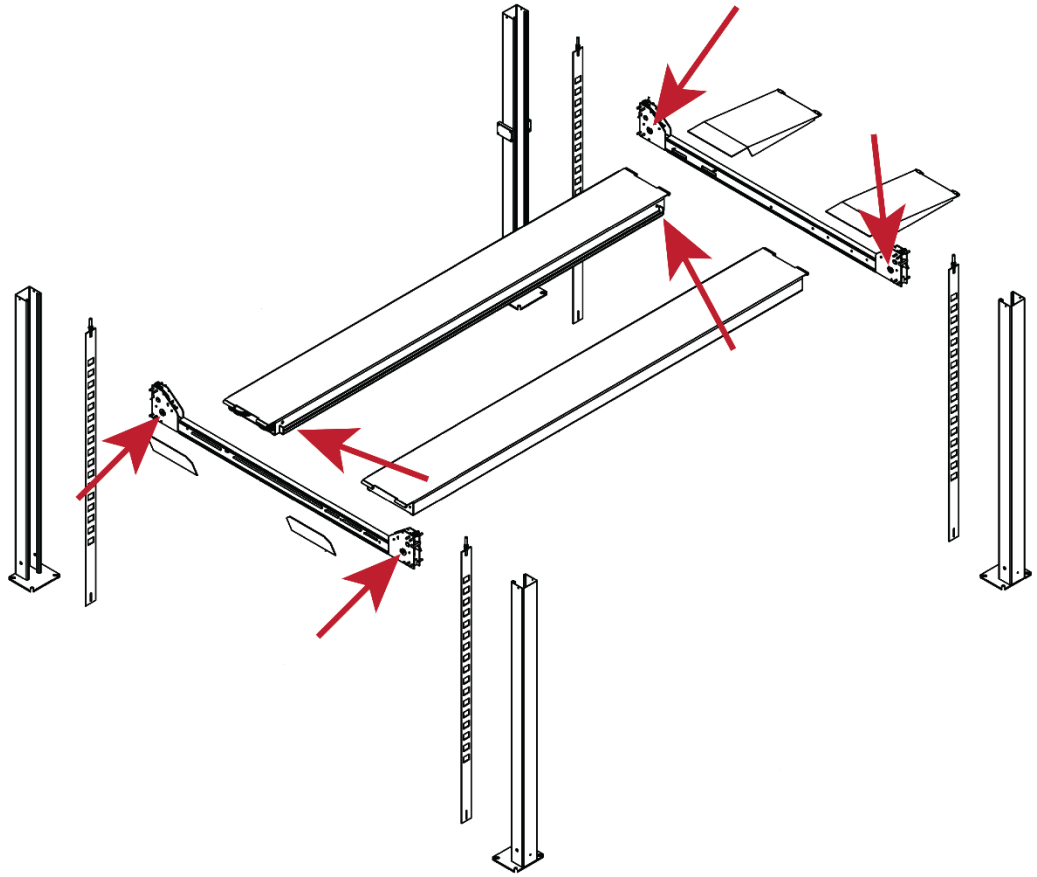
1. Raise the Lift to the first Safety Lock and engage it there.
2. Locate the components of the four Caster Kit assemblies.
3. Using the supplied hardware, bolt the four Casters to the four holes in the four Caster Kit Shafts.
4. Take one Shaft and put the open end around the Post, with the Shaft on the inside of the Lift.

   The Cradle of the Shaft needs to be directly below the Crosstube.
5. Put the Pin through the holes in the Caster Kit assembly and the Post.
6. Put the Cotter Pin into place on the end of the Pin.
7. Repeat Steps 4 through 6 for the other three Caster Kit Assemblies.
8. Lower the Lift down to the ground.

   Make sure the Crosstubes are going into all four Cradles on all four Caster Kit Shafts; this is what pushes the Bases of the Posts off the ground so that you can move it.
9. Move the Lift to the desired location.
10. Raise the Lift to a locking position and engage it there.
11. Take off all four Caster Kit assemblies.

Lubricating the Lift

All Cable Sheaves and Pins require occasional lubrication using a generous quantity of Red Lithium Grease. Repeat monthly or as required.



Use a small amount of white lithium grease or similar on the inside of the Lift Posts where the Slide Blocks move. Repeat monthly or as required.

Performing an Operational Test

BendPak strongly recommends doing an Operational Test of your Lift with a typical Vehicle before starting normal service (a typical Vehicle is not required, but is recommended).

⚠ DANGER When you even hear the words "automotive lift," your brain should automatically remember that lifting a Vehicle is a serious endeavor with life-threatening risks. Focus on what you are doing. Automotive Lifts are dangerous tools when used by inexperienced or impaired operators. ***Do not assume you are going to be safe this time because nothing happened last time***.

During the Operational Test, watch the Lift and its components and check for proper installation and operation. If you run into an issue that does not go away, refer to **Troubleshooting** for more information.

Note: Residual air in the Hydraulic System can cause the Lift to shake, move erratically, or squeak when you start using it; this is normal. If it happens, do not worry; it will go away as the Hydraulic System is self-bleeding. If it does not go away soon, try bleeding the Cylinder of air. If it still does not go away, refer to **Troubleshooting** for additional information.

To test your Lift:

1. Check the area around, above, and under the Lift for obstructions; *move them if you find any*.
2. Drive the Vehicle onto the Lift. Try to center the Vehicle's tires in the middle of each Runway.

   Put the Vehicle into park, put on the parking brake, put it in gear if it is a manual transmission, and chock the wheels.
3. Press and hold the Up button; both Runways start rising.
4. After the Runways pass one or two Safety Locks (you will hear them as they pass), release the Up button; the Runways stop rising.
5. Press ***and hold*** the Pushbutton on the Pushbutton Air Valve, then press ***and hold*** the Lowering Handle; the Runways start lowering.
6. When the Runways get to the ground, release the Pushbutton and the Lowering Handle.
7. Wait for one minute.

⚠ CAUTION Always take a break between cycles. The Power Unit's motor is ***not*** constant duty; it cannot be run continuously.

8. Repeat the process, this time raising the Runways to a higher Safety Lock.
9. If the Lift is working without shaking, moving erratically, or squeaking, there is no need to repeat the procedure.

   If the Lift is shaking, moving erratically, or squeaking (which is normal during the start-up period), repeat the procedure a couple more times, with at least a one-minute break between cycles.

   If you continue to have issues, refer to **Troubleshooting** for assistance.

Reviewing the Final Checklist

Make sure these things have been done ***before*** putting the Lift into service:

- Review the **Installation Checklist** to make sure all steps have been performed.
- Verify the Power Unit is getting power from the power source.
- Check the Hydraulic Fluid reservoir on the Power Unit; it must be full of approved Hydraulic Fluid or automatic transmission fluid. ***You can damage the motor by running it without enough fluid.***
- Check the Hydraulic System for leaks.
- Make sure all four Posts are properly anchored, shimmed, level, and stable.
- Make sure all Lifting Cables are properly seated in their Sheaves.
- Make sure all Safety Locks are operating normally.
- Make sure the backup Slack Safety Locks are ***not*** engaged.
- If it has not been done already, perform an Operational Test of the Lift with a typical Vehicle. Refer to **Performing an Operational Test**.
- Make sure a copy of the *Installation and Operation Manual* is left with the Lift.

Operation

This section describes how to operate your automotive Lift.

⚠ DANGER When you even hear the words "automotive lift," your brain should automatically remember that lifting a Vehicle is a serious endeavor with life-threatening risks. Focus on what you are doing. Automotive Lifts are dangerous tools when used by inexperienced or impaired operators. ***Do not assume you are going to be safe this time because nothing happened last time***.

Safety Considerations

⚠ WARNING Your safety is dependent on reading, understanding, and implementing these Safety Rules. ***Do not skip over them—read them carefully and follow them; your life could literally depend on it!***

Do the following ***before*** you raise a Vehicle on your Lift **every time**:

- **Check the Lift**. Walk all the way around the Lift, checking for any missing, heavily worn, or damaged parts. Use caution when driving a Vehicle onto wet or icy Drive-up Ramps or Runways; do ***not*** walk on Lift surfaces that are wet. Do not operate the Lift if you find any issues; instead, take it out of service, then contact your dealer, email **support@bendpak.com,** or call **(800) 253-2363**.
- **Check the area**. Keep the area around and under the Lift clean and free of obstructions; anything that could cause a problem. Do not forget to check ***above*** the Lift. If you find an obstruction, move it out of the way. If you find any other issues, resolve them before using the Lift. *Do not allow any people or animals within 30 feet of the Lift while it is moving*.
- **Check the operators**. Make sure everyone who is going to operate the Lift has been trained in its use, has read the labels on the unit, and has read the manual. Only the operator at the Controls should be within 30 feet of the Lift while it is moving.

  Do not allow children to operate the Lift. Do not allow anyone under the influence of drugs, alcohol, or medication to operate the Lift. Do not allow any unauthorized personnel to operate the Lift.

  Operators should wear non-skid, steel toe footwear and safety glasses when operating the Lift.
- **Check for safety**. Make sure everyone who is going to be walking near the Lift is aware of its presence and takes appropriate safety measures. Only put Vehicles on the Runways.

  When raising a Vehicle, do not leave it until it is engaged on Safety Locks. When lowering the Lift, do not leave it until it is on the ground.
- **Check the Vehicle**. Never exceed the Lift's weight rating. Do not allow people inside a Vehicle you are going to raise. Make sure the Vehicle is not overbalanced on either end or either side.

Using the Controls

The Controls for the Lift include:

- **Up button**. Press and hold to raise the Runways. Located near the top of the Power Unit.

  To put Runways onto a Safety Lock position: Raise the Runways a little above where you want them, then press and hold the Lowering Handle to back the Runways down onto the Safety Locks (*do not* press and hold the pushbutton on the Pushbutton Air Valve). When the Runways stop going down, they are engaged on a Safety Lock.

  Before leaving the Lift, make sure all four corners are engaged on Safety Locks at the same height.

- **Lowering Handle**. Press and hold to lower the Runways. Located in the middle of the Power Unit, the Lowering Handle is long and has a ball at the end.

  To lower raised Runways down to the ground: ***press and hold*** the pushbutton on the Pushbutton Air Valve first, then ***press and hold*** the Lowering Handle.

  Watch the Runways as they go down to make sure they are coming down evenly. If they are not, stop lowering the Lift and troubleshoot the problem.

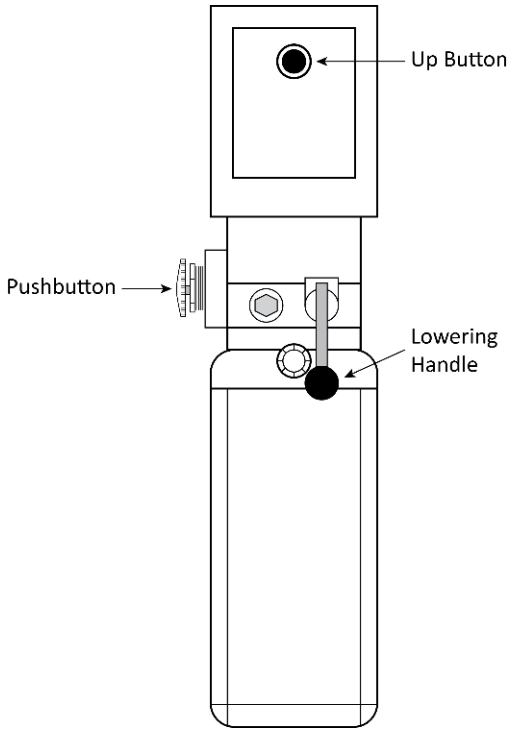
⚠ **WARNING** Only leave your Lift either engaged on Safety Locks or fully lowered.

- **Pushbutton Air Valve**. Press and hold as part of the process to lower the Runways. Located on one side or the other of the Power Unit (depending on where it was installed). Pressing and holding the pushbutton on the Pushbutton Air Valve disengages the Safety Locks, which is needed to lower the Runways.

To raise Runways and engage them on Safety Locks:

1. Press and hold Up Button.
2. When just past desired height, release Up Button.
3. Press and hold Lowering Handle.
4. Runways stop going down when engaged on Safety Locks; release Lowering Handle when they stop.

   *Do **not** press and hold Pushbutton.*
5. Make sure all four Posts are engaged at same height.



To lower Runways:

1. Press and hold Up Button for a couple of seconds; this moves Lift off Safety Locks.
2. Press and ***hold*** Pushbutton.
3. Press and ***hold*** Lowering Handle.

   Runways begin lowering.
4. When Runways are fully lowered (on ground), release Pushbutton and Lowering Handle.

Raising and Lowering Vehicles

Keep the following in mind when operating your Lift:

- **Be safe**. Make sure to check for people, pets, and objects that might be in the path of the Lift as you raise or lower it. If there is something in the way, stop the Lift and move it out of the way. Watch the Lift carefully as it raises and lowers.

⚠ DANGER Pay careful attention when you are raising or lowering your Lift. If a person or pet gets stuck under the Lift, they could be injured or, in rare cases, killed. If a problem arises, either stop the Lift or get it back to the ground, whichever is safest.

- **The Power Disconnect Switch is there for a reason**. We hope you never have to use it, but if something unexpected happens, use the **Power Disconnect Switch** to immediately stop the Lift from moving.
- **Get what you need out of the Vehicle before lifting it**. It is annoying to raise a Vehicle and then realize you left something inside. ***Never raise your Lift with people or animals in the Vehicle***.
- **Make sure the Vehicle is balanced**. If there is extra weight on one end or the other, remove it or balance it before raising the Vehicle.
- **Center the Vehicle's wheels on the Runway**. Centered wheels keep the Vehicle balanced.

To raise a Vehicle:

1. Make sure the Runways are on the ground. If they are not, move them down to the ground.
2. Drive a Vehicle onto the Runways.

   Make sure all four wheels are fully on the Runways, as close to the center of the Runways as possible.

   Put the Vehicle into park and put on the parking brake. If it is a manual transmission, make sure it is in a gear, not in neutral.

   Chock the tires.
3. Press the Up button on the Power Unit.

   The Runways begin to rise.
4. When the Runways get to the desired height, go up a little bit more, then release the Up button and press and hold the Lowering Handle.

   The Runways engage on the most recently passed Safety Locks.

   How do you know if one of the four Safety Locks has, for some reason, not engaged? If this happens, the non-engaged corner of the Lift will continue to go down, while the others stay where they are. This results in a Runway that is not flat.

   Always check to ***make sure that all four Safety Locks are engaged at the same height*** before working under or near a raised vehicle.

⚠ WARNING Only leave your Lift either engaged on Safety Locks or fully lowered.

5. With the Runways engaged on the Safety Locks, check around the Vehicle to make sure everything looks good.

   If you see anything wrong, fix it before anyone gets near the Runways or goes under them.

To lower a Vehicle:

1. Make sure there are no obstructions under the Runways you are about to lower.

   If there are, move them out of the way before lowering the Runways.

2. Press and hold the Up Button for a couple of seconds.

   This moves the Lift off the Safety Locks on which it was engaged.

3. Press and hold the Pushbutton on the Pushbutton Air Valve, then press and hold the Lowering Handle.

   The Runways start lowering.

4. When the Runways are fully lowered (on the ground), release the Pushbutton and the Lowering Handle.

5. Remove the tire chocks.

6. Drive the Vehicle off the Runways.

Maintenance

⚠ DANGER Before performing maintenance on your Lift, make sure it is disconnected from power. The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them before performing any maintenance. If you come into contact with high voltage/current, you could be injured or killed.

To maintain your Lift:

- **Daily**: Keep the Lift clean. Wipe up any spills, clean any dirt.
- **Daily**: Make a visual inspection of all moving parts and check for damage or excessive wear. Replace any damaged or worn parts before using the Lift.

⚠ DANGER Do not use the Lift if the Lifting Cables are damaged or extremely worn. If a Vehicle is raised when you notice the damage or extreme wear, very carefully lower the Vehicle to the ground. When the Lift is on the ground, take it out of service, disconnect it from power, and make arrangements to fix the damage or wear.

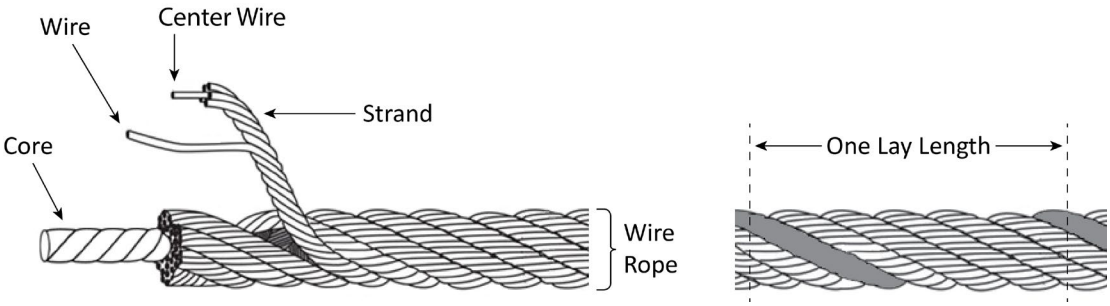
- **Daily**: Make sure all Safety Locks are in good operating condition. Do not use your Lift if the Safety Locks are damaged or excessively worn.
- **Monthly**: Check all labels on the Lift. Replace them if they are illegible or missing.
- **Monthly**: Grease the lubrication points on the Lift. Use white lithium grease or similar on the inside of the Lift Posts. Use Red Lithium Grease on the Sheave Pins and Bearings.
- **Monthly**: Check Hydraulic Fluid levels. Refill if low.
- **Monthly**: Lubricate the wire rope (Lifting Cables). Use a wire-rope lubricant such as 90-WT gear oil or ALMASOL® Wire Rope Lubricant.
- **Monthly**: Check cable connections, bolts, and pins for proper mounting and torque.
- **Every two months**: Check all Anchor Bolts to make sure they are properly torqued. If they are loose, tighten them.

⚠ WARNING: Do not operate your Lift if you find maintenance issues; instead, take the Lift out of service, then contact your dealer, visit **bendpak.com/support**, email **support@bendpak.com**, or call **(800) 253-2363**.

Wire Rope Inspection and Maintenance

Your Lift's Lifting Cables, which are wire rope, should be inspected regularly:

- Wire rope should be replaced when there are visible signs of damage or extreme wear. *Do not use the Lift if it has damaged or worn Lifting Cables;* ***take it out of service!***



- Wire rope should be maintained in a well-lubricated condition at all times.

  Wire rope is only fully protected when each wire strand is lubricated both internally and externally. Excessive wear shortens the life of wire rope. Use a wire-rope lubricant that penetrates to the core of the rope and provides long-term lubrication between each individual strand, such as 90-WT gear oil or ALMASOL® Wire Rope Lubricant. To make sure the inner layers of the rope remain well lubricated, lubrication should be done at least every three months during normal operation.

- All Sheaves and guide rollers that contact moving wire rope should be given regular visual checks for surface wear and lubricated to make sure they run freely. This should be done every three months during normal operation.

  For all Sheave axles, use standard wheel bearing grease. For all Sheaves and/or guide rollers, use 90-WT gear oil or a similar heavy lubricant, applied by any method including pump/spray dispensing, brush, hand, or swabbing.

- How often should you inspect?

  Wire rope should be visually inspected at least once each day when in use, as suggested by American Petroleum Institute's Recommended Practice 54 guidelines. Any wire rope that meets the criteria for removal must be immediately replaced.

- When should you replace wire rope due to broken wires?

  Wire rope should be removed from service if you see six randomly distributed broken wires within any one lay length (where a single strand makes a full turn around the rope) or three broken wires in one strand within one lay length.

- Are there other reasons to replace your wire rope?

  Yes. Corrosion that pits the wires and/or connectors, evidence of kinking, crushing, cutting, bird-caging, or a popped core, wear that exceeds 10% of a wire's original diameter, or heat damage.

- How do you find broken wires?

  a. Relax your rope to a stationary position and move the pick-up points off the Sheaves. Clean the surface of the rope with a cloth — a wire brush, if necessary — so you can see any breaks.

  b. Flex the rope to expose any broken wires hidden in the valleys between the strands.

  c. Visually check for any broken wires. One way to check for crown breaks is to run a cloth along the rope to check for possible snags.

  d. With an awl, probe between wires and strands and raise any wires that appear loose.

Troubleshooting

Note: If your Lift is not functioning correctly, you ***must*** remove it from service until it is repaired.

Unless stated otherwise, all maintenance may be performed by the owner/employer and does not require trained lift service personnel.

⚠ **WARNING** The Lift uses electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them before performing any Troubleshooting.

Problem	**Corrective Action**
Runways do not raise or do not lower, once raised.	Make sure there is sufficient Hydraulic Fluid in the reservoir. Make sure there is no air in the Hydraulic System. Make sure the Hydraulic Hose is not pinched or leaking. Make sure the Power Unit is getting power. If the Hydraulic Fluid is dirty, replace it with clean fluid. Make sure the Lift is not overloaded. Contact Bendpak Support **bendpak.com/support**, email **support@bendpak.com**, or call **(800) 253-2363**.
Runways do not lower past the nearest Safety Lock when pressing and holding the pushbutton.	Problem with the Air Line; check to make sure all sections of the Air Line are connected and not leaking.
One corner of the Lift is lower than the other three corners.	The Safety Lock on the lower corner is not engaged. Raise the Runways up, then lower them down onto the Safety Locks. Check to make sure all four Safety Locks are engaged.
Runways move erratically or squeak when in use.	Move the Runways up and down a few times to flush any residual air from the Hydraulic System. Make sure to pause for at least two minutes between cycles.
Runways do not stay up.	Check for leaking Hydraulic Fluid. Make sure the Runways are engaged on their Safety Locks.
Motor not running.	Check the connection to the power source; make sure it is plugged in and of the appropriate voltage. Make sure the wiring is correct; check the wiring diagram.
Hydraulic Fluid is dirty.	Replace the dirty fluid with clean, approved Hydraulic Fluid, such as Dexron III, Dexron VI, Mercon V, Mercon LV, Shell Tellus S4 / S3 / S2, or comparable.
Runways make odd noises.	Lubricate the bushings on the Sheaves on the sides of the Crosstubes using white lithium grease. If the Lift is new, a break-in period may be needed; run the Lift several times each day. If the noises persist, contact BendPak Support.

If you continue to have issues with your Lift, take it out of service, then contact your dealer, go to **bendpak.com/support**, email **support@bendpak.com**, or call **(800) 253-2363**.

Bleeding the Hydraulic Cylinder

The Hydraulic Cylinder on the Lift is self-bleeding, which means that in most cases any air in the system can be removed by raising and lowering the Runways a few times; “bleeding” the Hydraulic System of the unwanted air.

⚠ WARNING Before performing any maintenance on your Lift (for example, bleeding the Hydraulic Cylinder or adding Hydraulic Fluid), make sure both Runways are on the ground and the power source has been disconnected.

Symptoms of air in the Hydraulic System include Runways moving erratically and/or making odd noises. These could be caused by other situations; refer to **Troubleshooting** for more information.

To bleed the Hydraulic System:

1. Raise and lower the Runways up to six times; ***pause for at least one minute between each cycle***.

   The Lift’s motor cannot run continuously; it is designed for regular use, but not continuous use.

2. Watch the Runways as you raise and lower them.

   When the Lift stops moving erratically or stops squeaking, you can stop the bleeding process.

3. Check the Hydraulic Fluid reservoir on the Power Unit.

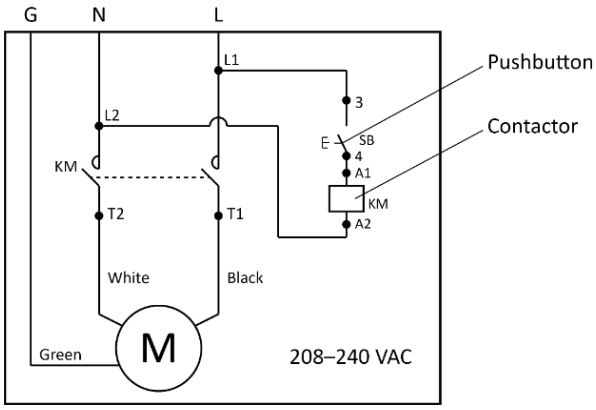
   Bleeding the Hydraulic System may significantly lower the amount of Hydraulic Fluid in the reservoir.

4. Add additional Hydraulic Fluid if necessary.

If your Lift is still moving erratically or making odd noises after bleeding the Hydraulic System, refer to **Troubleshooting** for more information.

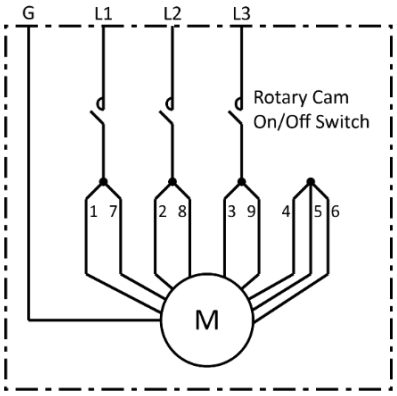
Wiring Diagrams

5585280

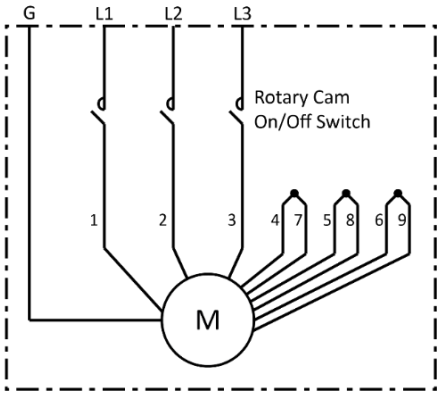


5585247

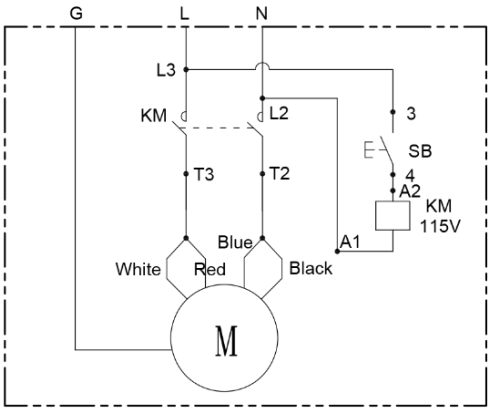
190 / 208-230 VAC



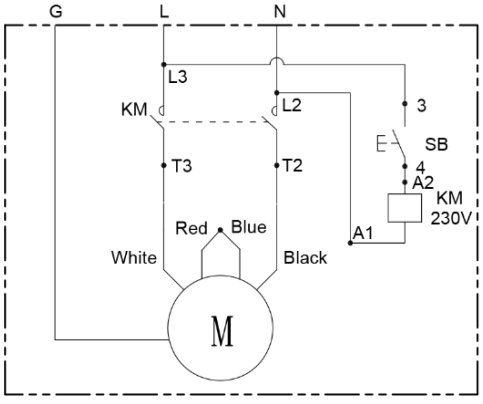
380 / 460 VAC



5585014

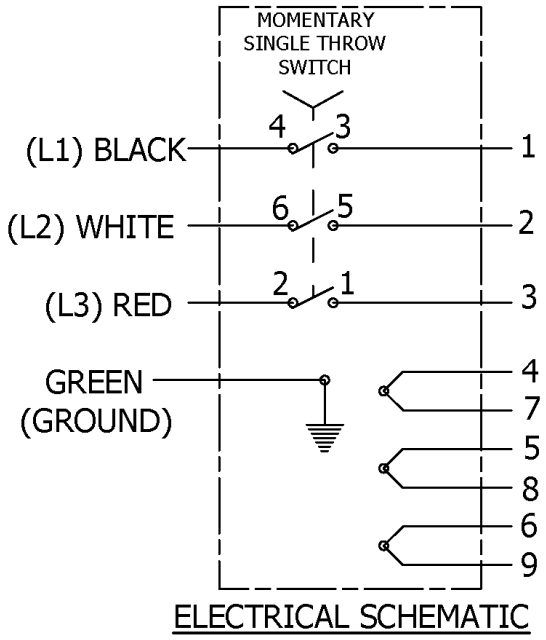


Wiring for 115V



Wiring for 230V

5585106



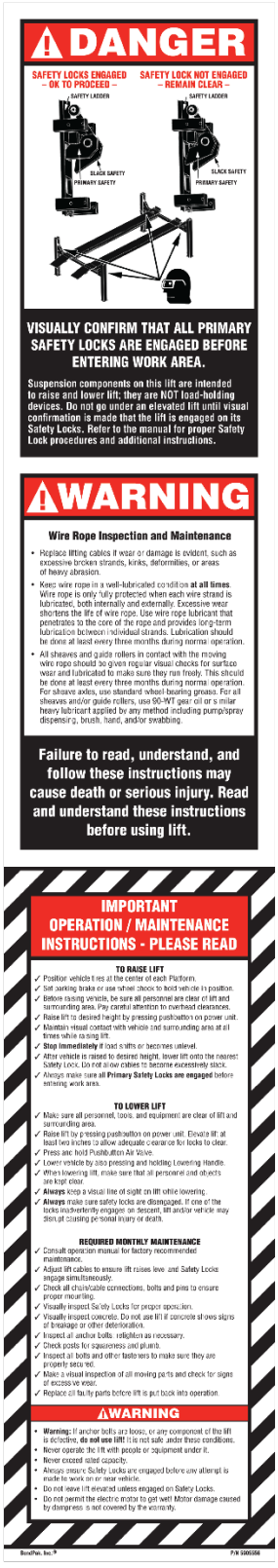
ELECTRICAL SCHEMATIC

Labels

A

BENDPAK
BP
ABOVE-GROUND LIFTS
BendPak
1645 Lockwood Drive
Santa Paula, CA 93060
U.S.A.
(805) 933-9970
www.bendpak.com

B


DANGER
SAFETY LOCKS ENGAGED – OK TO PROCEED –
SAFETY LOCK NOT ENGAGED – REMAIN CLEAR –
SAFETY LADDER
SLACK SAFETY
PRIMARY SAFETY
VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA.
Suspension components on this lift are intended to raise and lower lift; they are NOT load-holding devices. Do not go under an elevated lift until visual confirmation is made that the lift is engaged on its Safety Locks. Refer to the manual for proper Safety Lock procedures and additional instructions.
WARNING
Wire Rope Inspection and Maintenance
Failure to read, understand, and follow these instructions may cause death or serious injury. Read and understand these instructions before using lift.
IMPORTANT
OPERATION / MAINTENANCE
INSTRUCTIONS - PLEASE READ
TO RAISE LIFT
TO LOWER LIFT
REQUIRED MONTHLY MAINTENANCE
WARNING

C


CAUTION
Lift to be used by trained operator ONLY.
CAUTION
Authorized personnel only in lift area.
WARNING
Clear area if vehicle is in danger of falling.
WARNING
Remain clear of lift when raising or lowering vehicle.
WARNING
Keep clear of pinch points when lift is moving.
WARNING
Keep feet clear of lift while lowering.
WARNING
Do not overide self-closing lift controls.
WARNING
Chock wheel to prevent vehicle movement.
NOTICE
Read operating and safety manuals before using lift.
NOTICE
Proper maintenance and inspection is necessary for safe operation.
NOTICE
Do not operate a damaged lift.

D

⚠ DANGER

THE MAXIMUM LIFTING CAPACITY FOR THIS LIFT IS DESCRIBED BELOW

Maximum Lifting Capacity 7,500 lbs. / 3,402 kg
Max. Lifting Cap. / Front of Lift Center 3,750 lbs. / 1,701 kg
Max. Lifting Cap. / Rear of Lift Center 3,750 lbs. / 1,701 kg

Exceeding the weight capacity of this lift can damage lift and/or property and may cause personal harm, injury or death to operators and/or bystanders. All vehicles MUST be positioned on lift with CENTER OF GRAVITY midway between adapters and/or centered on runways. Damage to lift due to overloading or misuse IS NOT covered under warranty.

LA CAPACITÉ DE LEVAGE MAXIMUM POUR CE LEVAGE EST DÉCRIT CI-DESSOUS

Capacité de Levage Maximale 7,500 lbs. / 3,402 kg
Max. Capuchon De Levage. / Avant du centre de relèvement 3,750 lbs. / 1,701 kg
Max. Capuchon De Levage. / Arrière du centre de levage 3,750 lbs. / 1,701 kg

Le dépassement de la capacité de poids de cet élévateur peut endommager l'ascenseur et / ou les biens et peut causer des dommages corporels, des blessures voire la mort aux opérateurs et / ou aux passants. Tous les véhicules DOIVENT être placés sur l'élévateur avec le CENTRE DE GRAVITÉ à mi-chemin entre les adaptateurs et / ou au centre des pistes. Dommages à soulever dus à la surcharge ou une mauvaise utilisation N'EST PAS couverte par la garantie.

P/N 5905915

E

⚠ ATTENTION ⚠

MAXIMUM LIFTING CAPACITY
CAPACITÉ DE LEVAGE MAXIMUM

7500 Lbs.
3402 Kg.

P/N 5905790

F

BendPak
PROVIDING AUTOMOTIVE SERVICE SOLUTIONS

SANTA PAULA, CA USA
WWW.BENDPAK.COM
P/N 5905940

LIFT TYPE: SURFACE MOUNT	MFG. BPK SEE DATA PLATE FOR PRODUCT DETAILS
POWER: ELECTRIC/HYDRAULIC	INSTALLATION - SEE OWNERS GUIDE OR CONTACT FACTORY

SAFETY INSTRUCTIONS: IF ATTACHMENTS, ACCESSORIES OR CONFIGURATION MODIFYING COMPONENTS THAT ARE LOCATED IN THE LOAD PATH, AFFECT OPERATION OF THE LIFT, AFFECT THE LIFT ELECTRICAL LISTING OR AFFECT INTENDED VEHICLE ACCOMMODATION ARE USED ON THIS LIFT AND, IF THEY ARE NOT CERTIFIED FOR USE ON THIS LIFT, THEN THE CERTIFICATION OF THIS LIFT SHALL BECOME NULL AND VOID. CONTACT THE PARTICIPANT FOR INFORMATION PERTAINING TO CERTIFIED ATTACHMENTS, ACCESSORIES OR CONFIGURATION MODIFYING COMPONENTS.

BENDPAK LIFTS ARE SUPPLIED WITH CONCRETE FASTENERS MEETING THE CRITERIA AS PRESCRIBED BY ASTM E488 - 96(2003). LIFT BUYERS ARE RESPONSIBLE FOR ANY SPECIAL REGIONAL, STRUCTURAL AND/OR SEISMIC ANCHORING REQUIREMENTS SPECIFIED BY ANY OTHER AGENCIES AND/OR CODES SUCH AS THE UNIFORM BUILDING CODE (UBC) AND/OR INTERNATIONAL BUILDING CODE (IBC).

THE MANUFACTURE, USE, SALE OR IMPORT OF THIS PRODUCT MAY BE SUBJECT TO ONE OR MORE UNITED STATES PATENTS, OR PENDING APPLICATIONS, OWNED BY BENDPAK, INC.

DO NOT REMOVE ENGINEERED BY BENDPAK INC. USA MADE IN CHINA

G

NOTICE

If attachments, accessories, or configuration modifying components used on this lift are located in the load path and affect operation of the lift, affect the lift electrical listing, or affect intended vehicle accommodation; and if they are not certified for use on this lift, then the certification of this lift shall become null and void. Contact the participant for information pertaining to certified attachments, accessories, or configuration modifying components.

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H

⚠ WARNING

SLIPPERY WHEN WET OR ICY

Use caution when driving onto wet or icy drive-up ramps and platforms. **DO NOT** walk on lift surfaces that are wet or icy.

⚠ AVERTISSMENT

GLISSANT LORSQU'IL EST MOUILLÉ OU GLACÉ

Soyez prudent lorsque vous conduisez sur des rampes d'accès mouillées ou verglacées et les plateformes. **NE PAS** marcher sur des surfaces de levage humides ou glacées.

P/N 5905733

I is not used.

J is not used.

K

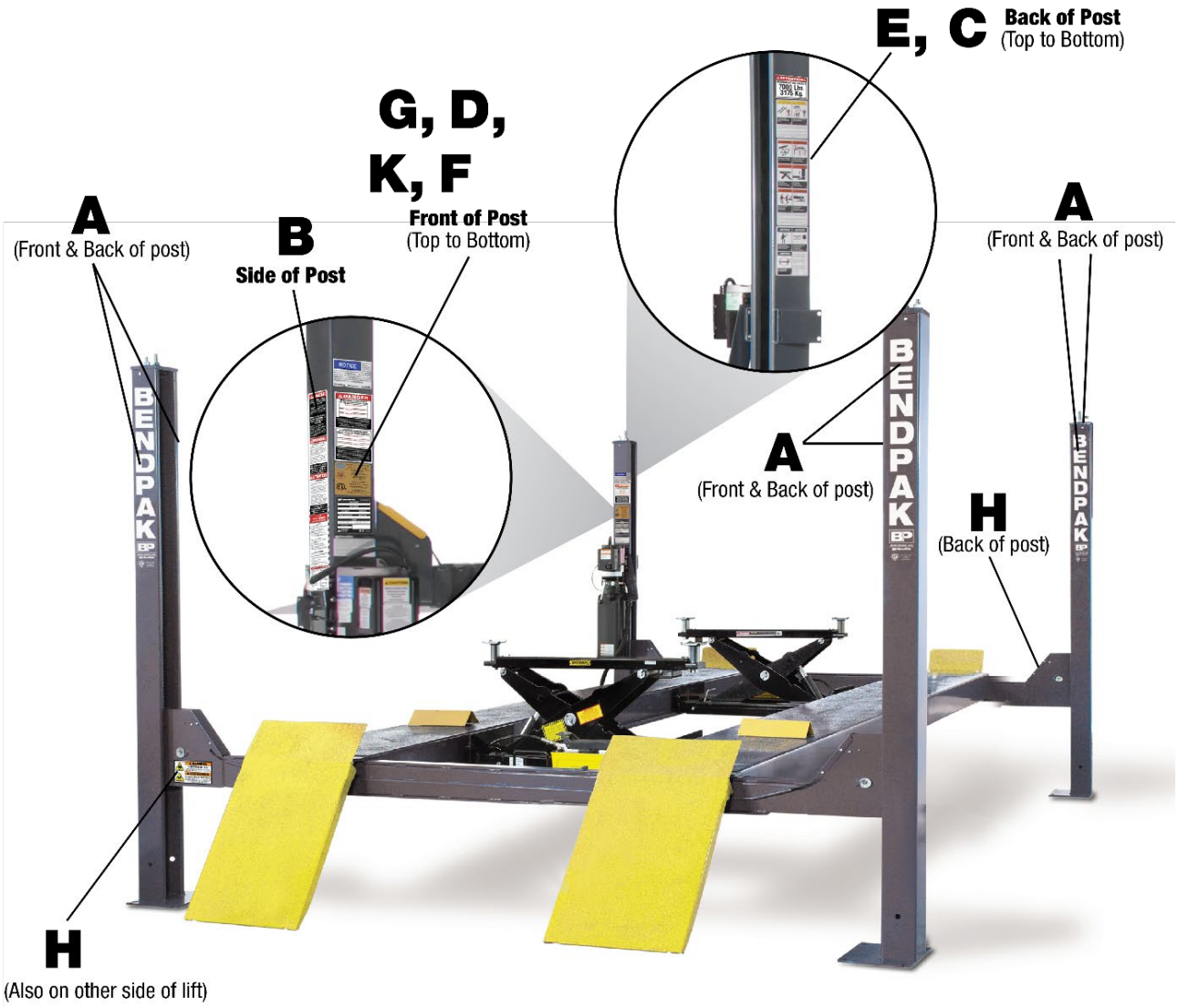
BendPak
Santa Paula, CA USA
www.bendpak.com

MODEL NUMBER	
DESCRIPTION	
LIFT CAPACITY	DATE OF MFG.
ROLLING JACK MAX CAP.	MAX PSI / BAR

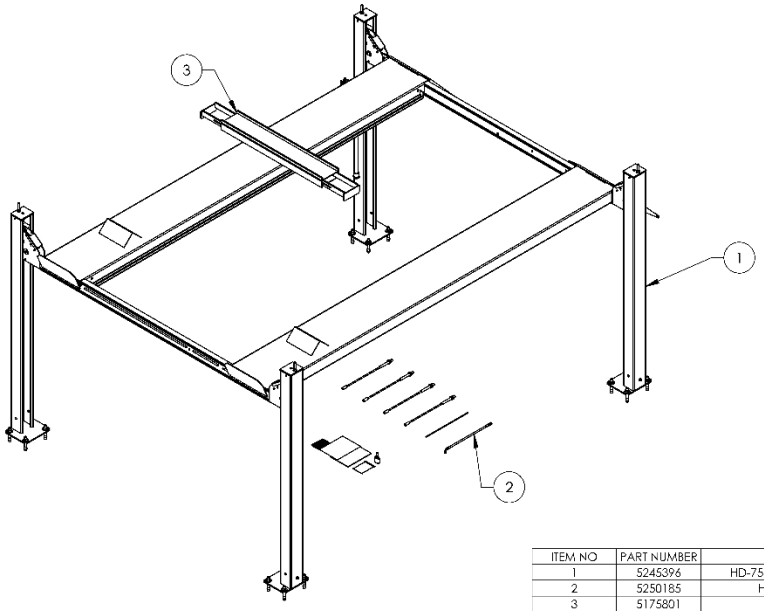
VOLTAGE	SERIAL NUMBER
☐ 110-240V, 50-60 Hz, 1 Ph ☐ 208-240V, 50-60 Hz, 1 Ph ☐ 380-415V, 50-60 Hz, 3 Ph ☐ 208-440V, 50-60 Hz, 3 Ph	UPC

DANGER! Disconnect Power Before Servicing EAC

WARRANTY VOID IF DATA PLATE IS REMOVED P/N 5905952


E, C
Back of Post
(Top to Bottom)
G, D,
K, F
Front of Post
(Top to Bottom)
A
(Front & Back of post)
B
Side of Post
A
(Front & Back of post)
A
(Front & Back of post)
H
(Back of post)
H
(Also on other side of lift)
BENDPAK

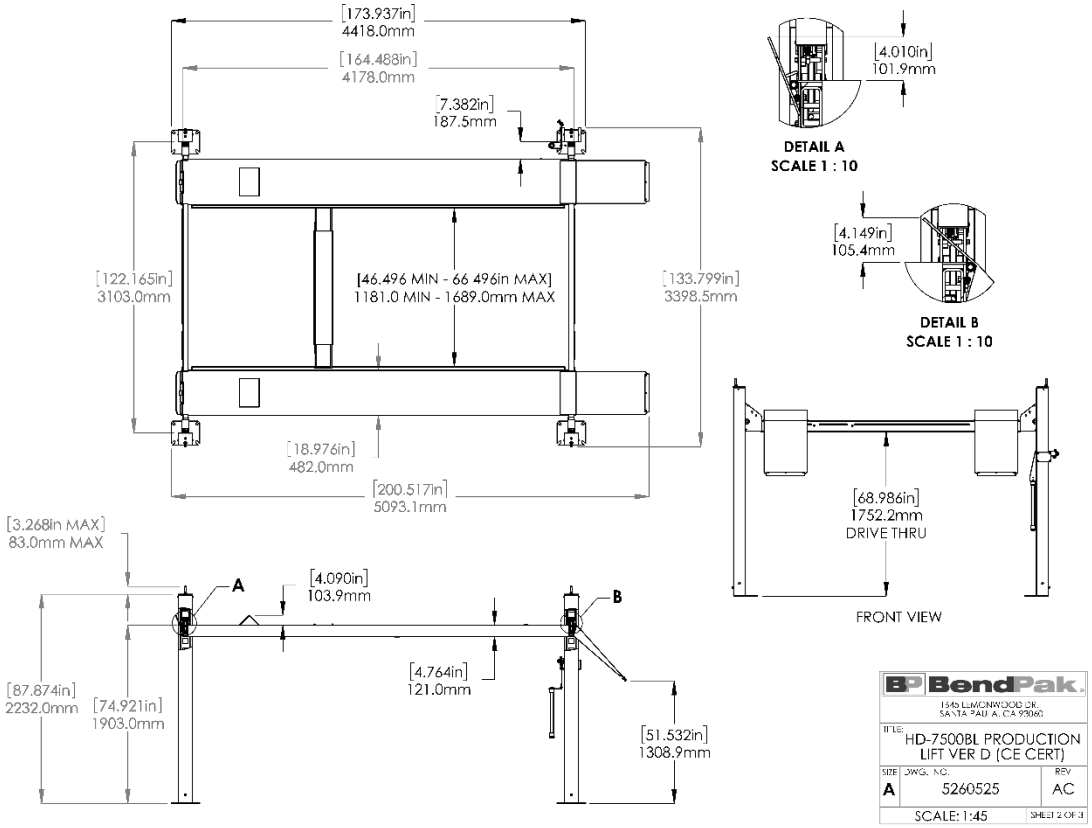
Parts Drawings



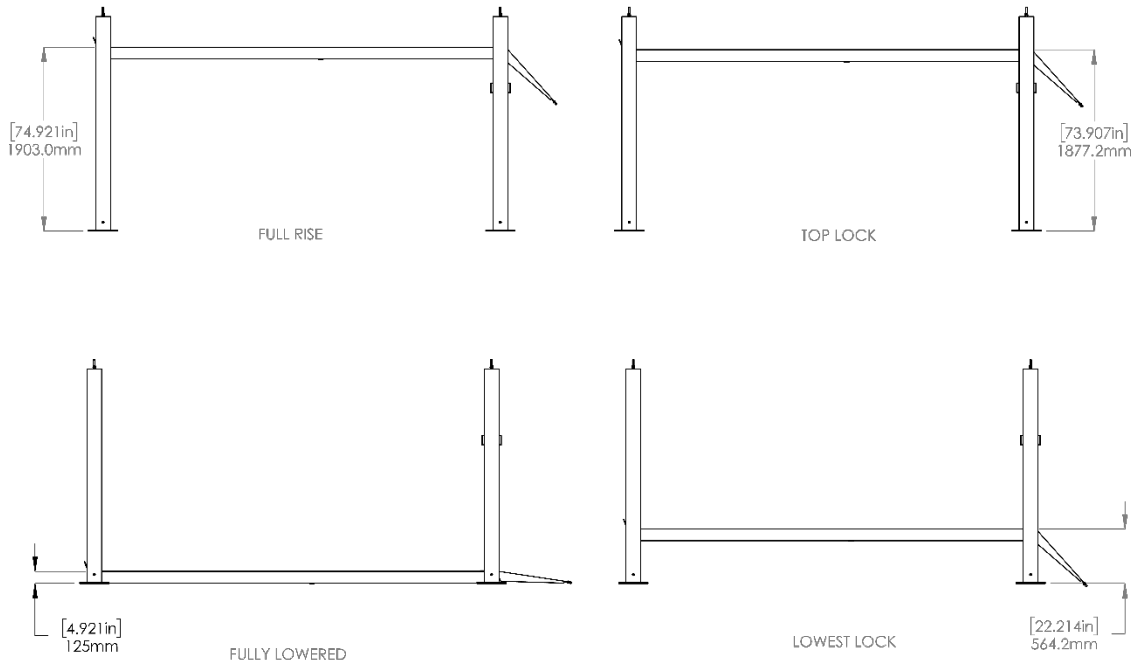
ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5245396	HD-7500BL LIFT SUPERSTRUCTURE	1	V
2	5250185	HD-7500BL PARTS BOX	1	K
3	5175801	TC-3000 ASSEMBLY	1	C

DO NOT SCALE DRAWING | NAME | DATE
DRAWN | TM | 08/ 2/2014
CHECKED
DIMENSIONS ARE IN MM
THIRD ANGLE PROJECTION
PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BENDPAK INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.

BendPak
6451 LEMONWOOD DR.
SANTA PAULA, CA 93060
TITLE: HD-7500BL PRODUCTION LIFT VER D (CE CERT)
SIZE | DWG. NO. | REV
A | 5260525 | AC
SCALE: 1:35 | SHEET 1 OF 3



BendPak
1546 LEMONWOOD DR.
SANTA PAULA, CA 93060
TITLE: HD-7500BL PRODUCTION LIFT VER D (CE CERT)
SIZE | DWG. NO. | REV
A | 5260525 | AC
SCALE: 1:45 | SHEET 2 OF 3

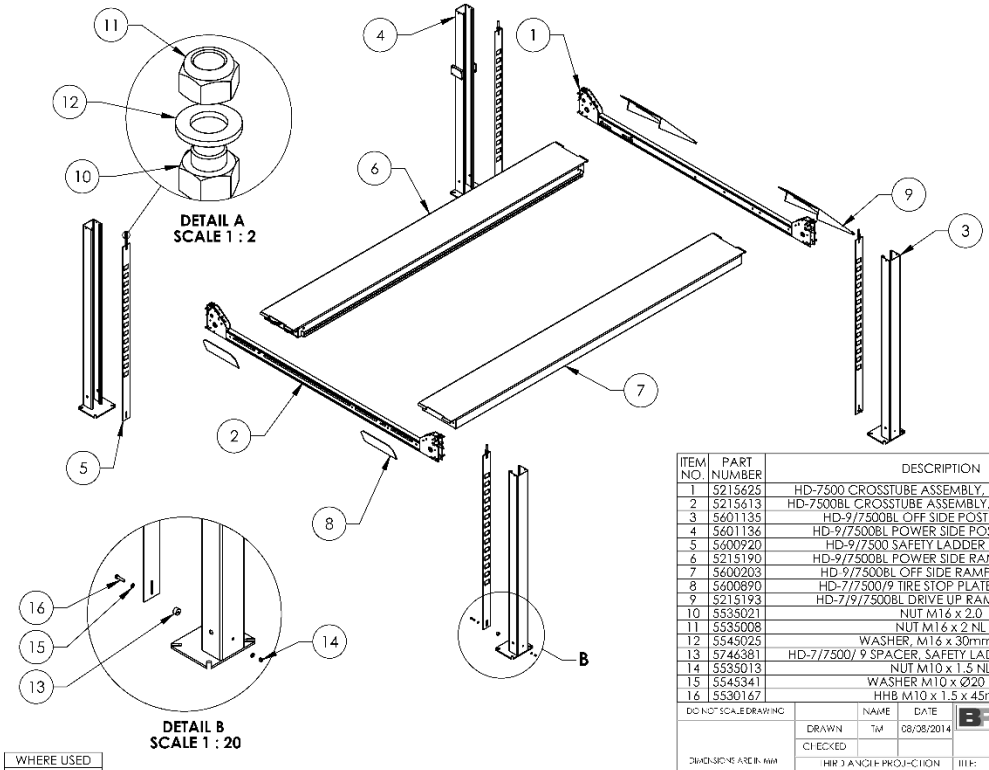


BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: HD-7500BL PRODUCTION LIFT VER D (CE CERT)

SIZE	DWG. NO.	REV
A	5260525	AC
	SCALE: 1:45	SHEET 3 OF 3

1. ALL DIMENSIONS SHOWN ARE WITH LOCK LADDER ADJUSTED ALL THE WAY UP



ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5215625	HD-7500 CROSSTUBE ASSEMBLY, SMALL WINDOW	1	T
2	5215613	HD-7500BL CROSSTUBE ASSEMBLY, LARGE WINDOW	1	T
3	5601135	HD-9/7500BL OFF SIDE POST WELDMENT	3	A
4	5601136	HD-9/7500BL POWER SIDE POST WELDMENT	1	A
5	5600920	HD-9/7500 SAFETY LADDER WELDMENT	4	B
6	5215190	HD-9/7500BL POWER SIDE RAMP ASSEMBLY	1	AC
7	5600203	HD-9/7500BL OFF SIDE RAMP WELDMENT	1	H
8	5600890	HD-7/7500/9 TIRE STOP PLATE WELDMENT	2	F
9	5215193	HD-7/9/7500BL DRIVE UP RAMP ASSEMBLY	2	G
10	5535021	NUT M16 x 2.0	4	-
11	5535008	NUT M16 x 2 NL	4	-
12	5545025	WASHER, M16 x 30mm FLAT	4	-
13	5746381	HD-7/7500/ 9 SPACER, SAFETY LADDER, 17.5mm LG	4	B
14	5535013	NUT M10 x 1.5 NL	4	-
15	5545341	WASHER M10 x Ø20 FLAT	8	-
16	5530167	HHB M10 x 1.5 x 45mm	4	-

DO NOT SCALE DRAWING		NAME	DATE
	DRAWN	TM	08/08/2014
	CHECKED		
DIMENSIONS ARE IN: MM	THIRD ANGLE PROJECTION		

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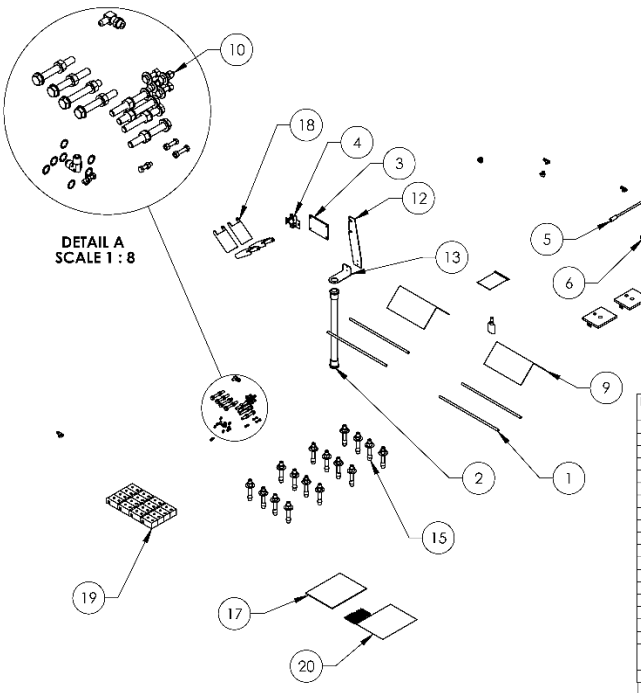
BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

ITEM: HD-7500BL LIFT SUPERSTRUCTURE

SIZE	DWG. NO.	REV
A	5245396	V
	SCALE: 1:45	SHEET 1 OF 1

WHERE USED
HD-7500BL



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5745014	HD-7/7500/9 SERIES DRIVE UP RAMP PIN	4	B
2	5570052	FLEX TUBE ASSEMBLY 1170mm	1	B
3	5715003	POWER UNIT VIBRATION DAMPENER	1	B
4	5215096	PUSH BUTTON AIR ASSEMBLY	1	G
5	5595031	HD-7500BL CABLE ASSEMBLY Ø10 x 2922mm ST	1	E
6	5595174	HD-7500BL CABLE ASSEMBLY Ø10 x 5169mm ST	1	E
7	5595028	HD-7500BL CABLE ASSEMBLY Ø10 x 7046mm ST	1	H
8	5595189	HD-7500BL CABLE ASSEMBLY Ø10 x 9293mm ST	1	E
9	5700072	WHEEL CHOCK	2	B
10	5174092	HD-7/9/7500 PARTS BAG	1	G
11	5570795	1/4" POLY-FLO TUBING	17000*mm	-
12	5700029	HD-SERIES FLEX TUBE BRACKET PLATE	1	F
13	5700033	HD-SERIES FLEX TUBE ANGLE	1	E
14	5570022	HYDRAULIC HOSE ASSEMBLY Ø6.4 x 3380mm	1	G
15	5530456	AB 3/4" x 4 3/4"	16	-
16	5600405	HD-7/9/7500 TOP PLATE WELDMENT	4	C
17	5900174	HD-7500BL/BLX INSTALLATION MANUAL	1	-
18	5716630	HD-9 SERIES CROSSTUBE COVER, PLASTIC	4	A
19	5716005	D4-12, HD-7/7500/9/14/HDSO-14 POLYETHYLENE SLIDE BLOCK	16	M
20	5210241	4 POST LIGHT DUTY CE PARTS BAG	1	A

WHERE USED
HD-7500BL

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	TM	05/09/2013
CHECKED	OR	07/21/2021

BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

DIMENSIONS ARE IN MM

THIRD ANGLE PROJECTION

TITLE: HD-7500BL PARTS BOX

SIZE A | DWG. NO. 5250185 | REV K

SCALE: 1:25 | SHEET 1 OF 1

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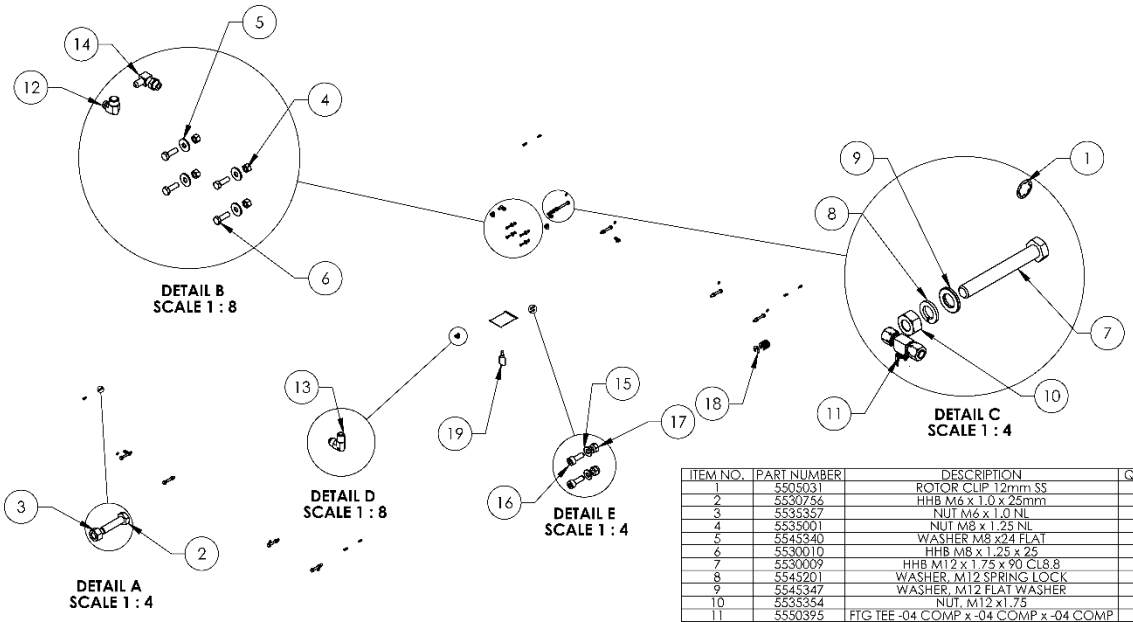

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5550031	ROTOR CLIP 12mm SS	8	-
2	5530756	HHB M6 x 1.0 x 25mm	8	-
3	5535357	NUT M6 x 1.0 NL	8	-
4	5535001	NUT M8 x 1.25 NL	4	-
5	5545340	WASHER M8 x24 FLAT	4	-
6	5530010	HHB M8 x 1.25 x 25	4	-
7	5530009	HHB M12 x 1.75 x 90 CL8.8	8	-
8	5545201	WASHER, M12 SPRING LOCK	8	-
9	5545347	WASHER, M12 FLAT WASHER	8	-
10	5535354	NUT, M12 x1.75	8	-
11	5550395	FTG TEE -04 COMP x -04 COMP x -04 COMP	3	-
12	5550089	FTG ELB -04 COMP x -06 NPT	2	-
13	5550106	FTG ELB -04 JIC x 3/8" NPT	1	-
14	5550008	FTG ELB -04 JIC -06 ORB	1	-
15	5545009	WASHER, Ø4.3 x Ø9mm x 0.8mm	2	-
16	5530008	SHCS M4 x 0.7 x 12 BOC	2	-
17	5535010	NUT M4 X 0.7 NL	2	-
18	5545535	C WASHER SHIM FOR LIFTS	20	
19	5580012	LIQUID PTFE THREAD SEALANT 50ml	1	-

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	AC	08/08/2008
CHECKED	OR	07/26/2021

BendPak
1645 LEMONWOOD DR.
SANTA PAULA, CA 93060

DIMENSIONS ARE IN MM

THIRD ANGLE PROJECTION

TITLE: HD-7/9/7500 PARTS BAG

SIZE A | DWG. NO. 5174092 | REV G

SCALE: 1:30 | SHEET 1 OF 1

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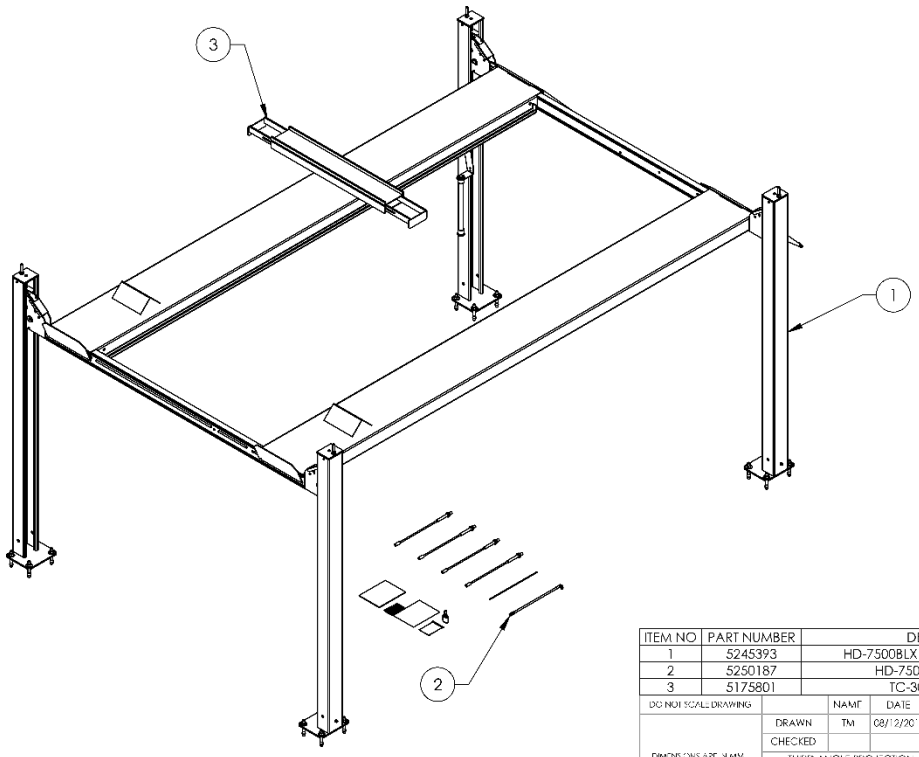
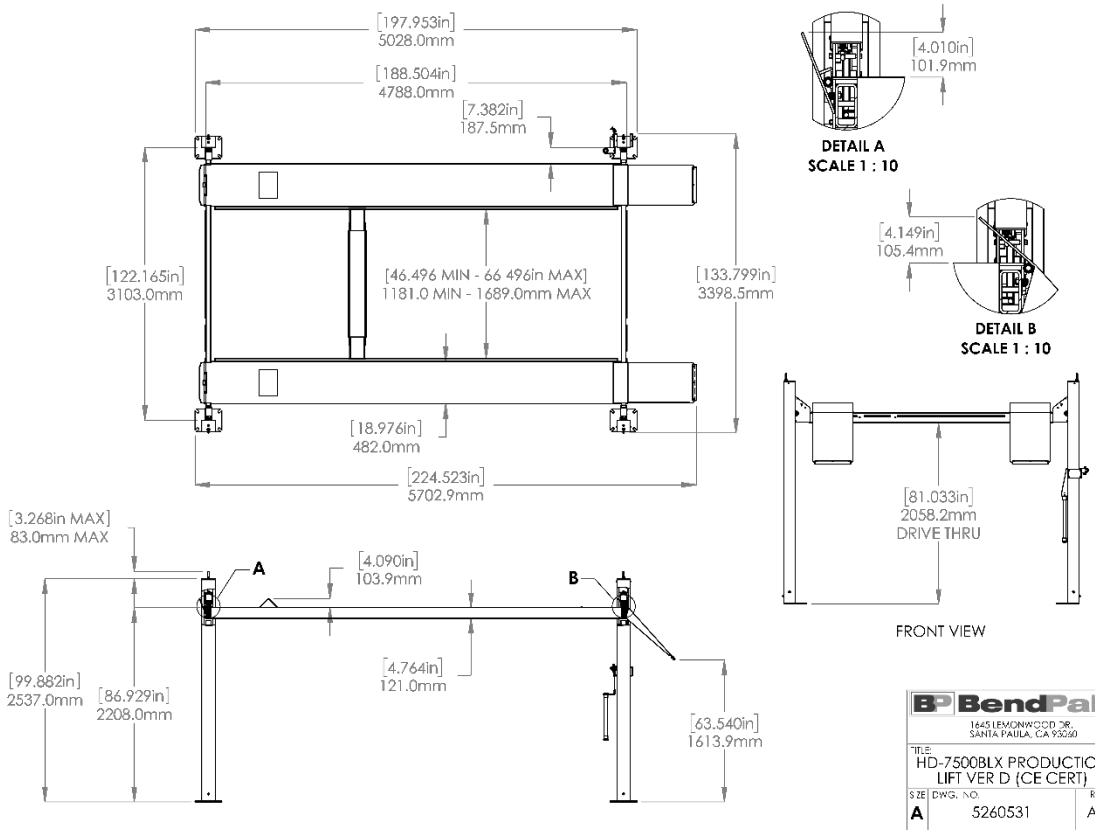
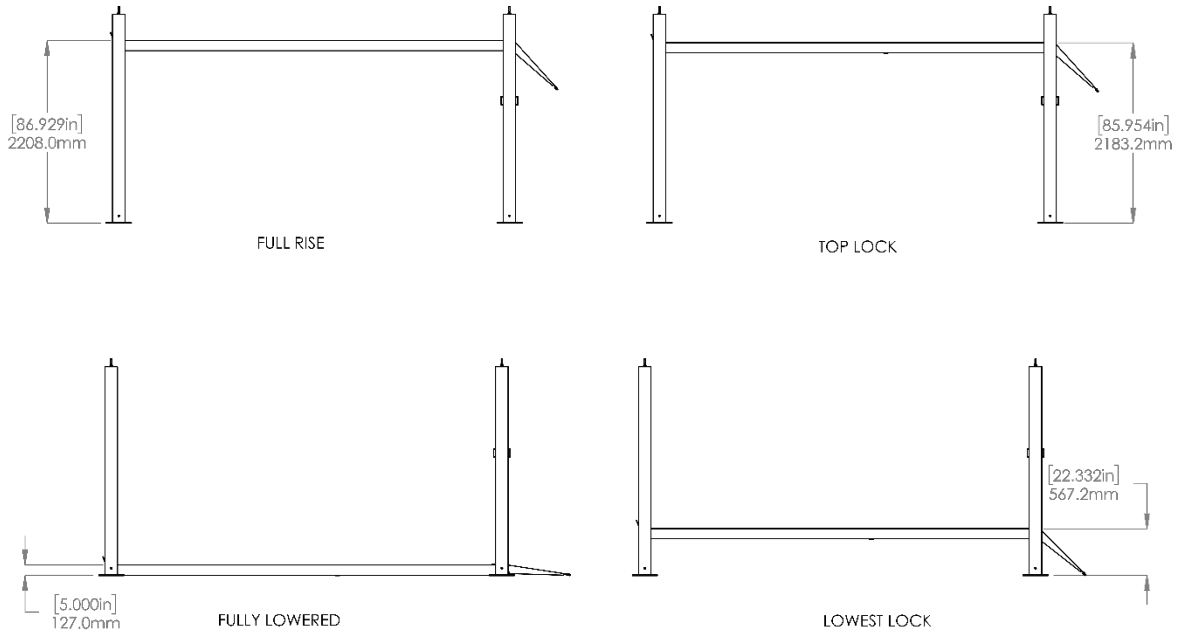


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5245393	HD-7500BLX LIFT SUPERSTRUCTURE	1	V
2	5250187	HD-7500BLX PARTS BOX	1	K
3	5175801	TC-3000 ASSEMBLY	1	C

DO NOT SCALE DRAWING | | NAME | DATE | BendPak
DRAWN | TM | 08/12/2014 | 1645 LEMONWOOD DR. SANTA PAULA, CA 93060
CHECKED
DIMENSIONS ARE IN MM | THIRD ANGLE PROJECTION | TITLE: HD-7500BLX PRODUCTION LIFT VER D (CE CERT)
PROPRIETARY AND CONFIDENTIAL | SIZE A | DWG. NO. 5260531 | REV AC
SCALE: 1:35 | SHEET 1 OF 3

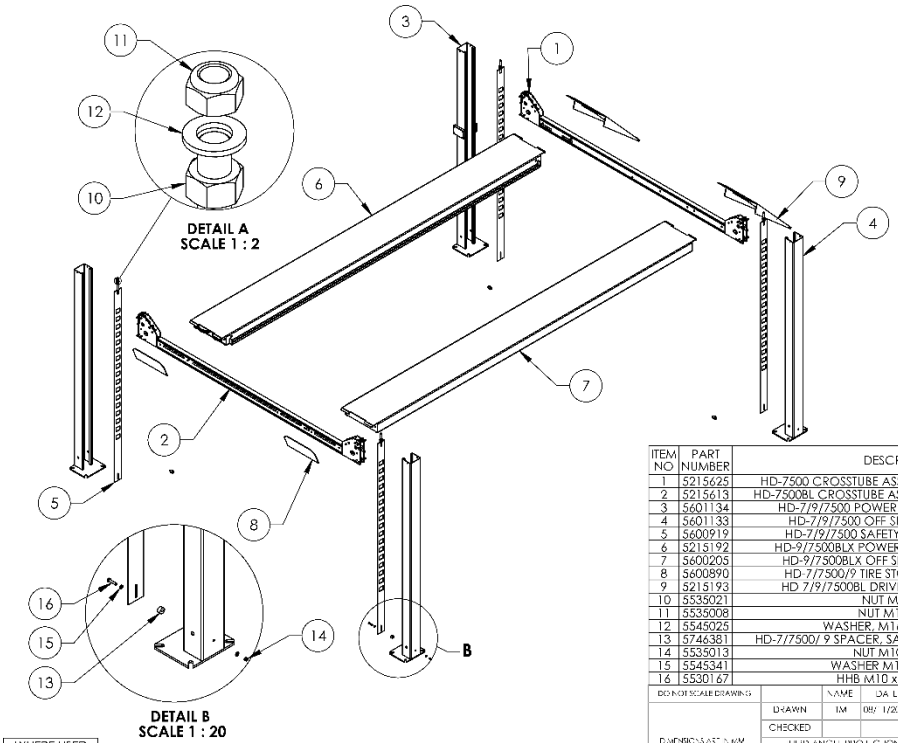


BendPak
1645 LEMONWOOD DR. SANTA PAULA, CA 93060
TITLE: HD-7500BLX PRODUCTION LIFT VER D (CE CERT)
SIZE A | DWG. NO. 5260531 | REV AC
SCALE: 1:50 | SHEET 2 OF 3



BendPak		
1645 LEMONWOOD DR. SANTA PAULA, CA 93060		
TITLE: HD-7500BLX PRODUCTION LIFT VER D (CE CERT)		
SIZE A	DWG. NO. 5260531	REV AC
SCALE: 1:55		SHEET 3 OF 3

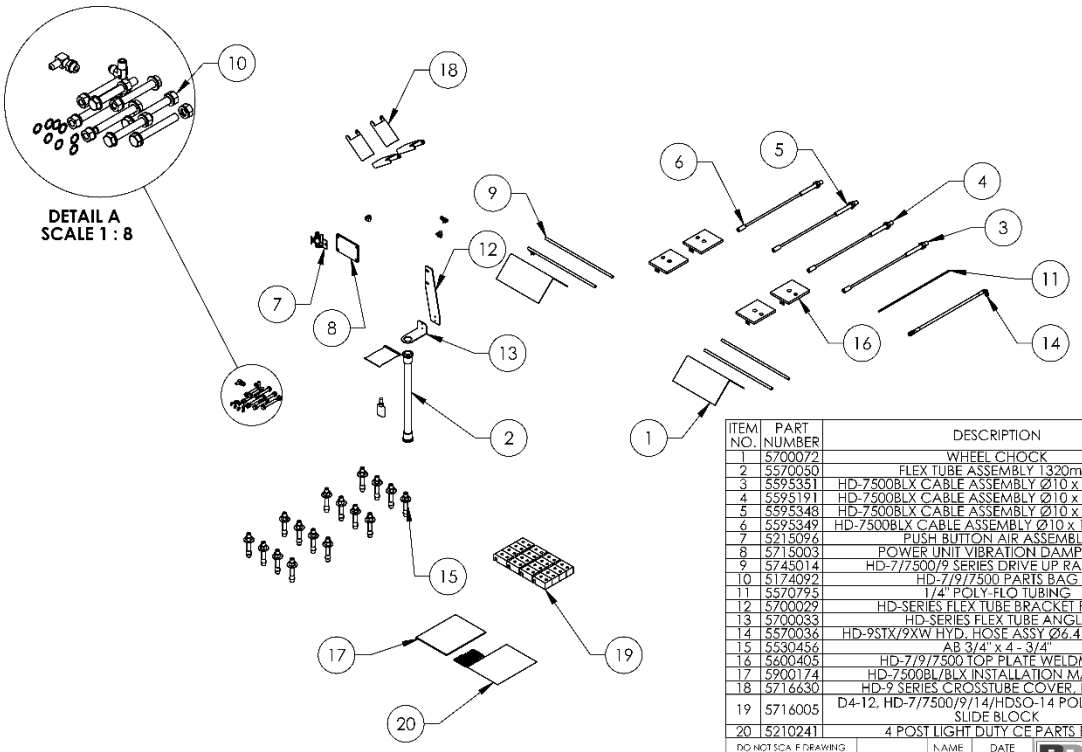
1. DIMENSIONS SHOWN ARE WITH THE LOCK LADDERS ADJUSTED ALL THE WAY UP



WHERE USED
HD-7500BLX

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5215625	HD-7500 CROSSTUBE ASSEMBLY, SMALL WINDOW	1	T
2	5215613	HD-7500BL CROSSTUBE ASSEMBLY, LARGE WINDOW	1	T
3	5601134	HD-7/9/7500 POWER SIDE POST WELDMENT	1	B
4	5601133	HD-7/9/7500 OFF SIDE POST WELDMENT	3	B
5	5600919	HD-7/9/7500 SAFETY LADDER WELDMENT	4	C
6	5215192	HD-9/7500BLX POWER SIDE RAMP ASSEMBLY	1	AD
7	5600205	HD-9/7500BLX OFF SIDE RAMP WELDMENT	1	K
8	5600890	HD-7/7500/9 TIRE STOP PLATE WELDMENT	2	F
9	5215193	HD 7/9/7500BL DRIVE UP RAMP ASSEMBLY	2	G
10	5535021	NUT M16 x 2.0	4	
11	5535008	NUT M16 x 2 NL	4	-
12	5545025	WASHER, M16 x 30mm FLAT	4	-
13	5746381	HD-7/7500/ 9 SPACER, SAFETY LADDER, 17.5mm LG	4	B
14	5535013	NUT M10 x 1.5 NL	4	-
15	5545341	WASHER M10 x Ø20 FLAT	8	-
16	5530167	HHB M10 x 1.5 x 45mm	4	-

DO NOT SCALE DRAWING		NAME	DATE	BendPak
DIMENSIONS ARE IN MM	DRAWN	IM	08/ 1/2014	1645 LEMONWOOD DR. SANTA PAULA, CA 93060
	CHECKED			TITLE: HD-7500BLX LIFT SUPERSTRUCTURE
	THIRD ANGLE PROJECTION			SIZE A — DWG. NO. 5245393 — REV V
PROPRIETARY AND CONFIDENTIAL				SCALE: 1:45 — SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REV
1	5700072	WHEEL CHOCK	2	B
2	5570050	FLEX TUBE ASSEMBLY 1320mm	1	B
3	5595351	HD-7500BLX CABLE ASSEMBLY Ø10 x 3228mm ST	1	D
4	5595191	HD-7500BLX CABLE ASSEMBLY Ø10 x 5471mm ST	1	E
5	5595348	HD-7500BLX CABLE ASSEMBLY Ø10 x 7960mm ST	1	E
6	5595349	HD-7500BLX CABLE ASSEMBLY Ø10 x 10220mm ST	1	E
7	5215096	PUSH BUTTON AIR ASSEMBLY	1	G
8	5715003	POWER UNIT VIBRATION DAMPENER	1	B
9	5745014	HD-7/7500/9 SERIES DRIVE UP RAMP PIN	4	B
10	5174092	HD-7/9/7500 PARTS BAG	1	G
11	5570795	1/4" POLY-FLO TUBING	17000*mm	-
12	5700029	HD-SERIES FLEX TUBE BRACKET PLATE	1	F
13	5700033	HD-SERIES FLEX TUBE ANGLE	1	E
14	5570036	HD-9STX/9XW HYD. HOSE ASSY Ø6.4 x 3683mm	1	E
15	5530456	AB 3/4" x 4 - 3/4"	16	-
16	5600405	HD-7/9/7500 TOP PLATE WELDMENT	4	C
17	5900174	HD-7500BL/BLX INSTALLATION MANUAL	1	-
18	5716630	HD-9 SERIES CROSSTUBE COVER, PLASTIC	4	A
19	5716005	D4-12, HD-7/7500/9/14/HDSO-14 POLYETHYLENE SLIDE BLOCK	16	M
20	5210241	4 POST LIGHT DUTY CE PARTS BAG	1	A

DO NOT SCALE DRAWING		NAME	DATE	BendPak
	DRAWN	TM	05/09/2013	1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM	CHECKED	OR	07/21/2021	
	THIRD ANGLE PROJECTION			TITLE: HD-7500BLX PARTS BOX
				SIZE A — DWG. NO. 5250187 — REV K
				SCALE: 1:25 — SHEET 1 OF 1

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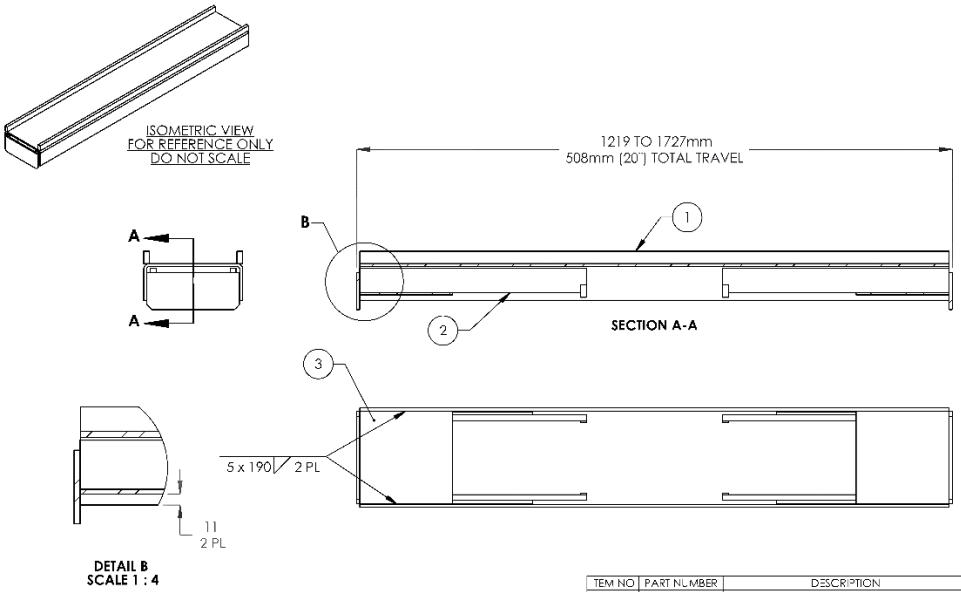

ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5600732	TC-3000 PLATFORM WELDMENT	1	B
2	5600733	TC-3000 EXTENSION ARM	2	B
3	5735308	JP-6/TC-3000 SLIDE ARM GUIDE PLATE	2	B

DO NOT SCALE DRAWING		NAME	DATE	BendPak
	DRAWN	M	02/19/2013	1645 LEMONWOOD DR. SANTA PAULA, CA 93060
DIMENSIONS ARE IN MM	CHECKED	CA	06/18/2019	
	THIRD ANGLE PROJECTION			TITLE: TC-3000 ASSEMBLY
				SIZE A — DWG. NO. 5175801 — REV C
				SCALE: 1:8 — SHEET 1 OF 1

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Maintenance Log

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Santa Paula, CA, 93060 USA

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