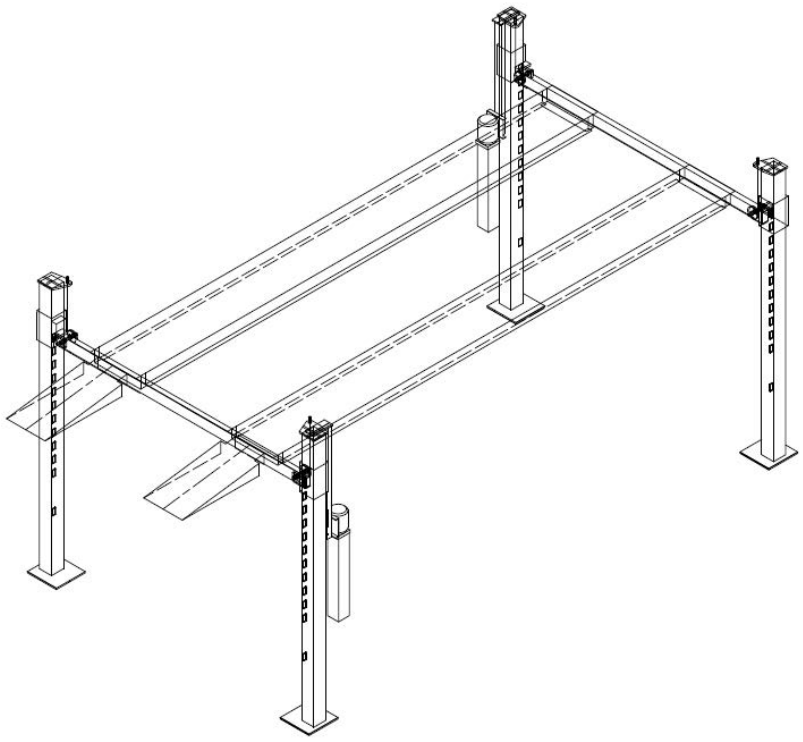
OPERATION, AND INSTRUCTION MANUAL

STANDARD
AUTO LIFT & EQUIPMENT INC



DO NOT operate or repair this equipment without reading this manual and the safety instructions shown inside. Failure to understand how to safely operate this equipment could result in and accident causing serious injury or death

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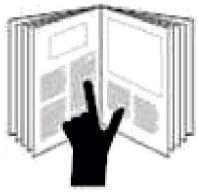


⚠ DANGER

A person who has not read and does not understand all operating instructions is not qualified to operate this equipment.

Failure to read and understand safety instructions may result in injury or death.

Safety is a critical factor in the design of Standard Lift & Equipment products. The best program starts with a safety-conscious operator. The information highlighted in this bulletin describes operating practices for the benefit of the workers who will use our equipment in their daily jobs. Comments from users are appreciated.

SAFETY ALERT SYMBOL

The symbol above is used to call your attention to instructions concerning your personal safety. Watch for this symbol. It points out important safety precautions. It means **"ATTENTION! Become alert! Your personal safety is involved!"** Read the message that follows and be alert to the possibility of personal injury or death.

⚠ DANGER
Immediate hazards which, if not avoided, WILL result in severe personal injury or death

⚠ WARNING
Hazards or unsafe practices which, if not avoided, COULD result in severe personal injury or death.

⚠ CAUTION
Hazards or unsafe practices which, if not avoided, COULD result in minor personal injury or property damage

PRODUCT SPECIFICATIONS

Specifications:

Model	STDGA-9000ST	STDGA-9000XLT
Max Lifting Capacity	9,000lbs	9,000lbs
Overall Height of Corner Posts	93"	105"
Max Height to Top of Track on Lock	75-1/2"	86-1/2"
Max Clearance Under Deck on Lock	71"	82"
Size of Column	5" × 5" x 1/4"Tube	5" × 5" x 1/4"
Cross Arm	2" x 4" x 1/4"	2" x 4" x 1/4"
Base Plate	12" x 12" x 5/8"	12" × 12" x 5/8"
Track Length	170"	192"
Track Thickness(US Style)	4-1/2" (3/16" Dia. Steel)	4-1/2" (3/16" Dia. Steel)
Track Width	19-1/2"	19-1/2"
Floor Space Footprint	L 182" × W 113"	L 203" × W 119"
Overall Width Outside Post	108"	114"
Overall Length / with 36" App. Ramps	182" / 213"	203" / 236"
Outside Width Track to Track	76-1/2"	76-1/2"
Width Between Tracks / Rails	37-1/2" / 34-3/4"	37-1/2" / 34-3/4"
Between the Post Width	98"	104"
Power Electric/Hydraulic	120 Volt 30 Amp	120 Volt 30 Amp
Shipping Weight	1880 lbs.	2250 lbs.

IMPORTANT SAFETY INSTRUCTIONS

Read and understand all safety and operating procedures before operating the lift

Never allow unauthorized persons to operate the lift. Thoroughly train all users on the use and care of the lift.

Always lock the lift before going under the vehicle. Never allow anyone to go under the lift when raising or lowering.

Do not exceed listed capacity of the lift.

Never block or override the self-closing lift controls.

Always Keep lift area free of obstructions, grease, oil, trash and other debris.

Prior to lifting or lowering vehicle, walk around the lift and check for any objects that might interfere with the operation of lift and safety latches; tolls, air hoses, shop equipment, etc.

Keep hands and feet clear. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.

Do not remove safety components from the lift. Discontinue use if safety components are damaged or missing.

Guard against electrical shock. This lift must be grounded while in use to protect the operator from electric shock.

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

Pay attention to the lowering speed of all four corners. Stop lowering the lift if any corner stops moving or is slower in descent.

Follow lubrication and maintenance guidelines in this manual. Keep lift and all controls clean and free of grease, dirt and debris.

DANGER! The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.

Introduction

Thank you for your purchase of a Standard Auto Lift & Equipment STDGA-9000 series lift. This manual will give you information on how to unpack, assemble, operate, and maintain your lift. Read this manual carefully and if you have any questions, feel free to contact our service department at 888-839-8899.

Installation

⚠ DANGER

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

TOOLS RECOMMENDED FOR ASSEMBLY

- Rotary Hammer Drill or Similar (If Anchoring)
- ¾" Masonry Bit (If Anchoring)
- Hammer
- 4 Foot Level
- Open-End Wrench Set Metric
- Socket And Ratchet Set Metric
- Hex-Key / Allen Wrench Set
- Locking Pliers
- Air Compressor or Come-Along
- Medium Crescent Wrench
- Medium Pipe Wrench
- Pry Bar
- Chalk Line
- Medium Flat Screwdriver
- 25' Tape Measure
- Needle Nose Pliers
- Teflon Tape
- Tin Snips
- Safety Glasses/Goggles

Site Selection

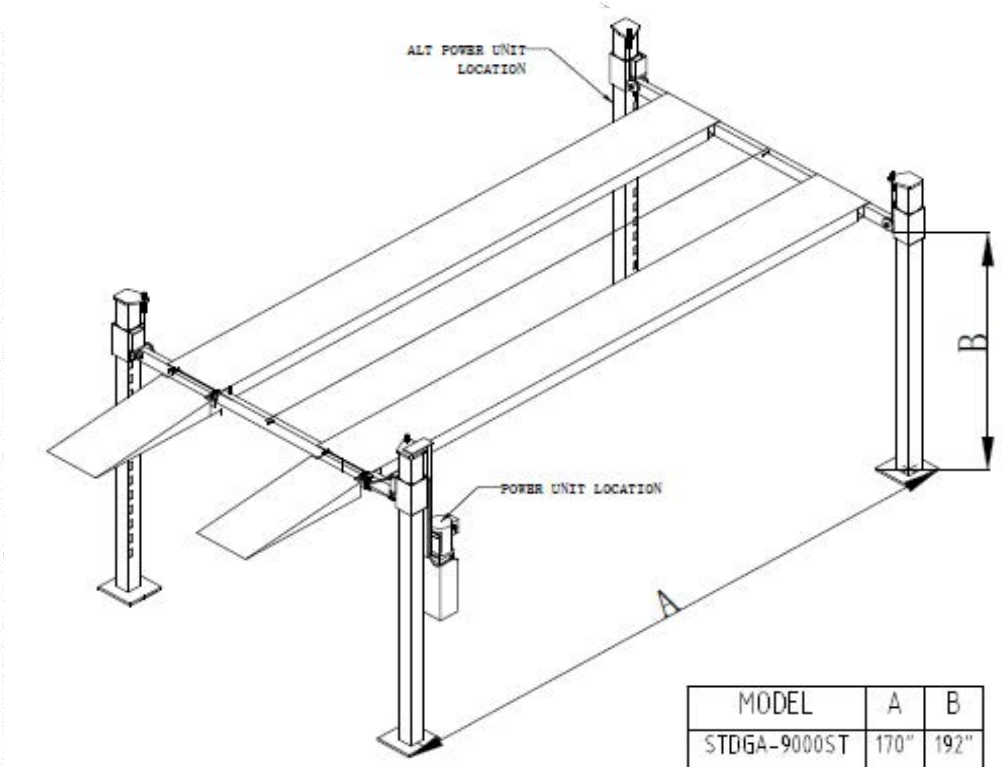
⚠ WARNING

- Do not install this lift on asphalt or any surface other than concrete.
- Do not install this lift on an elevated floor without first consulting an architect.
- Do not install this lift on expansion seams or on cracked or defective concrete.
- Do not install this lift outdoors unless special consideration has been made to protect the power unit from weather conditions.

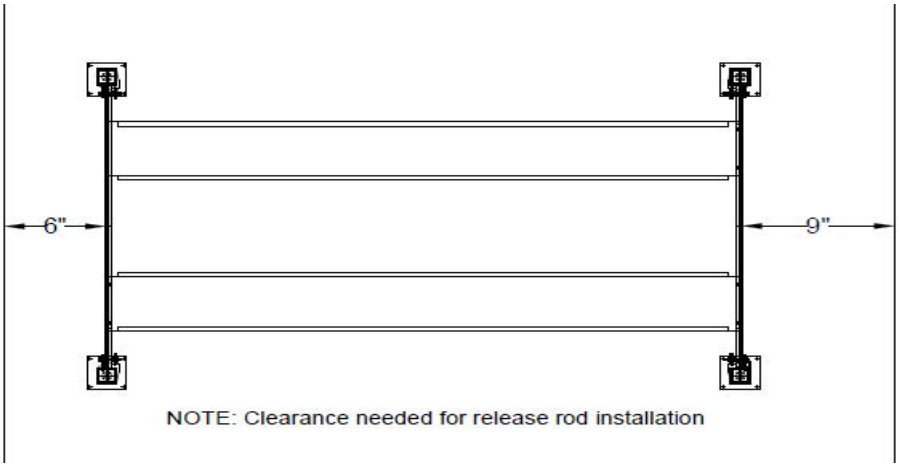
⚠ DANGER

This lift must be installed on a level concrete floor with no more than 3 degrees of slope.

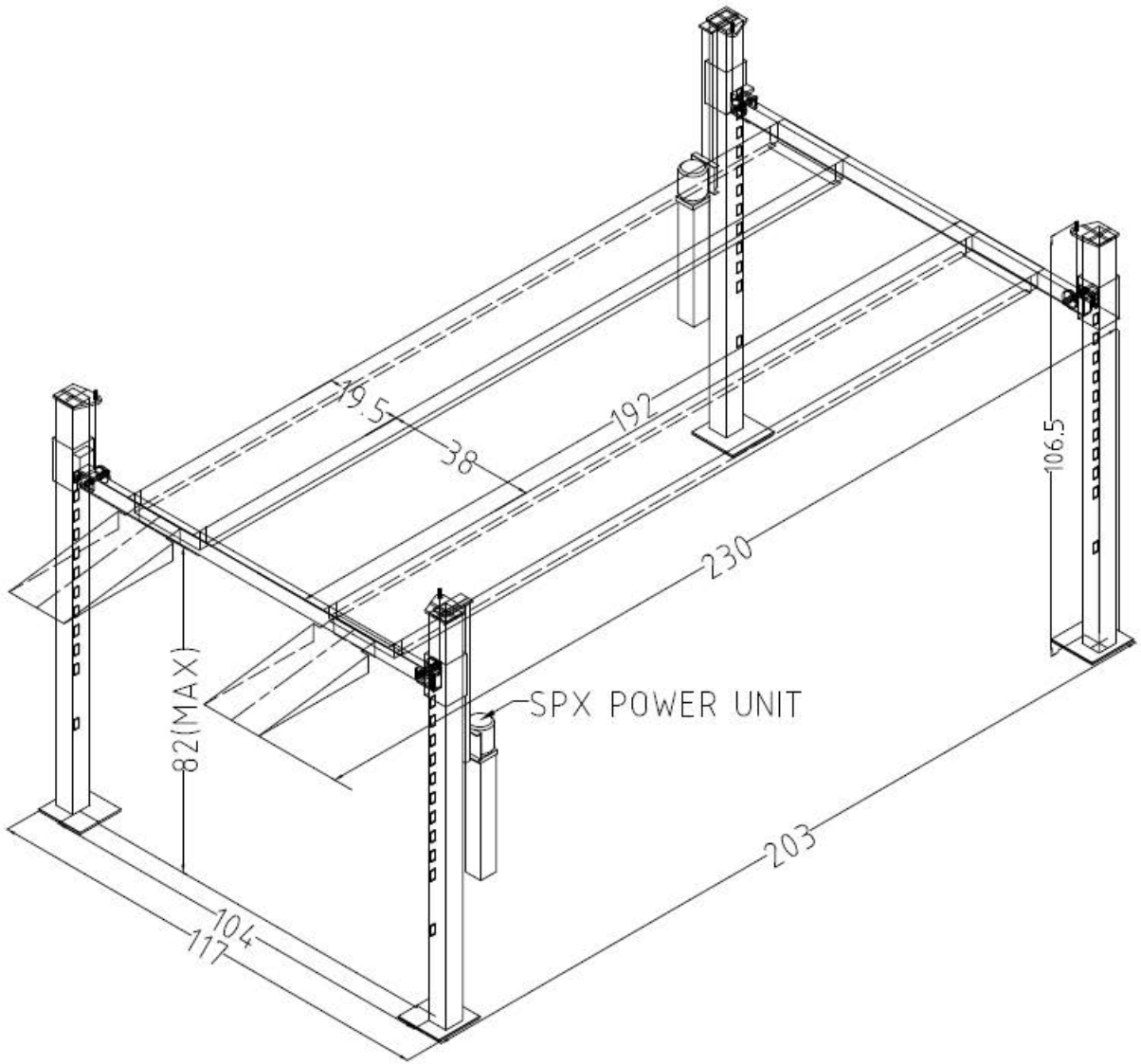
1. The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines, etc.
2. Make sure you have the proper clearances, refer to fig. 1 and fig. 2 before selecting your installation site.



MODEL	A	B
STDGA-9000ST	170"	192"
STDGA-9000XLT	71"	82"



3. Make a chalk line layout of the lift following the dimensions listed (see fig. 1).
IMPORTANT NOTE: Follow clearance requirements listed (see fig. 2)


19.5
38
192
106.5
230
SPX POWER UNIT
82(MAX)
203
104
117

Lift Package			
Item	Quantity	Item	Quantity
Powerside Runway	1	Cable A	1
Offside Runway	1	Cable B	1
Approach Ramp	2	Cable C	1
Left Hand Column	2	Cable D	1
Right Hand Column	2	1/4" x 85" Hose (96" for XLT)	2
Cap	4	5/16"-18 x 1-1/4" Bolt	4
Cross Tube Assembly	2	3/8"-16 x 1-1/4" Bolt	3
Post Top Plate	2	3/8"-16 x 1" Bolt	16
Front Stop Plate	2	1/2"-13 x 3-3/4" Bolt	4
Rear Stop Plate	2	1/2"-13 x 4" Bolt	4
Drive Tie Plate	1	1/2"-13 Hex Nut	8
Bent Safety Handle	1	1/2" Washer	8
Long Safety Bar	1	1/4"-20 x 1/2" Bolt	8
Power unit	1	5/16" Washer	8
Power Unit Handle	1	Collar Angle	8
Caster Kit	4	Cylinder Block Support	2

Unpacking the Lift

⚠ WARNING

Lift compinents weight up to 500lbs. Be sure you have enought help and/ or proper equipment before starting installation. Always use safe lifting practices.

1 Upon receipt of the lift check for any signs of damage or missing parts. Make any notations of damage or missing parts on the bill of leading and contact the freight carrier immediately. All claims for fregiht damage are the responsibility of the lift owner. Refer to installation diagram if necessary.

2 Place lift package as close to installation site as possible'

3 Remove all packing materials from the outside of the lift. DO NOT un-bolt runways from shipping crate at this time.

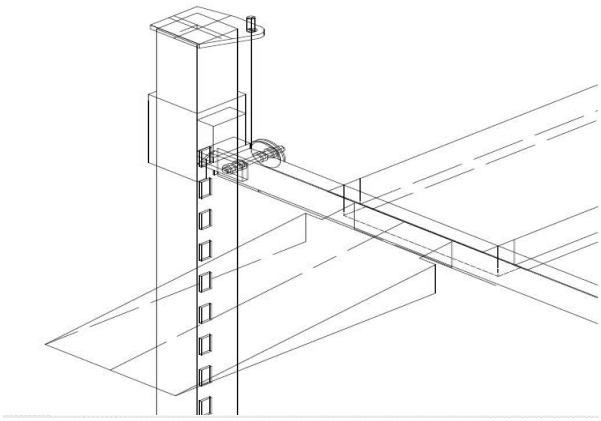
⚠ CAUTION

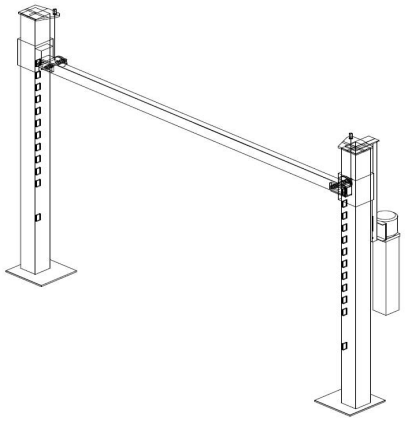
Be careful when cutting steel bands, packaged items may become losse and fall.

4 Remove both cardboard boxes from lift package. Set aside for later use.

5 Remove steel ramps, column top caps, ramp clips and cross tube assemblies. Set aside fro later use.

6 Remove clolumns from lift package and stand in place making sure to position the power unit column in the correct location (see fig. 1) and latch blocks facing outward (see fig. 3).





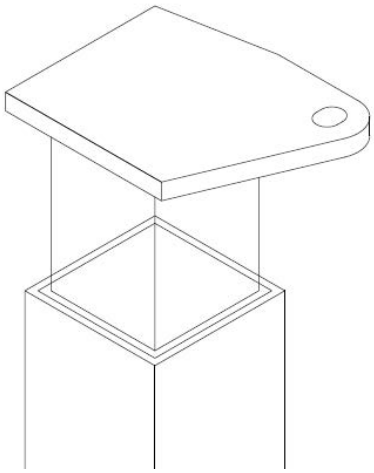
Cross Tube Installation

NOTE: For the remainder of the installation instruction, all installation reference will be made with power unit column located at **DRIVER-SIDE FRONT.**

1. Before continuing verify you have proper clearance to install release rod (see fig. 2)
2. Prepare the cross tubes for installation, remove nuts and bolts connecting the long latch linkage to the short latch linkage (save nuts and bolts for later use).
3. Position the front cross tube on the in front of the front side columns, the short latch linkage should be on the driver-side front.
4. With the lock latches facing outward and the pulleys facing inward, raise the front cross tube and slide into the columns. Manually open the locak latches and slide the cross tube down until it rests on the lowest safely lock position (see fig. 4).
5. Repeat this process fro the rear columns.

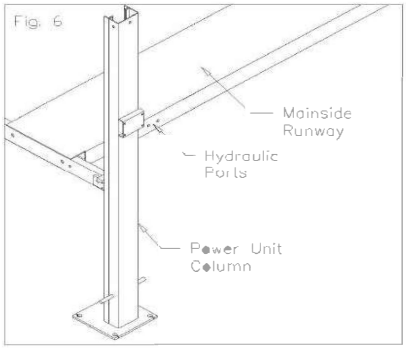
⚠ CAUTION
Be careful not to disturb the column and cross tube assembly at this time. They could tip over causing personal injury or property damage.

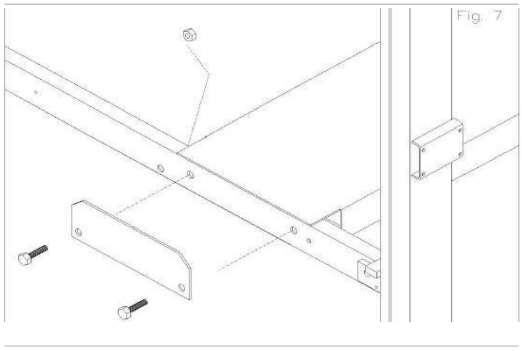
6. Install Post Top Caps on all four columns



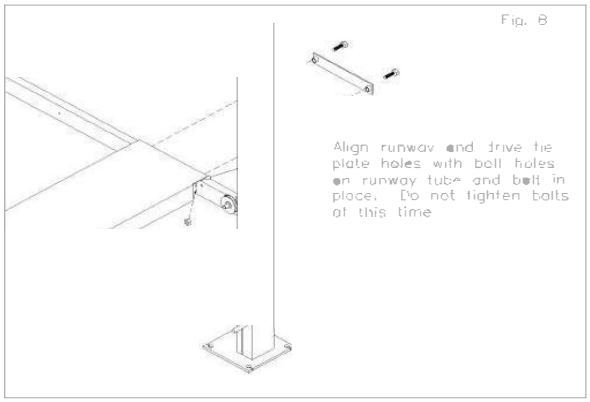
Runway Installation

1 Un-bolt the mainside track (track with the hydraulic cylinder) from the shipping crate. This runway will be located on the power unit side of the lift.
2 Position the runway end with hydraulic ports near the power unit column (see fig. 6).



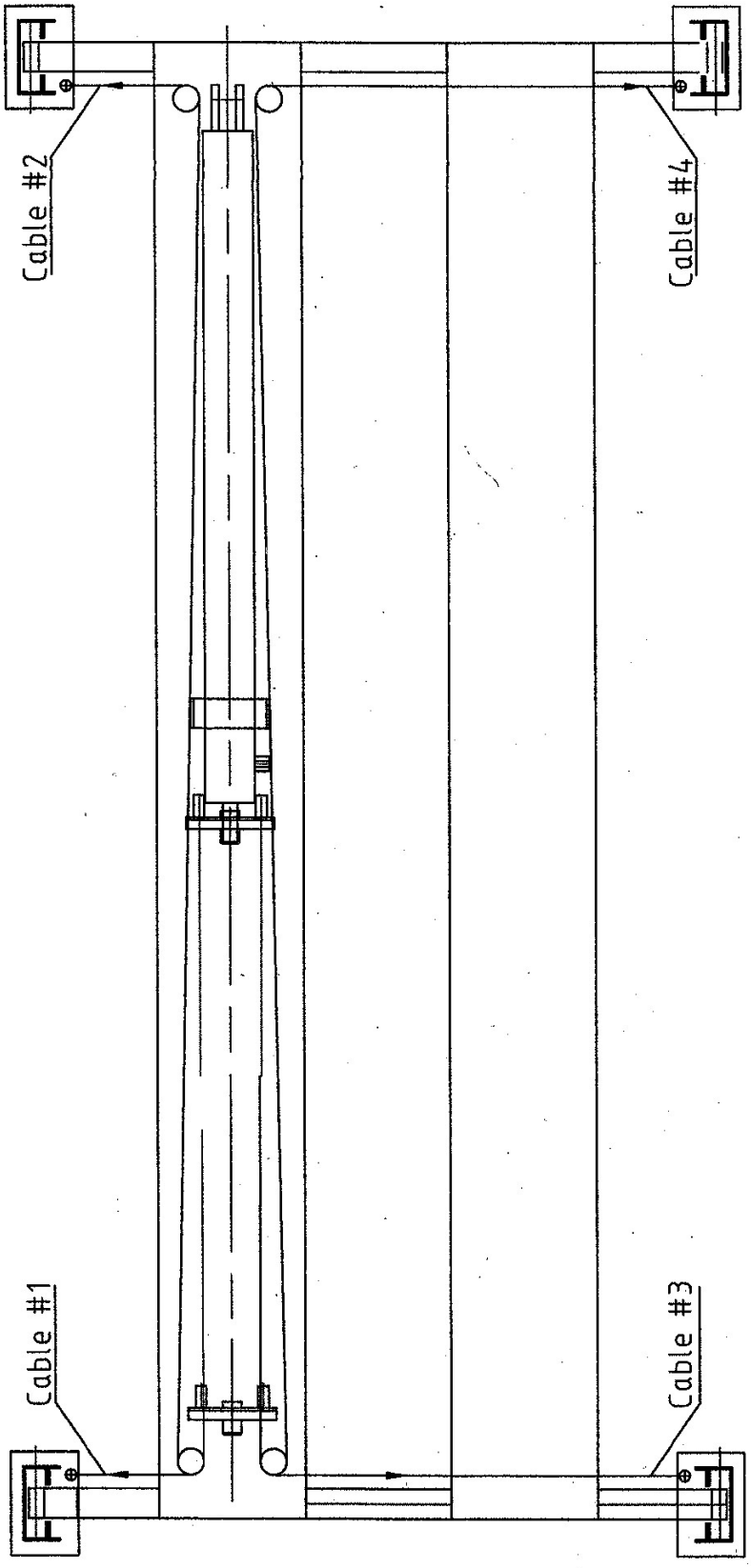


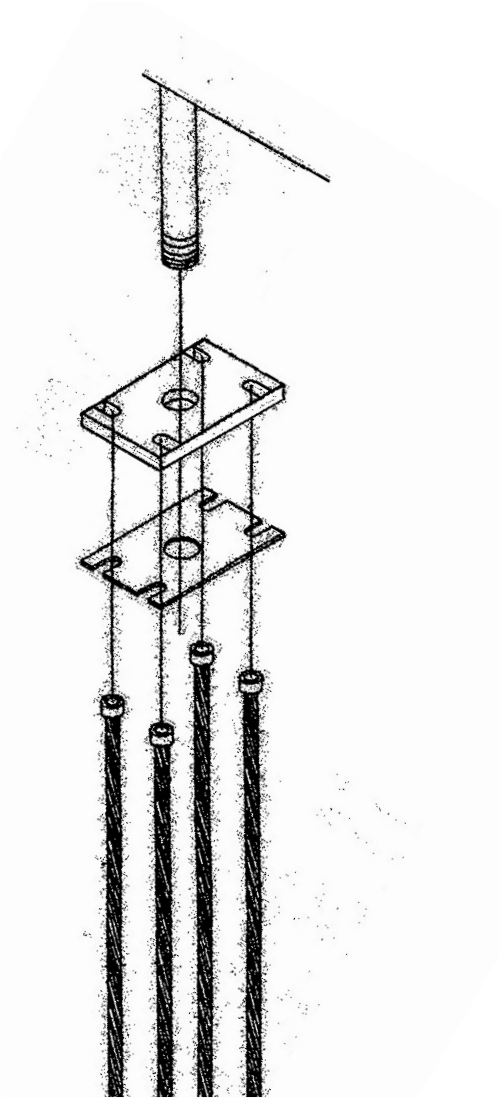
3 Place the front end of the mainside track on the front cross tube. Line up the mounting holes on the runway with the mouting holes on the cross tube.
4 Using 1 front stop plate and 2-1/2"-13 x 3-3/4" bolts with nuts and washers, bolt runway to cross tube, be sure to pass bolts throught the front tire stops. Do not tighten bolts at this time (see fig. 7).
5 Align the rear end of the mainside track on the rear cross tube. Line up the mounting holes on the runway with the mounting holes on the tube.
6 Using 1 drive tie plate and 2-1/2"-13 x 4" bolts with nuts and washers, bolt runway to cross tube, be sure to pass bolts through the front tire stops. Do not tighten bolts at this time (see fig. 8).



7 Place the offside runway on the cross tubes. Repeat steps 3-6 for the offside runway. Do not tighten bolts until lift instiallation is complete.

Cable Installation


Cable #2
Cable #4
Cable #1
Cable #3

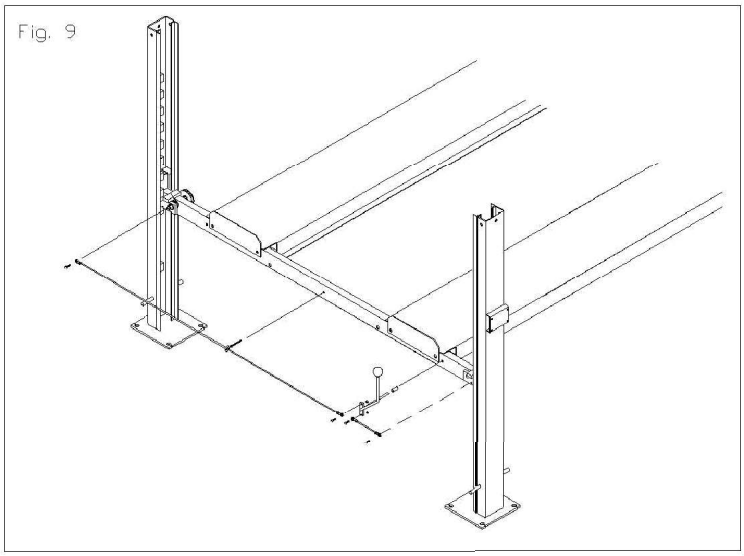


1. Layout all cables, remove cable nuts and measure from end to determine cable location.
2. Remove the cable block support nut and jamb nut from the cylinder.
3. Install the cable block support on the hydraulic cylinder using the cable block support nut and the jamb nut.
4. Extend cylinder rod by using compressed air or a come-along. Install fittings to adapt your supply of compressed air to 3/8" NPT (these fittings are not included with your lift). Attach the fitting to the back end of the cylinder (end opposite the chrome cylinder rod). When using this method, do not apply air suddenly to the cylinder – gradually increase the air pressure or the rod will extend too quickly. If no compressed air is available us a come-along to extend the cylinder by attaching to the cable block support.
5. Start with Cable A (the shortest cable). Begin at the pulley on the cross tube and feed the short threaded end of the cable towards the cylinder. Follow the cable routing diagram. Insert the short threaded end of the cable into the appropriate hole on the cable block support. Tighten cable nut and washer on the short threaded end of the cable.
6. Run the long threaded end of the cable through the hole in the top cap and secure with cable adjustment nut and washer. Hand tighten only, final adjustments will be made later.
7. Repeat steps 5 and 6 for other 3 cables.

IMPORTANT: Follow cable routing diagram and make sure cables are in their correct pulleys.

Safety Latch Linkage Installation

1. Install the bent safety latch linkage rod into the mainside track adjacent to the back end of the cylinder (opposite the cylinder rod). The safety latch linkage rod should pass through guide tubes on the underside of track.
2. Install the straight safety latch linkage rod into the mainside track from the opposite end. The rod should pass through the guides on the underside of the mainside track.
3. Underneath the lift thread a jamb nut approximately 2" onto the end of the bent safety latch linkage rod. Then, thread the rod coupler approximately ¾" onto the bent rod.



4. Thread a jamb nut onto the long safety bar. Then, thread the long safety bar into the rod coupler. This can be started by hand from underneath the lift, and adjusted and tightened from the flange end using a 1" open end wrench.
5. At the front of the lift, secure the end of the short linkage rod to the lower hole in the bent rod flange. Align flange on bent rod to approximately an 11:00 orientation by adjusting rod ends. Secure the end of the long linkage rot to the upper hole in the bent rod flange.

6. Align the flange on the straight safety latch linkage rod to approximately an 11:00 orientation. Have an assistant adjust and tighten the jamb nuts and coupler underneath the mainside track.
7. Secure the end of the short linage rod to the lower hole in the straight safety rod flange. Secure the end of the long linage rod to the upper hole in the straight safety rod flange.

Hydraulic Installation

1. Be sure all electrical wiring is in compliance with local regulations.
2. Using the 4- 5/16"-18 X 1-1/4" bolts and 5/16" nuts, attached the power unit to the power unit mounting block on the column.
3. Remove the plastic dust plug from the port on the side of the power unit and attached the o-ring elbow. Do not over tighten the backing nut and 0-ring will seal the power unit.
4. Attach one end of a 3/8" hydraulic hose on the bulkhead fitting on the side of the runway furthest from the power unit. Attach the other end to the fitting on the power unit. Tighten carefully, do not over tighten.
5. Remove the plug in the power unit next to the fitting you just installed and attach the 3/8" NPT X #4 JIC elbow.
6. Attach one end of a 3/8" hydraulic hose on the bulkhead fitting on the side of the runway closest to the power unit. Attach the other end to the fitting on the power unit. Tighten carefully, do not over tighten.

Final Assembly

1. Fill the power unit holding tank with 16 quarts AW-32 or ISO-32 hydraulic oil. Dexron III Automatic Transmission Fluid can also be used.
2. Tighten all Bolts and verify all lock collars are tight on the cross tubes.
3. Spray the insides of the four columns with a lubricant such as spray silicone.
4. Check all cables make sure they are in their pulleys.
5. Make sure area is free from obstructions before operating lift.

Start Up and Cable Adjustment

1. Connect power unit to electrical power source.
2. Press power switch on the power unit. The lift will start to rise once the hydraulic cylinder fills with fluid. Once the lift raises off the locks release the power switch on the power unit.
3. If lift does not rise check hose connections. Fluid should be pumping htrough hoses. Check fluid level.
4. Pull the safety latch release lever to disengage the safety latches and lower the lift with the lowering lever on the power unit.Lower lift unit lift reaches the bottom, continue to hold the lowering lever until you hear all the air escape.

⚠ DANGER

PAY CAREFUL ATTENTION. When lowering lift **ALWAYS** make sure that all four safety latches are disengaged. If one of the locks inadvertently locks on descent the lift and/or vehicle may disrupt. Stop lowering the lift if any corner stops moving or is slower in descent.

5. Raise the lift until the safety latch closest to the power unit column comes with 1" of the lowest lock position. Look at each column to determine the highest point. Adjust the

cable adjustment nut on the column at the highest point until three threads pass through the nylon lock nut. Now adjust the other three cables to match this height.

6. Run the lift up and down a few times to ensure the locks are engaging uniformly and the safety latches are functioning properly. Re-adjust if necessary.

NOTE: There will be some initial cable stretching. It will be necessary to re-adjust calbes after the first week of use, then every six months thereafter.

7. Install the drive on ramps on the entry side of the lift. Drive a vehicle on the top of the lift then remove the drive on ramps and install the rear stop plates. Run the lift up and down a few times to ensure the locs are engaging unifromly and the safety latches are functioning properly. Re-adjust if necessary.

Operation

⚠ DANGER

Do not use this lift unless you know the proper operation of the lift and its safety devices, and the hazards involoved. See safety instructions on page 4 of this manual.

1. Cmplete the pre-operation checklist

2. Drive the vehicle onto lift platform. Set the vehicle's parking brake and leave the transmission in park/ gear. Check the vehicles wheels, remove the drive on ramps and insert the rear wheel stops.

3. Stand clear- Push the power botton to raise vehicle to desired height. When the desired height is reached, release the power button then push the hydraulic release lever on the power unit and lower tracks until it stops, check all four latches for full engagement in the rack on each leg.

4. To lower- Push the power button to raise- rotate latch release rod and hold - push hydraulic release lever on power unit to lower. **Warning**: Make sure all four latches release - if not **STOP**, raise higher untill latch is clear, if it sitll does not work the high end on that latch needs adjustment.

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

MAINTENANCE SCHEDULE

The following periodic maintenance is the suggested minimum requirement and minimum intervals. If you hear a noise or see any indication of impending failure - ***cease operation immediately*** - inspect, correct and/or replace parts as required. **DO NOT REPLACE ANY PART OF THE LIFT WITHOUT CONSULTING STANDARD AUTO LIFT & EQUIPMENT TECHNICAL SUPPORT.**

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

PRE-OPERATION CHECK

The user should perform daily check. ***ATTENTION! LOOK OUT!*** Daily check of safety latch system is very important - the discovery of device failure before needed could save you from expensive property damage, lost production time, serious peronal injury and even death.

- ☐ Check safety latches for free movement and full engagement with rack.
- ☐ Check hydraulic connections, and hoses for leakge
- ☐ Check cables for damage and that they are in the groove on cable pulley
- ☐ Check lock collars at all rollers and pulleys
- ☐ Check bolts, nuts, and screws and tighten if needed.
- ☐ Check wiring and switches for damage.
- ☐ Keep base plate free of dirt, grease or any other corrosive substances.

WEEKLY MAINTENANCE

- ☐ Check hydraulic connections, and hoses for leakge
- ☐ Check and tighten bolts, nuts and screws if needed.

YEARLY MAINTENCE

- ☐ Lubricate inside column with a light lubricant.
- ☐ Change the hydraulic fluid - good miantenance procedure makes it mandatory to keep hydraulic fluid clean. No hard fast rules can be established; - operating emperature, type of service, contamination levels, filtration, and chemical composition of fluid should be considered. If operating in dusty environment, shorter intervals may be required.

The following items should only be performed by a trained maintenance expert. Consult the Standard Auto Lift & Equipment before performing any of the following tasks.

1. Replace hydraulic hoses.
2. Repace cables and pulleys.
3. Replace or rebuild air and hydraulic cylinders as required.
4. Replace or rebuild pumps/ motors as required.
5. Check hydraulic and air cylinder rod and rod end threads for deformation or damage.
6. Check cylinder mount for looseness and damage.

TROUBLESHOOTING GUIDE

TROUBLE	CAUSE	SOLUTION
Pump/ motor does not start.	Improper electrical hook-up Blown fuse or breaker tripped Pump binding or stuck Motor termal overload tripped	- Rewire - Replace fuse/ reset breaker - Flush unit. replace pump - Let motor cool
Pump/ motor operates but no Pressure	Wrong rotation of motor (Note: Air Bubbles out inlet	- Rewire
Pump/ motor operates low flow and/ or low pressure (in raise mode)	Clogged inlet strainer (cracking noise). Relief valve leaking Dirt on seat	- Clean Strainer in solvent - Tighten relief - Flush seat
Pump/ motor operates low flow and/ or low pressure (in pressure mode)	Release valve leaking Dirt on seat Release stem out of adjustment O-Ring missing or cut Relief valve setting too low	- Tighten release valve - Flush seat - Readjust stem setting - Replace O-Ring - Readjust relief valve
Pump/ motor operates but does not hold system	Fitting/ fittings too loose Check valve leaking Dirt on seat Release stem out of adjustment O-Ring missing or cut Defect in blowhole in motor end head internally	- Tighten or replace fitting - Tighten check valve - Flush seat - Readjust stem setting - Replace O-Ring - Replace motor
Failure to lower	Release valve stem sticking Lift out of adjustment	- Replace or readjust stem and/ or cartridge - Readjust lift
Air in oil	Loose inlet connection Low fluid level Bad seals in pump Siphon check does not seat	- Tighten connections - Add fluid - Replace seals - Replace
Oil blows out the breather/ filter port	Oil overload vehicle has been lowered too fast Seal damage in cylinder	- Remove to 1/2 to 2/3 full - Restrict lowering w/ manually - controlled release valve - Replace cylinder seals
Cylinder will not lift load	Seal damage to piston Oil leaking from front of cylinder	- Replace cylinder seals
Fluid Requirement	AW-32 or ISO32 hydraulic fluid 12 quarts	