

TP11KAC-D

Two Post Clear Floor Auto Lift

11000 **lb** Capacity

ASSEMBLY & OPERATION

INSTRUCTION MANUAL



REV A-070913

**11,000 LB.
Two Post
DIRECT DRIVE
ASYMMETRIC LIFT**



Features:

- ◆ 11,000 lb. lifting capacity
- ◆ Dual cylinder direct pull lifting. No chains or roller bearings to wear out
- ◆ Single piece column. Continuous rolled steel column. No sheet metal
- ◆ Extra long carriage (44") puts less stress on slider blocks
- ◆ Padded cut-off bar. Automatic electric override
- ◆ Two point lock release
- ◆ FREE mounting hardware
- ◆ Stackable truck adapters are standard (1½", 3" and 6")
- ◆ Powder-coated paint finish

SPECIFICATIONS

TP11KAC-D

| | |
|------------------------------|-------------|
| Capacity | 11,000 lbs. |
| Height overall | 144" |
| Width overall (at floor) | 137 ¼" |
| Drive thru clearance | 95 ¾" |
| Lifting height | 71 ½" |
| Lifting height with adapters | 80 ¼" |
| Lowered height (approx.) | 4" |
| Lifting speed | 50 sec. |
| Shipping weight | 1,605 lbs. |

TUXEDO DISTRIBUTORS LIMITED WARRANTY

Structural Warranty:

The following parts and structural components carry a five year warranty:

| | | | |
|---------|---------------|----------------------|------------------|
| Columns | Top Rail Beam | Uprights | Arms Swivel Pins |
| Legs | Carriages | Tracks Overhead Beam | Cross Rails |

Limited One-Year Warranty:

Tuxedo Distributors, LLC ("Tuxedo") offers a limited one-year warranty to the original purchaser of Tuxedo lifts and Wheel Service in the United States and Canada. Tuxedo will replace, without charge, any part found defective in materials or workmanship under normal use, for a period of one year after purchase. The purchaser is responsible for all shipping charges. This warranty does not apply to equipment that has been improperly installed or altered or that has not been operated or maintained according to specifications.

Other Limitations:

This warranty does not cover:

1. Parts needed for normal maintenance
2. Wear parts, including but not limited to cables, slider blocks, chains, rubber pads and pulleys
3. Replacement of lift and tire changer cylinders after the first 30 days. A seal kit and installation instructions will be sent for repairs thereafter.
4. On-site labor

Upon receipt, the customer must visually inspect the equipment for any potential freight damage before signing clear on the shipping receipt. Freight damage is not considered a warranty issue and therefore must be noted for any potential recovery with the shipping company.

The customer is required to notify Tuxedo of any missing parts within 72 hours. Timely notification must be received to be covered under warranty.

Tuxedo will replace any defective part under warranty at no charge as soon as such parts become available from the manufacturer. No guarantee is given as to the immediate availability of replacement parts.

Tuxedo reserves the right to make improvements and/or design changes to its lifts without any obligation to previously sold, assembled or fabricated equipment.

There is no other express warranty on the Tuxedo lifts and this warranty is exclusive of and in lieu of all other warranties, expressed or implied, including all warranties of merchantability and fitness for a particular purpose.

To the fullest extent allowed by law, Tuxedo shall not be liable for loss of use, cost of cover, lost profits, inconvenience, lost time, commercial loss or other incidental or consequential damages.

This Limited Warranty is granted to the original purchaser only and is not transferable or assignable.

Some states do not allow exclusion or limitation of consequential damages or how long an implied warranty lasts, so the above limitations and exclusions may not apply. This warranty gives you specific legal rights and you may have other rights, which may vary from state to state.

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Important Information

1. Read this manual thoroughly before installing, operating, or maintaining this lift.
2. This lift is designed for indoor use only, and should not be installed in a pit or depression.
3. The floor on which the lift is to be installed must be **4" inch minimum thickness concrete, with a minimum compressive strength of 3000 psi, and reinforced with steel bar.**
4. The lifts have specific electrical requirements as described in the Installation Instructions section of this manual.
5. This lift has a minimum ceiling height requirement as described in the Installation Instructions section of this manual.
6. Failure by the owner to provide the **recommended shelter, mounting surface, electrical supply, and ceiling height** could result in unsatisfactory lift performance, property damage, or personal injury.

Section 1

Owner's Manual

Safety Instructions:

1. **Do not** raise a vehicle on the lift until the installation is completed as described in this manual.
2. Anyone who will be in the vicinity of the lift when it is in use are recommended to read the following publications:
 - a. **"INSTALLATION AND OWNERS MANUAL",**
 - b. **"LIFTING IT RIGHT", ALI SM93-1**
 - c. **"AUTOMOTIVE LIFT SAFETY TIPS", ALI-ST90.**
 - d. **"VEHICLE LIFTING POINTS FOR FRAME ENGAGING LIFTS", ALI/LP-GUIDE.**
 - e. **"SAFETY REQUIREMENTS FOR OPERATION, INSPECTION, AND MAINTENANCE", ANSI/ALI ALOIM-1994.**
3. Technicians should be trained to use and care for the lift by familiarizing themselves with the publications listed above. The lift should **never be operated by an untrained person.**
4. Always position the arms and adapters properly out of the way before pulling the vehicle into, or out of the bay. Failure to do so could damage the vehicle and/or the lift.
5. **Do not overload the lift.** The capacity of the lift is shown on cover of this document and on the lift's serial number tag
6. Positioning the vehicle is very important. Only trained technicians should position the vehicle on the lift. **Never allow anyone to stand in the path of the vehicle as it is being positioned and never raise vehicle with passengers inside.**
7. Position the arms to the vehicle manufacturer's recommended pickup points. Raise the lift until contact is made with the vehicle. Make sure that the arms have properly engaged the vehicle before raising the lift to a working height.
8. Keep everyone clear of the lift when the lift is moving, the locking mechanism is disengaged, or the vehicle is in danger of falling.
9. Unauthorized personnel should never be in the shop area when the lift is in use.
10. Inspect the lift daily. **The lift should never be operated if it has damaged components, or is malfunctioning.** Only qualified technicians should service the lift. **Replace damaged components with manufacturer's parts, or equivalent.**

- 11. Keep the area around the lift clear of obstacles.**
- 12. Never override the self-returning lift controls.**
13. Use safety stands when removing or installing heavy vehicle components.
14. Avoid excessive rocking of the vehicle when it is on the lift.
15. To reduce the risk of personal injury, keep hair, loose clothing, fingers, and all body parts away from moving parts.
16. To reduce the risk of electric shock, **do not** use the lift when wet, do not expose the lift to rain.
17. To reduce the risk of fire, **do not** operate equipment in the vicinity of open containers of flammable liquids (gasoline).
18. Use the lift only as described in this manual, **use only manufacturer's recommended attachments.**
19. **Unusual vehicles, such as limousines, RV's, and long wheelbase vehicles, may not be suitable for lifting on this equipment.** If necessary, consult with the manufacturer or the manufacturer's representative.
20. The troubleshooting and maintenance procedures described in this manual can be done by the lift's owner/employer. Any other procedure should only be performed by trained lift service personnel. **These restricted procedures include, but are not limited to, the following: cylinder replacement, carriage and safety latch replacement, leg replacement, overhead structure replacement.**
21. Anyone who will be in the vicinity of the lift when it is in use should familiarize themselves with following Caution, Warning, and Safety related decals supplied with this lift, and replace them if the are illegible or missing.

Monthly Maintenance:

1. Lubricate the four inside corners of the legs **with heavy duty bearing grease.**
2. With lift lowered check the hydraulic fluid level. If necessary add oil as described in the Installation Instruction section of this manual
3. **Check carriage latch synching: Latches should click at the same time.** If necessary adjust equalization cables as described in the Installation Instruction section of this manual.

4. Check tightness of all bolts.
5. Check anchor bolt tightness. **If the anchor bolts are loose, they should be re-torqued to 90ft/lbs.**

Check the nuts for tightness every week for the first month, and every month afterwards.

6. Replace worn or broken parts with lift manufacturer's parts, or their equivalent.

Troubleshooting:

1. The power unit does not run:

- a. Check electrical supply breaker, or fuse.
- b. Check for activation of the travel limit switch by a tall vehicle.
- c. Check micro-switch and connections in motor control box.
- d. Check voltage to the motor.
- e. Check micro-switch and connections in the overhead switch box.

2. The power unit runs but does not raise the lift:

- a. Check the oil level.
- b. Check that the lowering valve is not stuck open.
- c. Check the connections and components on the suction side of the pump.

3. The power unit raises the lift empty, but will not lift a vehicle:

- a. **Make sure the vehicle is not above the rated capacity of the lift.**
- b. Make sure the vehicle is positioned properly.
- c. Clean the lowering valve by running the power unit for **30 seconds** while holding the lowering valve open.
- d. Check the motor voltage.

4. Lift drifts down:

- a. Check for external leaks.
- b. Clean the lowering valve by running the power unit for 30 seconds while holding the lowering valve open. **Repeat this procedure three times.**
- c. Clean the check valve seat.

5. Slow Lifting and/or oil foaming up:

- a. Check that oil used meets the specification in the Installation Instruction section of this

manual.

- b. Tighten all suction line fittings.

6. Anchors continually work loose:

- a. If holes were drilled too large relocate the lift per the Installation Instruction section of this manual.
- b. Floor is not sufficient to provide the necessary resistance, remove an area of concrete and repour as described in the Installation Instruction section of this manual.

7. Lift does not raise and lower smoothly:

- a. Reposition vehicle for a more even weight distribution.
- b. Check the four inside corners of the two legs for roughness. Any rust or burrs must be removed **with 120 grit emery cloth**.
- c. Lubricate the leg corners with heavy duty bearing grease.
- d. Use a level to check the legs for vertical alignment both side to side and front to back. Shim the legs as necessary per the Installation Instruction section of this manual.
- e. Check the oil level.
- f. **Make sure there is no air in the hydraulic lines, bleed system** as described in the Installation Instruction section of this manual.

8. The lift will only lower approximately 1", then stops:

- a. Check that the safety latch pull rods are disengaged.

If after disengagement of the pull rods, one of them moves back up as the lift is lowered, the pull rod is out of adjustment and is rubbing on the leg. Adjusting the rod to clear the leg. Push down on the first bend of the rod just inside the leg. Bend the rod slightly to allow it to move freely between the leg and the carriage.

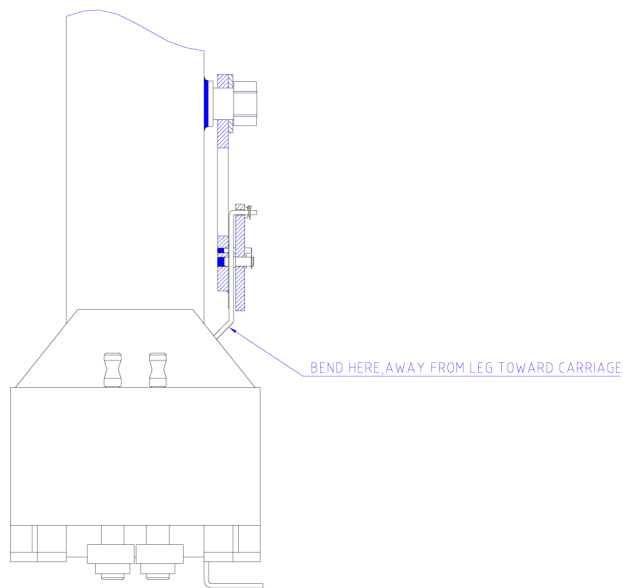


Figure 1

9. At full rise the latch will not disengage and the lift cannot be lowered:

If the equalization cables are out of adjustment the carriages are out of sync, and when the lift is at full rise one of the safety latches may not have the clearance to disengage and allow the lift to lower.

To lower the lift:

Raise the lift 2" so latches can disengage.



Push In both safety latch pull rods to engage latches.



Use a hydraulic jack and a length of pipe to raise the carriage with the lock which is sticking enough to disengage the safety latch. Pull the latch rod on that carriage only.



Remove the jack and pipe.



Pull the latch rod on the other carriage to disengage the latch.



Lower the lift and remove the vehicle.



Readjust the cables as described in the Installation Instruction section of this manual.

10. Power Unit will not stop running:

- a. Switch is damaged, Turn off power to the lift and replace switch.

Section 2

Installation Instruction

Tools requires for installation:

Concrete hammer drill with 3/4" bit
11/16" open end wrench
3/4" open end wrench
Torque wrench
15/16" deep socket or wrench
1-1/8" socket
13/16" open end wrench
Level (18" minimum length)
Vise grips
Tape measure
Funnel
Hoist or Forklift (optional)
Two 12' step ladders
1/4" drive ratchet with 5/16" socket

Procedure:

1. Read this manual thoroughly before installing, operating, or maintaining this lift.

2. Site Evaluation and Lift Location:

- A. Always use an architect's plan when provided. Before unpacking the lift entirely, determine if the site is adequate for the lift model being installed see figures 2 and 3 for typical bay layout and ceiling height requirements.
- B. Snap chalk lines to identify the lift's centerline.
- C. Snap a chalk line parallel to the lift's centerline, **spaced 9"** toward the rear of the bay. This line represents the back edge of the leg bases.
- D. Snap chalk lines parallel to the lift's centerline **spaces 68-1/2 to the left and 68-1/2 to the right**. These lines represent the APPROXIMATE outside edges of the leg bases.

DO NOT USE THESE LINES TO POSITION THE LEGS, FOLLOW THE INSTRUCTIONS IN THIS MANUAL.

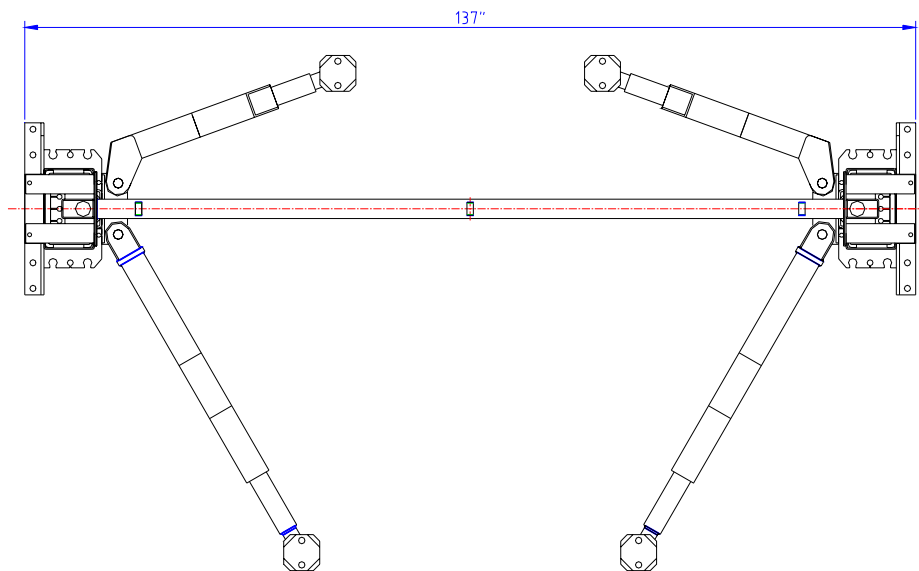
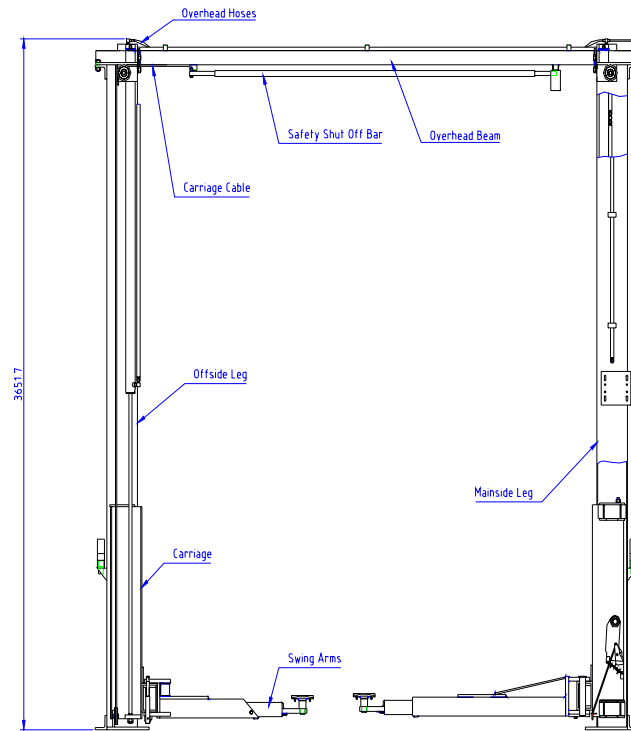


Figure 2



3. Unpack the lift. Remove the swing arms, bolt box, power unit box, and overhead beam.
 - A. Save all packing hardware, as these components are necessary to complete the installation.
 - B. **Remove the 1/2" bolts** from the uprights which hold the two legs together.
 - C. **Remove the top leg. Do not** stand legs up, instead lay the legs flat their backs on the floor.
4. Attach the cylinder mount or uprights. Attach the cylinder mounts or uprights to the legs **using four 1/2" X 1-3/4" bolts, washers and nuts as shown in figure 4.**

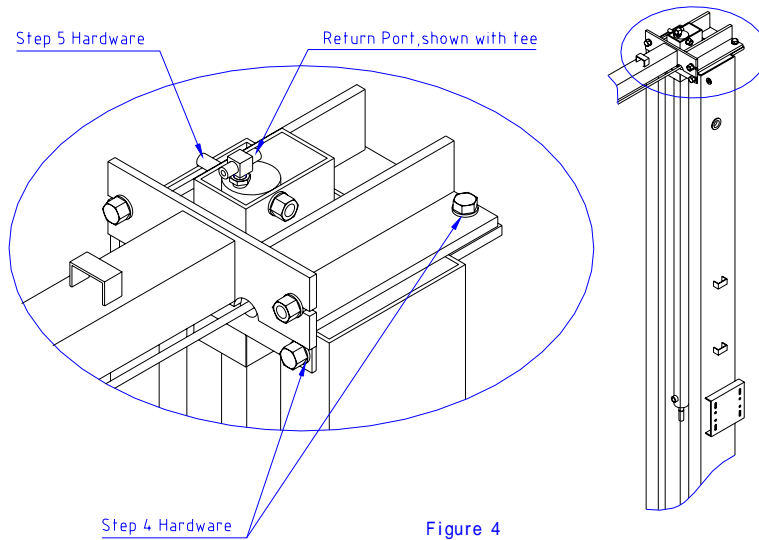


Figure 4

5. Install hydraulic cylinders, fittings, hoses, and cables.

A. Warning: When attaching hydraulic fittings with pipe threads to the cylinders use Teflon tape. **DO NOT start the Teflon tape closer than 1/8"** from the end of the fitting. Failure to comply may cause damage to the Hydraulic system.

B. Warning: When tightening connections with flared (JIC) fittings, always follow the following tightening instructions. Failure to follow these instructions may result in cracked fitting and/or leaks.

Use the proper size wrench.

The nut portion of the fitting is the only part that should turn during tightening. The flare seat **MUST NOT** turn.

Screw the fittings together hand tight.

Use the proper wrench to rotate the nut portion of the fitting 2-1/2 hex flats.

Back the fitting off one full turn.

Again, tighten the fitting hand tight, then rotate the nut portion of the fitting **2-1/2 hex flats**.

C. Connect the hydraulic bushings and **1/4 push-in** return line connectors to the return port of each cylinder.

- a. Standard Height and High Rise Models – The tee should be attached to the mainside cylinder and the elbow on the offside.

- D. Install the cylinders to the uprights or cylinder mounts with **1/2" x 4-1/2" Grade 8 bolts, cylinder bushings (spacers), washers, and nyloc nuts, figure 4**. The port near the rod end of the cylinders should be positioned pointing to the leg's open side. High Rise cylinders must be attached to the alternate hole near the top of the upright.



Figure 5

- E. Connect the shortest hydraulic hose to one of the runs on the JIC tee fitting.
- F. Connect the longest hydraulic hose to the other run on the JIC tee fitting.

- G. Connect the remaining hydraulic hose to the branch on the JIC tee fitting.
- H. Install the rubber grommet into the hole in the mainside leg.
- I. Connect a male pipe thread to male JIC elbow to the port near the rod end of each cylinder.
The fittings should face away from the leg's baseplate.
- J. Connect the free end of the shortest hydraulic hose to the elbow on the cylinder in the mainside leg. This connection should be hand-tight only.
- K. Feed the shortest remaining hose through the rubber grommet, from inside the leg out. Feed this hose down through the hose guide welded to the outside of the leg. This hose will attach to the power unit.
- L. Feed the long hose through the cylinder mount or upright tube along the cylinder and out the end,
- M. Feed one end of an equalization cable down through the rightmost hole in the carriage top, figure 6. Continue to feed the cable until it extends out the bottom of the carriage. Attach a nylon insert locknut and washer to the end of the cable so that 1/8" of cable stud extends past the end of nut. Pull the opposite end of the cable until the washer contacts the carriage top. Repeat for the other cable/carriage.

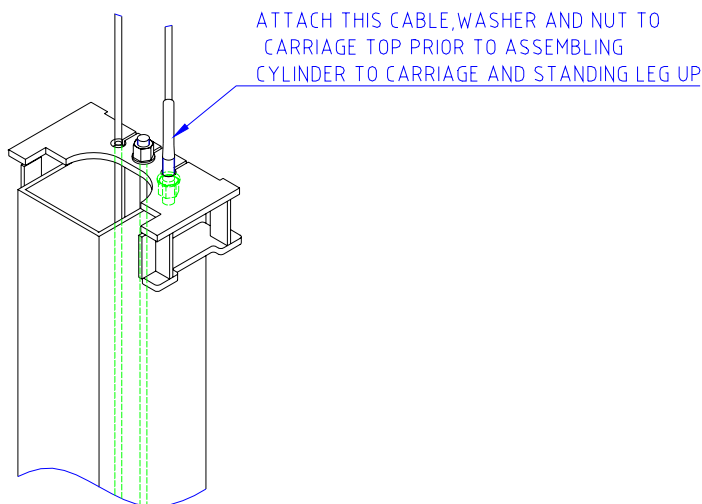


Figure 6

- N. Attach the cylinders to the carriages. **Make sure the snap ring on the cylinder rod is in the groove.** Taking care not to damage the threads on the cylinder rod, pull carriage up to the cylinder and feed the rod through the hole in the carriage plate until the snap ring contacts it. Attach the full nut to the rod and tighten until the cylinder rod turns.

Hold the full nut with a wrench and tighten a jam nut against it. Repeat for the other cylinder.

DO NOT HOLD THE CYLINDER ROD IN A WAY THAT COULD DAMAGE THE FINISH.

CYLINDER LEAKS CAUSED BY DAMAGED RODS ARE NOT COVERED BY WARRANTY.

6. Carriage Placement.

Disengage the latch by pulling out the latch rod at bottom of one carriage, figure 7. Slide the carriage to the leg's baseplate. Engage the latch by pushing the latch rod in, Slide the carriage up until the first "click" is heard. Repeat the process for the other carriage.

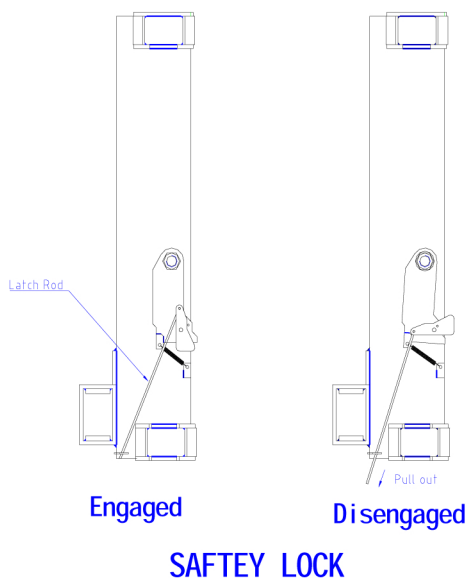


Figure 7

7. Leg positioning and anchoring.

- A. Raise the Mainside leg only and position it where it is to be secured, figure 2.
- B. The anchor bolts must be **installed at least 7" from any edge or seam in the concrete.**
- C. The concrete must be at least **4" thick with a compressive strength of 3,000**

psi.

- D.** Using the leg as a template, drill the anchor bolt holes **for the Mainside leg Only!!**

Use a hammer drill with **a Carbide tip, 3/4" diameter, solid drill bit.** The bit tip diameter should be to **ANSI Standard B95.12-1977. (.775" to .787")**

Keep the drill perpendicular to the floor while drilling.

Let the drill do the work. Do not apply excessive pressure.

Lift the drill up and down to remove dust and reduce binding.

Drill the hole completely through the slab.

Clean the dust from the hole.

- E.** Assemble the washers and nuts onto the anchor bolts. Thread the nuts onto the anchor bolts where the tops of the nuts are just above the top of the bolts, figure 8. Using a hammer, carefully tap the anchor bolts into the concrete until the washer rests against the baseplate. **Do not damage the nuts or threads.**

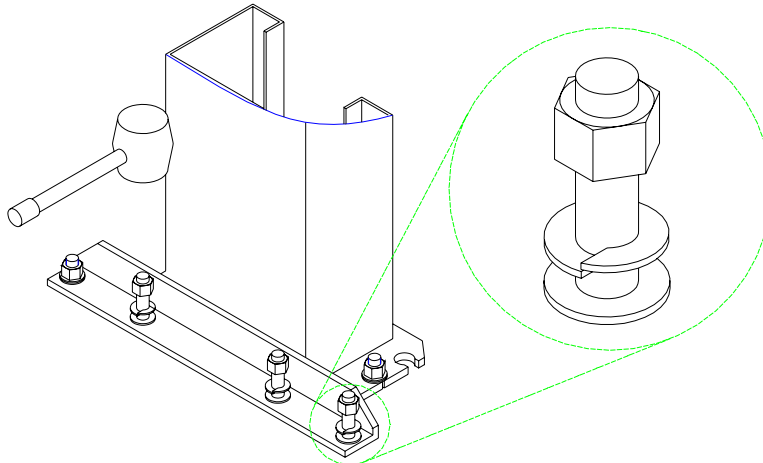


Figure 8

- F.** Using a level, plumb the mainside leg both side to side and front to back. Shim the leg as

necessary next to and on both sides of the anchor bolts, figure 9. If more than **1/2" of shimming** is required, **do not** use the anchors and shims provided with the lift. Use longer anchors and fabricate larger shims from steel flat, **1/4" or 1/2" thick by 2", or more, wide.**

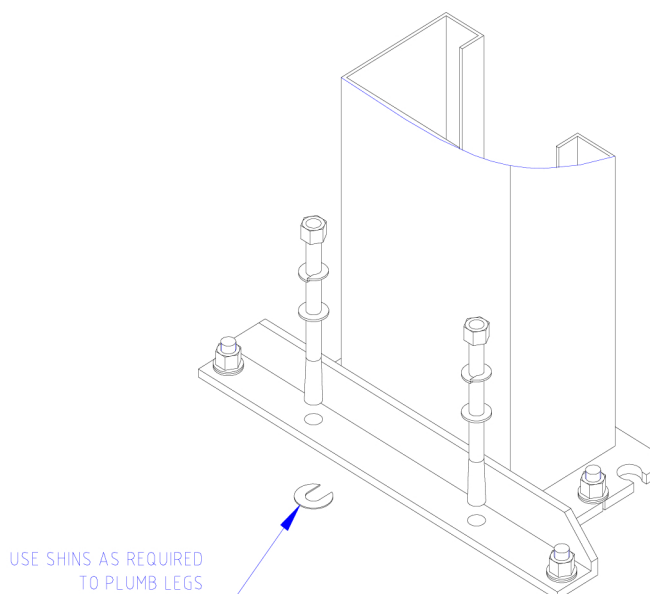


Figure 9

- G. Once the leg is plumb tighten the anchor bolts **to 120 ft-lbs. Do not** use an impact wrench on anchor bolts.
 - a. If after tightening the anchor supplied with the lift extends more than 2-1/4" above the floor the anchor does not have enough embedment.
 - b. If an anchor will not reach 120 ft-lbs or does not have enough embedment or adequate spacing cannot be achieved, **replace the concrete under the leg with a 4' X 4' X 6" thick pad of 3,000 psi concrete** keyed under the existing floor. Let the concrete cure before reinstalling the lift.
- H. Recheck the leg's plumbness after tightening the anchor bolts. Add shims if necessary.
- I. Raise the offside leg and position it where it is to be located, figure 2. **Do not drill holes for anchors.**

8. Overhead assembly

A. Single Phase Instructions, for 3-Phase instruction see 3-Phase kit.

Using (2) 1/4-20 X 1/2 HHCS and (2) 1/4-20 Flange Lock Nuts attach the overhead switch assembly to the overhead beam as shown in figure 10.

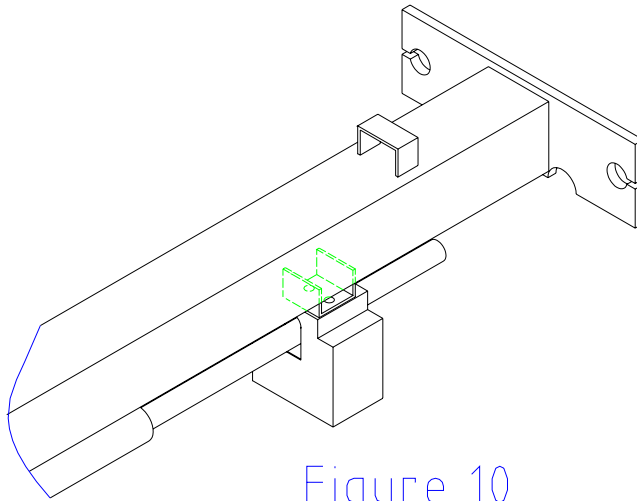


Figure 10

Slide the end of the padded switchbar without a mounting hole in it through the slot in the overhead switch assembly. Connect the padded switchbar to the inside hole in the overhead beam using a cylindrical spacer, **1/4-20 X 1-3/4 HHCS**, and Flange Nut, figure 11.

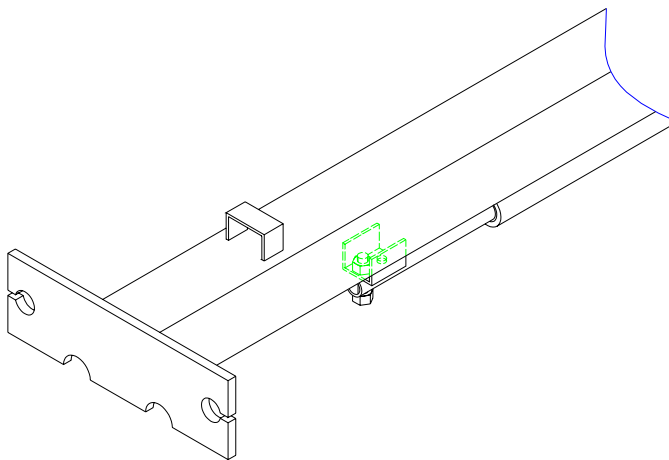


Figure 11

B. Attach the overhead beam to the cylinder mounts or uprights.

Raise the overhead beam and secure it to cylinder mount or upright using two **1/2 x 1-3/4** bolts, washers and nuts on each end, Figure 11.

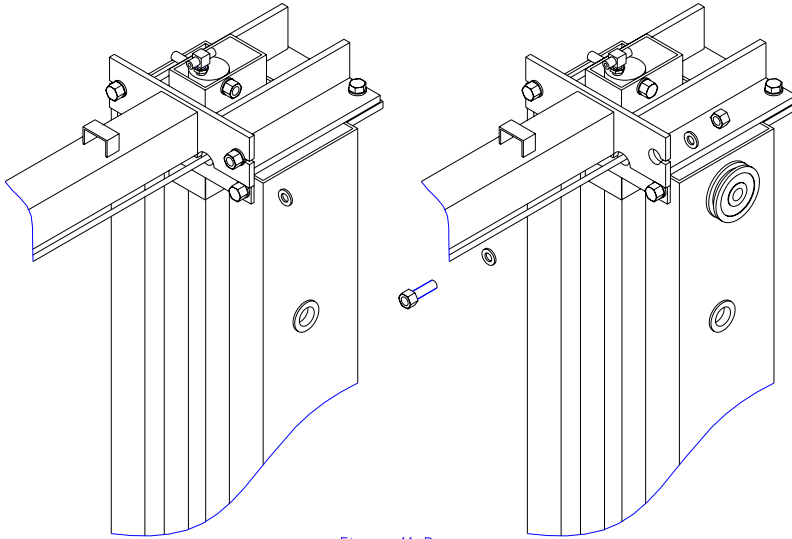


Figure 11-B

9. Anchoring offside leg.

- A. Using a level check the alignment and plumbness of the entire structure. Plumb the offside leg both side to side and front to back.
- B. The base of the leg may vary from the preliminary layout, as it is more important that the leg be perpendicular to the floor and parallel to the other leg.
- C. Install the anchor bolts and shim the base as described in the earlier "Leg positioning and anchoring" step.

10. Routing carriage equalization cables and offside hose, Figure 12.

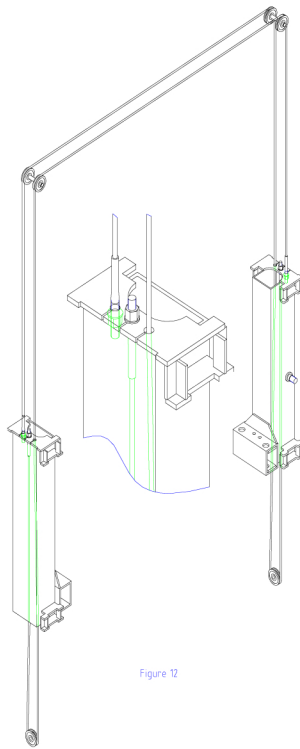


Figure 12

- A. The carriages should be resting on the same safety rack tooth. Measure the height above the baseplate for each carriage. The measurements should be **within 1/8" of each other. Make a note of the two measurements.**
- B. One end of each cable should already be attached to each carriage. Feed the other end of the cable up behind the mainside hose and through the top of the leg as shown Figure 13.

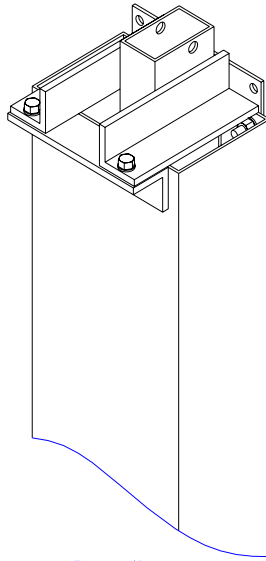


Figure 13

around the sheave on the uprights, (while in the elevated position feed the offside hose through the hose guides welded to the top of the overhead tube and down through the offside upright tube.)

feed cable through the clearance hole in the left hand corner of the carriage top,

around the sheave at the bottom of the leg,

through the hole in the center of the carriage top.

- C. Secure the cable end to the carriage top with a nylon insert nut and washer. **Do not tighten the cable at this time.**
- D. Repeat the process for the other cable, taking care not to cross them.
- E. Take out the slack, **but do not** tighten, in both cables by turning down the nuts on the top of each carriage top. Use vise grips to hold the cable end, but be very careful not to damage the threads.
- F. The carriages must **remain at the same lock position while the cables are being tightened.** Overtightening of one cable could raise the carriage in the opposite leg and cause the carriage safety latches to be out of sync.
- G. Alternately tighten the cable nuts at both carriages until the cables are tightened. Correct tension in the cables is indicated by being able to pull the cables together with

approximately **15 pounds of effort at their midpoint in the leg.**

- H. Measure and compare the carriage heights to the earlier measurement, or check that the safety latch pull rod will not disengage to verify that neither carriage has been raised. If a carriage has been raised **more than 1/8"**, loosen the cables and repeat the procedure.
- I. If the cables are installed correctly, both carriages will raise together. If equipment capable of lifting the carriages is readily available, lift one of them just enough to pull out the safety latch pull rods under both carriages and carefully lower to the ground. This will simplify the cylinder bleeding procedure.

11. Mounting the power unit. Attach four 5/16" x 1-1/4" bolts to the highest two and lowest two holes in the mounting bracket **with 5/16" plain nuts.** Attach the power unit, to these bolts and **secure with 5/16" nylon insert nuts.**

12. Hydraulic system, figure 5.

- A. Install the plastic push-in plug into the small brass elbow on the power unit tank.
- B. The left side of the power unit from the controls has one open port. Attach the o-ring elbow to this port with the open end up.
- C. Attach the hose hanging from the rubber grommet at the top of the leg to the elbow on the power unit.
- D. Attach the hose hanging from the offside upright to the elbow at the bottom of the offside cylinder hand-tight.
- E. To prevent the carriages from rubbing the hose, pull the hoses upward taking out any slack between the cylinder fitting port and the cylinder mount. Secure the hoses to the mainside cylinder with wire tie around the tee and the cylinder, **the tee should be positioned to aim directly out through the grommet, figure 14.** Secure the hose to the offside cylinder at approximately the same height with a wire tie.

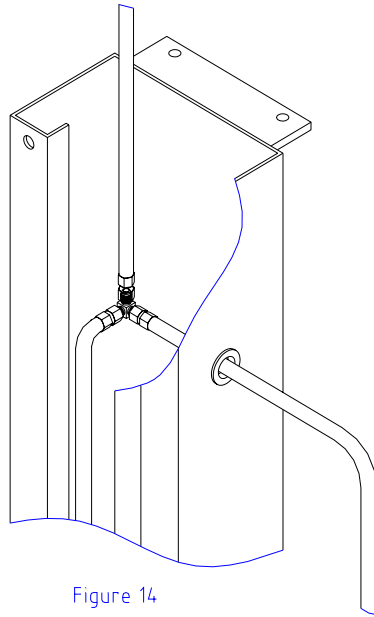


Figure 14

F. Any excess hose should be **taken up in the uprights, or at the corners between the uprights and overhead.**

G. Add fluid. Remove the fill level screw near the top of the power unit tank. Remove the fill-cap from the tank and fill with Dexron III ATF or hydraulic oil that **meets ISO-32**, until fluid reaches the bottom of the screw hole. Replace the fill screw and tank breather.

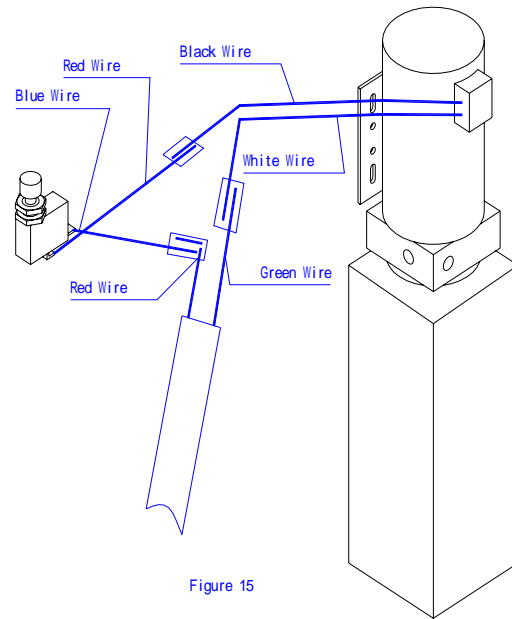
13. Electrical.

A. Single Phase Instructions, for 3-Phase see the 3-Phase kit.

Have a certified electrician establish **208-230V, single phase, 60Hz., 20 amp, power supply to motor and overhead switch, figure 15.**

Use separate circuits for each lift.

Single phase motor cannot be run on 50 Hz. line without modifications in the motor.



14. Bleeding the hydraulic system, figure 4.

- A. Loosen the connections between the hoses and fittings attached to the cylinders. **Do not loosen the connections between the fittings and the cylinders themselves.**
- B. Run the power unit until fluid appears at the mainside cylinder port. Tighten that hose connection.
- C. Run the power unit until fluid appears at the offside cylinder port and there is no more air. Tighten that hose connection.
- D. Lower the lift to the ground. If the lift is on the safety latches, raise the lift enough to disengage the latches and then lower.
- E. If the carriages were on the ground when the bleeding process was begun, **no further bleeding is required.** If not, repeat the previous steps for bleeding the hydraulic system.
- F. Add fluid to the system as previously described.

16. Lubricate the four inside corners of both legs with heavy duty bearing grease.

17. Final Adjustment.

- A.** Attach decals centered horizontally and 28" down from the top of the leg vertically on the most visible side of the lift. **Do not** install the decal directly above the power unit.
- B.** If any problems are encountered, **do not** proceed with subsequent steps. Instead, resolve the problem before proceeding by referencing the troubleshooting portion of the Owner's Manual section of this manual.

- C. Raise the lift to full height. Lower the lift onto the safety latches. Raise the carriages, pull out both latch pull rods, and lower the lift to the ground.
- D. Raise the lift empty to the top of its travel and lower it to the floor three (3) times to remove the remaining air from the hydraulic system.
- E. The latches should click together as the lift is being raised.**
- F. When the carriages are lowered onto the locks, **neither pull rod should be capable of being pulled out.**
- G. The first time a vehicle is placed on the lift, raise it no higher than three feet.** Lower the vehicle onto the safety latches. Raise the lift a few inches and pull out both latch pull rods then lower the vehicle to the floor.
- H. Raise the vehicle to full height and lower the carriages onto the safety latches. Lower the vehicle to the floor.
- I. After cycling the lift **ten times** with a vehicle on it, **recheck the tightness of the anchors to at least 90 ft-lbs.**

Section 3 – Parts Breakdown

| NO | Parts Code | Description | Qty | Remark |
|----|--------------|------------------------------|-----|-------------------------|
| 1 | TP11KACD-001 | OFFSIDE COLUMN | 1 | |
| 2 | TP11KACD-002 | SHORT HEIGHT ADAPTER | 4 | |
| 3 | TP11KACD-003 | MEDIUM HEIGHT ADAPTER | 4 | |
| 4 | TP11KACD-004 | LONG HEIGHT ADAPTER | 4 | |
| 5 | TP11KACD-005 | REAR SWING ARMS | 2 | 1 each for left & right |
| 6 | TP11KACD-006 | JAM NUT | 2 | |
| 7 | TP11KACD-007 | CYLINDER NUT | 2 | |
| 8 | TP11KACD-008 | HYDRAULIC CYLINDER | 2 | |
| 9 | TP11KACD-009 | ELBOW FITTING | 2 | |
| 10 | TP11KACD-010 | M10 x 40 BOLT | 8 | M10*40 |
| 11 | TP11KACD-011 | HALF MOON GEAR | 4 | |
| 12 | TP11KACD-012 | SWING ARMS | 2 | 1 each for left & right |
| 13 | TP11KACD-013 | M6 LOCKNUT | 8 | M6 |
| 14 | TP11KACD-014 | #6 FLAT WASHER | 8 | 6 |
| 15 | TP11KACD-015 | SWIVEL PAD | 4 | |
| 16 | TP11KACD-016 | RUBBER PAD | 4 | |
| 17 | TP11KACD-017 | ELEVATOR BOLT | 8 | |
| 18 | TP11KACD-018 | SWING ARM PIN | 4 | |
| 19 | TP11KACD019 | FRONT SWING ARM SLIDER | 2 | |
| 20 | TP11KACD-020 | E-CLIP | 2 | M14 |
| 21 | TP11KACD-021 | SPACER | 4 | |
| 22 | TP11KACD-022 | ELBOW FITTING (PUSH CONNECT) | 1 | |
| 23 | TP11KACD-023 | M14 NUT | 12 | M14 |
| 24 | TP11KACD-024 | FLAT WASHER #14 | 28 | 14 |
| 25 | TP11KACD-025 | E-CLIP | 10 | 15 |
| 26 | TP11KACD-026 | CABLE SHEAVE SHAFT | 2 | |
| 27 | TP11KACD-027 | CABLE SHEAVE | 6 | |
| 28 | TP11KACD-028 | CYLINDER PIN | 2 | M14*110 |
| 29 | TP11KACD-029 | OVERHEAD | 1 | |
| 30 | TP11KACD-030 | M14 x 45 BOLT | 12 | M14*45 |
| 31 | TP11KACD-031 | M8 x 40 BOLT | 1 | M8*40 |
| 32 | TP11KACD-032 | FLAT WASHER #8 | 14 | 8 |
| 33 | TP11KACD-033 | RETURN LINE | 1 | |
| 34 | TP11KACD-034 | FOAM PADDING | 1 | |
| 35 | TP11KACD-035 | BUSHING | 2 | |
| 36 | TP11KACD-036 | M8 LOCKNUT | 3 | M8 |
| 37 | TP11KACD-037 | SHUT OFF BAR | 1 | |
| 38 | TP11KACD-038 | T-FITTING (PUSH TO CONNECT) | 1 | |
| 39 | TP11KACD-039 | M6 x 10 SCREW | 4 | M6*8 |
| 40 | TP11KACD-040 | OUTER SWITCH HOUSING | 1 | |
| 41 | TP11KACD-041 | OVERHEAD SWITCH | 1 | |
| 42 | TP11KACD-042 | TOP PLATE | 2 | |

| | | | | |
|----|--------------|-----------------------|----|-----------|
| 43 | TP11KACD-043 | RETURN LINE | 1 | |
| 44 | TP11KACD-044 | MAINSIDE COLUMN | 1 | |
| 45 | TP11KACD-045 | RUBBER GROMMET | 1 | |
| 46 | TP11KACD-046 | LONG HOSE (207") | 1 | |
| 47 | TP11KACD-047 | T-FITTING | 1 | |
| 48 | TP11KACD-048 | MEDIUM HOSE (70") | 1 | |
| 49 | TP11KACD-049 | SHORT HOSE (54.5") | 1 | |
| 50 | TP11KACD-050 | CARRIAGE | 2 | |
| 51 | TP11KACD-051 | RUB BLOCK | 16 | |
| 52 | TP11KACD-052 | LATCH | 1 | |
| 53 | TP11KACD-053 | FLAT WASHER | 2 | 30 |
| 54 | TP11KACD-054 | LOCKNUT | 2 | M30 |
| 55 | TP11KACD-055 | FLAT WASHER #6 | 2 | 5 |
| 56 | TP11KACD-056 | COTTER PIN | 2 | 2*12 |
| 57 | TP11KACD-057 | E-CLIP | 2 | 9 |
| 58 | TP11KACD-058 | FLAT WASHER #10 | 6 | 10 |
| 59 | TP11KACD-059 | LATCH RELEASE | 2 | |
| 60 | TP11KACD-060 | LATCH RELEASE SPRING | 2 | |
| 61 | TP11KACD-061 | LATCH RELEASE ROD | 2 | |
| 62 | TP11KACD-062 | ROLL PIN | 4 | 6*38 |
| 63 | TP11KACD-063 | ACTUATOR GEAR | 4 | |
| 64 | TP11KACD-064 | ACTUATOR PIN | 4 | |
| 65 | TP11KACD-065 | ACTUATOR PIN SPRING | 4 | |
| 66 | TP11KACD-066 | CABLE NUT | 4 | M16 |
| 67 | TP11KACD-067 | FLAT WASHER #16 | 4 | 16 |
| 68 | TP11KACD-068 | 33'8" EQUALIZER CABLE | 2 | |
| 69 | TP11KACD-069 | REAR SWING ARM SLIDER | 2 | |
| 70 | TP11KACD-070 | COTTER PIN | 4 | 10 |
| 71 | TP11KACD-071 | M10 X 25 BOLT | 4 | M10*16 |
| 72 | TP11KACD-072 | SHIM | 16 | |
| 73 | TP11KACD-073 | ANCHOR BOLT | 12 | 3/4*140 |
| 74 | TP11KACD-074 | PU ELBOW FITTING | 1 | |
| 75 | TP11KACD-075 | O-RING | 1 | 11.8*φ1.8 |
| 76 | TP11KACD-076 | FLAT WASHER #8 | 4 | |
| 77 | TP11KACD-077 | M8 LOCKNUT | 4 | M8 |
| 78 | TP11KACD-078 | M8 X 25 BOLT | 1 | |
| 79 | TP11KACD-079 | INNER SWITCH HOUSING | 4 | M8*25 |

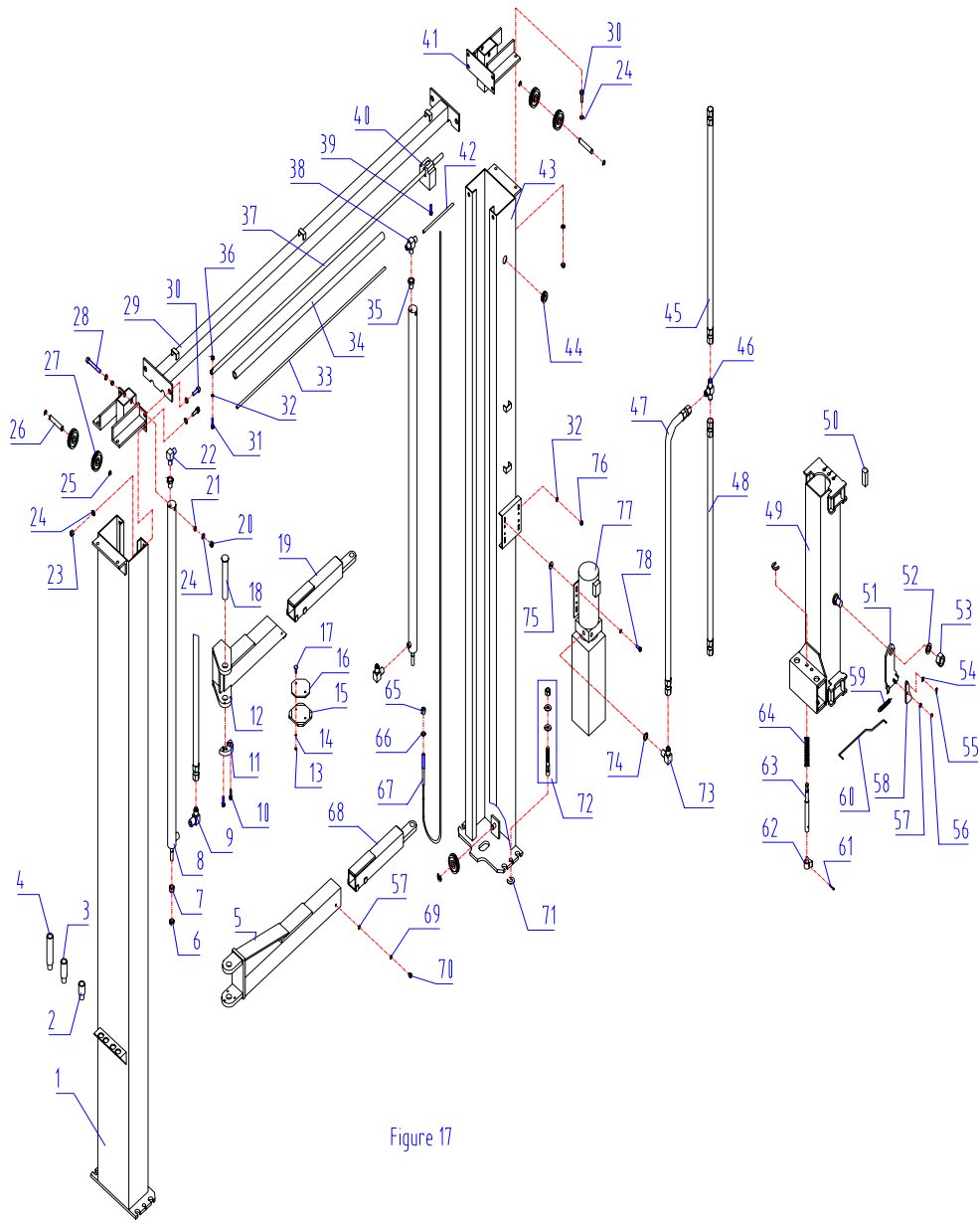


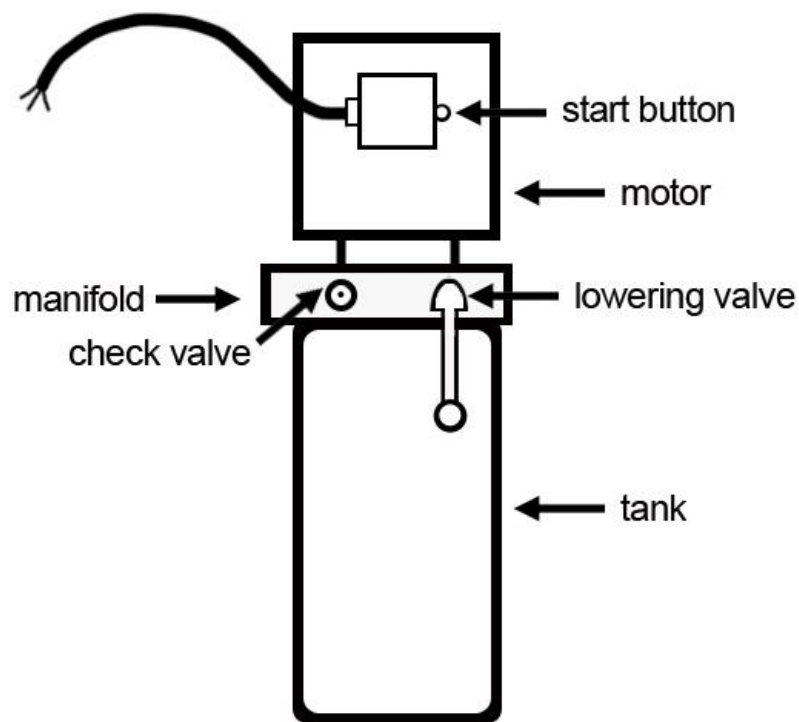
Figure 17

IMPORTANT

POWER UNIT PRIMING PROCEDURE

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

Step 1 – Locate the check valve, the flush plug to the left of the lowering valve.
(See drawing below.)



Step 2 – Using an Allen wrench and shop towel – with shop towel in place to catch fluid – loosen the check valve plug 2 ½ turns to allow it to leak.

Step 3 – Push the START button for one second, then release for three seconds.
Repeat these steps until unit starts pumping fluid.

Step 4 – Tighten the check valve plug.

YOUR POWER UNIT SHOULD BE PRIMED