

TP7KAC

Clear Floor Two-Post Lift

7000 lb Capacity

ASSEMBLY & OPERATION

INSTRUCTION

MANUAL



REV A-061813

DEFINITION

The lift is a Two-Column Hydraulic, Leaf chain driven one. The name / model numbers is designated below:

Surface Mounted 2-Post Clear Floor Lift type, 7000lbs Lifting Capacity, Asymmetric Swing Arm set up. *Model number:165927*

The safety latch system of this lift is very similar to an extension ladder. The safety latch is in contact with the rack as the carriage ascends and drops. Safety latch engages in the rack in a 3-1/2" increment at about 26-1/2" from the ground. The latch must be manually disengaged for the carriage to descend. It is released by pulling a single point handle to raise the latch up off the rack. Once the raise button is pressed, the latch will automatically re-engage after approximately 3" of travel. The work is done by a 3" cylinder directly, driven by a electric-hydraulic power unit capable of providing 3,000psi hydraulic pressure.

Please read the Safety Procedures and Operation Instructions in this manual before operating the lift. Proper installation is very important. To minimize the chance of making an error in installation, please read this manual through carefully before beginning installation. Check with building owner and / or architect's building plans when applicable. The lift should be located on a relatively level floor with min 5" thickness and 3000psi tensile strength concrete sufficiently cured.

This is a vehicle lift installation / operation manual and no attempt is made or implied herein to instruct the user in lifting methods particular to an individual application. Rather, the contents of this manual are intended as a basis for operation and maintenance of the unit as it stands alone or as it is intended and anticipated to be used in conjunction with other equipment.

Proper application of the equipment described herein is limited to the parameters detailed in the specifications and the usages set forth in the descriptive passages. Any other proposed application of this equipment should be documented and submitted in writing to the factory for examination. The user assumes full responsibility for any equipment damage, personal injury that occurs as the result of alteration of the equipment described in this manual or any subsequent damages.

Basic Specification

Description	Capacity	Lifting Time	Overall Height	Overall Width	Lifting height
Clear Floor	3.2 ton	(about)	142"	138 9/16"	71 7/16"
(asymmetric)	7000lbs	50 Sec	3608 mm	3520 mm	1815mm

**7,000 LB.
Two Post
CLEAR FLOOR
ASYMMETRIC LIFT**



TP7KAC
Clear floor
Asymmetric
Lift

Features:

- ◆ 7,000 lb. lifting capacity
- ◆ Asymmetric design
- ◆ Dual cylinders with low friction chain rollers
- ◆ Low profile automatic arm restraints
- ◆ 3 Stackable drop-in height adapters 1.25", 2", and 5"
- ◆ FREE mounting hardware
- ◆ Powder-coated paint finish
- ◆ Electric override automatic safety shut-off

SPECIFICATIONS

	TP7KAC
Lifting capacity	7,000 lbs.
Lifting speed	50 seconds
Motor rating	2hp 220v 20a
Height overall	142"
Lifting height	71.65"
Low pad height	4"
Width between columns	108"
Drive through	90"
Shipping weight	1,188 lbs.

PREPARATION

The installation of this lift is relatively simple and can be accomplished by 2 men in a few hours. The following tools and equipment are needed:

AW 32,46 Non-Detergent Non-Foaming Anti-Wear Hydraulic Oil SAE-10 (12 quarts) Chalk line and 12' Tape Measure, Transit and a 4' Level
Rotary Hammer Drill with 3/4" Masonry Drill Bit. Core Drill ReBar Cutter recommended
Hammer and Hex-Key / Allen Wrench Set
Sockets and Open Wrench set, 1/2" thru 1-1/2"(1-1/8" for 3/4" Anchors) Medium Crescent Wrench and Medium Pipe Wrench
Crow Bar for Shim Installation and Medium Flat
Screwdriver Vise Grips and Needle Nose Pliers

GENERAL INFORMATION

1. Carefully remove the crating and packing materials. CAUTION! Be careful when cutting steel banding material as items may become loose and fall causing personal harm or injury.
2. Identify the components and check for damage or shortages. If damage or shortages are discovered, contact distributor immediately. *Save the shipping bolts for use in the installation.*

Packing:

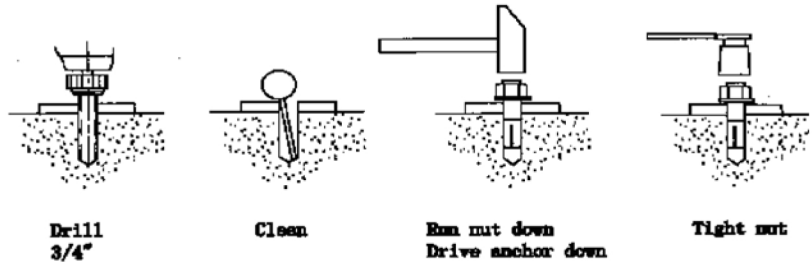
- *The lift packed into two columns in one rack.
- *Every column with its cylinder, carriage, cables & chains, upright, lifting arms, pad with holders, oil pipes, and half cross beam. Accessory box is in one column.
- *There is the hydraulic motor pump in one carton separately.

3. The power supply for the motor pump of this lift is 220V, single phase, 60Hz, 30A.

IMPORTANT CONCRETE AND ANCHORING INFORMATION

1. Concrete shall have compression strength of at least 3,000 PSI and a minimum thickness of 5 " in order to achieve a minimum anchor embedment of $3\frac{1}{4}$ ". When using the standard supplied $\frac{3}{4}$ " * 5 $\frac{1}{2}$ " long anchors, if the top of the anchor exceeds $2\frac{1}{4}$ " above the floor grade, you DO NOT have enough embedment.
2. Before drilling anchor holes in concrete floor using holes in column base plate as a guide. Make sure the distance from the hole to the concrete edge is not less than 6 " . Hole to hole spacing should not be less than $6\frac{1}{2}$ " in any direction. The hole depth should be a minimum of $4\frac{1}{4}$ " .
3. **CAUTION:** DO NOT install the lift on any asphalt or other similar unstable surface. Only anchoring in floor to support columns.
4. Shim each column base until each column is plumb. If one column has to be elevated to match the plane of the other column, full size base shim plates should be used. Shim thickness MUST NOT exceed $\frac{1}{2}$ " when using the $5\frac{1}{2}$ " long anchor provided with the lift. Adjust the column extensions to be plumb also.
5. If anchors do not tighten to 80 ft-lbs. Installation torque, replace concrete under each column base with a 4'x4'x6 " thick 3,000 PSI minimum concrete pad keyed under and flush with the top of existing floor. Let concrete cure before installing lifts and anchors.

ANCHORING TIP SHEET



Anchors must be at least 6" from the edge of the slab or any seam.

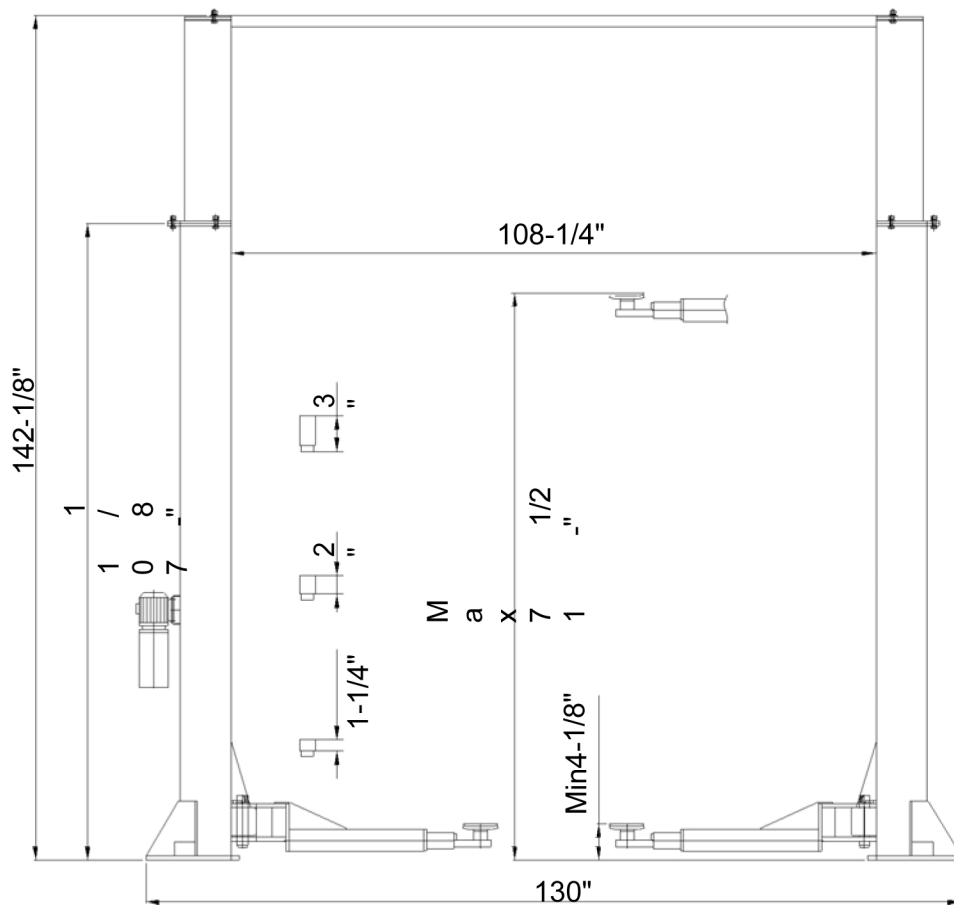
1. Use a concrete hammer drill with a carbide tip, solid drill bit the same diameter as the anchor, $\frac{3}{4}$ " (0.775 to 0.787 inches diameter). Do not use excessively worn bits or bits which have been incorrectly sharpened.
2. Keep the drill perpendicularly while drilling.
3. Let the drill do the work. Do not apply excessive force. Pull the drill up occasionally to remove residue while drilling.
4. Drill the hole to depth at least equal to length of anchor. If possible, drill through concrete.
5. For better holding power blow dust from the hole.
6. Place a flat washer and hex nut over thread of an anchor, leaving approximately $\frac{1}{2}$ inch of thread exposed. Do not damage threads. Tap anchor into the concrete carefully until nut and flat washer are against base plate. Do not use an impact wrench to tighten. Tighten the nut two or three turns on average concrete (28-day cure). If the concrete is very hard, only one or two turns may be applied. Check each anchor bolt with torque wrench set to 150 foot pounds.
7. Drilling thru concrete (recommended) will allow the anchor to be driven thru the bottom if the threads are damaged.

INSTALLATION INSTRUCTION

STEP 1: (Selecting Site)

Before installing your new lift, check the following:

1. **LIFT LOCATION:** Always use architects plans when available. Check layout dimension against floor plan requirements making sure that adequate space is available.
2. **OVERHEAD OBSTRUCTIONS:** The area where the lift located should be free of overhead obstructions such as heaters, building supports, electrical lines etc. (Fig. 2 & 3)
3. **DEFECTIVE CONCRETE:** Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.
4. **FLOOR REQUIREMENTS:** The lift should be installed on a 3000 PSI concrete with little gradients.



Note: All dimensions are typical.

Fig. 2

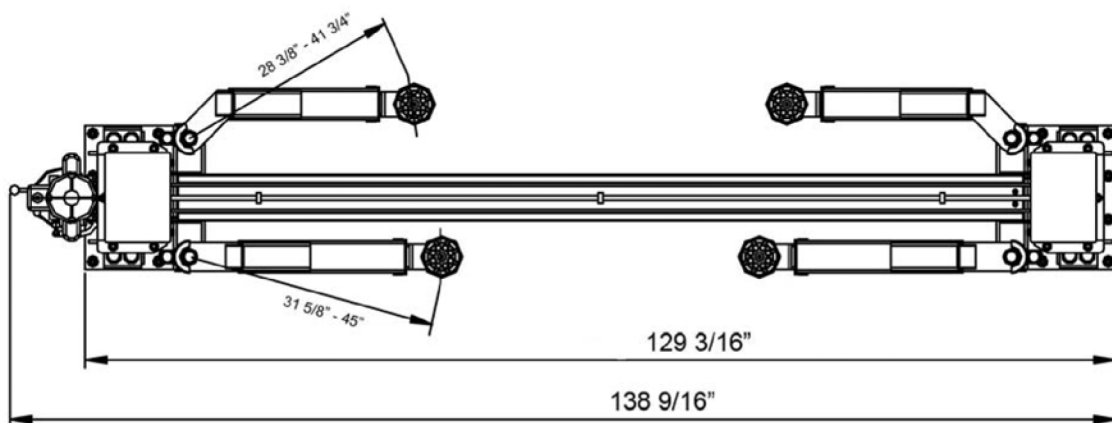
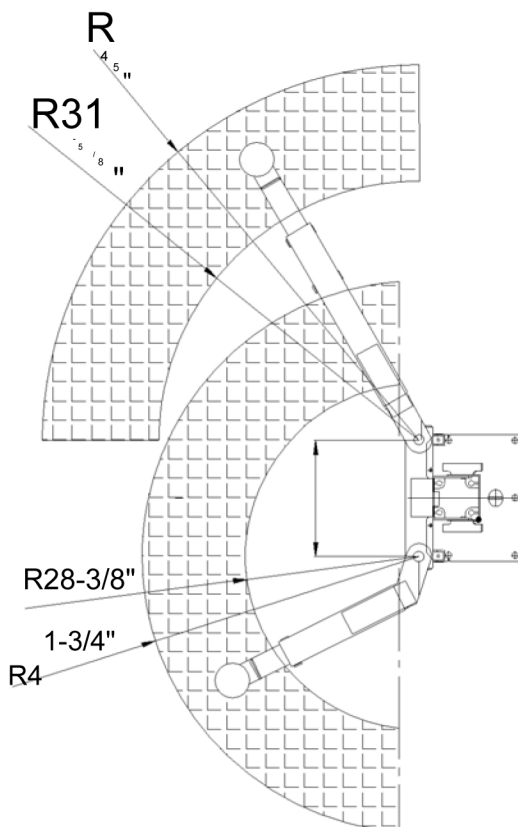
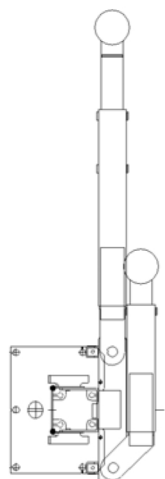


Fig. 3

Note: All dimensions are typical.

STEP 2: (Unloading and Unpacking)

1. After unloading the lift, place it near the intended installation location.
2. Remove the shipping bands and packing materials from the unit.
3. Remove the packing brackets and bolts holding the two columns together. (Do not discard bolts, they may be used in the assembling of the lift)
4. Take out the up-rights, lifting arms, pads, accessory box, oil pipes, etc, from the column. Check the quantity of every item with the parts list. If any missing, please contact with your dealer at once.

STEP 3: (Site Layout)

1. Determine which side will be the approach side.
2. Now determine which side you prefer the power unit to be located on. The POWERSIDE column has the power-unit mounting bracket attached to the side. Note the power unit column can be located on either side. It is helpful to try and locate the power side with the passenger side of the vehicle when loaded on the lift to save steps during operation.
3. Once a location is determined, use a carpenter's chalk line to layout a grid for the post locations. Keep all dimensions and square within $\frac{1}{8}$ "otherwise malfunction of the lift will occur. (See Fig. 4)
4. After the post locations are properly marked, use a chalk or crayon to make an outline of the posts on the floor at each location using the post base plates as a template.
5. Double check all dimensions and make sure that the layout is perfectly square.

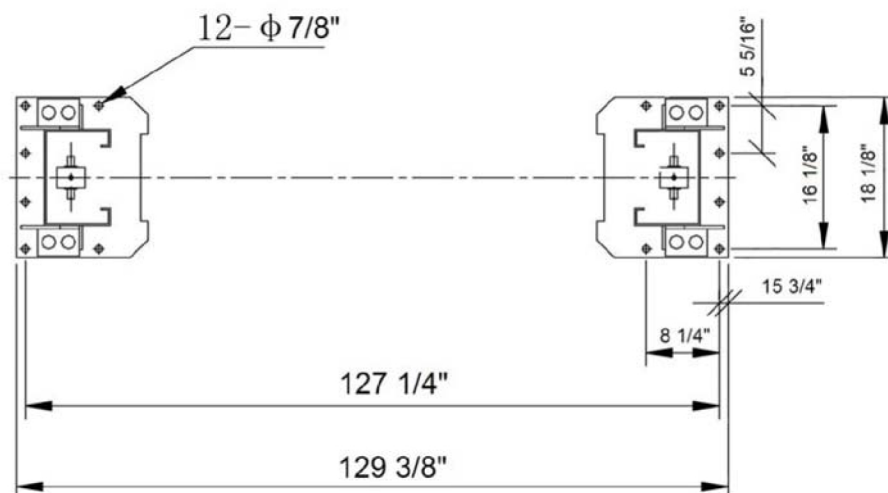


Fig. 4

Note: All dimensions are typical.

STEP 4: (Installing the POWERUNIT Column)

1. Before proceeding, double check measurements and make certain that the bases of each column are square and aligned with the chalk line.
2. Bolt the ceiling-cable sheave bracket on the upright with holes on side (Fig.5). Assemble the uprights to the columns (Fig. 6). Make sure that the upright with ceiling-cable sheave bracket is on the POWERSIDE column. Raise the columns to a vertical position (Fig.7).



Fig. 5



Fig. 6



Fig. 7

3. Using the base plate on the POWERSIDE column as a guide, drill each anchor hole in the concrete approximately $5\frac{1}{2}$ " deep using a rotary hammer drill and $\frac{3}{4}$ " concrete drill-bit. To assure full holding power, do not ream the hole or allow the drill to wobble. (See Fig.1)
4. After drilling, remove dust thoroughly from each hole using compressed air and/or wire brush. Make certain that the column remains aligned with the chalk line during this process.
5. Assemble the washers and nuts on the anchors then tap into each hole with a block of wood or rubber hammer until the washer rests against the base plate. Be sure that if shimming is required that enough threads are left exposed.
6. Using a level, check column plumb for every side. (Fig. 8) If shimming is required, use $\frac{3}{4}$ " washers or shim stock, placing shims as close as possible to the hole locations. This will prevent bending the column base plates.



Fig. 8



Fig. 9



Fig. 10

7. With the shims and anchor bolts in place, tighten by securing the nut to the base then turning 2-3 full turns clockwise. Or tighten anchor bolts to 150 ft-lbs. of torque. DO NOT use an impact wrench for this procedure.

STEP 5: (Mounting the OFFSIDE Column and the OVERHEAD BEAM)

1. Position the OFFSIDE column at the designated chalk locations.
2. Using two ladders and two men, raise the overhead into place and bolt to the columns, using bolts provided.
3. Using a tape measure to measure the distance between the opposite corners of the base plate on the columns. Equal values will insure the lifting arms will be in square.
4. Secure OFFSIDE column to the floor following the same procedures as outlined in STEP 4.

STEP 6: (Mounting the POWER UNIT)

1. Attach the power unit to the POWERSIDE COLUMN using bolts, nuts and washers supplied.
2. Remove the vent plug from the power unit and fill the reservoir with hydraulic oil. Make sure the funnel used to fill the power unit is clean.

Suggestion: Use AW 32,46 Non-Detergent Non-Foaming Anti-Wear Hydraulic Oil SAE-10 (Texaco HD46 or equal). The unit will holds approximately ten quarts of fluid.



Fig. 11

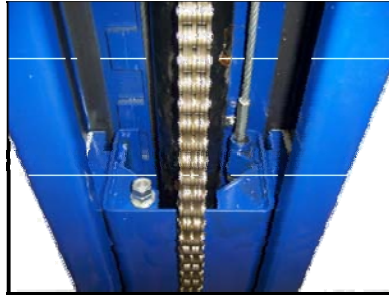


Fig. 12

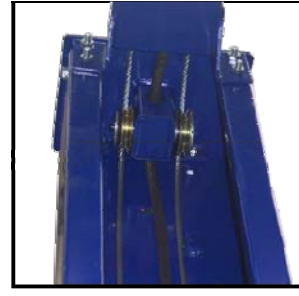


Fig. 13

STEP 7: (Routing the EQUALIZING CABLES)

1. Raise and lock each carriage on the first safety latch engagement. It is approximately 30" high.
2. Make sure that the safety locks on each column are fully engaged before attempting to route equalizing cables.
3. Be sure each carriage is at the same height by measuring from the top of the base to the bottom of the carriage. This difference should be within $\frac{1}{4}$ " .
4. Rout one cable according to Fig 26. Screw the nut on the cable stud so that a few thread pass through the nut (Fig.12, 13). Pull the other end of the cable and screw the nut on it also. Then tighten both nuts.
5. Repeat above for the second cable.

STEP 8: (Connecting the hydraulic hoses)

Connect the hydraulic hoses according to Fig. 27. When routing the hydraulic hose, make sure that the hose is clear of any moving parts. It is necessary to route hose through the retaining rings or tie hose clear by using nylon tie straps or wire (Fig. 14,15,16).



Fig. 14



Fig. 15



Fig. 16

STEP 9: (Install the lifting arms)

Install the swing arms on the carriages using the included $1 \frac{1}{2}$ " diameter pins. Check for proper engagement of the arm lock. The rack on the lock should fully engage the gear on the arm. (Fig. 17,18,19)



Fig. 17 Fig.18 Fig. 19 **STEP 10:** (Power connection)

Make the Electrical hookup to the power unit (220V Single Phase). It is recommended that a 220 Volt, 30Amp twist lock plug be installed in the power line just ahead of the power unit. Size wire for 30 - amp circuit.

Warning : the wiring must comply with local code. Have a certified electrician make the electrical hook-up to the power unit. Protect each circuit with time delay fuse or circuit breaker 208V-230V single Phrased 30 Amp.

STEP 11: (Ceiling cable)

Locate the safety cable cut-off switch assembly and two mounting brackets with hardware. Mount the brackets to the overhead and run the cable down to the power unit, as seen in figs. 20-22.



Fig. 20 Fig. 21 Fig.22

STEP 12: (Check operation)

Do not place any vehicle on the lift at this moment. Cycle the lift up and down several times to insure latch click together and all air is removed from the cylinder system. To lower the lift, both latch releases must be manually released (Fig. 23). Latches will automatically reset once the lift ascends approximately 17 " from base.

Adjust each equalizing cable to approximately equal tension. Check the latch releases to insure the carriage is still sitting on the appropriate latch. If latches click out of sync, tighten the cable on the one that clicks first.



Fig. 23

NOW THE LIFT IS READY FOR USE.

PERFORMANCE

RAISE-LIFT

1. Read operating and safety manuals before using lift.
2. Always lift a vehicle according to the manufacturers recommended lifting points
3. Position vehicle between columns.
4. Adjust swing arms so that the vehicle is positioned with the center of gravity midway between pads.
5. Use truck adapters as needed. Never exceed 9" of pad height.
6. Raise the lift by pressing button on power unit until support contacts underside of the vehicle. Recheck to make sure vehicle is secure.
7. Raise vehicle to desired working height. The latch mechanism will 'trip over' when the lift raises and drop into each latch stop. But, to lock the lift you must press the Lower level to relieve the hydraulic pressure and let the latch set tight in a safety position.

ALWAYS LOCK THE LIFT BEFORE GOING UNDER THE VEHICLE.
NEVER ALLOW ANYONE TO GO UNDER THE LIFT WHEN RAISING OR LOWERING.

Note: It is normal for an empty lift to lower slowly-it may be necessary to add weight.

LOWER LIFT

1. Be sure tool trays , stands or personnel are removed from under vehicle.
2. First to raise the lift until the latch clears.
3. Pull latch release cables on both sides
WARNING: ALWAYS RELEASE BOTH SIDES
4. Press the lever at the power unit to lower the lift.
5. Before removing vehicle from lift area, position the lift arms and supports to provide an unobstructed exit.

WARNING: Never drive over lift arms.

MAINTENANCE SCHEDULE

The following periodic maintenance is the suggested minimum requirements and minimum intervals; accumulated hours or monthly period, whichever ever comes sooner. If you hear a noise not associated with normal lift operation, or, see any indication of impending failure - **cease operation immediately** – inspect, correct and / or replace parts as required.

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

DAILY PRE-OPERATION CHECK (8 HOURS)

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

- ⌘ Check safety lock audibly and visually while in operation
- ⌘ Check safety latches for free movement and **full engagement with rack.**
- ⌘ Check hydraulic connections, and hoses for leakage.
- ⌘ Check chain connections- bends, cracks-and loose links.
- ⌘ Check cables connections- bends, cracks-and looseness
- ⌘ Check for frayed cables in both raised and lowered position.
- ⌘ Check snap rings at all rollers and sheaves.
- ⌘ Check anchors, bolts, nut, and screws and tighten them.
- ⌘ Check wiring & switches for damage.
- ⌘ Keep base plate free of dirt, grease or any other corrosive substances.
- ⌘ Check floor for stress cracks near anchor bolts.
- ⌘ Check swing arm restraints.

WEEKLY MAINTENANCE (40 HOURS)

- ⌘ Check anchor bolts torque to 80 ft-lbs for the $\frac{3}{4}$ " anchor bolts. **Do not use impact wrench.**
- ⌘ Check floor for stress cracks near anchor bolts.
- ⌘ Check hydraulic oil level.
- ⌘ Check and tighten bolts and nuts, and screws.
- ⌘ Check cylinder pulley assembly for free movement and also check excessive wear on cylinder yoke or pulley pin.
- ⌘ Check cable pulley for free movement and excessive wear.

YEARLY MAINTENANCE

- ⌘ Lubricate chain
- ⌘ Grease rub blocks and column surface contacting rub blocks
- ⌘ Change the hydraulic fluid. Good maintenance procedure makes it mandatory to keep hydraulic fluid clean. No hard fast rules can be established; -operating temperature, type of service, contamination levels, filtration, and chemical composition of fluid should be considered. If operating in dusty environment shorter interval may be required.

Only a trained maintenance expert should perform the following items.

- ⌘ Replace hydraulic hoses
- ⌘ Replace chains and rollers.
- ⌘ Replace cables and sheaves.
- ⌘ Replace or rebuild air and hydraulic cylinders as required.
- ⌘ Replace or rebuild pumps / motors as required.
- ⌘ Check hydraulic cylinder rod and rod end (threads) for deformation or damage.
- ⌘ Check cylinder mount for looseness and damage.

Relocating or changing components may cause problems. Each component in the system must be compatible; an undersized or restricted line will cause a drop in pressure. All valve, pump, and hose connections should be sealed and / or capped until just prior to use. Air hoses can be used to clean fittings and other components. However, the air supply must be filtered and dry to prevent contamination. Contamination is the most frequent cause of malfunction or hydraulic equipment.

TROUBLESHOOTING

1. Motor does not run:
 - A. Breaker or fuse blown
 - B. Motor thermal overload tripped. Wait for overload to cool.
 - C. Defective up button. Call electrician for checking.
 - D. Faulty wiring connections. Call electrician.

2. Motor runs but will not raise:
 - A. Oil level too low. Oil level should be just under the vent cap port when the lift is down!!!
 - B. Check the clearance in the plunger valve of the lowering handle. There should be 1/16".
 - C. Remove the check valve cover and clean ball and seat.
 - D. A piece of trash is under check valve. Push handle down and push the up button at the same time. Hold for 10-15 seconds. This should flush the system.

3. Oil blows out breather of power unit:
 - A. Oil reservoir overfilled.
 - B. Lift lowered too quickly while under a heavy load.

4. Motor hums and will not run:
 - A. Lift overloaded-----remove excessive weight from lift
 - B. Bad capacitor-----call electrician
 - C. Low voltage-----call electrician
 - D. Faulty wiring-----call electrician

5. Lift jerks going up and down:
 - A. Air in hydraulic system-----Raise lift all the way to top and return to floor. Repeat 4-6 times with interval at least 2 min. Not let this overheat power unit.

6. Oil leaks
 - A. Power unit-----If the power unit leaks hydraulic oil around the tank-mounting flange, check the oil level in the tank. The level should be two inches below the flange of the tank. Check with a screwdriver as a "dipstick".
 - B. Rod end of cylinder-----The rod seal of the cylinder is out. Rebuild or replace the cylinder.
 - C. Breather end of the cylinder-----the piston seal of the cylinder is out. Rebuild or replace the cylinder.

7. Lift makes excessive noise.
 - A. Carriage of the lift is dry and requires grease.
 - B. Cylinder pulley assembly or cable pulley assembly is not moving freely. Check and grease it.
 - C. May have excessive wear on pins or cylinder yoke. Check and replace them.

OWNER / EMPLOYER RESPONSIBILITIES

The owner / Employer:

Shall establish procedures to periodically maintain, inspect and care for the lift in accordance with the manufactures recommended procedures to ensure its' continued safe operations.

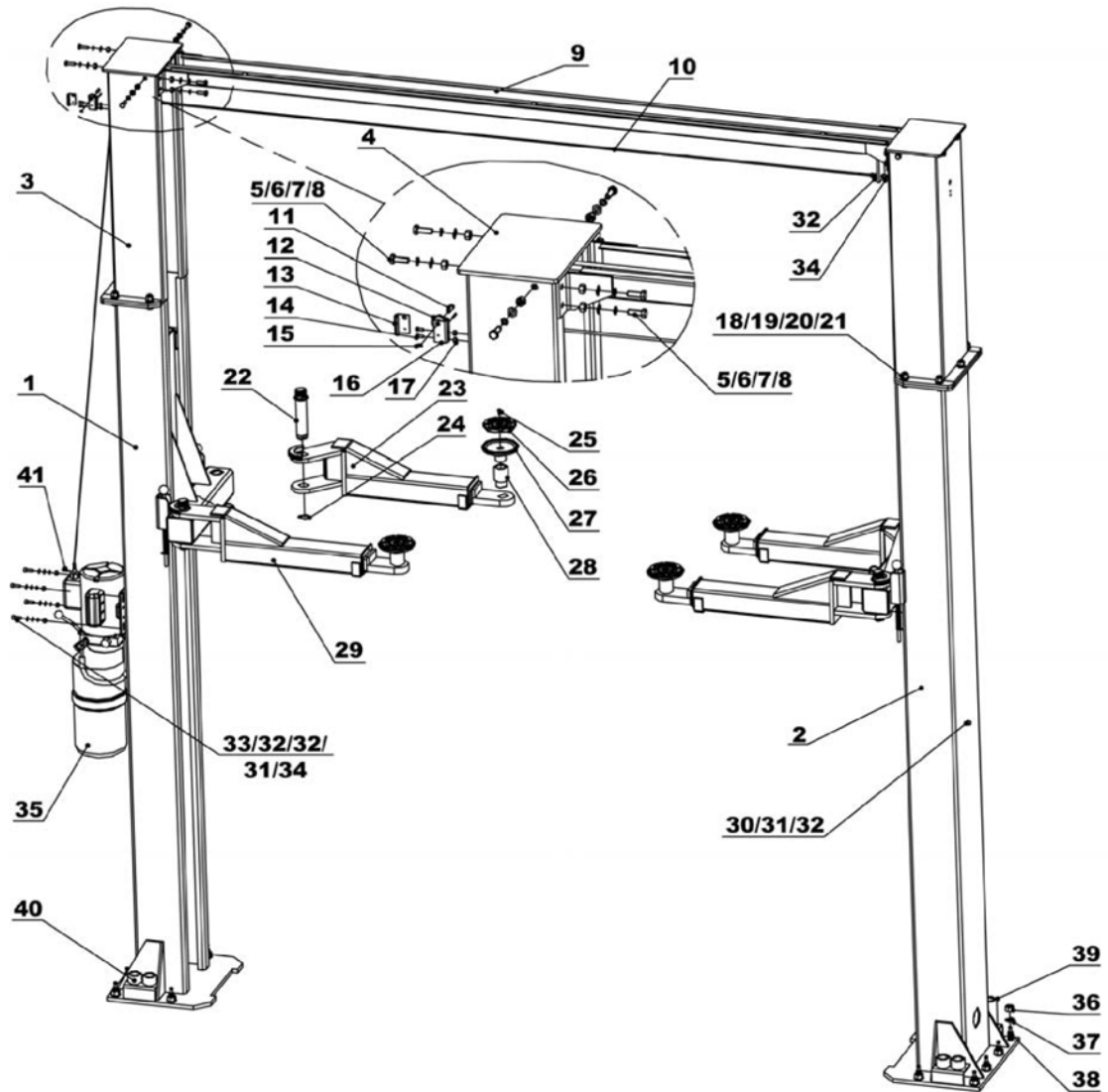
Shall provide necessary lockout of energy sources per ANSI Z244.1 –1982 before beginning any lift repairs.

Shall not modify the lift in any manner without prior written consent of the manufacture.

Shall display the operating instructions and 'Lifting It Right' and 'Safety Tips' supplied with the lift in a conspicuous location in the lift area convenient to the operator.

Shall insure that lift operators are instructed in the proper and safe use and operation of the lift using the manufacturer's instructions and "Lift It Right: and "safety Tips" supplied with the lift.

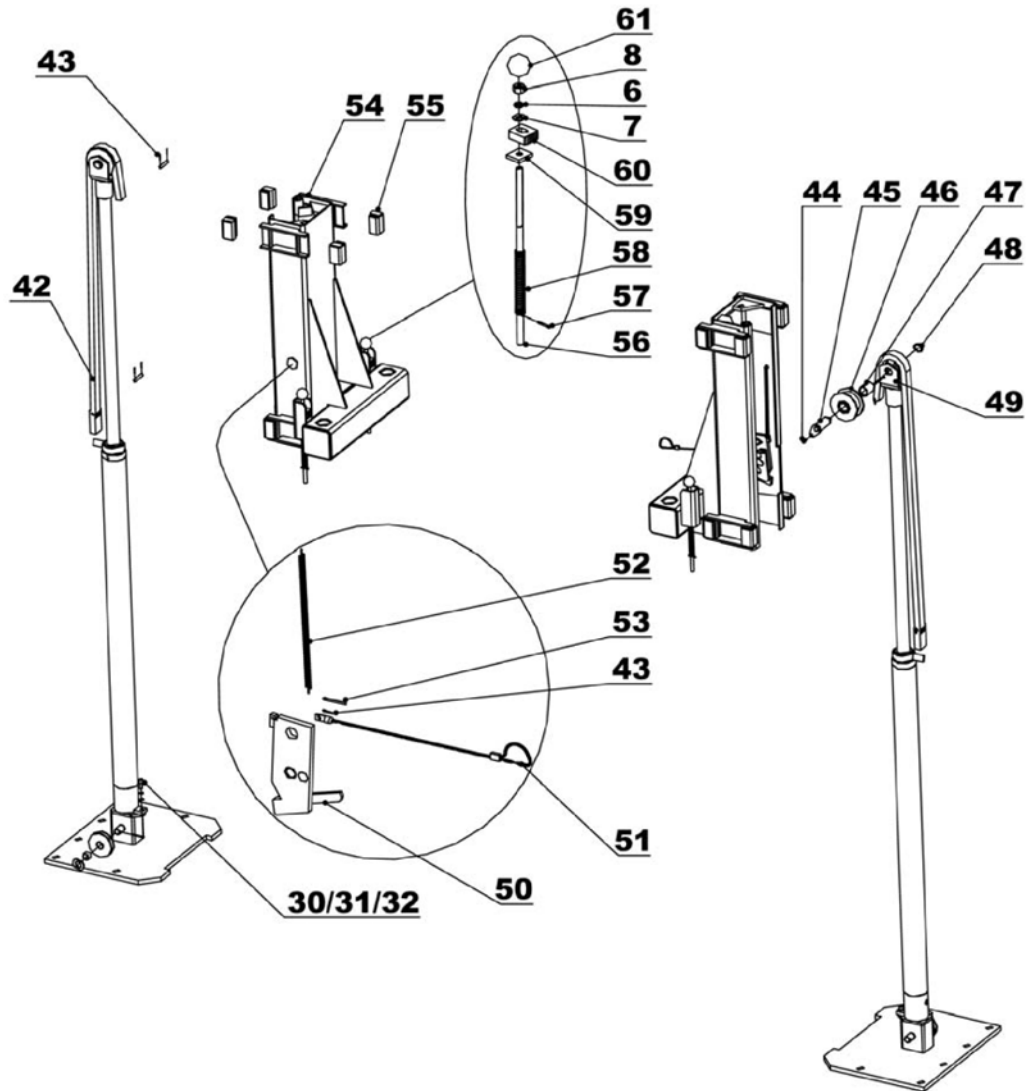
PARTS CODE AND DRAWING Fig. 24
(frame and lifting arm)



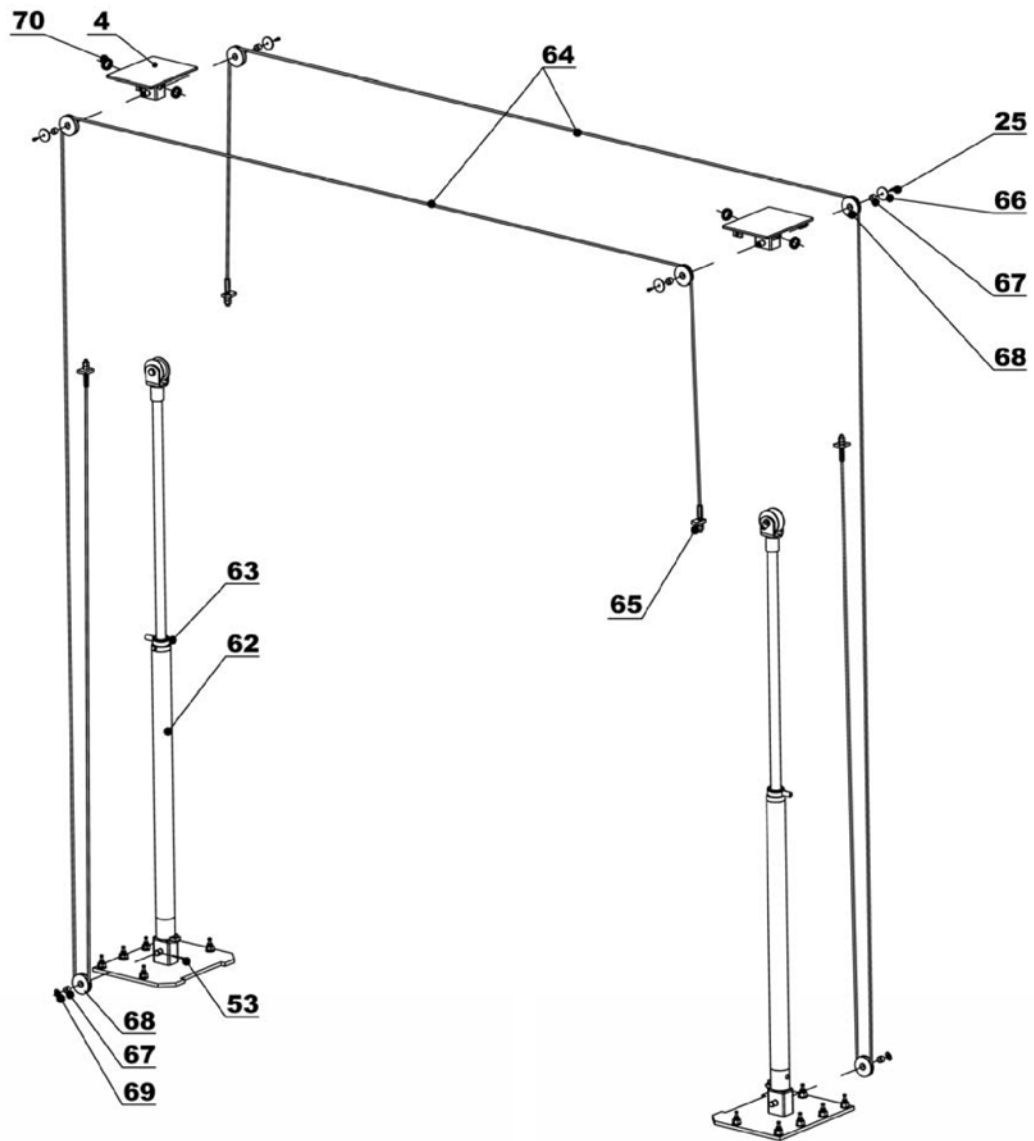
PARTS CODE AND DRAWING

Fig. 25

(carriage and lock system)



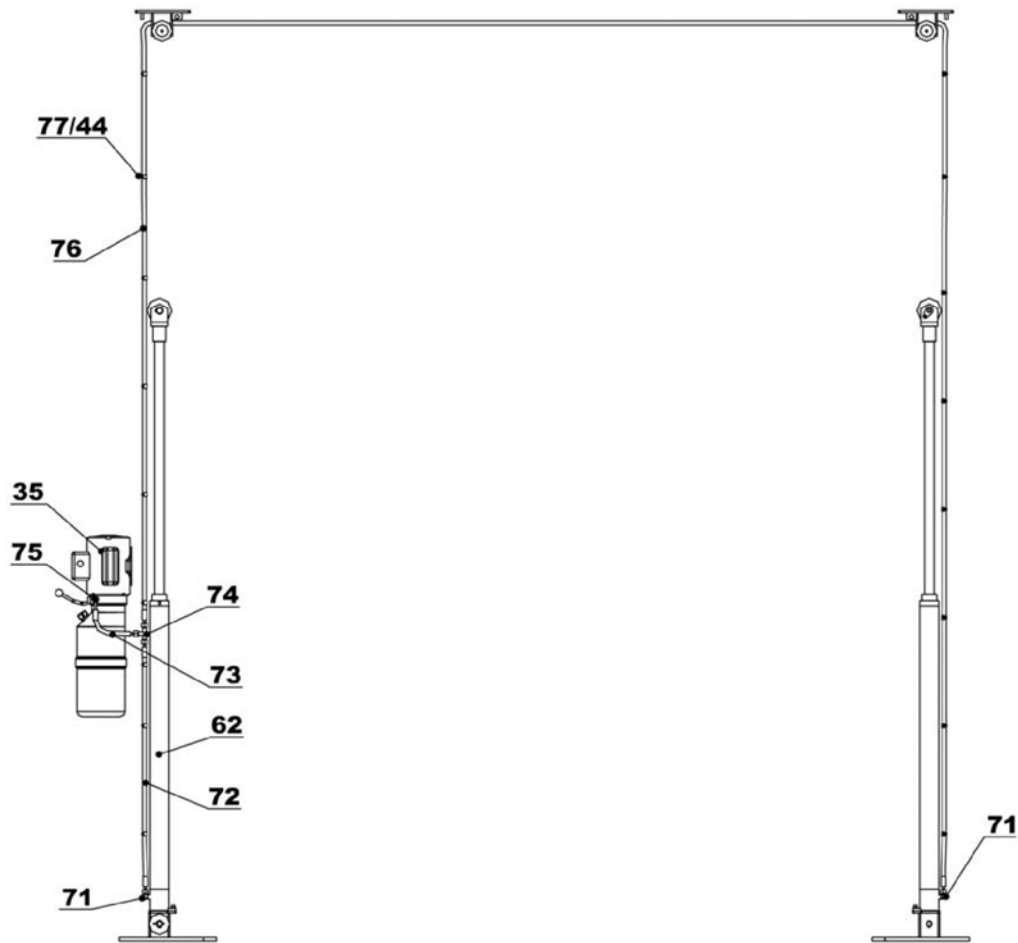
(cable wiring)



PARTS CODE AND DRAWING

Fig. 27

(hose connecting)



PARTS CODE LIST

ITEM	CODE	DESCRIPTION	QTY	NOTE
1	TP7KAC-01	Main column	1	w. bracket for pump
2	TP7KAC-02	Sub column	1	
3	TP7KAC-03	Column extension	2	
4	TP7KAC-04	Top board	2	
5	TP7KAC-05	Hexagon bolt	16	M10*30
6	TP7KAC-06	Spring washer	20	D10
7	TP7KAC-07	Flat washer	20	D10
8	TP7KAC-08	Nut	20	M10
9	TP7KAC-09	Cross bar	1	
10	TP7KAC-10	Ceiling cable	1	
11	TP7KAC-11	Sheave shaft	1	
12	TP7KAC-12	Cable sheave	1	
13	TP7KAC-13	Shield plate	1	
14	TP7KAC-14	Cross screw	2	M5*12
15	TP7KAC-15	Circlip	1	D8
16	TP7KAC-16	Bracket	1	
17	TP7KAC-17	Nut	2	M5
18	TP7KAC-18	Hexagon bolt	10	M14*45
19	TP7KAC-19	Spring washer	10	D14
20	TP7KAC-20	Flat washer	10	D14
21	TP7KAC-21	Nut	10	M14
22	TP7KAC-22	Swing arm pin	4	
23L	TP7KAC-23L	Short arm left	1	LEFT
23R	TP7KAC-23R	Short arm right	1	RIGHT
24	TP7KAC-24	Spindle spring washer	4	D38
25	TP7KAC-25	Hexagon socket screw	8	M6*16
26	TP7KAC-26	Rubber Pad	4	
27	TP7KAC-27	Lifting pad	4	
28	TP7KAC-28	Short adapter A	4	
29	TP7KAC-29	Long swing arm	2	
30	TP7KAC-30	Hexagon socket screw	4	M8*20
31	TP7KAC-31	Spring washer	8	D8
32	TP7KAC-32	Flat washer	14	D8
33	TP7KAC-33	Hexagon socket screw	4	M8*25
34	TP7KAC-34	Nut	7	M8
35	TP7KAC-35	Power unit	1	
36	TP7KAC-36	Anchor nut	12	M18

ITEM	CODE	DESCRIPTION	QTY	NOTE
37	TP7KAC-37	Anchor washer	12	D18
38	TP7KAC-38	Anchor bolt	12	M18*160
39	TP7KAC-39	Middle adapter B	4	
40	TP7KAC-40	Long adapter C	4	
41	TP7KAC-41	Cotter pin	1	D2.5*16
42	TP7KAC-42	Chain	2	
43	TP7KAC-43	Cotter pin	10	D2*12
44	TP7KAC-44	Hexagon socket screw	19	M6*8
45	TP7KAC-45	Chain wheel shaft	2	
46	TP7KAC-46	Chain wheel	2	
47	TP7KAC-47	SF2540 bearing	2	
48	TP7KAC-48	Circlip	2	D25
49	TP7KAC-49	Chain wheel bracket	2	
50	TP7KAC-50	Safety block	2	
51	TP7KAC-51	release cable	2	
52	TP7KAC-52	Spring	2	
53	TP7KAC-53	Cotter pin	4	D3.2*30
54	TP7KAC-54	Carriage	2	
55	TP7KAC-55	Nylon block	16	
56	TP7KAC-56	Pull handle	4	
57	TP7KAC-57	Cotter pin	4	D3.2*16
58	TP7KAC-58	Spring	4	
59	TP7KAC-59	Limit board	4	
60	TP7KAC-60	Gear rack	4	
61	TP7KAC-61	Plastic knob	4	
62	TP7KAC-62	Hydraulic cylinder	2	
63	TP7KAC-63	Cylinder holding bracket	2	
64	TP7KAC-64	Balance cable	2	
65	TP7KAC-65	Nut	8	
66	TP7KAC-66	Pulley plate	4	
67	TP7KAC-67	SF2015 Bearing	6	
68	TP7KAC-68	Pulley	6	D80
69	TP7KAC-69	Pulley washer	2	
70	TP7KAC-70	Hydraulic hose sleeve	4	
71	TP7KAC-71	Elbow fitting	2	
72	TP7KAC-72	Short hose	1	
73	TP7KAC-73	Connecting hose	1	

ITEM	CODE	DESCRIPTION	QTY	NOTE
74	TP7KAC-74	T-fitting	1	
75	TP7KAC-75	Power unit fitting	1	
76	TP7KAC-76	Long hose	1	
77	TP7KAC-77	Hose clip	17	

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.

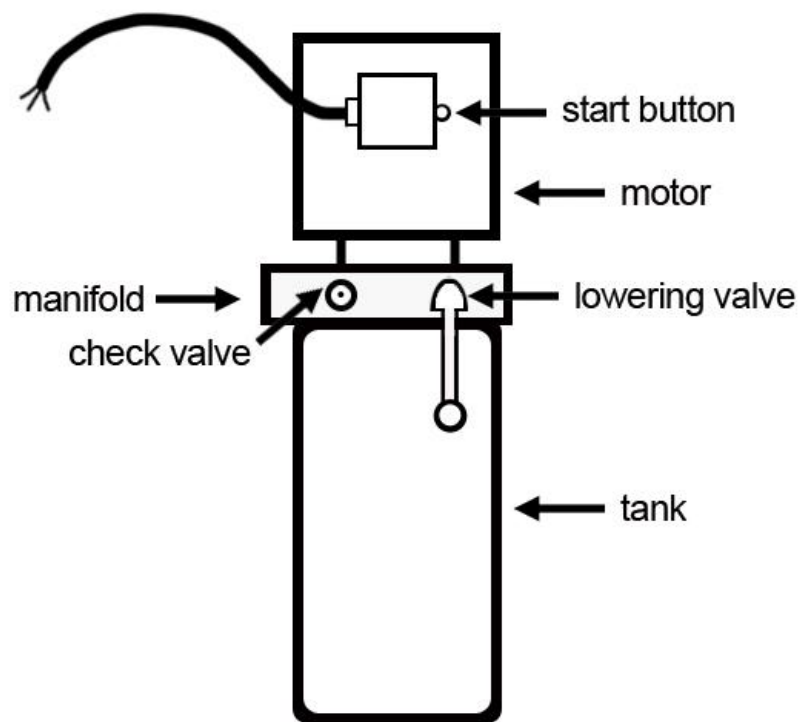
Some states do not allow exclusion or limitation of consequential damages or how long an implied warranty lasts, so the above limitations and exclusions may not apply. This warranty gives you specific legal rights and you may have other rights, which may vary from state to state.

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