TP10A HD /TP11A HD
INSTALLATION
AND
OPERATION
MANUAL

DATE INSTALLED:_____
SERIAL #_____

IMPORTANT INSTRUCTIONS:

1. Read this manual thoroughly before installing, operating, or maintaining this lift. Do not anchor offside leg until lift is in operation and overhead is installed and legs and uprights are checked and verified that they are plumb. The overall width of lift may very.

2. Following the installation of this lift, this manual is to be delivered to the owner / user / employer of the lift.

3. The floor on which the lift is to be installed must be 4 inch minimum thickness concrete with a minimum compressive strength of 4000 PSI, and reinforced with steel bar.

   Failure by the purchaser to provide the recommended mounting surface could result in unsatisfactory lift performance, property damage, or personal injury.

4. The lift requires 230 Volt, 60 HZ, single phase, 30 amp AC electrical service.

5. The lift requires approximately 12 quarts of hydraulic oil, ISO 32, such as Mobil DTE 24, Texaco HD 32.

6. The lift is designed for indoor use. Lifts placed outdoors must have the electrical motor and components, and the hydraulic control valves, protected from moisture and the elements.

7. Lifts placed outdoors should not be used unless the components are protected from moisture and the elements, and the conditions are dry. Do not operate the lift if moisture is present.

8. Read the anchor bolt instruction page before drilling and installing the anchor bolts.

9. Follow the procedure to reduce the amount of air trapped in the cylinders during installation and the initial powering of the cylinders. Failure to do so can result in unsatisfactory lift performance.

10. Do not raise a vehicle on the lift unit the lift has been correctly installed and adjusted as described in this manual.

11. Do not exceed the rated capacity of the lift.

12. Never use this lift to raise just one end of any vehicle.

13. The troubleshooting and maintenance procedures described in this manual can be done by the lift's owner / employer. Any other procedure should be done only by trained lift service personnel: These include cylinder replacement, leg and cross rail replacement.

14. Replace worn or broken parts only with genuine Chapion Auto Lift parts or their equivalent.

SAVE THESE INSTRUCTIONS

If anything is damaged or missing, call the factory immediately

Your lift is designed for many years of trouble-free service when properly installed. Please take time to read this Installation Manual before proceeding.

Required Installation Tools:

Wrenches (open end) 3/4 ", 11/16", 1-1/8", 1-1/16"
Ratchet & sockets 1/2", 9/16", 5/8", 3/4", 1-1/16", 1-1/8"
Level , Rotary hammer drill with ¾" concrete bit
Funnel, Vice grips, 25' tape measure, and Chalk line
Ladders or Scaffolding

Packing List:

2 – columns	1 – left Ext - 10K	2 – cylinders	2 – short arms 90 degree
1 –power unit	1 – right Ext 10K	1 - Short hose	2 – long arms
4–truck adapters	1 – overhead beam	1 - Long hose	4 – swivel pads
Lock Release Cable / Handle			
	1 – bolt box	2 – Cables	4 – swing arm pins

This lift is built from very heavy metal parts. Use proper lifting techniques when lifting individual pieces. Use plenty of help when moving lift pieces. It is a good idea to wear work gloves to protect your hands.

This lift is designed to be installed on a minimum of 4" thick, 4000 psi, steel reinforced concrete. Do not install this lift on asphalt, wood, or any other surface other than described. A level surface is recommended.

Do not install this lift over expansion joints or cracks. Check with qualified engineer or architect.

Do not install this lift over a basement or on any level other than ground level (i.e.: second floor) without written authorization from a building engineer or architect.

Improper installation can cause damage or 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 the lift.

INSTALLATION

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

1. Determine where the lift is to be installed. Make sure there is enough room in front, behind and on the sides of the lift. **See (figure 1 & 2)** for proper dimensions. Chalk a 24" X 134-5/8" (TP10AHD) or 137-7/8" (TP11AHD) rectangular square on the concrete floor. Check for proper clearances.

2. Remove the power unit, overhead beam and the four swing arms from the packaging of the lift. Next remove the bolts holding the two columns together. Remove the top column from the bottom column.

3. Remove the uprights from the top of the columns (TP10AHD ONLY) Do not throw away the bolts and nuts.

4. TP10AHD ONLY : Bolt the upright to the top of the column. Tighten bolts at this time.

5. Stand up the main-side column (one with power unit bracket) and position it in one corner of the chalked lines. It is recommended that this column is placed on the passenger side of the car, but it can go on the driver's side if desired. Keep in mind this is the post where your electrical supply will be connected. Column should face the direction the car will approach. Install the anchor bolts and level the column. If shimming is required in leveling the column, keep the shims as close to the anchors as possible. Tighten to 90ft.lbs. **Use 6 anchors only on each leg. Do not use impact. If concrete does not allow specified torque – replace with 48" x 48" pad 6" minimum keyed under and flush top of existing floor – 3000 psi. minimum compressive strength. See (figure 1).**

6. Stand up the offside column just opposite the main side column inside the chalk lines.

7. Assemble the crossbar. Install the "L" bracket on the same side as the power unit. The offside is held on by a 4" bolt and double nut

8. Bolt the cross rail to the top of the column. Do not tighten bolts at this time.

9. With the main-side column anchored and the overhead beam in place it is time to anchor the offside column. The base may not line up exactly on the chalk line – this is okay - Make sure the offside column is level and plumb - anchor the column using 6 of the ¾" x 5 1/2" anchors that are provided. If shimming is required in leveling the column, keep the shims as close to the anchors as possible. **Use 6 anchors only on each leg. Do not use impact. Tighten to 90ft.lbs**. **Do not use impact. See (figure 2).** Anchor the outside corners first and measure to make sure it is square with the other side.

10. Tighten all the bolts on the overhead beam and uprights.

11. Manually raise both carriages to about waist height and lower down on the safety stops. Make sure they are at the same height and lower down on the safety stop. *DANGER WATCH OUT* - double check the latches before working under the carriage. Make sure carriage is not binding on chain and the chain is not kinked. Be sure each carriage is at the same height by measuring from the top of the base to the bottom of the carriage. This dimension should be within 1/4". Check to insure the cylinders are properly seated onto base plate.

12. Take one of the equalizer cables and place a ¾" SAE flat washer over the threads and onto cable. Using vice grips and 1-1/16 deep socket tighten a ¾" cable nut half way down the threads.

13. Standing in front of the main-side carriage notice the 2 holes in the top of the carriage. **(See Figure 3)**

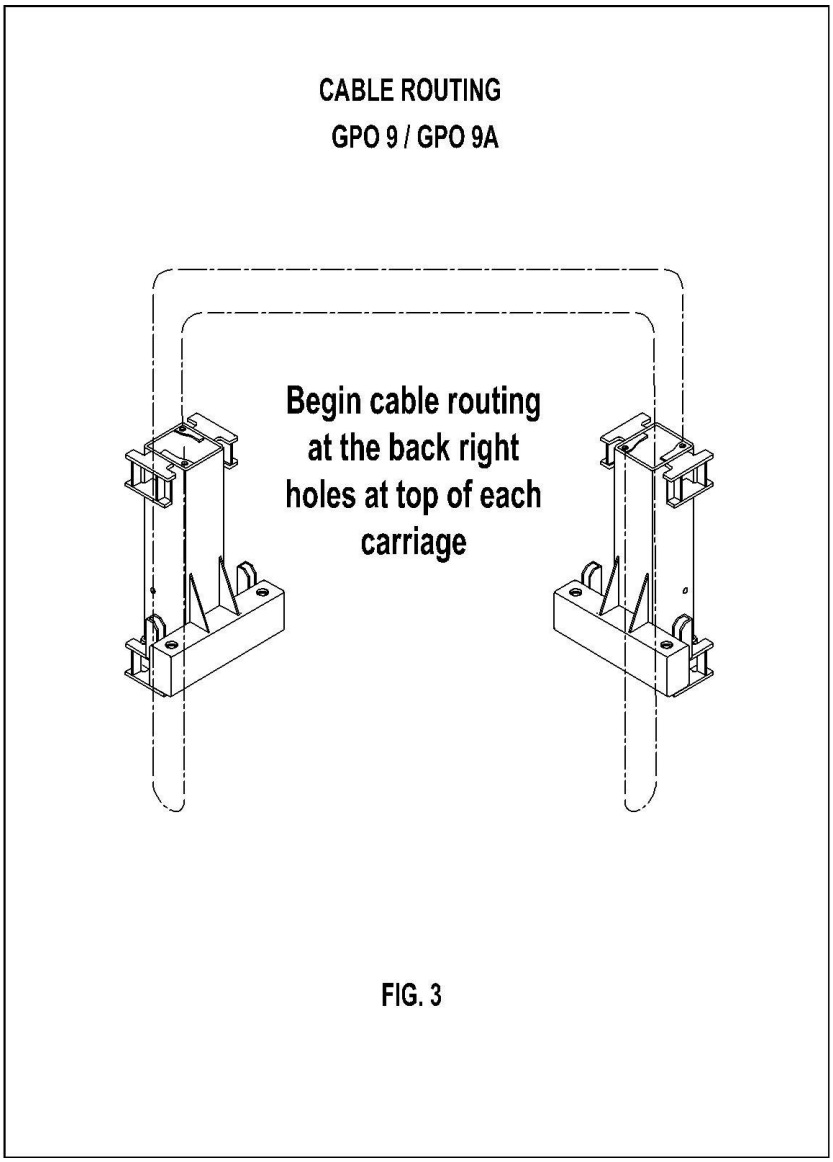


FIG. 3

14. Take the threaded end (end without nut) and run it up the carriage through the back right hole, starting from the bottom side of the carriage.

15. Then, go up and over the sheave at the top of the upright, across the overhead beam to the offside upright, over that sheave, down through the back left hole in the carriage.

16. Now, thread the cable under the bottom sheave and back up through the front left hole. Place a flat washer and cable nut on the threads and tighten until slack is out of cable.

17. Repeat this for the other cable. Start with the opposite carriage. Tighten cables equally. Then double nut both ends of the cable

18. Install the rubber door guards using 4 allen head bolts.

CONNECTING POWER UNIT AND HYDRAULIC HOSE

1. Using the four small bolts - mount the power unit to the main side column.

2. Install the tee fitting to the power unit. Do not tighten at this time.

3. Install the coupling into the cylinder. The round seal goes between the cylinder and the coupling.

4. Connect the short hydraulic hose to one side of the tee fitting. Run the hose down the column – thru the hose loops - and connect the end to the coupling at the bottom of the column.

5. Connect the long hydraulic hose to the other side of the tee fitting. Run the hose up the column through the loops on the side of the upright, and through the three clamps on top of the overhead beam and down the backside of the offside upright through the loops. Attach the end of the hose to the coupling at the bottom of column. Do not over tighten. **(See Figure 4)**

6. Tighten Tee-Fitting on power unit at this time.

LOCK RELEASE CABLE

Route lock release cable from side to side. It is held by two small blocks with allen head bolts. Once the cable housing is in the cable holder – tighten the allen head bolts. Do not over tighten because it will crush the cable housing

On the off-side – install the cable into the cable block. Tighten the allen head bolt. Install the main side. Be sure the the cable is tight enough to pull both locks open when you pull the release handle.

Install the release handle and covers.

INSTALLING SWING ARMS

Locate swing arms and swing arm pins. Take one of the arms and insert it over the hole on the carriage (11K) or between the bolster (10K). Line up the holes and lubricate and insert the pin.

It is easier to raise the arm locks while inserting the pins.

Short arms go to the back of the lift. (As you drive on the lift)
Long arms go to the front of the lift. (As you drive on the lift)
Check the arm locks for proper engagement.

Tighten the stops (bolts) on top of the arms to keep the arms from extending too far.

ELECTRICAL CONNECTION

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 PHASE. 60 Hz 30 AMP. MOTOR CAN NOT RUN ON 50Hz WITH OUT A PHYSICAL CHANGE TO MOTOR..

There is a black wire, a white wire, and a green wire. This is a 220-volt power unit. Black and white is hot and green is ground. The overhead safety switch should be wired at this time. The switch breaks the power when a vehicle bumps into the padded bar.

HYDRAULIC FLUID

Remove vent cap from tank on power unit. Next remove ¼" pipe plug that is located right beside the breather cap. Place a funnel into vent cap hole and fill the tank with one of the following fluids:

AW-32 or **ISO-32** hydraulic oil**. Mobile DTE 24, Texaco HD 32**
***DO NOT USE DEXRON® IN THIS LIFT*!**
This tank will hold approximately 12 quarts.

ADJUSTING CABLES

Place a pair of small or medium vice grips around the shoulder of the long threaded adjusting bolt.

Use 1-1/16" deep socket to adjust the slack out of the cable. Adjust tension to cables equally. Do not over tighten. **Note: If one of the cables is tighter than the other the carriages will go up uneven.**

FINE TUNING ADJUSTING OR SYNCHRONIZING THE CARRIAGES

One of the most important things to remember is not to tighten down one side more than the other. The key is to tighten one side a half dozen turns then the opposite side a half dozen turns. After getting both cables equally tight **(being able to move cable about an inch fairly easy)** raise the lift all the way up by pressing the up button on the power unit. Do not bottom the lift out at the top by holding down the switch.

Raise the lift slightly – pull the lock release handle and lower lift all the way to the floor. Raise the lift again and listen for the clicking of the safety locks in each post. Determine which side is lower and tighten the adjusting bolt on the opposite side. Remember to only tighten a few turns. Cycle the lift up and down and listen to the safety latch click and make the proper adjustment. Adjust until the carriages are with ¼" of each other or the clicks are almost all the same time. When cables are adjusted properly they should be fairly tight.

Check all bolts and nuts to make sure they are tight.
Do not use an impact on concrete anchors.
Check all fittings for leaks.

Please feel free to call with any questions
800.844.9608

FINAL ASSEMBLY

Cycle lift up and down empty to insure carriages are synchronized. If, for some reason, you are having a problem with this, call the factory for assistance.

Place a vehicle on the lift and raise until swivel pads are in contact with the frame of the car. Raise the vehicle up about 3 more feet and lower until the tires touch the floor. Keep raising and lowering the vehicle, increasing the height each time, until the vehicle is completely to the top. This procedure pumps all the air from the system. Now the lift is ready for use.

OPERATION

Center vehicle left and right between the post.

Position swivel pads under frame of vehicle at the proper lifting points.

Push the up button and raise the lift until the swivel pads make contact with lifting points.

Check all swivel pads to make certain all adapters are making full and proper contact.

Raise vehicle approximately 2 feet and check the stability by rocking the vehicle.

Raise vehicle to the desired height and lower on to the locking device.

To lower, raise lift slightly, pull release cable ring on each carriage, and pull down on lowering release arm and **LOWER SLOWLY.**

After lowering, rotate the swing arms back out of the way.

MAINTENANCE

ARM LOCK ADJUSTMENT – caution – this is a safety device - check daily and adjust or repair before use.

LUBRICATION: Lubricate all nylon wear block corners inside each post with heavy duty bearing grease once every six months. Lubricate chains every six months.

OVERHEAD CUT-OFF BAR: Check to make sure the overhead working properly every week.

ANCHOR BOLTS: During first week of use, check anchors daily. Do not use an impact wrench. After first week, check once a month for the first six months.

CONCRETE:
Check concrete for stress cracks daily for the first two weeks of use. From thereafter, check monthly.

CHECK ALL BOLTS AND NUTS EVERY SIX MONTHS.

HYDRAULIC OIL: If your lift will raise all the way to the top, your lift has enough oil. Hydraulic oil should be changed once a year, along with cleaning the suction filter.

SAFETY LATCH ADJUSTMENT – caution – this is a safety device - check daily - listen for click of latch – adjust or repair before use.

Do not make any adjustments with anything on the lift.

If the safety latch in either leg does not operate, use the following procedure to adjust it: **See fig.9**

Raise the lift until you can see the latch through the access hole in side of the column.

Do not set lift on latch. Allow the hydraulic system to hold the lift up.

Pull the latch forward with a screwdriver.

If the latch is not working during ascent, tighten the adjustment bolt one full turn and test latch – follow this procedure until latch operates.

If the latch is not working during descent, loosen the adjustment bolt one full turn and test latch – follow this procedure until latch operates.

Latch and or cable adjustments are normal maintenance and not a warranty item.

Trouble Shooting Chart

TROUBLE	CAUSE	SOLUTION
(1) Pump/motor does not start.	Improper electrical hook-up. Blown fuse. Pump binding or stuck. Motor thermal overload tripped. Thermal overload in starter box tripped (30 only).	4 Rewire. 4 Replace fuse. 4 Remove (flush) or replace. 4 Let cool. 4 Push button (starter box) reset. 4 Replace switch. 4 Call electrician.
(2) Pump/motor operates but no pressure.	Wrong rotation of motor (NOTE: Air bubbles out inlet lone).	4 Rewire.
(3) Pump/motor operate low flow and/or low pressure (in raise mode).	Clogged inlet strainer (cracking noise). Relief valve leaking dirt on seat.	4 Clean strainer in solvent. 4 Flush seat or ballize seat again.
(In pressure mode).	Release valve leaking. Dirt on seat. Release stem out of adjustment. O-Ring missing or cut. Relief valve setting too low.	4 Flush seat. 4 Readjust stem setting. 4 Replace O-ring. 4 Reset.
(4) Pump/motor operates does not hold system.	Fitting/fittings loose. Check valve leaking. Dirt on seat. Release stem out of adjustment. O-ring missing or cut. Defect of blowhole in motor end head internally.	4 Tighten or replace fitting. 4 Flush seat. 4 Readjust stem setting. 4 Replace O-ring. 4 Replace motor.
(5) Failure to lower.	Sticking release valves stem, or out of adjustment.	4 Replace stem and/or cartridge. 4Readjust stem setting.
(6) Air in oil.	Loose inlet connection or low oil level. Leaky or blown oil seals in pump. Siphon check does not seat	4 Tighten connections. 4 Add oil. 4 Replace oil seat. 4 Replace.
(7) Motor does not run when energized.	Breaker thrown or fuse blown. Motor thermal overload tripped. Thermal overload in starter box tripped (30 only). Check micro switch. Faulty wiring, connections.	4 Reset or replace. 4 Wait for overload to cool. 4 Push button to reset. 4 Replace if necessary. 4 Call electrician.
(8) Oil blows out the breather/filter port	Oil overload. Vehicle has been lowered too fast.	4 Remove to ½ to 2/3 full. 4 Restrict lowering with manually controlled release valve. 4Replace.
(9) Cylinder will not lift load.	Seal damage to piston. Oil leaking from front of cylinder.	4 Call factory for instructions. 4 Call factory for instructions.
(10) Oil requirements.	AW-32 or ISO-32 hydraulic oil.	

SAFETY TIPS

Read all instructions.

INSPECT your lift daily. Never operate if it malfunctions or if is has broken or damaged parts. Repairs should be made with original equipment parts.

Operating controls are designed to close when released. Do not block open or override them.

NEVER overload your lift. Manufacturer's rated capacity is shown on nameplate affixed to the lift. ALWAYS know the gross weight of vehicle.

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

ONLY trained and authorized personnel should do positioning of vehicle and operation of the lifts.

NEVER raise vehicle with anyone inside it. Customers or by-standers should not be in the lift area during operation.

ALWAYS keep lift area free of obstructions, grease, oil, trash and other debris.

Before driving vehicle over lift, position arms and supports to provide unobstructed clearance. Do not hit or run over lift arms, adapters, or axle supports. This could damage lift or vehicle.

Load vehicle on lift carefully. Position lift supports to contact at the vehicle manufacturer's recommended lifting points. Raise lift until supports contact vehicle. Check supports for secure contact with vehicle. Raise lift to desired working height. CAUTION: If you are working under vehicle, lift should be raised high enough for locking devise to be engaged.

Note that with some vehicles, the removal (or installation) of components may cause a critical shift in the center of gravity and result in raised vehicle stability. Refer to the vehicle manufacturer's service manual for recommended procedures when vehicle components are removed.

Before lowering lift, be sure tool trays, stands, etc. are removed from under vehicle. Release locking devices before attempting to lower lift.

Before removing vehicle from lift area, position lift arms and supports to provide an unobstructed exit.

Care must be taken as burns can occur from touching hot parts.

ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistance lenses; they are not safety glasses.

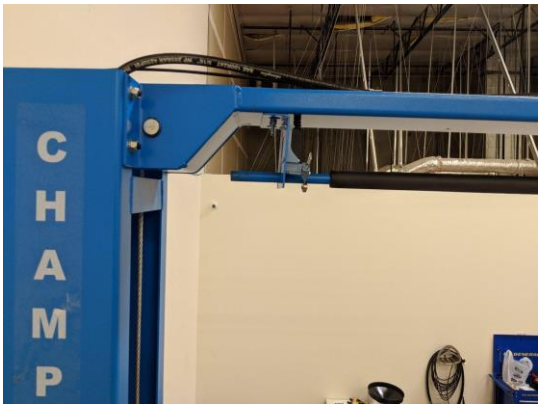
To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).

Adequate ventilation should be provided when working on internal combustion engines.

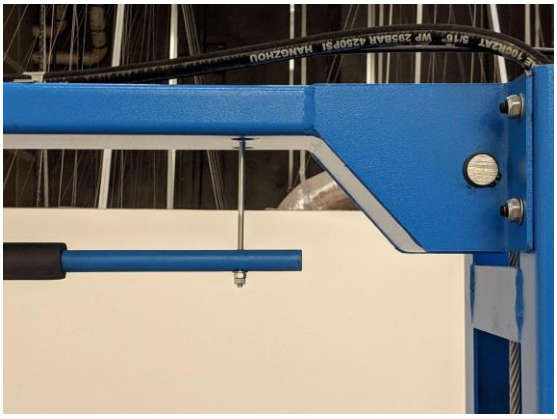
Use only as described in this manual. Use only manufacturer's recommended attachments.

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

POST THESE SAFETY TIPS WHERE THEY WILL BE A CONSTANT REMINDER TO YOUR LIFT OPERATOR. FOR INFORMATION SPECIFIC TO THE LIFT, ALWAYS REFER TO THE LIFT MANUFACTURER'S MANUAL.



Overhead Safety Switch


Safety Bar Attachment


Lock / Cable Assembly

Lock Handle – Lock Cover Assembly


Post Assembly


CHAMPION
CHAMPION