TP-12

INSTALLATION

MANUAL

LIFT CONTENTS

IN COLUMN

2 CARRIAGES
2 SAFETY LATCHES
2 646 PITCH LEAF CHAIN
2 TOP PLATES
2 3 X 36" CYLINDERS WITH STRAIGHT FITTINGS

INSIDE THE LEG

2 30'8" CABLES
1 120" HOSE
1 68" HOSE
8 TRUCK ADAPTERS DROP IN **OR**
4 6" SLIP ON TRUCK ADAPTERS
1 TP-10 INSTALLATION MANUAL

1 PARTS BOX

1 O RING ELBOW FITTING
1 ELBOW FITTING
2 STRAIGHT FITTING
4 3/4" SAE WASHERS
4 3/4" NYLON NUTS
4 5/16 WASHERS
4 5/16 BOLTS
4 5/16 NUTS
20 3/4" WEDGE ANCHOR, WASHERS AND NUTS

ON TOP

1	**POWER UNIT**
1	**PAN COVER**
4	**MEDIUM SIZE ARMS**
4	**SWIVEL PADS (OPTIONAL SPIN UP)**
4	**SWING ARM PINS**

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STEP 10 Test and adjust lift

OPERATION

Learn proper operation and recheck lift components

MAINTENANCE SCHEDULE

Please read and follow maintenance guide

TROUBLESHOOTING GUIDE

IMPORTANT NOTES

- Do not install lift on any asphalt surface.
- Do not install this unit on any surface other than concrete conforming to minimum specifications.
- Do not install this lift over expansion joints or cracks. Check with building architect.
- Do not install this lift on a second floor with a basement beneath without written authorization from building architect.
- This lift is only as good as the floor that you put it on. A good level floor is recommended for proper lift operation and installation. Cement should be minimum of 5" thick and 3,200 psi tensil strength with steel or fiber mesh reinforcements.
- The lift is intended to lift vehicles only. It is not designed to lift any person or equipment containing persons.
- All persons using this equipment should be qualified, responsible persons and should follow the operation and safety guidelines set forth in this manual.
- For specifications on concrete pads, please call for technical assistance.
- 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 the installation and operation manual in its entirety before attempting to install the lift.

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Step 1: Measure lift area and check area for defects

The first step to any successful installation is to measure the bay for correct positioning of the lift. Measure the width of your doorway and divide it by two. This will give you the center of your doorway. Make a mark on the floor at the center of your doorway and measure from the side-wall to center mark. Note the distance and measure the same distance from the side-wall at the front of the shop. Now snap a chalk line between the two marks. This is the center line for your lift.

Measure 74" from the center line to each side of the center line at front and rear of the shop. Snap two more lines. These are your lifts outer dimensions.

NOTE:
If you have less than 4" between the wall and your outer dimension, you should move the lift over to allow for at least 4" of space. Team equipment recommends 12" between the wall and the outer dimensions, but where that is not possible, 4" is acceptable.

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STEP 1: continued

For TP-12, find the length of the bay minus any work benches or other equipment and divide by two. For example, a 25' bay minus a 2' work bench equals a 23' bay. The center of the lift would be equal, at 11'6" from the garage door and the work bench. Draw a chalk line. Now measure 12" toward the garage door from the center line; this will be point "a". Measure 12" toward the work bench and mark this point "b". Measure diagonally from point "a" to the opposite side 138" and make a mark. This will be point "c". Measure from "b" in the same manner to find point "d". Mark a chalk line horizontally, from point "a" to point "d" and this will be your base line.

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Step 2: Cylinder Assembly_____Power Unit Side

With the column lying on the ground, slide the carriage up far enough to place the cylinder into the column. Remove the plastic (square head) plug. Install the cylinder so that the open port faces the opening in the back of the column. Stand the column up and assemble the pipe nipple and the elbow into the rear facing port using Teflon tape. Be sure the elbow is facing up when tight. While guiding the chain over the roller, release the safety lock on the carriage and slide the carriage back down to the bottom /of the column. On the inside or the cylinder remove the cap and apply the straight fitting

Note: ***ON The opposite Side you just use your straight fitting to the inside to connect the hose.***

Step 3: Position columns and uprights, level columns and install top beam.

Examine the area where your lift is going. Check for large cracks in the floor, expansion joints and for overhead obstructions. If either column is going to sit across or on top of an expansion joint, you may need to move the lift to a different location.

NOTE: ***Bolt holes in the base plate should be at least 4" from any expansion joint or large crack. You will need at least 12' of unobstructed ceiling height.***

Position the columns as shown in figure 3. We recommend the power unit on the passenger side for ease of operation. Install the uprights so the threaded rods at top face each other (The threaded rods should face the center line). Hand tighten for now. Using a four-foot lever, 3/4" flat washers and shims provided, shim the columns level, front-to-back and side-to-side. Recheck the uprights to see that they are facing each other. If not, rotate the columns as needed and be sure to keep the base plates on the line.

You are now ready to install the pan cover . Carry the pan cover to set the distance between the post making sure it lines up with front bolt holes on the base plate of your column. Re-level the both columns and leave enough room on the anchor bolts to allow your plate to fit and be tightened on at the end of running your cables and hoses.

Check the columns again to see if they are level and on the base line. You may need to hammer the columns toward or away from the center to get them level. Be sure to keep the columns even on the base line. The outer dimensions are not as important at this point.

NOTE: ***Double-check everything now-- The next step is permanent!***

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STEP 4: Install anchor bolts and re-level columns

You will need a rotary hammer with a 3/4" carbide masonry bit (most rental outlets carry them). Do not use a regular drill and bit!

Your floor must be a minimum of 5" thick and 3,200 psi concrete or better. Using your rotary hammer, drill twelve 3/4" holes. Drill through the floor and hammer the anchor bolts in half-way (Install the nut and flat washer on the bolt before placing them into the hole). **NOTE:** ***Be careful not to move the columns when drilling. One way to avoid this is to drill the holes and place the bolts one at a time and save the inside hole for last.***

Recheck the level of each column and place shims around or beside each bolt and wherever there is space. Hammer the anchor bolts all the way down. Using a torque wrench, tighten the anchor bolts to 120 pounds of torque. Recheck the level of the columns. If the columns are off, loosen the anchors and use a pry bar to tilt the shims and columns as needed. Retighten and check again. With all bolts tight and the columns as close to the level as you can get, you will have a good solid installation and years of trouble-free service.

STEP 5: Install and adjust cables

Using two people, a forklift or a shop crane, lift each carriage to the second or third lock. Allow each carriage to rest on the locks and measure each side to be sure they are the same height. Unwrap the two large cables and separate them. Remove the four 3/4" lock nuts and the four 3/4" thin flat washers. Place nuts and two flat washers on each carriage so they are easy to get at.

With your back to the door and your standing between the posts, turn to your left. This will be called the "left" column. The side closest to the front wall will be the front end and the side closest to the door will be called the back.

Grab one cable and run it through hole in the corner of the carriage. Drop the end down on the floor, grab the end and put a flat washer and nut on it. Tighten the nut about 2/3 of the way on the rod. Tighten it until the stud clears. Grab the other end of the same cable and run down under the

pulley and across the floor to the other leg under the pulley and back up the hole in the carriage and apply the washer and the nut. Install the other cable in the same fashion, starting from the right sides and running it over the back pulleys. With both cables in place, you are ready to adjust. Start on the left side. With a pair of vice grips, grab the bottom of the rod whose threads are pointing up. Place a 1 1/2" deep socket on the nut and tighten each side evenly. Go to side to side just like a car wheel. You should be able to reach up about 1 1/2" above the carriage and pull at least 1 1/2" of tension from the cable. To double-check the cables, just power up the motor to release the locks and the hit your release lever to go down. And then, power up and if the locks click simultaneously, then your locks are correct.

NOTE: ***Do not over tighten cables. This will cause the lift to lose carrying*** ***capacity and could damage the components.***

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Step 6: Install power unit, hoses.

Unpack the power unit from the box and remove the wood shipping board. Inspect the unit for damage before continuing. Remove the plastic cap from the 3/8" port on the side of the pump and install the elbow fitting found in the parts box. Screw in the elbow until the O-ring touches the pump and the ends are facing the top of the motor and the bottom of the tank. Then use a 1 1/16" wrench to tighten the locking nut and assure a good seal. Next use a screwdriver to pry off the 1" plastic cap from the tank. Place a funnel in the hole and fill the tank with 3.5 gallons of non foming hydraulic oil Locate the four 5/16" x1" bolts, four nuts and four lock nuts in the parts box. Place the four nuts in the four holes on the mounting plate on the column, then place the four nuts hand-tight onto the four bolts. Hang the power unit on the four bolts and put the four lock nuts in place to hold them. Tighten the four nuts first, then the lock nuts.

Unpack the long hose and connect one end to the fitting at the front of the left column. Run the hose across the floor and connect to the opposite cylinder e top of the "T" fitting. You may wish to attach the hose to the top

beam with wire ties or clamps. Attach the short hose to the bottom of the elbow fitting and then to the bottom of the right column.

Note: ***Check all fittings to be sure they are tight, to avoid leaks!***

STEP 7: Install arms

Place the four arms on the end of the square tube attached to the carriage. (On model TP-12 all arms are one length). Secure with steel pins.

STEP 8: Install swivel pads and check height adapters

Drop in swivel pads are standard but optional spin ups available.

Screw the four spin up pads onto the arms and test to see if they screw up and down smoothly in the arm nut. Slip the four truck adapters over the pads to make sure they all fit. If you have one that doesn't fit, call the service line for a replacement.

STEP 9: Electrical hook-up

The electrical hook-up should be done by a certified electrician. The power unit requires 208-220 volts on a 30-amp circuit breaker. It is recommended that you install a means of shutting down the power in close proximity to the power unit (a twist lock hung from the motor will be sufficient). The motor is factory pre wired for proper power and installation.

Step 10: Test and adjust lift

With the power property hooked up and turned on, push the silver button to raise the lift (the cylinders will take a little while to catch with the

chain, then the lift will began to rise). Raise the lift as high as it will go. Pull the key ring located near the bottom of each carriage to release the safety locks. Locate the lowering handle on the power unit. Pull and hold the handle until the lift goes all the way down to the floor. Continue holding for at least 30 seconds to allow any air to escape from the hydraulic system. Once the lift is fully down, it's a good idea to have someone push down on the cylinders while you hold out the lowering handle. This will force out any additional air pockets. You only need to do this once.

Run the lift all the way up and down two more times. While running the lift, listen to the safeties clicking. Each side should click within one second of each other or simultaneously. If they are not clicking together, you can adjust the cables to compensate by either tightening the side that is clicking first or loosening the side that is clicking last. Remember not to over-tighten cables, they should be firm much like a banjo string

If one or more safeties are not clicking at all, you will need to adjust the safety locks. This can be done by raising the lift until you see a bolt attached to the safety latch through the hole in the side of the column. You will also see a bolt attached to the safety latch. Give the bolt one turn clockwise and run the lift up and down once again. Continue this process until the safety starts to work. If the safeties are locking as you lower the lift, you will need to turn the bolt counter-clockwise in the same manner.

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Maintenance

Maintenance is the key to smooth, safe operation and longer life of your lift. Follow these guidelines on a regular basis to keep your lift running efficiently.

1. Your lift is only as good as the floor it is mounted on. Cracked or shallow concrete should be watched at all times. Although your floor may be thick enough according to manufactures specs. Cracks and shallow spots may cause bolts to loosen and pull out of the floor. All anchor bolts should be checked and retightened at least once a month. Loose anchor bolts and weak cement are the number one cause of lift failure!

2. Grease all corners of the columns where the carriages run up and down. The grease will do better if you periodically clean off the old grease to get rid of any grit. A thin film of grease works better than thick blobs.

3. You should oil the chains on your lift at least once a year to keep them from rusting and freezing up. Thirty-weight motor oil or motorcycle chain lube will be sufficient.

4. All of the pulleys on your lift should be sprayed with a light oil such as WD-40 or similar lubricant, two or three times a year.

5. You should check for cracked or warped parts regularly and re-tighten any loose bolts.

6. Cables are an important part of your lift. They keep each side running equal to each other, allowing the safeties to catch together. If one side of your lift is running ahead of the other, most likely it is time to adjust your cables. Follow this simple procedure:

A: Raise the lift so the top of the carriage clears the chain and pulley.
B: Notice the threaded rod and nut which stick out through the top of each carriage. These are your adjusting nuts.
C: You will tighten the nut on the side that is lifting ahead of the other by holding the bottom of the threaded rod with a pair of vice-grips and turning the nut with a suitable wrench or socket.
D: Run the lift up and down to determine if you need further adjustment. If so, repeat steps **A** through **C.**

NOTE: ***If at any time you're not sure of the safe operation of the lift, discontinue using it and call our technical support line for assistance.***

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Operation: Learn proper operation and recheck lift components

On model TP-12, swing front arms to the front and rear arms to the rear. Once arms are in position, pull a car into the bay. A general rule of thumb is to stop the car with the center of the wheel base even with center of the columns.

Swing the four arms under the vehicle and position the pads under the appropriate lifting spots. (If you are not sure of the proper lifting points, you should check the vehicle's service manual or contact the vehicle manufacturer). Adjust the screw pads so they all hit their lift points at the same time. This will allow the car to be level when rising.

With the pads in their proper locations and no obstructions around the lift or vehicle, you may now press the button on the power unit to raise the vehicle.

Raise the vehicle so that the front tires are only 6" off the ground. Walk to the back of the vehicle and push up and down on the bumper. The vehicle will rock, but should not at any time lose contact with the pads. If the vehicle is bouncing off the pads or at all feels unstable, you should lower it back to the ground and reposition the pads to balance the load. Repeat the process until the vehicle is completely stable. When the vehicle is stable, you may raise the lift all the way to the top. Listen to safeties and adjust if necessary.

The proper operation of the lift requires that anytime you raise a vehicle to work on it, you must lower the lift onto the safety locks. This is done by raising the vehicle to the desired height and lowering the lift until it stops on the next available lock. To lower the vehicle, you must first raise the lift 1/2", release the safeties by pulling the key ring located near the bottom of each carriage, and then pull the lowering handle. If you wish to lower the vehicle, you must lower the vehicle 6" below the desired height, raise the lift again to engage the locks and then lower the lift onto the locks.

Never work under or near the lift without the locks engaged- the pump is not intended to be a load-holding device. Not using the locks will result in premature failure of the cylinders, pump, and cables- and can cause serious property damage or personal injury. Failure to heed this warning will result in immediate termination of your warranty.

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CHECK OFF LIST

6 – LARGE PULLEYS	
1 – SINGLE AND DOUBLE PORT (CYLINDERS)	
2 – STRAIGHT FITTINGS (PIPE NIPPLE WITH FITTING)	
2 – BLACK CAPS	
4 - ARM LOCKS ON CARRIAGES	
2 - TOP PLATES With Large Pulleys	
4 - MEDIUM ARMS	
4 – SWING ARM PINS	
4 – SWIVEL PADS	
4 – TRUCK ADAPTERS	
1 – SET 30'8" CABLES	
1 – 120" HOSE	
1 – 68" HOSE	
1 – BOLT BOX	
1 – PAN COVER	
1 – POWER UNIT	

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ASSEMBLER

_____

FOREMAN

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CUSTOMER