Model 12000, 12000E

Serial Number : 03602 10103 (Purchaser to fill in)

4 POST ABOVE GROUND LIFT
12000 – POUND CAPACITY
INSTALLATION MANUAL

Notice: Any Modifications or Installation of Non-Factory approved parts voids any and all obligations from Manufacturer.

IMPORTANT NOTICE:

THE FLOOR ON WHICH THE LIFT IS TO BE INSTALLED MUST BE 4 INCH MINIMUM THICKNESS CONCRETE, WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI, AND REINFORCED WITH STEEL MESH OR BAR PER COMMERCIAL PRACTICE. PADS MUST BE TWO FEET BY TWO FEET BY ONE FOOT THICK, REINFORCED WITH STEEL PER COMMERCIAL PRATICE.

FAILURE BY THE PURCHASER TO PROVIDE THE RECOMMENDED MOUNTING SURFACE COULD RESULT IN UNSATISFACTORY LIFT PERFORMANCE, PROPERTY DAMAGE, OR PERSONAL INJURY.

IMPORTANT:

READ THIS INSTRUCTION MANUAL BEFORE INSTALLING LIFT.

READ THE ANCHOR BOLT INSTRUCTION PAGE BEFORE DRILLING AND INSTALLING THE CONCRETE ANCHOR BOLTS.

DO NOT RAISE A VEHICLE ON THE LIFT UNTIL THE LIFT HAS BEEN CORRECTLY INSTALLED AND ADJUSTED AS DESCRIBED IN THIS MANUAL.

Model 12000/12000E Four Post Lift

PLEASE READ AND AFFIX TO THE LIFT BEFORE USE ALL WARNING LABELS THAT ARE LOCATED WITH MANUAL**(IF YOU DO NOT HAVE SAFETY STICKERS IN MANUAL OR AFFIXED TO LIFT, CALL THE FACTORY AT ONCE**)

READ ALL SAFETY, CAUTION AND WARNING INSTRUCTIONS BEFORE OPERATING LIFT**

USE APPLICABLE CARE AND INSPECTION FOR SAFE OPERATION**

THIS LIFT IS DESIGNED FOR AUTOMOTIVE USE ONLY**

THE VEHICLES CENTER OF GRAVITY SHOULD ALWAYS BE MIDWAY BETWEEN THE CENTER POINTS**

MAXIMUM LIFTING CAPACITY:
MODEL 12000 IS 12,000LBS TOTAL AND 6,000 PER AXLE MAXIMUM **

ALWAYS CHOCK WHEELS TO ELMINATE VEHICLE MOVEMENT**

DO NOT OPERATE LIFT UNTIL IT IS PROPERLY INSTALLED**

LIFT SHOULD BE OPERATED BY TRAINED PERSONEL ONLY**

TOOLS REQUIRED

¾"	OPEN END WRENCH
½"	OPEN END WRENCH
9/16"	OPEN END WRENCH
11/16"	OPEN END WRENCH
1 1/8"	OPEN END WRENCH

SOCKETS WITH RATCHET SIZES BELOW
1 /2, 3/8 (DEEP)

12" CRESCENT WRENCH

HAMMER

NEEDLE NOSE PLIERS

LEVEL

ROTARY HAMMER DRILL

¾" CONCRETE BIT

FUNNEL

PULL WIRE OR FISH TAPE

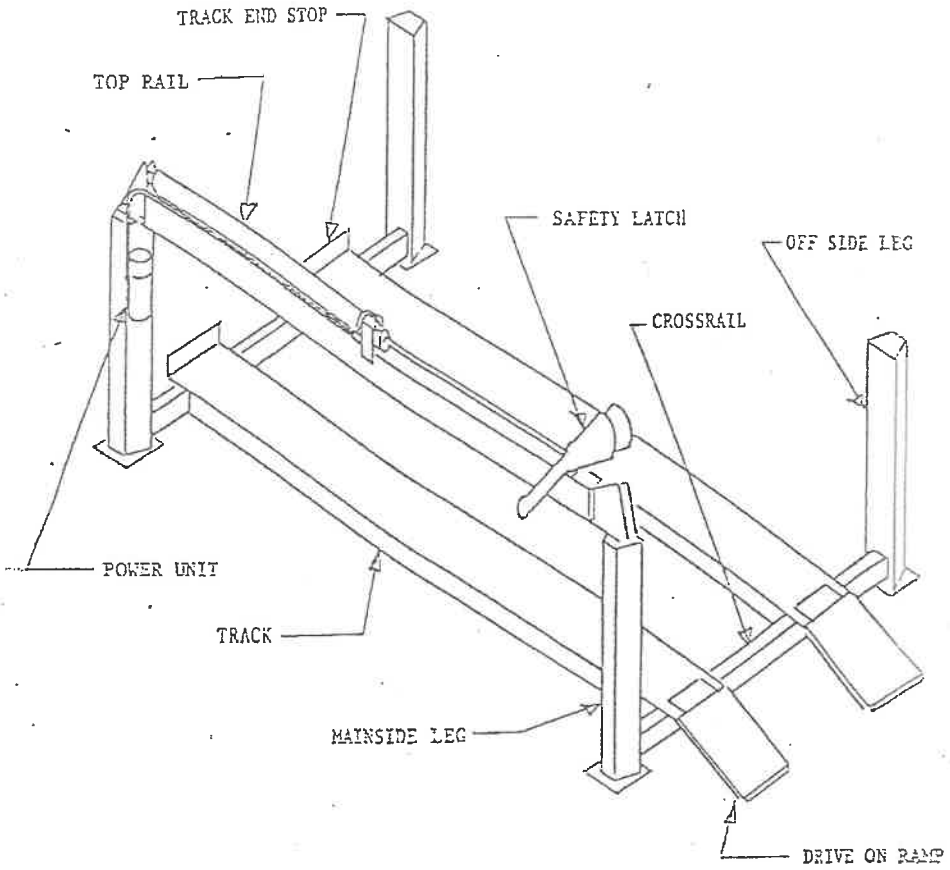
CHALK LINE

SMALL PUNCH

MODEL 12000 4-POST LIFT BOLT BOX

Anchor Bolt	16 each
5/16" Shoulder Bolt	2 each
¼ x 2" Roll Pin	2 each
¼-20 Nylon Locknut	2 each
5/16-18 Nylon Lock Nut	4 each
5/16-18 x 1" HCS	4 each
1" SAE Washer	2 each
1"-14 Nylon Lock Nut	2 each
Crossrail Chain Stud	2 each
Power Unit Fitting	1 each
634 Master Link	4 each

****see page 7 of Instruction Manual for packing bolts used in assembly****



***** Note: The top rail may be located on either the drivers side or the passenger side of the vehicle. The preferred side if the passenger side, with the power unit located on the right rear post. If you put the top rail on the drivers side, the power unit will be located on the front left post. Fig. 1A and 1B.**

Figure 1. General Arrangement

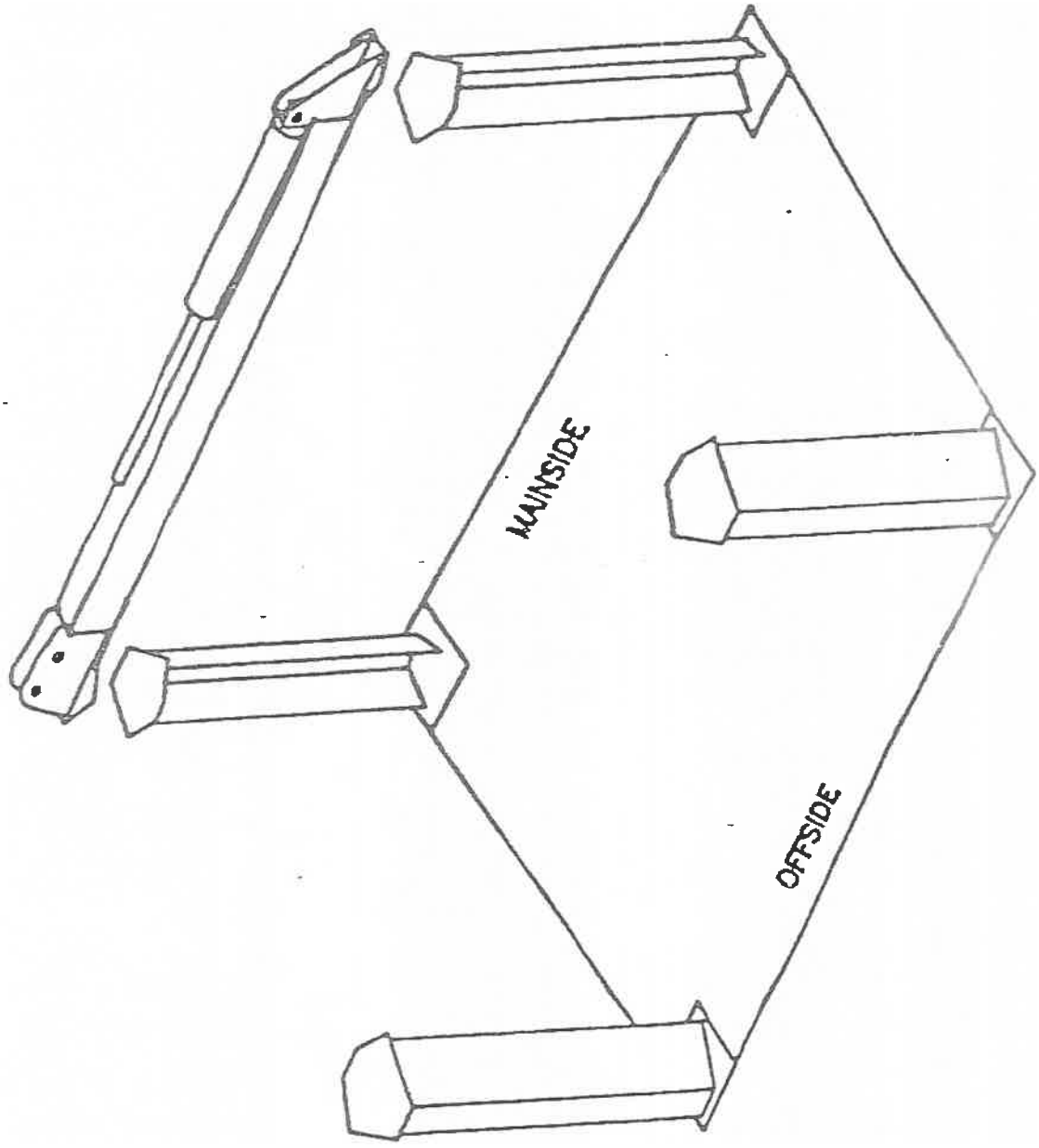


Figure 1A.

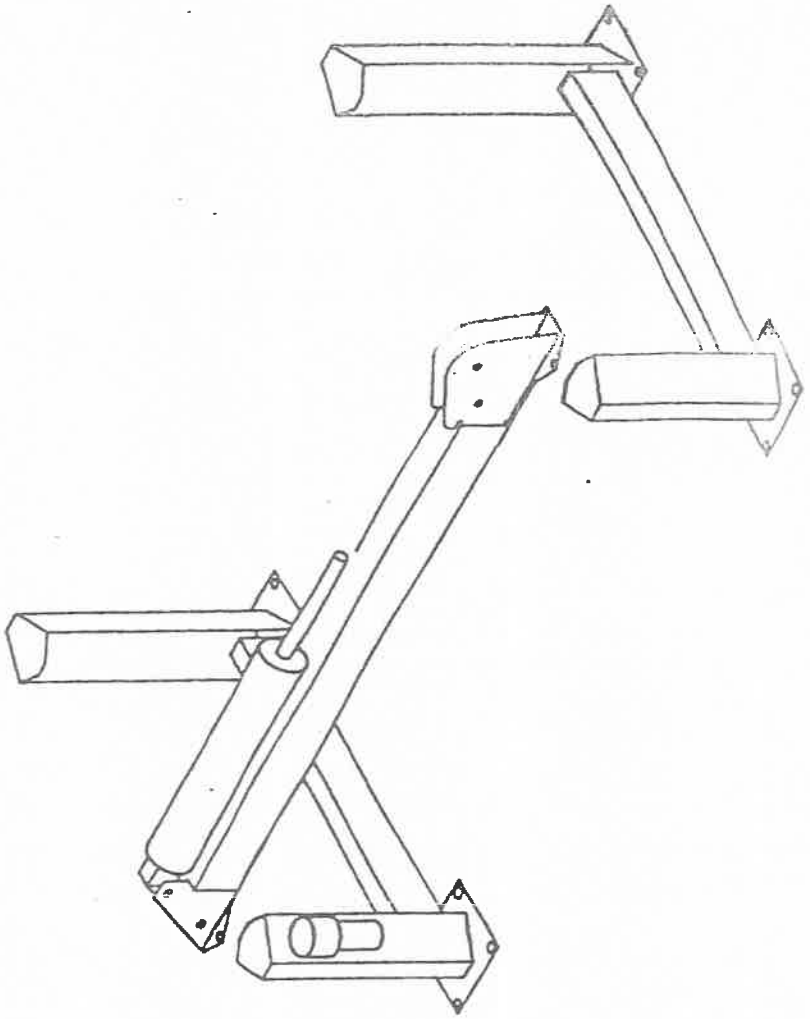


Figure 1B

INSTALLATION

Step 1. Determine the location for the lift installation. Figure 2 gives the overall dimensions of the lift, including drive on ramps. The area must be level and there must be free access to load and unload the vehicles.

There must be enough overhead clearance to raise vehicles 6 feet above the floor. 13 feet is the recommended ceiling height.

The floor must be concrete with a minimum thickness of 4 inches and steel reinforced per commercial practice. If pads are used, they must be 2 feet square with a minimum thickness of 12 inches and steel reinforced per commercial practice. Figure 2 gives the pad layout dimensions.

Step 2. Refer to figure 2 to get the dimensions for the leg foot locations. Refer to figure 2 to determine where to locate the sides and ends of the leg foot rectangle with respect to walls and other obstacles at the installation. Include additional clearance where required near walls and obstacles.

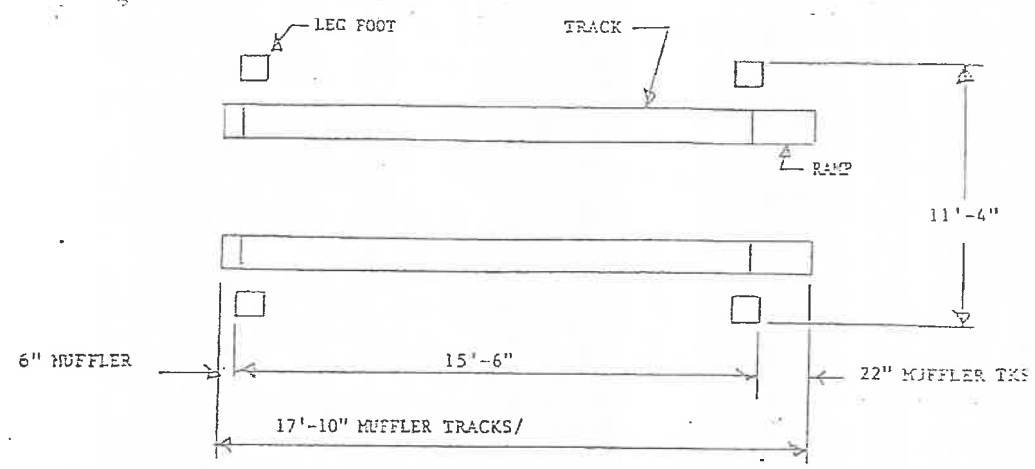
Step 3. Once the location is determined use a chalk line to mark base line A-B to locate one side of lift. (Figure 4). Use the width dimensions to measure off the dimensions A-D and B-C. Draw arcs as illustrated in figure 4. Draw a chalk line D-C tangent to the two arcs to establish the other side of the lift.

Step 4. Mark on one of the two parallel lines the points 1 and 2 to establish the ends of the foot leg rectangle as determined from fig. 2 and 3. From points 1 and 2 measure diagonally to the opposite parallel line to determine points 3 and 4. Draw a chalk line between points 1 and 4 and points 2 and 3. The four lines locate the four outside corners of the leg foot rectangle.

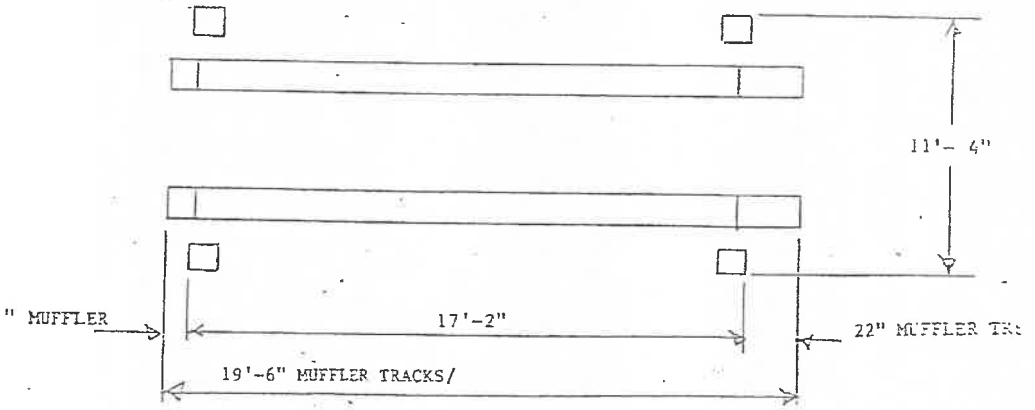
Step 5. Stand at one end of the rectangle, which will be the drive on entrance to the lift. As you face the way the vehicles will enter the lift, the left hand side will be the mainside of the lift. This side will be where the mainside legs, toprail and power unit will be located. The end opposite you is the front, where the fronts of vehicles stop. The end where you are is the back of the lift, where the drive on ramps is installed. Fig 1.(***see note fig1).

Step 6. Position top rail and the two mainside legs as shown in Fig. 5. The mainside leg which has the drilled hole pattern on one side is the power unit leg and it is placed at the front of the lift. Bolt top rail to the mainside legs using ½ x 1 ¾" bolts, washers and nuts provided. Use 2 bolts per leg. *****These bolts are your packing bolts*****

Step 7. Lift the assembled top rail legs to the upright position. Place the leg feet into their corners of the chalk line rectangle. Check the centering of the bolting slots of the top rail and mainside leg tops. Correct as necessary and tighten the nuts.



STANDARD LIFT DIMENSIONS

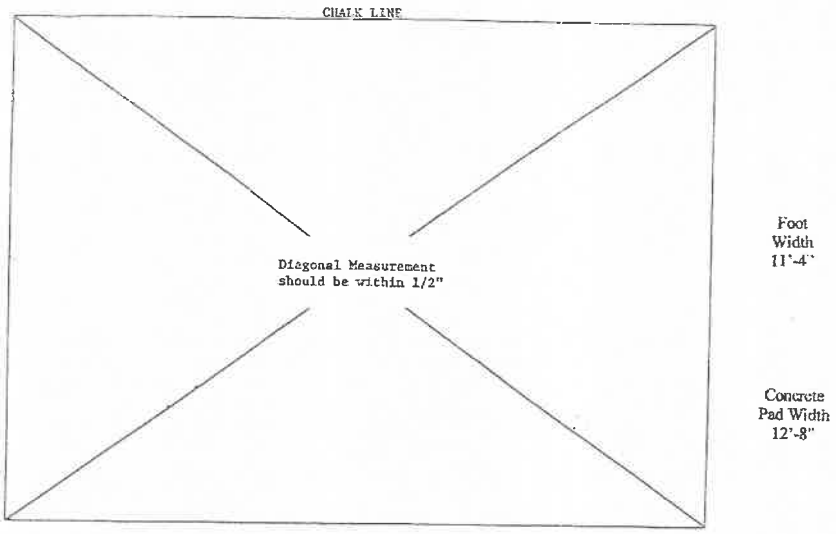


EXTENDED LIFT DIMENSIONS

Figure 2. 12000# Lift Overall Dimensions

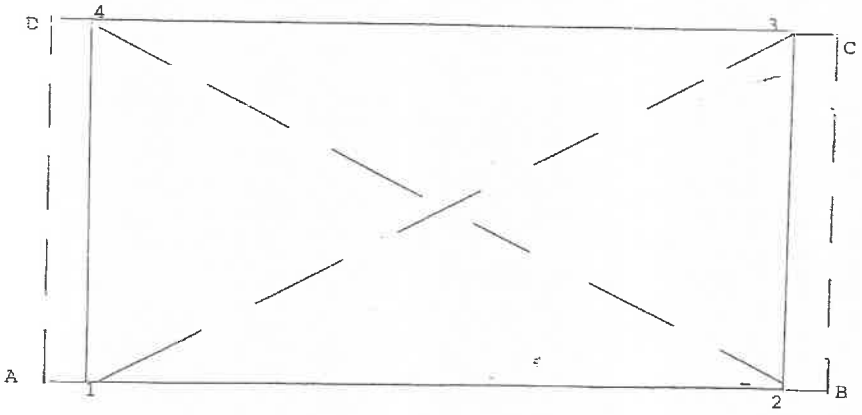
Concrete should be level. Four inches thick minimum and steel reinforced

Fig. 4:



Foot Length: 15'-6" Standard/ 17'-2" Extended
Pad Length: 16'-10" Standard/ 18'-2" Extended

FIGURE 3, 12000 LB. LIFT, LEG FOOT LOCATION



Figures 3 & 4

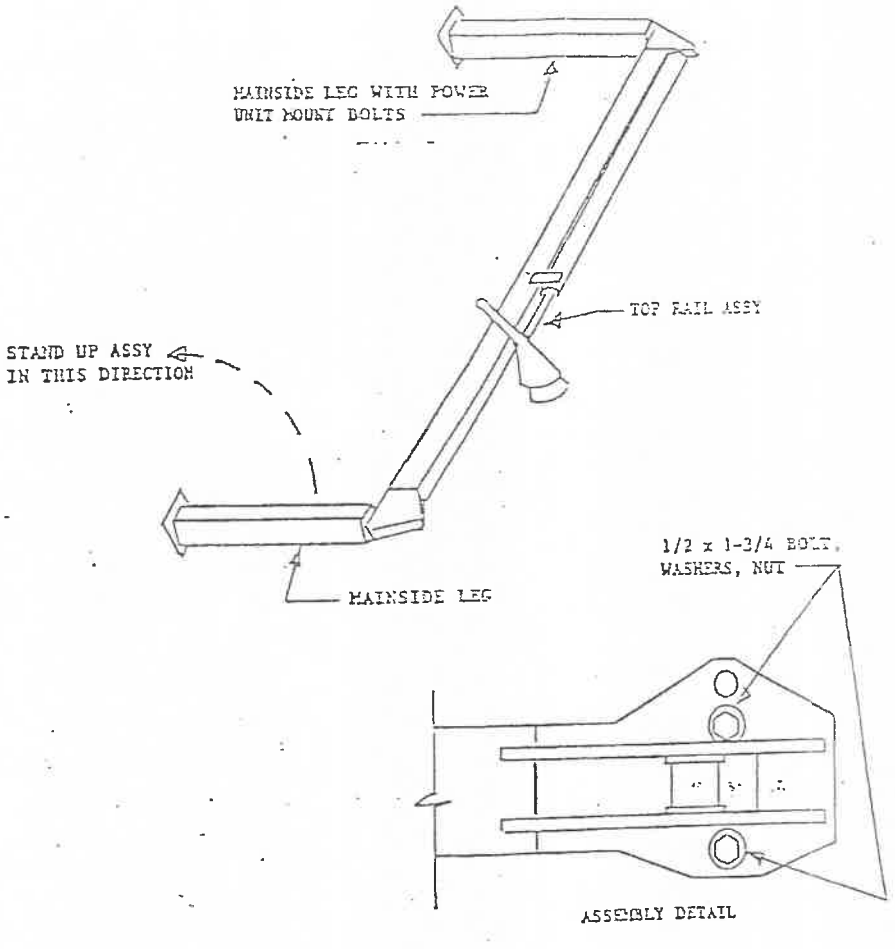


Figure 5. 12000# Lift Top Rail Mainside

Step 8. Review the concrete anchor bolt instructions near the back of this manual. Drill, install, but do not tighten the 4 anchor bolts for the rear leg. DO ONLT THE REAR MAINSIDE LEG AT THIS TIME.

Step 9. Plumb the post so that it is perpendicular. Use the level and check both side – to – side and front – to – rear. Use shims under foot if necessary. ¾ ID steel washers or 1/16 or 1/8 thick by 1" wide steel flat strips are recommended for shims. Tighten the anchor bolts and recheck the plumbness. Adjust if necessary.

Step 10. After anchoring the rear mainside post, align the front post with chalk lines. Check and adjust the plumbness of the front leg. The foot may vary from measured dimensions slightly, but it is more important that the leg be perpendicular and parallel with the other leg. Plum and install the anchor bolts in the front mainside leg.

IMPORTANT

DO NOT DRILL OR SET OFFSIDE LEG ANCHOR BOLTS AT THIS TIME. THE LIFT MUST BE CORRECTLY ALIGNED AND CYCLED BEFORE BOLTS ARE INSTALLED.

Step 11. Position cross rails in their approximate locations as shown in Fig. 1 The lifting chain connector must be at the mainside leg location.

Step 12. Use the pull wire to pull the cross rail chain thru the cross rail tube. The chain runs over the sheave at the mainside end and under the sheave at the offside end. See fig 6. Repeat for the other cross rail.

Step 13. Attach the cross rail chain to the mainside leg chain anchor with a 634 chain master link. Repeat for the other cross rail.

IMPORTANT

THE MASTER LINK MUST HAVE THE CENTER LINK AND IT MUST BE IN A VERTICAL POSITION, NOT COCKED TO THE FRONT OF THE CHAIN ANCHOR. FAILURE TO FOLLOW THIS REQUIREMENT COULD RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE.

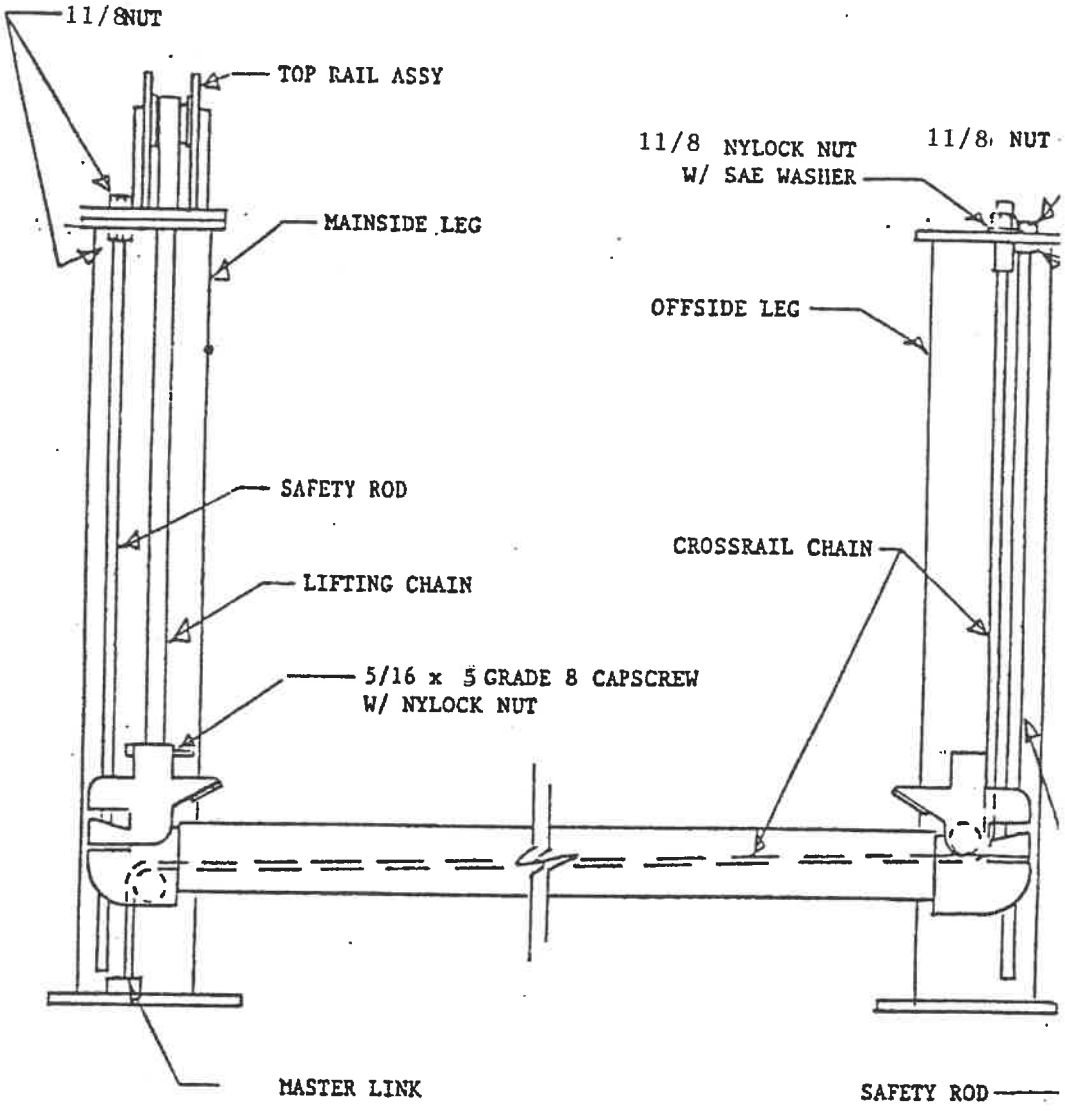


Figure 6. 12000 # lift, Crossrail Chain Arrangement

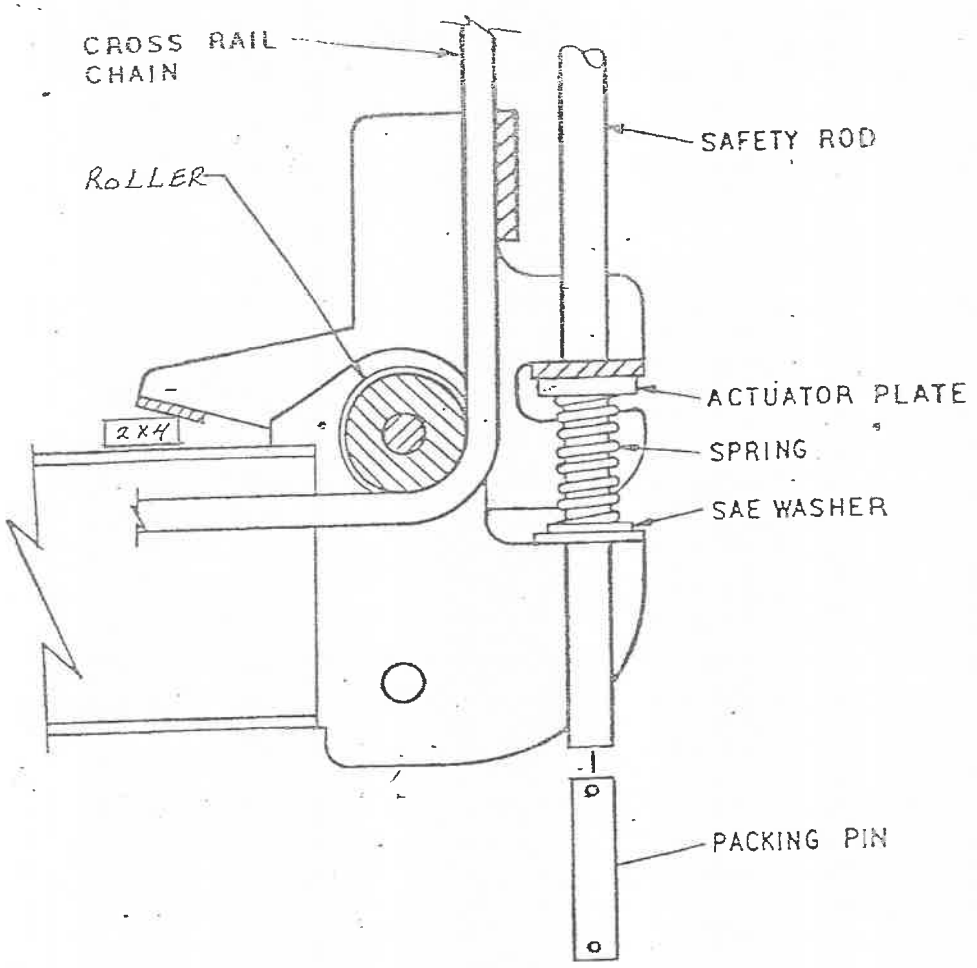


Figure 7. Safety Rod Installation, Offside.

Step 14. Position a 2 x 4 block under the safety latch of the cross rail as shown in figure 7. Remove packing pin from the cross rail end assembly. Remove the top nut from one ¾" safety rod. Turn down the second nut to the bottom of the thread on the rod. Insert safety rod end into the space occupied by the packing pin in the cross rail end assembly. Insert the top end of the safety rod into the rear hole at the top of the mainside leg while sliding the cross rail end into the mainside leg. Secure the top of the safety rod with a ¾" nut. Top ¾" nut should be flush with the end of the safety rod and the bottom nut should be tightened against the leg top. Repeat for the other cross rail.

Step 15. Remove the cap from the front cylinder port. Manually extend the cylinder ram. Attach the lifting chains to each cross rail chain connector using a 5/16 x 3" Grade 8 capscrew and nut.

IMPORTANT

Step 16. Remove the packing pin in the offside end of one cross rail using a 2 x 4 block as described above. Prepare and insert a safety rod into the cross rail end assembly as described above. Guide the safety rod end into the rear hole of the offside leg top while positioning the leg over the end of the cross rail. Secure the top end of the safety rod with a ¾" nut as described above. Repeat for the other cross rail.

DO NOT AT THIS TIME DRILL OR INSTALL THE ANCHOR BOLTS FOR THE OFFSIDE LEGS.

Step 17. Install the bolt end of the cross rail chain into the hole at the top of the offside leg. Attach the 1" washer and nylon locknut to the bolt. Hold the chain with a crescent wrench and tighten the nut to remove most of the slack from the chain. Repeat for the other crossrail.

Step 18. Attach the power unit to the front of the mainside leg using four 5/16 nuts.

Step 19. Attach the hydraulic hose between the fitting at the rod end of the cylinder and fitting just above the power unit tank.

Step 20. At this time make the electrical hook-up to the power, 230V single phase. THIS IS TO BE DONE BY A LISENCED ELECTRICIAN.

Step 21. Fill the power unit resevior with approximately 3 gallons of non-detergent,non-foaming hydraulic oil, approximately 10W, such as Mobil DTE 25 or Texaco HD 46.

Step 22. Using the power unit , raise the crossrails about 6". Level the crossrails by adjusting the cross rail chain tension at the anchor bolt nut at the top of the offside legs. Use the level to check the crossrails.

Step 23. Position the tracks on the crossrails. Place the tracks equal distance from the center of the crossrails. If alignment tracks are being installed on the lift, leave approximately 40" between the tracks. Position the U-bolts, 2 at each end of the track, secure with washers and nuts, but do not tighten the U-bolts at this time.

Step 24. Adjust and plumb the offside legs so that the cross rail chains in the offside legs hang straight (use the level), the lifting chains in the mainside legs hang straight, the crossrails hang in the center of the leg opening, the legs are plumb, and the tracks are positioned correctly on the crossrails.

DO NOT AT THIS TIME DRILL OR INSTALL THE ANCHOR BOLTS FOR THE OFFSIDE LEGS. THE LIFT MUST BE CYCLED UP AND DOWN AND CHECKED FOR CORRECT ALIGNMENT BEFORE THE BOLTS ARE INSTALLED.

THE OFFSIDE LEGS MAY VARY SLIGHTLY FROM THE CHALK LINE LAYOUT POSITIONS. IT IS MORE IMPORTANT THAT THE LEGS BE SQUARE AND PLUMB AND THAT THE LIFT MOVES UP AND DOWN FREELY.

Step 25. Raise the lift to the top of its travel. Check the positioning of the crossrails in the legs as the lift is raised. The single point safety release will move across the rack at the bottom of the crossrail. At the top of the lifts travel, pull down the safety release until the cam locks it down. Lower the lift. Check the operation and positioning of the lift as it is being lowered. Correct any problems by adjusting the position and plumbness of the offside legs.

Step 26. When the lift is operating correctly, drill and install the anchor bolts for the offside legs.

Step 27. Complete the installation of the standard 14" wide tracks by putting on the track end stops and the ramps. The ramps are installed by dropping the pins on the ramps into the holes on the track ends. The track end stops are installed by either bolting the stops to the track ends or dropping their pins into the holes, depending on which stops are shipped with the lift.

Step 28. To add a jack or jacking beam to the alignment tracks, place blocks under the tracks to hold them above the ground. Remove the U-bolts from one end of the tracks. Use the lowering control of the lift to drop the loose crossrail below the tracks. Slide the jack into its track on the alignment tracks. Raise and re-attach the crossrail. Check the alignment tracks for parallel location on the lift so that the jack can slide freely. Tighten the 4 U-bolts on each track.

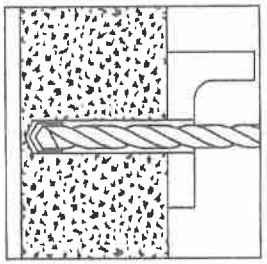
Step 29. Attach the track end stops to the alignment tracks by dropping their pins into the holes at the front of the tracks.

Step 30. Attach the ramps to the alignment tracks by positioning the ramps at the track end, line up the positioning holes with the track tube, insert the ¾" diameter ramp pin and secure each with a roll pin.

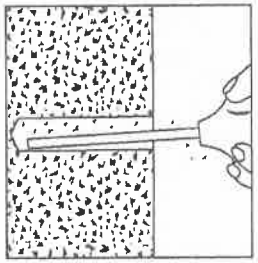
Step 31. Activate the alignment track slip plates by raising the slip plates and installing the rollers into the slots in the spacer plate.

Step 32. Cycle the lift to its maximum height and back to the ground three times to remove air from the hydraulic system.

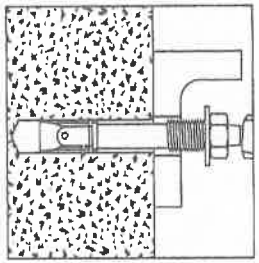
Kwik Bolt II (Stud Version) Installation Instructions



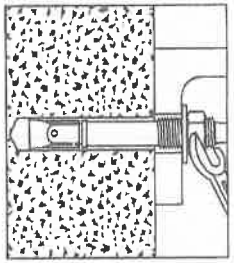
1. Hammer drill a hole the same nominal diameter as the Hilti Kwik Bolt II, with or without the fixture in place—the Kwik Bolt II works in a "bottomless" hole.



2. Clean hole with blow out bulb.

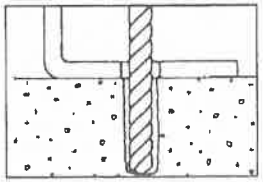


3. Drive the Hilti Kwik Bolt II far enough into the hole so that at least six threads are below the top surface of the fixture, using a Hilti 2 lb. hammer.

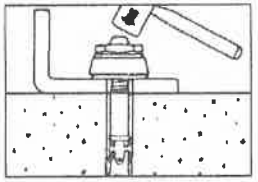


4. Tighten to the recommended torque value with a torque wrench, or if torque wrench is not available, 2 or 3 turns from the finger tight position to achieve proper anchor setting.

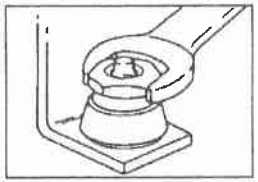
Hilti Tamper Proof Nut (HTN) Installation Instructions



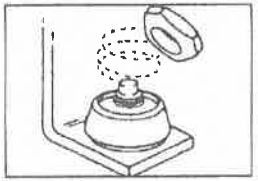
1. Hammer drill a hole the same nominal diameter as the Hilti Kwik Bolt II with or without the fixture in place. Clean hole with a blow out pump or compressed air.



2. Put protective sleeve and tamper proof nut on Kwik Bolt II so impact section (dog point) is exposed. Drive anchor far enough into the hole so that at least six threads are below the top surface of the fixture.



3. Tighten the torque head with ordinary wrench until nut breaks away, leaving only the free spinning sleeve and tamper proof fastener.



4. Free turning protective sleeve and tamper proof fastener remain.

CONCRETE ANCHOR BOLT INSTRUCTIONS

Drilling Procedure

Step 1. The anchor bolts must be installed at least 5" from any edge of the concrete or any seam.

Step 2. Use a CARBIDE TIP, SOLID DRILL BIT the same diameter as the anchor, ¾". TIP DIAMETER .750 to .775 inches.

Step 3. Use a concrete hammer drill.

Step 4. Do not use excessively worn bits or bits which have been incorrectly sharpened.

Step 5. Keep the drill in a perpendicular line while drilling.

Step 6. Let the drill do the work. Do not apply excessive pressure.

Step 7. Lift the drill up and down to remove dust and reduce binding.

Step 8. Drill the hole completely thru the slab.

Step 9. Blow the dust from the hole. This increases the holding power.

Installation

Step 1. Assemble the washer and nut onto the anchor bolt. Thread the nut approximately 1/5 of the way onto the anchor bolt. Using a hammer on the nut, CAREFULLY tap the anchor bolt into the concrete. Do not damage the nut or the threads.

Step 2. Insert the bolt so that the washers rest against the base of the lift.

Step 3. 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 required.

OPERATING INSTRUCTIONS

Raising Vehicles

Step 1. Drive vehicle onto lift. Set parking brake.

Step 2. Push button on power unit to raise lift to desired height.

Step 3. Use level on the power unit to lower the tracks onto the safety latch.

Step 4. BEFORE WALKING UNDER THE LIFT, VERIFY THAT THE SAFETY LATCH PIVOT PIN IS POSITIONED IN THE LATCH RACK UNDER THE TOPRAIL TUBE.

Lowering Vehicles

Step 1. Raise the tracks off the safety latches using the push button switch on the power unit.

Step 2. Release the safety latches by pulling down on the latch until the cam sets to hold it down.

Step 3. Lower the lift using the valve lever on the power unit.

IMPORTANT NOTE

DO NOT WORK OR WALK UNDER THE LIFT WHEN YHE SAFETY LATCH IS IN THE RELEASE POSITION. IF IT IS NECESSARY TO RETURN UNDER THE LIFT, RESET THE LEVER BY LOWERING THE LIFT SLIGHTLY, THEN RAISONG IT AGAIN. VERIFY THAT THE SAFETY LATCH PIVOT PIN IS ENGAGED IN THE LATCH RACK.

IMPORTANT NOTE

THE SAFETY LATCH WILL AUTOMATICALLY RESET WHEN THE LIFT IS RAISED OFF THE GROUND. ALWAYS VERIFY THAT THE LATCH IS OPERATING WHEN THE LIFT IS BEING USED. CORRECT ANY PROBLEM BEFORE USING THE LIFT.

MAINTENANCE

DAILY:

*Before operation each day, inspect for any damage, loose parts and smooth operation of the lift.

*Inspect for unusual noises.

WEEKLY:

*Inspect slack chain safety at all four points

*Inspect chain connections, pins and master links

*Inspect hydraulic connections and hoses for leaks.

*Inspect for loose parts, nuts, bolts, snap rings, etc…

*Inspect for smooth and level lifting. Verify lift posts are plumb and square.

*Inspect your work floor for any cracks

MONTHLY:

*Inspect mounting to floor. Tighten as necessary

*Lubricate all chain with a quality chain lubricant.

*Inspect chain for any wear or slack

*Inspect chain rollers

*Inspect fluid level in reservoir

IMPORTANT

****Make certain the slack chain safety assemblies on each corner post are clean, clear and undamaged. Do not operate a lift with damaged safety locks or safety bar. Replace actuator plates as recommended by factory, usually each year or sooner if wear is indicated on your regular inspections. Replace chain and master links as needed. Chain will stretch over time and will need to be replaced accordingly.

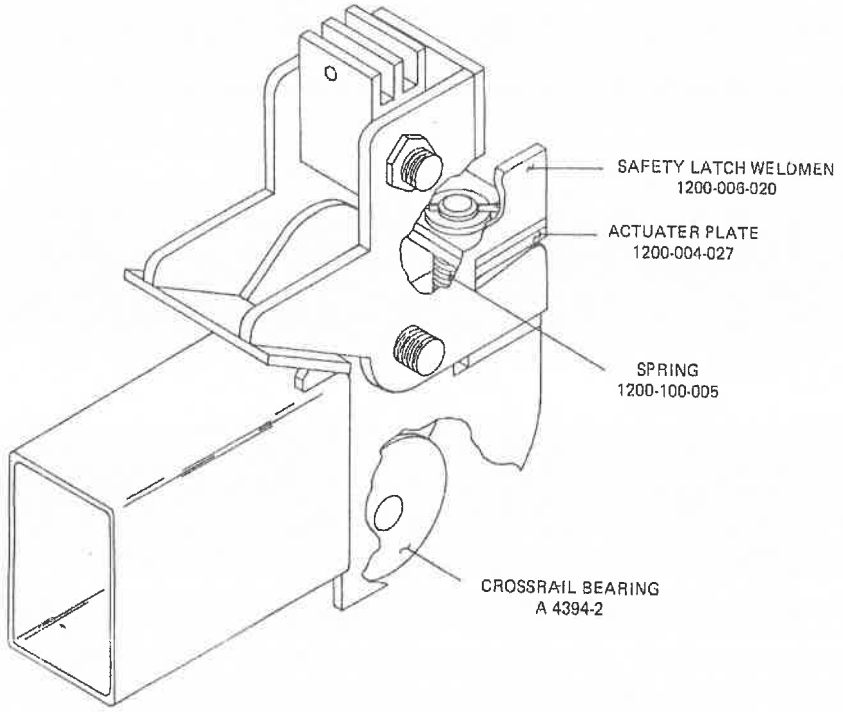
The lift is designed to be located indoors. If lift is located out doors, inspection and lubrication must be performed more often.

TROUBLE SHOOTING INSTRUCTIONS

1. Motor does not run:
    - A. Breaker or fuse blown.
    - B. Motor thermal overload tripped. Wait for overload to cool.
    - C. Defective up button. Replace.
    - D. Faulty wiring connections. Call electrician.
2. Motor runs but lift will not raise:
    - E. a piece of trash is under check valve. Push handle down and push the up button at the same time. Hold for 15 seconds. This should flush the system.
    - F. Check the clearance between the plunger valve and lowering cable. There should be 1/16 clearance.
    - G. Remove the check valve cover with an allan wrench. Clean the ball and seat and replace cover.
    - H. Oil level low. Oil level should be just under the vent cap port when the lift is down.
2. Motor runs but picks up partial load only:
    - A. Oil coming out of breather on cylinder: seals damaged.
3. Oil Blows out breather:
    - A. Oil reservoir overfilled.
    - B. Lift lowered too quickly while under a heavy load.
4. Motor hums and will not run:
    - A. Impeller fan cover is dented in. Take off and straighten.
    - B. Faulty wiring – call electrician.
    - C. Bad capacitor – call electrician.
    - D. Low voltage – call electrician
    - E. Lift overloaded.
5. Lift jerks going up or down:
    - A. Cables are too loose – tighten both cables one turn at a time.
    - B. Air in system – raise lift all the way to the top and let it back down. Repeat this 5-6 times.

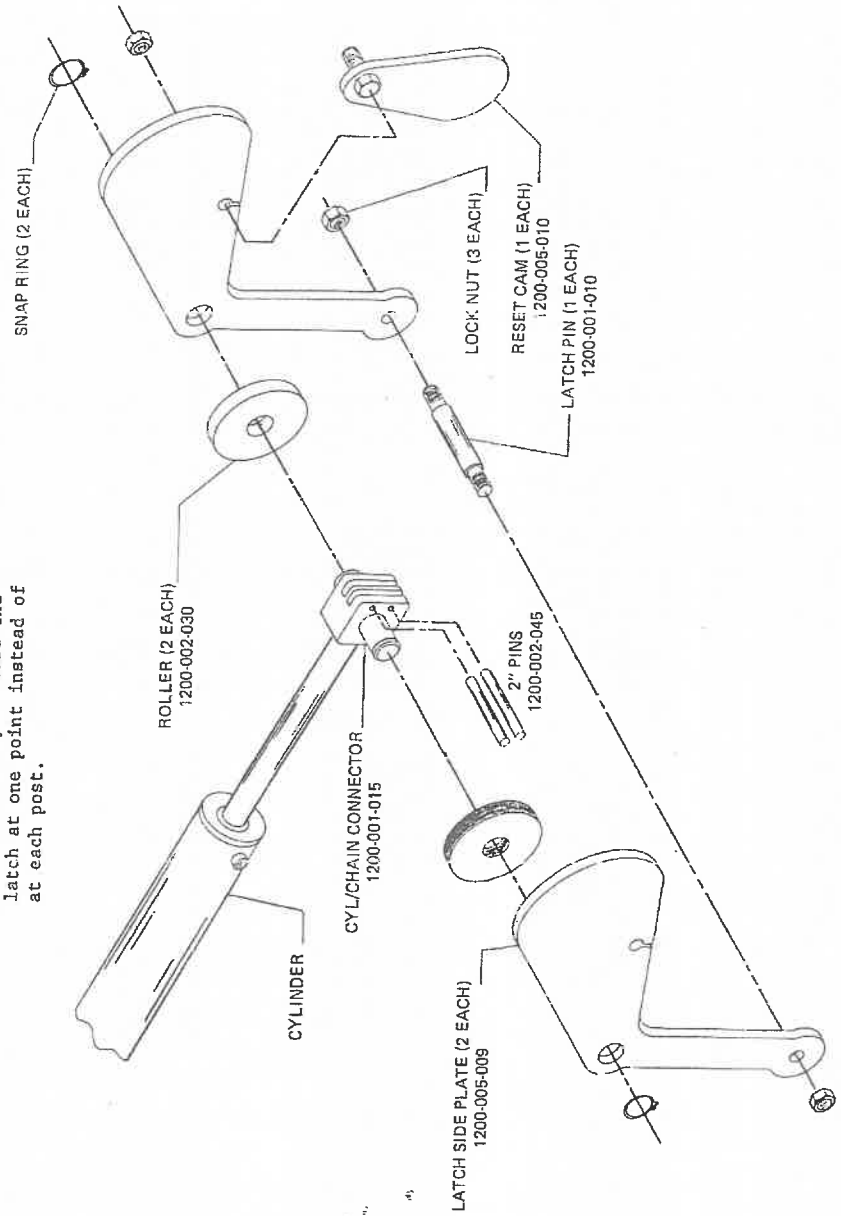
4·POST

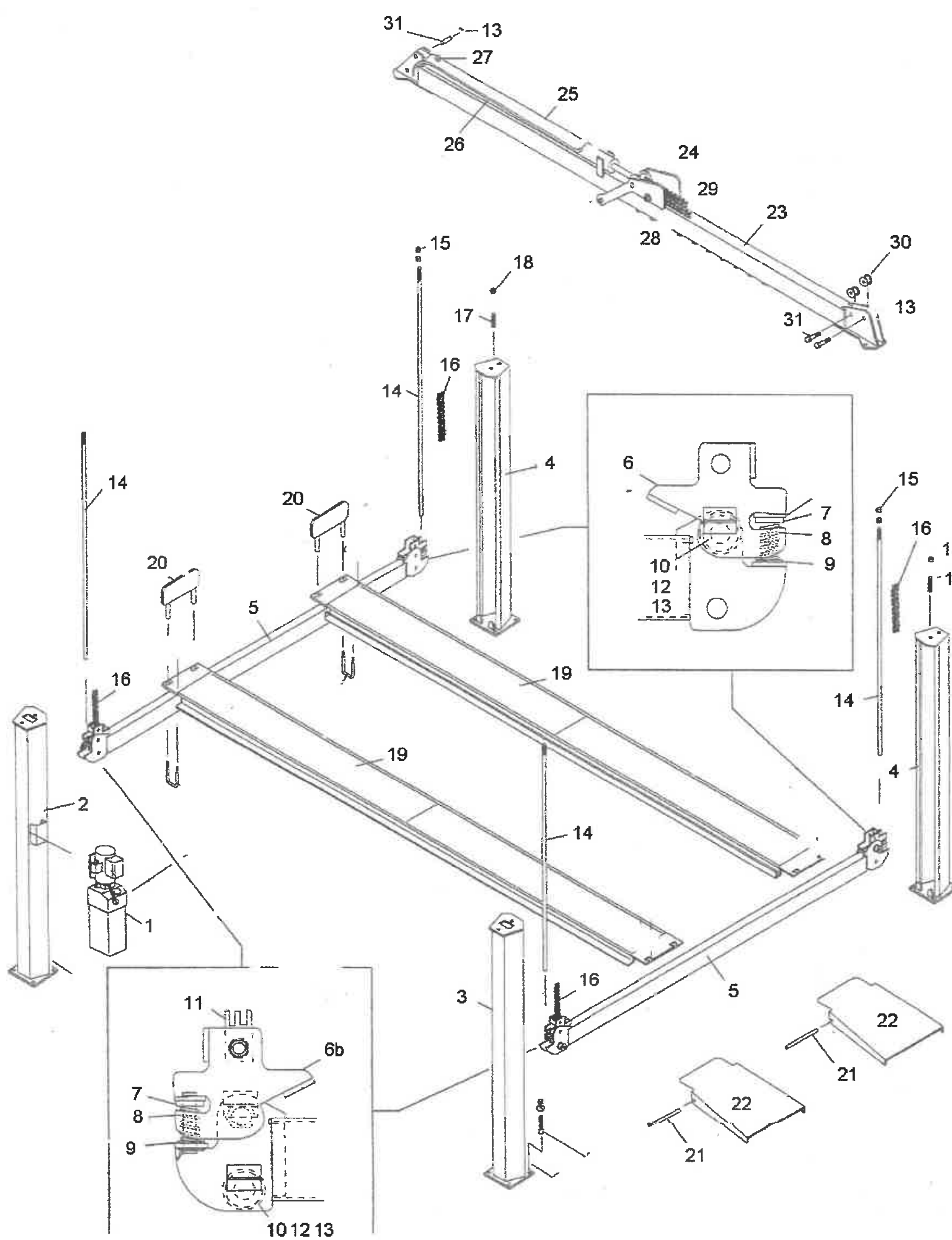
Automatic Safety Latch



Single Post Safety Latch

This lift offers a powerful safety latch which allows the user to manually release the latch at one point instead of at each post.

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PARTS LIST
FOUR POST LIFT
INCLUDING ALL 12000LB. AND 18000 LB. MODELS

ITEM NO.	DESCRIPTION
1	POWER UNIT
2	MAINSIDE LEG ASSEMBLY - w/motor mount
3	MAINSIDE LEG ASSEMBLY
4	OFF SIDE LEG ASSEMBLY
5	CROSS RAIL ASSEMBLY
6	LATCH ASSEMBLY - CROSS RAIL - Off side
6b	LATCH ASSEMBLY - CROSS RAIL - main side
7	ACTUATOR PLATE
8	SPRING
9	3/4 SAE WASHER
10	2 1/2" CHAIN ROLLER
11	CROSS RAIL CHAIN CONNECTOR
12	CROSS RAIL PIN
13	3/4" SNAP RING
14	SAFETY ROD
15	3/4-10 NUT
16	CROSS RAIL CHAIN
17	OFF SIDE CHAIN STUD
18	1'- NYLON LOCK NUT
19	TRACK
20	TRACK STOP
21	RAMP PIN
22	RAMP (APPROACH)
23	TOP RAIL
24	TOP RAIL LATCH ASSY
25	HYDRAULIC CYLINDER
26	HYDRAULIC HOSE
27	VENT PLUG
28	TOP RAIL CHAIN - SHORT
29	TOP RAIL CHAIN - LONG
30	4" CHAIN ROLLER - **MOST MODELS**
31	TOP RAIL PIN

***PLEASE CALL FOR ANY PARTS NOT SHOWN ABOVE. SOME ASSY. PARTS SHOWN IN MANUAL

MANUFACTURER'S LIMITED WARRANTY- LIFTS

To the original purchaser only for five (5) years from the date of the original purchase, the Manufacturer will repair or replace at its factory any part or parts which are found, upon inspection, to be defective as a result of defects in materials or workmanship of Manufacturer- excluding power/ motor units and hydraulic cylinders, which carry a one (1) year warranty. This warranty does not cover misuse, abuse, normal maintenance and/ or adjustment of labor. This warranty does not include any loss to Purchaser resulting from loss of use or availability of the equipment or other special or consequential damages, and the Manufacturer specifically disclaims any and all liability for any such loss or damages which may occur. During the first ninety (90) days from the date of purchase, the Manufacturer will pay for the freight charges for the replacement of defective part(s). Following the first ninety (90) days from the date of purchase, the replacement part(s) will be shipped freight collect from the Manufacturer and the defective part(s) will be shipped prepaid back to the Manufacturer. All replacement parts shipped must be returned to the Manufacturer within thirty (30) days from their ship date or the Purchaser will be billed for the part(s) plus any applicable freight and service charges.

The Manufacturer may, at its election, either repair or replace any part that it finds to be defective. This warranty is void if the item(s) / equipment are not installed and operated in accordance with the Manufacturer's specifications and instructions.

This warranty is void unless warranty card is sent to Worth Equipment in a timely manner.

This Manufacturer's Warranty is the full and complete statement of the Manufacturer's responsibility to the Purchaser and represents the Purchaser's exclusive remedies.

*** ALL JACKS, PAD LIFTS AND RADIUS TURN PLATES (TURNTABLES) CARRY A THIRTY (3O) DAY WARRANTY.