9000 LB OVERHEAD TWO POST INSTALLATION MANUAL
MODEL 9000

2/95
I MAN 991006

IMPORTANT NOTICE:

THE FLOOR ON WHICH THE LIFT IS TO BE INSTALLLED MUST BE 4 INCH MINIMUM THICKNESS CONCRETE, WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, AND REINFORCED WITH STEEL MESH OR BAR.

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

IMPORTANT NOTICE REGARDING CEILING HEIGHT:

THIS IS AN OVERHEAD TYPE LIFT WHICH REQUIRES A CEILING HEIGHT OF AT LEAST 12'-4".

IMPORTANT:

READ THIS INSTRUCTION MANUAL BEFORE INSTALLING THE 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.

DO NOT REMOVE A TRANSMISSION, SUSPENSION ASSEMBLY, OR OTHER HEAVY ITEM FROM THE FRONT OF A FRONT WHEEL DRIVE VEHICLE UNLESS THE VEHICLE IS ADEQUATELY SUPPORTED IN THE REAR. SEE FIGURE 5.

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TOOLS FOR INSTALLATION

Concrete hammer drill with 3/4" solid drill bit with carbide tip to ANSI standard B94.12-1977.
11/16" open end wrench
3/4" open end wrench
3/4" socket with rachet drive
1-1/16" deep socket
1-1/8" socket or wrench
Level (18" length)
Vise grips
Tape measure
Funnel
Hoist or forklift
Two 10' step ladders

ALSO REQUIRED FOR INSTALLATION:

3 gallons of petroleum base (mineral) hydraulic oil, non foaming, non detergent, approximately 10 wt, such as Mobil DTE 25 or Texaco HD 46.

INSTALLATION

IMPORTANT NOTICE REGARDING CEILING HEIGHT:

THIS IS AN OVERHEAD TYPE LIFT WHICH REQUIRES A CEILING HEIGHT OF AT LEAST 12'-4".

1. Unpack the lift. Remove the swing arms, the upright posts, the bolt box, and the power unit box.

2. Remove the 1/2" bolts which hold the two legs together. Remove the top leg, the overhead beam, and the swivel pads.

3. Refer to Figure #1, 9000 LB Two Post Lift Placement, to determine the location for the mainside leg, which has 4 bolt holes in the back for power unit mounting, and the offside leg. The power unit leg can be mounted on either side.

4. Refer to Figure #2, 9000 LB Two Post Lift Assembly, to determine how to lay out the lift parts for assembly. Position the legs on their sides in such a way that the completed assembly can be raised into the desired position. Bolt the uprights and crossmember into position. Use the Graded 1/2" bolts supplied with the lift. These bolts are high strength and are identified by a pattern of lines on their heads.

5. Raise and position the entire assembly using a hoist or fork truck. DO NOT PICK UP THE ENTIRE ASSEMBLY AT THE CENTER IF THE LEGS ARE ATTACHED.

   NOTE: An alternate way to put up the lift is to bolt the uprights to the legs, raise the legs separately, and raise the crossmember up last.

6. Locate the mainside leg in the desired postion. Drill the 6 anchor bolt holes FOR THE MAINSIDE LEG ONLY. It will be necessary to raise the carriage approximately 24" to drill the front holes. The carriage will be supported by the safety latch. Install the anchor bolts but do not tighten the nuts. SEE THE CONCRETE ANCHOR BOLT INSTRUCTION PAGE FOR DRILLING AND INSTALLATION INFORMATION.

7. The mainside leg must be checked for vertical alignment both side to side and front to rear. Use a level to check this. Shim the legs as necessary to level the legs. Use steel 3/4" washers or 2"x 1"x 1/16" or 1/8" steel flat strips. Shim next to and on both sides of the anchor bolts. Tighten the anchor bolt nuts.

IMPORTANT: DO NOT USE AN IMPACT WRENCH TO TIGHTEN ANCHOR BOLTS.

Re-check the leg and make any necessary adjustments. See the concrete anchor bolt instruction page for tightening information.

8. Level the offside leg in both the side to side and front to rear directions. The base of the leg may vary from the measured dimension slightly, but it is more important that the leg be perpendicular and parallel with the other leg. Drill the anchor bolt holes for the offside leg. It will be necessary to raise the carriage approximately 24" to drill the front holes. Install the anchor bolts, recheck the level, and tighten the anchor bolt nuts. DO NOT USE AN IMPACT WRENCH ON THE ANCHOR BOLTS. Recheck the leg and make any necessary adjustments.

   IMPORTANT: The legs must be shimmed so that the bases of the legs are adequately supported. If more than 1/2" of shimming is required, do not use the small shims provided by the factory. Fabricate larger shims from steel flat which is 1/4" or 1/2" thick by 2" or more wide.

9. Prepare for sync cable installation in the following way: Check the safety latch pull rod at the base of the mainside carriage. If the rod will not pull out, the carriage is on the safety latch. If the rod will pull out, the carriage is on the slack chain safety. Push the rod in and slowly raise the carriage until the first "click" is heard. Allow the carriage to rest on the safety. Check the pull rod to verify that the safety is engaged.

10. Raise the offside carriage to the same height as the mainside carriage. Check both measurements. They should be within 3/8" of each other. Check the offside carriage pull rod to verify that the carriage is on the safety latch.

IMPORTANT: THE CARRIAGES MUST BE AT THE SAME HEIGHT AND THE SAFETY LATCHES MUST BE ENGAGED SO THAT THE LATCH PULL RODS WILL NOT PULL OUT.

CYLINDERS ARE PRESSURIZED BY THE POWER UNIT AND THE LIFTING CHAIN IS UNDER TENSION WITH THE WEIGHT OF THE CARRIAGE.

11. Refer to Figure #3, 9000 LB Two Post Cable Installation. Attach a 3/4 SAE washer and a 3/4 NF nylon insert nut to one end of both cables. Start with the mainside (power unit) leg for the cross cable installation. Start at the right rear hole of the carriage top. Run the cable end up and over the top pulleys, down thru the left rear hole of the offside carriage, around the offside leg

pulley, and up thru the front left hole of the carriage top. Secure the cable end with a 3/4 SAE washer and a 3/4 nylon insert nut. Do not tighten the cable at this time.

12. Run the second cable by starting at the right rear hole of the offside carriage top. Run the cable end up and over the top pulleys, down thru the left rear hole of the mainside carriage, around the leg pulley, and up thru the left front hole. Secure the cable end with a 3/4 SAE washer and a 3/4 nylon insert nut. Do not tighten the cable at this time.

13. The carriages should be resting on the same safety rack tooth and the cables should be slack. The safety latch pull rods will not pull down, indicating that the weight of each carriage is on its safety latch.

IMPORTANT: THE CARRIAGES MUST REMAIN AT THE SAME HEIGHT WHILE THE SYNC CABLES ARE BEING TIGHTENED. OVERTIGHTENING OF ONE CABLE COULD RAISE THE CARRIAGE IN THE OPPOSITE LEG AND CAUSE THE CARRIAGE SAFETY LATCHES TO BE OUT OF SYNC.

14. Take out the slack, but do not tighten, the mainside cable by turning down the nut on the mainside carriage. Use vise grips to hold the cable end while tightening the nut. Do not damage the threads with the vise grips. Check that the the safety latch pull rod will not pull out, indicating that the carriage is on the latch and has not moved.

15. Take out the slack, but do not tighten, the offside cable by turning down the nut on the offside carriage. Check that the safety latch pull rod will not pull out, indicating that the carriage is on the latch and has not moved.

16. Alternately tighten the mainside and offside cable nuts until the cables are tightened. Correct tension in the cables is indicated by approximately 1/4" deflection of the cable in the leg when pulled at its midpoint.

17. Pull on each of the carriage safety latch rods. Neither rod should pull out, indicating that the carriages did not move while the cables were being tightened. If one of the rods pulls out, loosen the cables and repeat the tightening procedure.

18. Refer to Figure #7 for the power unit installation. Insert the 5/16 x 1 hex head bolts into the 4 holes of the mainside leg from the inside of the leg. Secure the bolts with the 5/16 plain nuts on the outside of the leg. Mount

the power unit onto the bolts and secure with the 5/16 nylon insert nuts. Attach the switch box to the bracket above the power unit with the self tapping scews provided. The screws also retain the plunger guide inside the switch box. Attach the cover to the box with the four small screws provided.

19. Install the hydraulic hoses. The short hose connects the power unit tee with the fitting at the base of the main-side leg. The long hose is connected to the tee fitting and is routed over the top of the crossmember and down the back of the offside leg to the base fitting. Secure the overhead hose to the uprights and the beam with the tie-wraps provided.

20. Refer to Figure #4, Limit Cable Installation. A 1/16" cable is strung between the two uprights and it is connected to a switch in the electrical supply. It will cut off the power to the pump if a vehicle is in danger of contacting the top crossmember. Loop and clamp one end of the cable to the ring on the offside upright, thread it thru the ring on the mainside upright, and loop and clamp the end to the pull rod on the switch box on the back of the mainside leg. The cable should not have any slack, but it should not be holding the plunger off of the limit switch. Adjust if necessary.

21. Remove the screw near the top of the power unit tank. Using a funnel in the breather cap fitting on the power unit reservoir, fill the reservoir with 10 quarts of petroleum base hydraulic oil, non foaming, non detergent, such as Mobil DTE 25 or Texaco HD 46. Install the breather cap.

    DO NOT OVERFILL THE OIL TANK. The oil level should be no higher than two inches below the mounting flange of the tank. If the tank has a screw just below the tank mounting flange, remove the screw and fill until oil comes out of the hole. Replace the screw.

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

23. Install the swing arms on the carriages with the swing arm pins. Lubricate the swivel pad screws and install them onto the arms. Install the swing arm locks as shown in Figure 8.

24. Establish electrical hook-up to 220-1 phase power. See Figure 6, Electrical Wiring Diagram.

25. DO NOT ATTEMPT TO LIFT A VEHICLE AT THIS TIME.
Verify that the lifting chains are centered on the chain rollers attached to the cylinder rams. Raise the lift approximately three feet. The run switch is located on the motor of the pump. If the motor will not run, check the overhead cable installation and the microswitch in its control box. If the cable holds the plunger off the micro-switch pin, the motor will not run.
The safety latches of the two carriages should "click" close together as the lift goes up. If they do not, the cables should be loosened and the above procedure for tightening them should be repeated. Lower the carriages onto the safety latches.

26. To lower the lift, first raise the carriages slightly. Pull down the two safety latch rods which are located at the bases of the carriages. Lower the lift by working the lowering lever on the power unit. If there are any problems, check the Troubleshooting section of the manual.

27. DO NOT ATTEMPT TO LIFT A VEHICLE AT THIS TIME. Raise the lift to the top of its travel. Lower the carriages onto the safety latches. Lower the lift to the ground. If there are any problems, check the Troubleshooting section of the manual.

28. DO NOT ATTEMPT TO LIFT A VEHICLE AT THIS TIME. Raise the lift to the top of its travel. Lower the lift completely. Repeat two additional times. This is to remove air from the system.

IMPORTANT: DO NOT ATTEMPT TO LIFT A VEHICLE UNTIL:

1. The cables are adjusted correctly. Both safety latches lock when the carriages are lowered onto the safeties and their pull rods cannot be pulled down.

2. The legs have been leveled and the anchor bolts have been tightened.

3. The leg corners have been lubricated with heavy duty bearing grease.

4. The lift has been cycled up and down three times to remove air from the hydraulic system.

29. THE FIRST TIME A VEHICLE IS PLACED ON THE LIFT, RAISE IT NO HIGHER THAN THREE FEET. Lower the vehicle onto the safety latches.

IMPORTANT: WHEN LOWERING VEHICLES ONTO THE SAFETY LATCHES, SLOWLY PULL OUT THE LOWERING LEVER ON THE POWER UNIT. THIS WILL ALLOW A CONTROLLED DESCENT TO THE LATCH STOP. A FAST DROP ONTO THE SAFETY LATCHES COULD CAUSE THE VEHICLE TO BOUNCE.

Lower the vehicle to the floor using the procedure described in #26. The lift should move up and down down smoothly. If there are any problems, check the Troubleshooting section of this manual. Correct any problems before continuing.

30. Raise a vehicle to the full height and lower the carriages onto the safety latches. Lower the vehicle to the floor using the procedure described in #26. If there are any problems, check the Troubleshooting section of this manual.

31. After cycling the lift a few times with a vehicle on it, recheck the tightness of the anchor bolt nuts. Check the nuts for tightness every week for the first month and every month afterwards.

32. After cycling the lift a few times with a vehicle on it, recheck the tension of the cross cables by comparing the cables in the two legs for equal tension. Correct tension in the cables is indicated by approximately 1/4" deflection of the cables when pulled at their midpoints. The latches in the legs should click at the same time as the lift moves up. Should it be necessary to re-sync the carriages, first lower the carriages onto the same height safety latch tooth, then adjust the cables as described for their installation. The carriages should be kept in sync for proper operation of the safety equipment.

MAINTENANCE, EVERY MONTH:

1. Lubricate the four inside corners of the two legs with heavy duty bearing grease.

2. Lubricate exposed chain surfaces.

3. Check the hydraulic fluid level. If necessary add petroleum base (mineral) hydraulic oil, non foaming, non detergent, approximately 10 wt, such as Mobil DTE 25 or Texaco HD 46.

4. Check cable tension. See Installation Instructions for adjustment procedure if required.

5. Check anchor bolt nut tightness. If the anchor bolts are excessively loose, check more often.

OPERATING TIPS:

1. Always set a vehicle on the safety latches before working under it.

2. When lowering a vehicle onto the safety latches, pull the lowering lever out slowly to obtain a controlled descent onto the latches. A fast drop onto the latches could cause the vehicle to bounce.

3. Keep the four inside corners of the legs lubricated with heavy duty bearing grease.

4. Position vehicles so that the load is evenly balanced on the lift.

5. If the carriages get out of sync (do not click at the same time), readjust the cables as described in the installation instructions.

6. Check the anchor bolt tightness every month.

7. Do not remove the transmission, suspension assemblies, or other heavy items from the front end of front wheel drive vehicles without supporting the rear of the vehicle. See Figure #5.

CONCRETE ANCHOR BOLT INSTRUCTIONS

DRILLING PROCEDURE

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

2. Use a CARBIDE TIP, SOLID DRILL BIT the same diameter as the anchor, 3/4". TIP DIAMETER TO ANSI STANDARD B94.12-1977. (.775 to .787 INCHES DIAMETER)

3. Use a concrete hammer drill.

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

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

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

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

8. Drill the hole to a depth equal to the full length of the fastener, or completely thru the slab.

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

INSTALLATION

1. Drill the hole equal to the length of the anchor bolt, or thru the slab.

2. Assemble the washer and nut onto the anchor bolt. Thread the nut approximately 4/5's 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.

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

4. Tighten the nut, two to three turns on average concrete, 28-day cure. If the concrete is very hard, only one to two turns may be required.

IMPORTANT: DO NOT USE AN IMPACT WRENCH ON ANCHOR BOLT NUTS.

1. PUMP MOTOR WILL NOT RUN.

    1. Check electrical supply breaker.

    2. Check for activation of the travel limit switch by a tall vehicle. Normally, lowering a vehicle onto the safety latches will deactivate the limiting mechanism. However, if the plunger in the switchbox has lifted off the limit switch and the carriages are on the safety latches, the pin on the limit switch must be manually held down to activate the circuit.

    3. Check adjustment of overhead cable and microswitch in cable control box. If cable holds plunger off of the microswitch, the circuit is broken.

    4. Check microswitch in motor control box.

1. THE VEHICLE DOES NOT MOVE UP AND DOWN SMOOTHLY.

IMPORTANT: IF A VEHICLE DOES NOT GO UP SMOOTHLY, DO NOT CONTINUE TO RAISE IT. LOWER THE VEHICLE AND CORRECT THE PROBLEM.

    1. Adjust vehicle placement on the lift for equal weight distribution.

    2. Check the four inside corners of the two legs for roughness. Any rust or burrs must be removed with 120 grit emery paper. The surfaces must be smooth.

    3. Lubricate the leg corners with heavy duty bearing grease.

    4. Check the legs for vertical alignment both side to side and front to rear. Use a level to check this. Shim the legs as necessary to level the legs. Use steel 3/4" washers or 2"x 1"x 1/16" or 1/8" steel flat strips. Shim next to and on both sides of the anchor bolts.

        IMPORTANT: The legs must be shimmed so that the bases of the legs are adequately supported. If more than 1/2" of shimming is required, do not use the small shims provided with the lift. Fabricate larger shims from steel flat which is 1/4" to 1/2" thick by 2" or more wide.

3. THE LIFT WILL NOT PICK UP ITS RATED LOAD.

1. Adjust vehicle placement on the lift for equal weight distribution.

2. Check the voltage of the electrical supply with the unit running under load. The voltage should be at least 208 volts. Voltage less than this will not allow the motor to develope full power.

3. The relief valve in the Barnes power unit is preset at the Barnes factory and should not be adjusted. Call the lift manufacturer for assistance.

4. THE LIFT WILL NOT LOWER.

A. Safety latch pull rods.

The lift will move down approximately 1", then it stops.

Check the safety latch pull rods. If one of the rods has moved back up, that carriage is resting on its safety latch.

Explanation: The pull rod is out of adjustment and is rubbing on the leg. When the carriage is lowered, the rod is pulled in, engaging the safety latch.

To lower lift:

1. Raise the carriages slightly to clear the safety latches.

2. Pull the safety latches out. Use a rolled up shop rag inserted between the pull rod and the carriage to hold the rod out.

3. Lower the lift.

4. Adjust the rod to clear the leg. This is probably accomplished by pushing down on the first bend of the rod just inside the leg. Bend the rod slightly to allow it to move freely inside the leg.

B. THE LIFT WILL NOT LOWER.

Carriages out of sync.

The vehicle is at the top of the lift's travel and one safety latch will not disengage to allow the lift to lower.

Explanation: The carriages are out of sync. The carriage which is 'low' cannot be raised enough to clear the latch-rack so that it can be disengaged. This is confirmed by the inability to pull down the latch rod on that carriage. Also the carriages do not 'click' at the same time as the lift is raised.

To lower lift:

1. Raise the lift to full height.

2. Push IN both safety pull rods to engage the safety latches.

3. Use a hydraulic jack and a length of pipe to raise the low carriage enough to disengage the safety latch. It may be necessary to loosen the cable nut on that carriage. Pull the latch rod on that carriage only.

4. Remove the jack and pipe.

5. Pull the latch rod on the other carriage to disengage its safety.

6. Lower the lift and remove the vehicle.

7. Readjust the cables as described in the installation part of the manual.

C. THE LIFT WILL NOT LOWER.

Carriage jammed.

The vehicle may or may not be at the top of the lift's travel. Both safety latches are disengaged but the lift will not lower.

Explanation: Roughness in the leg corners and/or lack of lubrication and/or unequal vehicle weight distribution have resulted in too much friction to lower the lift. This is an extreme case of #2 under Troubleshooting, where the lift does not move smoothly. If the vehicle did not go up smoothly this is probably the reason the lift will not lower.

To lower lift:

1. Confirm that the carriages are supported by the cylinders. Do this by briefly energizing the power unit. If the carriages move up slightly, they are supported by the cylinders. If the carriages are at the top of their travel, the cylinders will top out and the power unit will squeal as the relief valve opens.

2. Push IN the safety pull rods to insure that the latches are engaged.

3. Apply grease lubrication to leg corners beneath the carriages.

4. Determine which end of the lift is heavy due to vehicle position and which end is light.

DO NOT CONTINUE UNLESS THE CARRIAGES ARE SUPPORTED BY THE CYLINDERS. SEE #1 IMMEDIATELY ABOVE.

5. Pull out the safety pull rods to disengage both safety latches.

6. Use one or more helpers to pull down on the light end of the vehicle on the lift.

DO NOT ALLOW PERSONNEL AROUND THE HEAVY END OF THE LOAD DURING THIS PROCEDURE.

7. With the load in a more balanced condition, lower the lift.

IF THE LIFT WILL NOT LOWER, DO NOT ALLOW THE CYLINDERS TO DROP MORE THAN 1/4". THE CARRIAGES MUST NOT BE ALLOWED TO DROP WITHOUT BEING SUPPORTED BY THE CYLINDERS. USE ADDITIONAL HELPERS TO PULL DOWN ON THE LIGHT END OF THE LOAD. REPEAT THE PROCEDURE.

5. CYLINDERS LEAK DOWN.

There may be some contamination in the check valve which prevents the valve from seating. Hold open the lowering valve while energizing the motor switch. Allow the motor to run for 30 seconds to flush the valve. Repeat 3 or 4 times. If the cylinders continue to leak down, the valve may be faulty. Contact the lift manufacturer.

6. POWER UNIT SWITCH WILL NOT RELEASE.

Contact the lift manufacturer for a replacement switch.

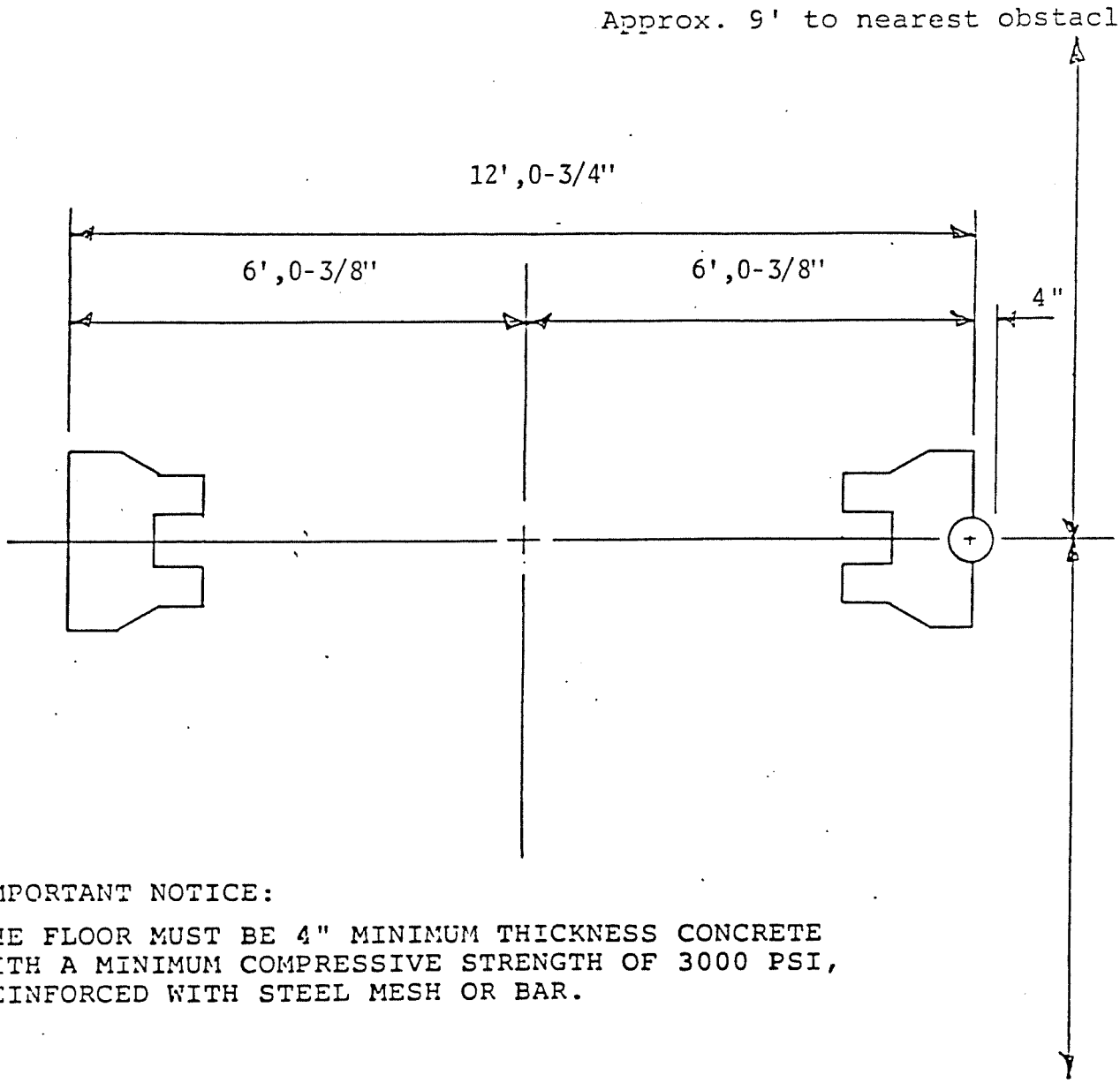
7. THE SWING ARMS MOVE WHEN THE LIFT IS RAISED.

Explanation: The lift's legs are not perpendicular, resulting in a changing distance between the legs as the vehicle moves up and down. The swing arms move to accommodate the change.

1. Check the plumbness of the legs. Move the bases to adjust and shim as required.

8. OIL LEAKS

1. Cylinder Bottom. If the cylinder leaks oil around the base, check the fittings on the front and rear of the cylinder for tightness. If the threads continue to leak, remove the fittings, clean and reinstall with teflon tape.



IMPORTANT NOTICE:

THE FLOOR MUST BE 4" MINIMUM THICKNESS CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, REINFORCED WITH STEEL MESH OR BAR.

FIGURE #1
TWO POST LIFT PLACEMENT

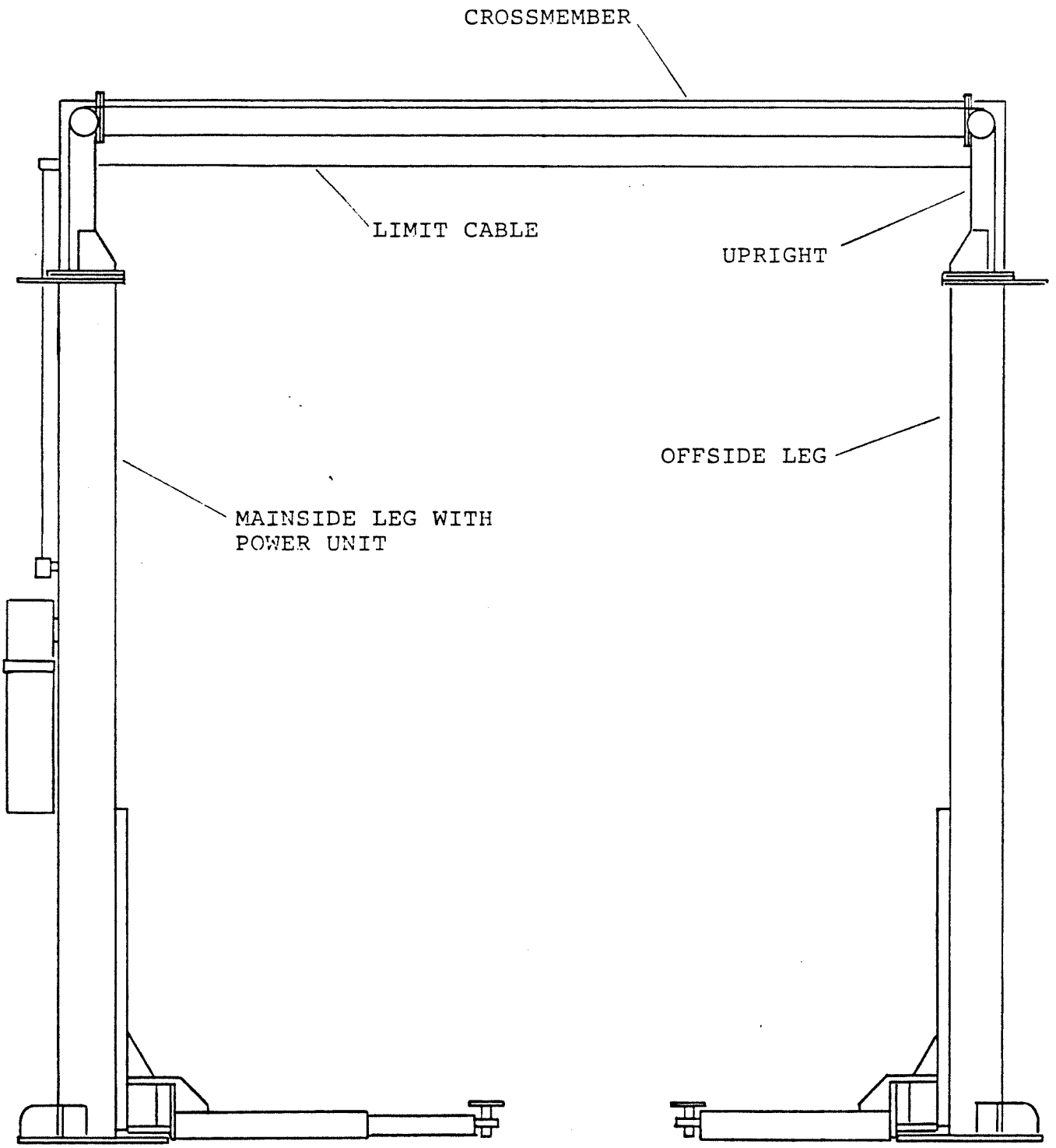


FIGURE #2

9000 LB CAPACITY TWO POST LIFT ASSEMBLY

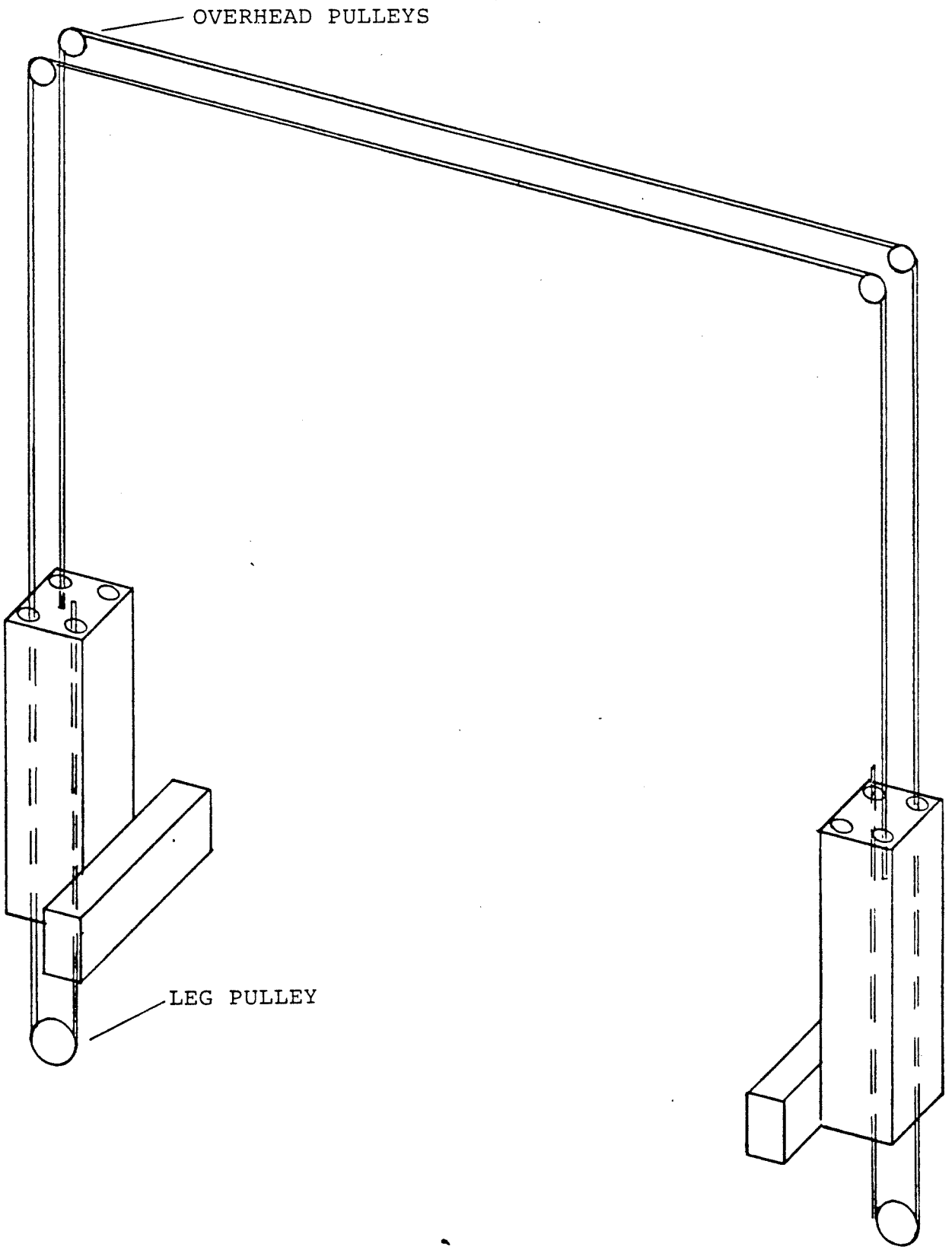
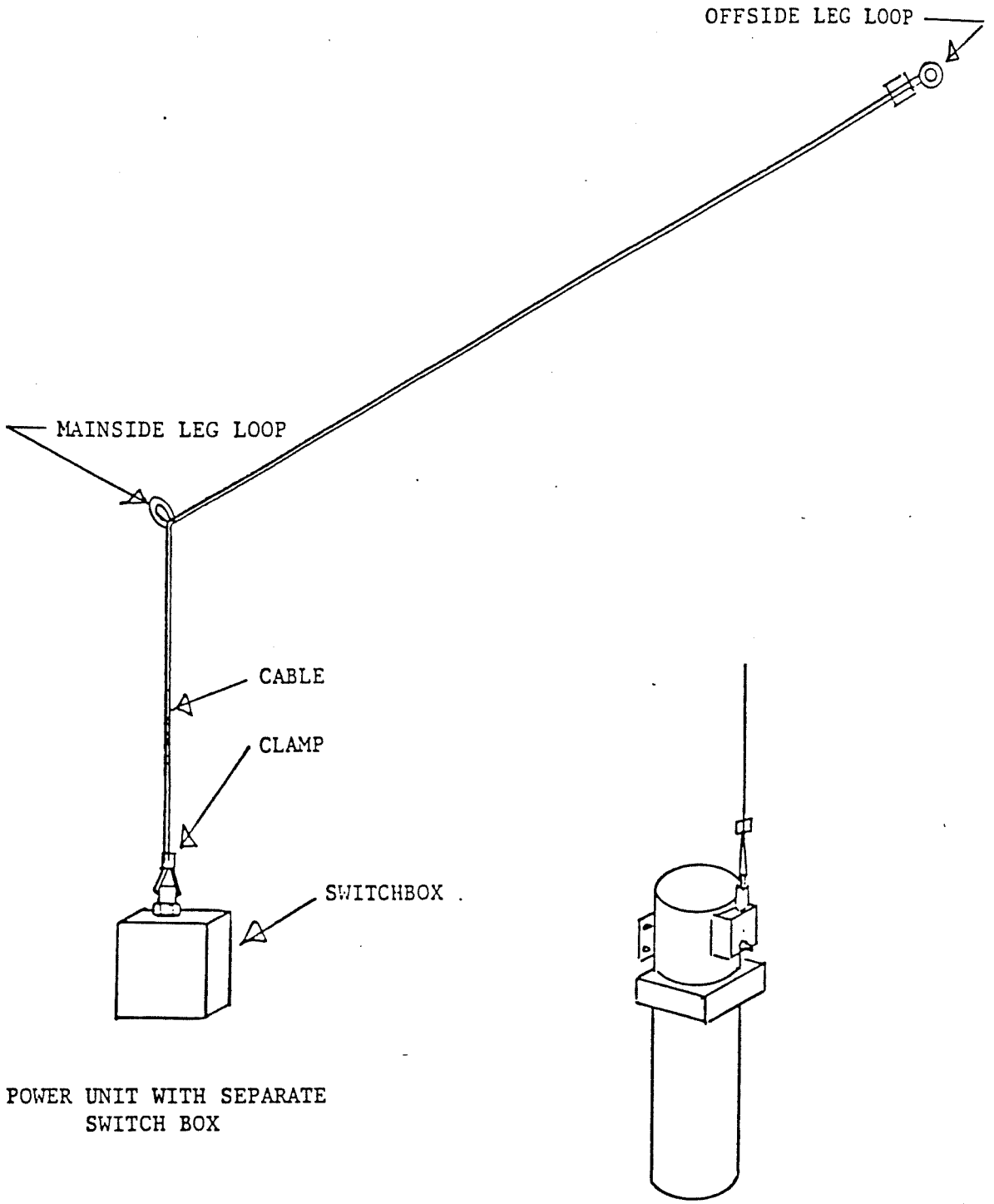


FIGURE #3

9000 LB CAPACITY TWO POST LIFT CABLE INSTALLATION



POWER UNIT WITH SEPARATE
SWITCH BOX

POWER UNIT WITH BUILT-IN
SWITCH BOX

FIGURE #4

LIMIT CABLE INSTALLATION

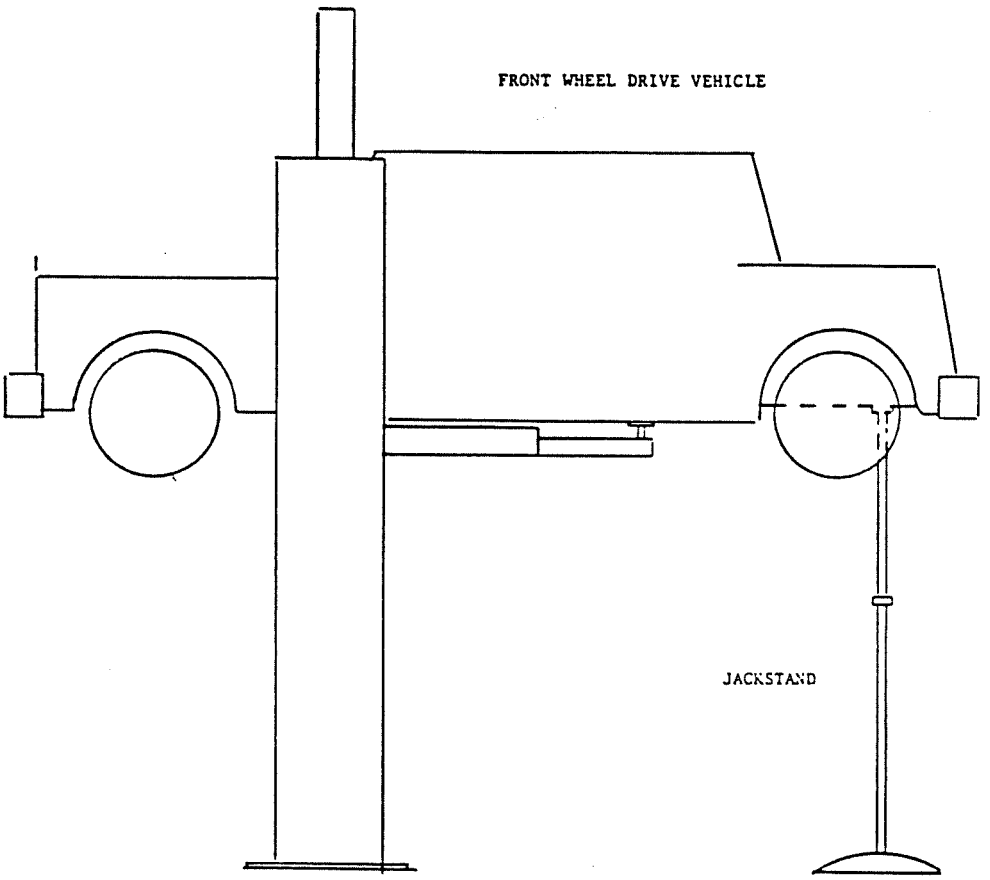
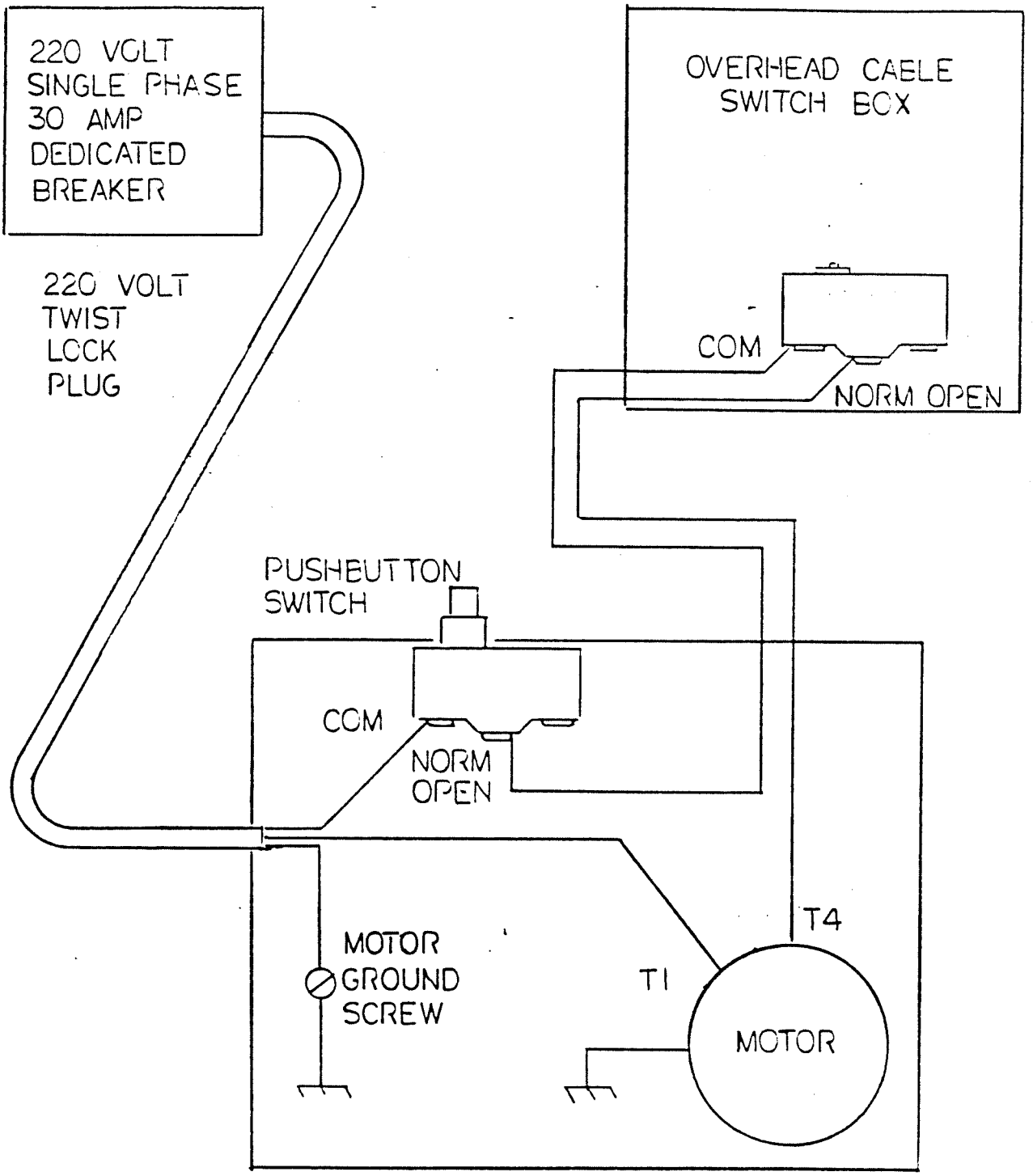


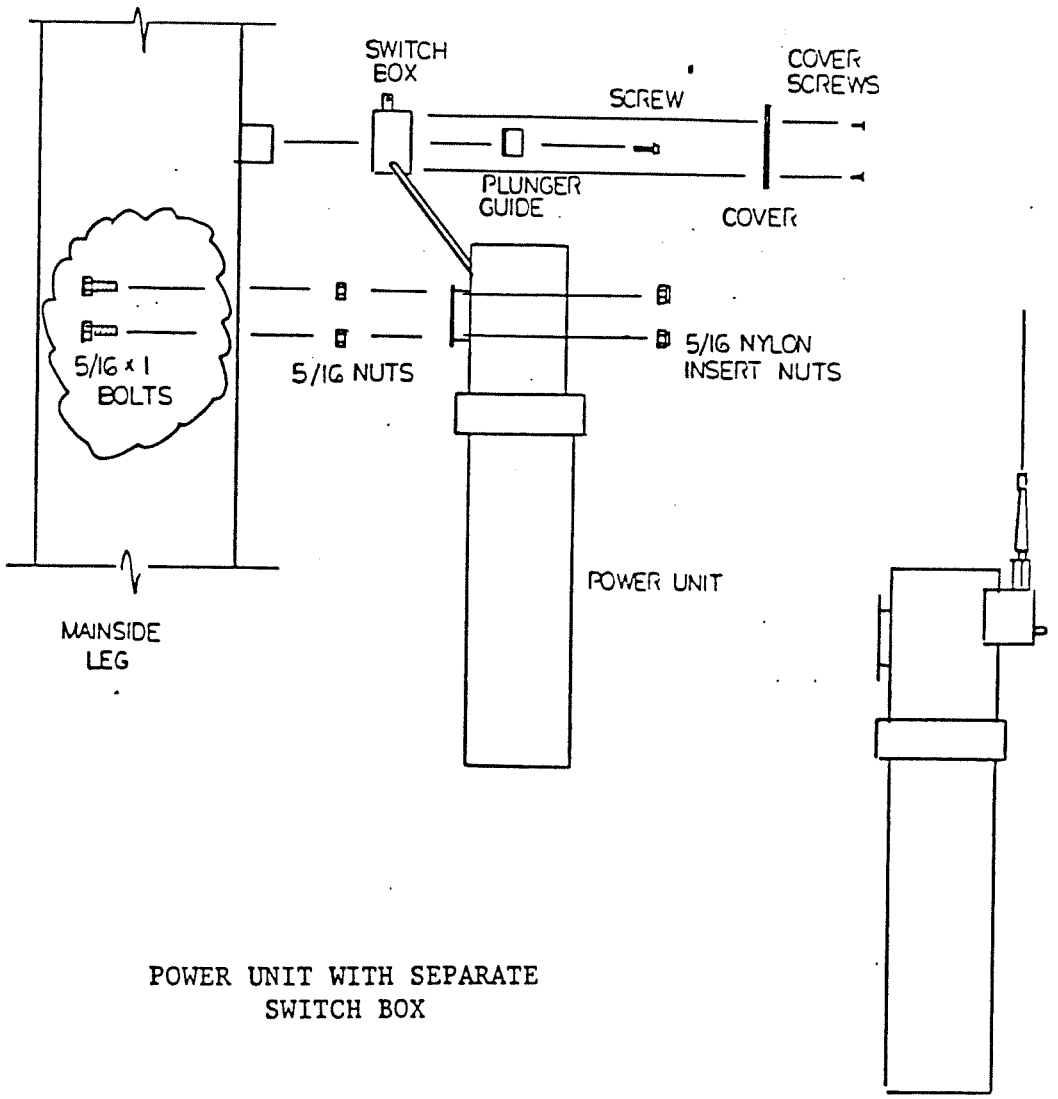
FIGURE 5

FRONT WHEEL DRIVE VEHICLE PRECAUTIONS



WIRING DIAGRAM: FENNER POWER UNIT

FIGURE 6: MODEL 9000
ELECT. WIRING DIAGRAM



POWER UNIT WITH SEPARATE SWITCH BOX

POWER UNIT WITH BUILT-IN SWITCH BOX

FIGURE 7

POWER UNIT/SWITCH BOX MOUNTING

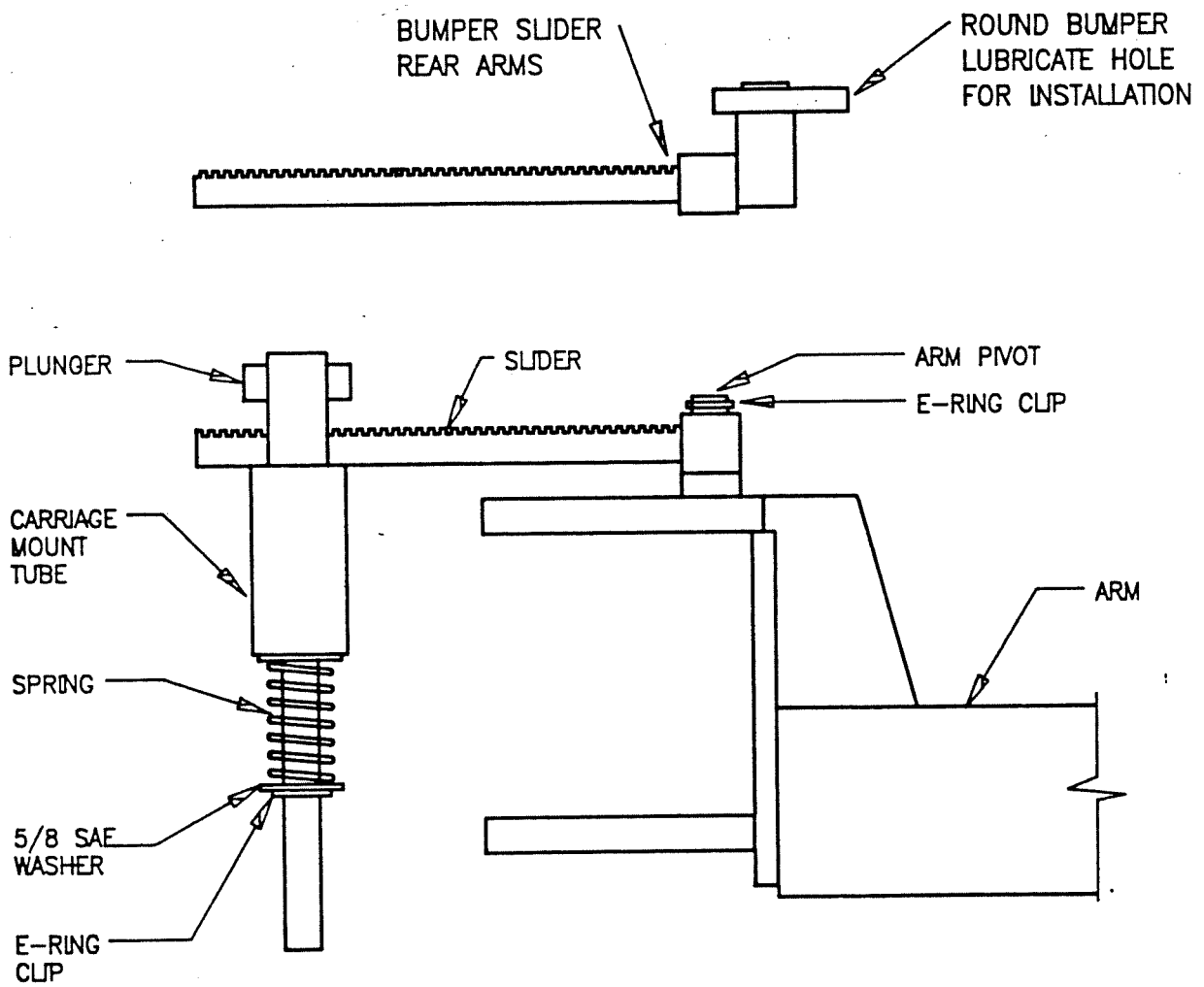


FIGURE 8

ARM LOCK ASSEMBLY

Effective Revision Date: 7-24-93

WARRANTY

All Forward Manufacturing Company (*FORWARD*) surface-mounted lifts are guaranteed to the original owner for five years from invoice date. *FORWARD* will repair or replace, for the full five years, those parts returned to the factory which prove, upon inspection by *FORWARD*, to be defective. *FORWARD* will pay for reasonable costs of transportation and labor for the replacement of said parts for the first twelve (12) months only. The Purchaser will bear costs of transportation after the first year and the remainder of this warranty. This warranty will not apply unless the product is installed, used and maintained in accordance with *FORWARD'S* installation, operation and maintenance instructions. Excluded from this warranty are the rolling bridge jacks, radius turn plates, and low-rise pad lifts.

This warranty runs in favor of the **ORIGINAL** purchaser only and does not cover normal maintenance or adjustments, damage or malfunction caused by improper handling, installation, abuse, misuse, negligence, carelessness of operation, or normal wear and tear. In addition, this warranty does not cover equipment when repairs have been made or attempted by anyone other than a *FORWARD* authorized service representative.

THIS WARRANTY IS EXLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FROM A PARTICULAR PURPOSE, AND ALL SUCH IMPLIED WARRANTIES ARE EXPRESSLY EXCLUDED.

THE REMEDIES DESCRIBED ARE EXCLUSIVE AND IN NO EVENT SHALL FORWARD MANUFACTURING COMPANY, NOR ANY SALES AGENT OR OTHER COMPANY AFFILIATED WITH IT OR THEM, BE LIABLE FOR SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OF OR DELAY IN PERFORMANCE OF THIS WARRANTY. THIS INCLUDES, BUT IS NOT LIMITED TO, LOSS OF PROFIT, RENTAL OR SUBSTITUTE EQUIPMENT OR OTHER COMMERCIAL LOSS.

This warranty shall be governed by the laws of the State of Texas, and shall be subject to the exclusive jurisdiction of the Court in the State of Texas in the County of Tarrant.

CONDITIONS

PRICES : Prices and specifications are subject to change without notice. All orders will be invoiced at prices prevailing at time of shipment. Prices do not include any local, state or federal taxes.

RETURNS: *FORWARD* products may not be returned without written approval from *FORWARD*. Returns are subjected to a credit deduction to cover transportation cost, 10% handling charge, and any necessary reconditioning costs.