

**CHALLENGER LIFTS, INC.**

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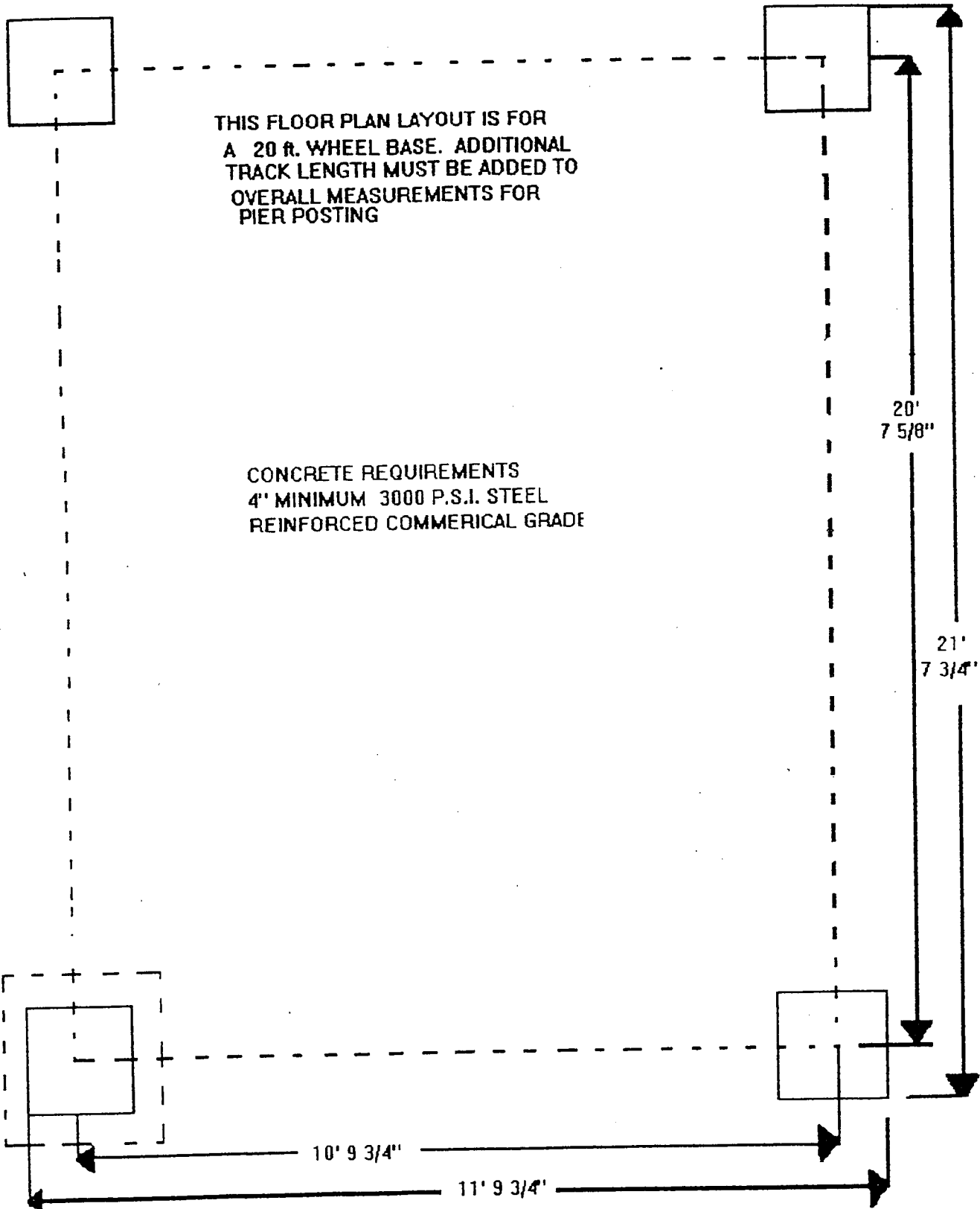
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**Challenger Model 24025/24030  
Four-post Surface Mounted Automotive Lift  
INSTALLATION, OPERATION, AND MAINTENANCE MANUAL**

**IMPORTANT**

**Read this manual completely before installing or operating  
the lift.**

**October 21, 1994**



## INTRODUCTION

THE FOUR POST LIFT CONSISTS OF FOUR VERTICAL POSTS WITH RUNWAYS BETWEEN THE POSTS. THE LIFTING IS DONE BY A HYDRAULIC CYLINDER COUPLED TO HEAVY DUTY LEAF CHAINS WHICH ROLL OVER SEALED ROLLER BEARINGS. A 2 H.P. POWER UNIT SUPPLIES UP TO 2,000 P.S.I. TO THE CYLINDER FOR THE LIFTING. EACH POST IS EQUIPPED WITH A SPRING LOADED SAFETY LATCH THAT IS ACTIVATED ONLY WHEN THERE IS SLACK IN THE CHAINS. THERE IS ALSO A SAFETY LATCH ON THE CYLINDER IN CASE OF HYDRAULIC FAILURE.

THE INSTALLATION IS A RELATIVELY SIMPLE TASK THAT CAN BE ACCOMPLISHED BY 3 MEN IN JUST A FEW HOURS. A FORKLIFT OR A FOURTH MAN CAN BE USED WHILE RAISING THE TOP RAIL INTO PLACE AND INSTALLING THE RUNWAYS.

TO PREVENT MISTAKES, PLEASE READ THE ENTIRE MANUAL BEFORE BEGINNING THE INSTALLATION.

## LIFT LOCATION

CHOOSE YOUR INSTALLATION SITE CAREFULLY. KEEP IN MIND DOORS, POWER SUPPLY, AND OVERHEAD OBSTRUCTIONS. THESE ARE ALL IMPORTANT CONSIDERATIONS THAT WILL HELP MAKE THE LIFT THE MOST VALUABLE TOOL IN YOUR SHOP.

THE MOST IMPORTANT THING TO LOOK FOR IS A GOOD CONCRETE FLOOR. IT SHOULD BE A MINIMUM OF FOUR (4) INCHES THICK AND 3000 P.S.I. WITH STEEL REINFORCEMENT. PADS MUST BE TWO BY TWO BY THREE FEET THICK AND STEEL REINFORCED.

THE TOP CAN BE PLACED ON THE LEFT OR RIGHT SIDE.

## **IMPORTANT NOTICE**

### **IMPORTANT NOTICE:**

THE FLOOR ON WHICH THE LIFT IS TO BE INSTALLED MUST BE FOUR INCHES MINIMUM THICKNESS COMPRESSIVE STRENGTH OF 3000 P.S.I. 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 PRACTICE WHEN ON AN ASPHALT OR DIRT BASE. 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 THE LIFT. INSTALL A 220 VOLT, 30 AMP TWIST PLUG IN THE ELECTRICAL BOX. IF THE POWER UNIT PUSH BUTTON SWITCH SHOULD STICK IN THE ON POSITION, THIS PLUG CAN BE OPENED TO STOP THE MOTOR. THIS PLUG IS NOT FURNISHED BY THE MANUFACTURER, BUT IT IS RECOMMENDED.

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

## ANCHORING TIP SHEET

1. ANCHORS MUST BE AT LEAST 5" FROM THE EDGE OF THE SLAB OR ANY SEAM.
2. USE A CONCRETE HAMMER DRILL WITH A 3/4" CARBIDE BIT.
3. DO NOT USE A WORN BIT.
4. DRILL IN A PERPENDICULAR LINE WITH THE HOLE.
5. DO NOT APPLY PRESSURE TO THE DRILL. LET THE DRILL DO THE WORK.
6. LIFT THE DRILL UP AND DOWN OCCASIONALLY TO REMOVE RESIDUE TO REDUCE BINDING.
7. DRILL THE HOLE TO DEPTH EQUAL TO THE LENGTH OF ANCHOR OR COMPLETELY THROUGH THE SLAB.
8. FOR BETTER HOLDING POWER BLOW DUST FROM THE HOLE.
9. PLACE A FLAT WASHER OVER THREADED END OF ANCHOR SPIN NUT 1/2" DOWN PAST THE END OF THE ANCHOR. CAREFULLY TAP THE ANCHOR. TAP THE ANCHOR INTO THE CONCRETE UNTIL NUT AND FLAT WASHER ARE AGAINST THE BASE PLATE. DO NOT USE AGAINST THE BASE PLATE. **DO NOT USE AN IMPACT WRENCH TO TIGHTEN.**

**A-25 & A-30K  
INSTALLATION**

1. DETERMINE THE LOCATION FOR THE LIFT. FIG. 1 GIVES THE OVERALL DIMENSIONS OF THE LIFT.
2. THERE MUST BE ENOUGH OVERHEAD CLEARANCE TO RAISE VEHICLES 5 FEET ABOVE THE FLOOR.
3. THE FLOOR MUST BE CONCRETE WITH A MINIMUM THICKNESS OF 4 INCHES AND STEEL REINFORCED PER COMMERCIAL PRACTICE.
4. ONCE THE LOCATION IS DETERMINED USE A CHALK LINE TO MARK THE LAYOUT OF THE LIFT AS GIVEN IN FIG 1.
5. POSITION MAINSIDE LEGS INSIDE THE CHALK LINES WITH THE OPEN SIDE OF THE LEFT TO THE INSIDE OF THE RECTANGLE. MAKE SURE THE TOP OF THE LEG HAS THE SAME BOLTING PATTERN AS THE BOTTOM OF THE TOP RAIL. THIS WILL DETERMINE THE MAINSIDE. MAKE SURE THAT THE MAINSIDE LEG WITH THE DRILLED HOLES IS PLACED EITHER AT THE RIGHT REAR OR THE LEFT FRONT. THESE ARE THE ONLY TWO PLACES THAT THE POWER UNIT WILL FIT.
6. DRILL ONE MAINSIDE LEG AND ANCHOR IT WITH THE CONCRETE ANCHORS PROVIDED. LIFT THE TOP RAIL AND PLACE IT ON TOP OF THE TWO MAINSIDE LEGS. THEN PUT THE TOP PLATE ON TOP OF THE LEGS. WHEN THE BOTTOM OF THE TOP RAIL IS ALIGNED BOLT IT INTO PLACE. DO NOT TIGHTEN COMPLETELY AT THIS POINT. LEVEL THE LEGS BOTH DIRECTIONS AND DRILL THE OTHER LEG. TIGHTEN ALL MAINSIDE ANCHORS AND TOP RAIL BOLTS, INSURING THAT THEY ARE STILL ALIGNED.
7. POSITION CROSS RAILS IN THEIR APPROXIMATE LOCATIONS. THE LIFTING CHAIN CONNECTOR MUST BE AT THE MAIN SIDE LOCATION.

**A-25K & A-30K**

8. USE A PULL WIRE TO PULL THE CROSS RAIL CHAINS THROUGH THE CROSSRAIL TUBE. THE CHAIN IS PULLED IN THROUGH THE MAINSIDE, OVER THE BEARING AND UNDER THE BEARING ON THE OFFSIDE.  
SEE FIG. 2
9. ATTACH THE CROSS CHAIN TO THE MAINSIDE LEG. ANCHOR WITH THE 646 MASTER LINK PROVIDED. MAKE SURE THAT ALL CHAIN LINKS ARE CONNECTED WITH THE MASTER LINK. REPEAT AT THE OTHER MAIN SIDE LEG.
10. USING A SMALL CLAMP OR A PAIR OF VISE GRIPS AND CLAMP THE LATCH ON THE CROSSRAIL TO THE EAR OF THE CROSSRAIL. FAILURE TO DO SO WILL RESULT IN THE SAFETY SPRING FLYING OUT OF POSITION. WITH IT CLAMPED, REMOVE THE PACKING PIN OUT THROUGH THE BOTTOM WITH THE SAFETY ROD. WITH ONE NUT SCREWED DOWN ON THE ROD INSERT THE THREADED END THROUGH THE ROUND HOLE IN THE TOP OF THE MAINSIDE LEG. PUT THE NUT ON THE ROD AS IT PASSES THROUGH THE TOP RAIL PLATE. REPEAT WITH THE OTHER LEG. ( SEE FIG 3 & 4.)
11. REMOVE THE CAP FROM THE FRONT OF THE CYLINDER PORT FITTING. MANUALLY EXTEND THE CYLINDER RAM (AIR IN THE REAR PORT MAY HAVE TO BE USED TO ACCOMPLISH THIS). ATTACH THE DOUBLE SET OF LIFTING CHAINS TO THE CROSSRAIL CONNECTORS INSURING THAT ALL LINKS ARE INSTALLED INTO THE CONNECTOR. INSTALL 5/16" STRESS-PROOF PINS AND COTTER PINS AT THIS POINT.
12. REPEAT THE STEPS USED IN #10 FOR THE OFFSIDE CROSSRAIL TO INSTALL THE SAFETY RODS. PLACE 1 1/8" SAFETY ROD INTO THE LATCH AND CROSSRAIL WHILE POSITIONING THE LEG OVER THE END OF THE CROSSRAIL. SECURE THE TOP END OF THE SAFETY ROD WITH THE NUT PROVIDED. REPEAT AT THE OTHER CROSSRAIL. (SEE FIG. 3).

**A-25K & A-30K**

13. INSTALL THE BOLT END OF THE CROSSRAIL CHAIN INTO THE HOLE AT THE TOP OF THE OFFSIDE LEG. ATTACH THE 1 1/8" FLAT WASHER AND THE NYLON LOCK NUT TO THE BOLT. HOLD THE CHAIN WITH A CRESCENT WRENCH AND TIGHTEN AT LEAST TO A FULL NUT. REPEAT AT OTHER CROSSRAIL.
14. ATTACH THE POWER UNIT WITH THE 5/16" x 1" BOLTS AND NUTS.
15. ATTACH THE HYDRAULIC HOSE BETWEEN THE FITTING AT THE ROD END OF THE CYLINDER AND THE FITTING JUST ABOVE THE POWER UNIT TANK. SECURE THE HOSE TO THE TOP RAIL WITH THE TIE WRAPS.
16. MAKE THE ELECTRICAL HOOK-UP TO THE POWER UNIT. 220V SINGLE PHASE. IT IS RECOMMENDED THAT A 220 VOLT, 30 AMP TWIST LOCK PLUG BE INSTALLED IN THE POWER LINE JUST AHEAD OF THE POWER UNIT.
17. USE A FUNNEL IN THE BREATHER CAP FITTING ON THE POWER UNIT RESERVOIR. POUR 6 GALLONS OF PETROLEUM BASE (MINERAL) HYDRAULIC OIL, NON FOAMING, NON DETERGENT, SUCH AS MOBIL DTE 25 OR TEXACO HD 46.
18. WITH THE ELECTRICITY ON, PUSH THE UP BUTTON AND RAISE THE CROSSRAILS ABOUT 12" OR SO AND LEVEL THEM BY ADJUSTING THE CROSSRAIL CHAIN AT THE ANCHOR BOLT AT THE TOP OF THE OFFSIDE LEG. REPEAT AT THE OTHER LEG.
19. POSITION THE TRACKS ON THE CROSSRAILS AN EQUAL DISTANCE FROM THE CENTER OF THE CROSSRAILS.
20. THE OFFSIDE LEGS MAY VARY SLIGHTLY FROM THE CHALK LINES. AT THIS TIME SQUARE AND PLUMB THE OFFSIDE LEGS AND DRILL AND ANCHOR THEM TO THE CONCRETE. ALL BOLTS SHOULD NOW BE TIGHTENED.



## **A-25K & A-30K**

21. BOLT ON THE RAMPS AND STOPS.

### **DRILLING PROCEDURE**

1. THE ANCHOR BOLT 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 ANCHORS, 3/4, (.775 TO .787 INCHES DIAMETER)
3. USE A CONCRETE HAMMER DRILL.
4. DO NOT USE EXCESSIVELY WORN 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 THROUGH THE SLAB.
9. BLOW THE DUST FROM THE HOLE. THIS INCREASES THE HOLDING POWER.

### **INSTALLATION**

1. DRILL THE HOLE EQUAL TO THE ANCHOR BOLT, OR THROUGH THE SLAB.

## **A-25K & A-30K**

2. ASSEMBLE THE WASHER AND NUT ONTO THE ANCHOR BOLT. THREAD THE NUT APPROXIMATELY 4/5'S OF THE WAY ONTO THE ANCHOR BOLT. USE A HAMMER ON THE NUT, AND 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 OR THREE TURNS ON AVERAGE CONCRETE, 28 DAY CURE. IF THE CONCRETE IS VERY HARD ONLY ONE OR TWO TURNS MAY BE REQUIRED.

### **RAISING VEHICLE**

1. DRIVE VEHICLE ONTO LIFT. SET PARKING BRAKE.
2. PUSH THE BUTTON ON THE POWER UNIT TO RAISE THE LIFT TO THE DESIRED HEIGHT.
3. USE THE LEVER ON THE POWER UNIT TO RAISE LIFT TO DESIRED HEIGHT.
4. BEFORE WALKING UNDER THE LIFT, VERIFY THAT THE SAFETY LATCH PIVOT PIN IS POSITIONED IN THE LATCH RACK, UNDER THE TOP RAIL TUBE.

### **LOWERING VEHICLES**

1. RAISE THE TRACK OFF THE SAFETY LATCH USING THE PUSH BUTTON SWITCH ON THE POWER UNIT.
2. RELEASE THE SAFETY LATCH BY PULLING DOWN THE LATCH UNTIL CAR SETS TO HOLD IT DOWN.

**A-25K & A-30K**

3. LOWER THE LIFT USING THE VALVE LEVER ON THE POWER UNIT.

**IMPORTANT NOTE**

DO NOT WORK OR WALK UNDER THE LIFT WHEN THE 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 RAISING 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.

## OPERATION

1. CENTER VEHICLE LEFT AND RIGHT BETWEEN THE POST.
2. POSITION THE SWIVEL PADS UNDER THE FRAME OF THE CAR AT THE PROPER LIFTING POINTS.
3. PUSH THE UP BUTTON AND RAISE LIFT UNTIL THE SWIVEL PADS MAKE CONTACT WITH THE LIFTING POINTS.
4. CHECK ALL SWIVEL PADS TO MAKE CERTAIN ALL ADAPTERS ARE MAKING FULL AND PROPER CONTACT.
5. RAISE THE VEHICLE APPROXIMATELY 2" AND CHECK THE STABILITY BY ROCKING THE VEHICLE.
6. RAISE THE VEHICLE TO THE DESIRED HEIGHT AND LOWER ON THE LOCKING DEVICES.
7. TO LOWER, RAISE THE LIFT SLIGHTLY, PULL THE RELEASE RODS ON EACH CARRIAGE, AND PULL OUT OR DOWN ON THE LOWERING RELEASE ARM AND LOWER SLOWLY . .
8. AFTER LOWERING THE VEHICLE, ROTATE THE SWING ARMS BACK OUT OF THE WAY.

## MAINTENANCE

1. **LUBRICATION:**

LUBRICATE ALL NYLON WEAR BLOCK CORNERS INSIDE EACH POST WITH A HEAVY DUTY BEARING GREASE ONE EVERY SIX MONTHS. LUBRICATE THE CHAINS EVERY SIX MONTHS.

2. **ANCHOR BOLTS:**

DURING FIRST WEEK OF USE CHECK ANCHOR DAILY. DO NOT USE IMPACT TO TIGHTEN THESE ANCHORS. AFTER THE FIRST WEEK, CHECK ONCE A MONTH FOR THE FIRST SIX MONTHS.

3. **CONCRETE:**

CHECK FOR STRESS CRACKS DAILY FOR THE FIRST TWO WEEKS OF USE. THEREAFTER CHECK MONTHLY.

4. **CHECK ALL NUTS AND BOLTS EVERY SIX MONTHS.**

5. IF YOUR LIFT WILL RAISE ALL THE WAY TO THE TOP, YOUR LIFT HAS ENOUGH OIL. HYDRAULIC OIL SHOULD BE CHANGED ONCE A YEAR.

**INSPECTION ON MAINTENANCE ON  
ALL ABOVE FLOOR LIFTS  
FOUR POST**

**NORMAL INDOOR USAGE**

1. INSPECT ALL CHAINS AND CONNECTORS FOR WEAR.
2. INSPECT ALL MOVING PARTS FOR WEAR: LATCHES, CHAINS, BEARINGS, TRACKS, CROSSRAILS, ETC.
3. REPLACE OR REPAIR ALL WORN OR DAMAGED PARTS.
4. LUBRICATE ALL CHAINS, LATCHES, BEARINGS WITH A GOOD GRADE LUBRICANT.
5. CHECK ANCHOR BOLTS FOR TIGHTNESS. IF THE ANCHOR BOLTS ARE EXCESSIVELY LOOSE, CHECK MORE OFTEN.
6. CHECK THE HYDRAULIC FLUID LEVEL. IF NECESSARY ADD OIL. CROSS REFERENCE TO MOBIL DTE 25 OR TEXACO HD 46 OR AN EQUAL. THESE ARE PETROLEUM BASED HYDRAULIC OILS, NON FOAMING NON-DETERGENT.
7. THE ABOVE MAINTENANCE SHOULD BE PUT ON A MONTHLY SCHEDULE.
8. FOR ALL UNITS THAT ARE USED IN AN OUTSIDE ENVIRONMENT, THE MAINTENANCE SHOULD BE DONE ON A MONTHLY BASIS.
9. CHAINS SHOULD BE WIPED DOWN, REMOVING ALL GREASE AND DIRT.
10. APPLY NEW GREASE ON CHAINS, LUBRICATE ALL MOVING PARTS.
11. FOR WASH BAY AREAS; IN ADDITION TO THE ABOVE RECOMMENDATIONS, CARE SHOULD BE TAKEN THAT ALL THE MOVING PARTS ON THE LIFTS USED IN THE WASH BAY AREA WILL BE INSPECTED WEEKLY FOR CORROSION.

## TROUBLE SHOOTING

### 1. MOTOR DOES NOT RUN:

- A. A BREAKER OR A FUSE IS BLOWN.
- B. MOTOR THERMAL OVERLOAD STRIPPED. WAIT FOR OVERLOAD TO COOL.
- C. FAULTY WIRING CONNECTION. CALL THE ELECTRICIAN FOR CHECKING.
- D. DEFECTIVE UP BUTTON. CALL ELECTRICIAN FOR CHECKING.

### 2. MOTOR RUNS BUT IT WILL NOT RAISE:

- A. A PIECE OF TRASH IS UNDER THE CHECK VALVE. PUSH THE HANDLE DOWN AND PUSH THE UP BUTTON AT THE SAME TIME. HOLD IT FOR 10 - 15 SECONDS. THIS SHOULD FLUSH THE SYSTEM.
- B. CHECK THE CLEARANCE BETWEEN THE PLUNGER VALVE OF THE LOWERING HANDLE. THIS SHOULD BE 1/16".
- C. REMOVE THE CHECK VALVE COVER AND CLEAN THE BALL AND SEAT.
- D. THE OIL LEVEL IS TOO LOW. THE OIL LEVEL SHOULD BE JUST UNDER THE VENT CAP PORT WHEN THE LIFT IS DOWN!!!!

### 3. MOTOR RUNS BUT LIFT PICKS UP A PARTIAL LOAD ONLY:

- A. THE RELIEF VALVE SETTING IS TOO LOW. REMOVE THE CAP ON THE PUMP AND ADJUST THE RELIEF VALVE WITH A SCREWDRIVER CLOCKWISE

CAREFULLY. THIS IS A SENSITIVE VALVE. MAKE SURE THE VEHICLE WEIGHT DOES NOT EXCEED THE RATED LOAD FOR THE LIFT.

- B. OIL IS COMING OUT OF THE BREATHER ON THE CYLINDERS. THE SEAL MAY BE DAMAGED.

4. **OIL BLOWS OUT BREATHER OR POWER UNIT:**

- A. OIL RESERVOIR IS OVERFILLED.
- B. LIFT WAS LOWERED TOO QUICKLY WHILE UNDER A HEAVY LOAD.

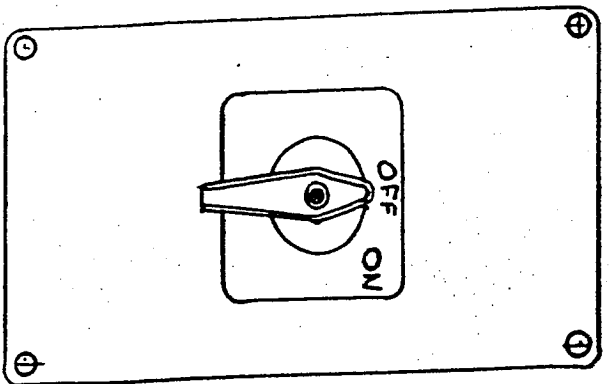
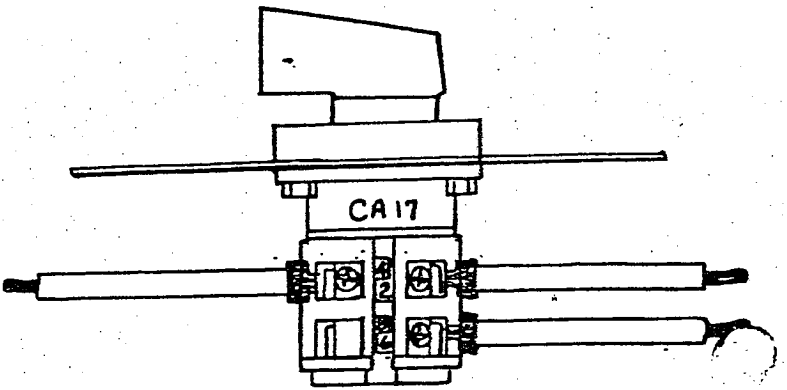
5. **MOTOR HUMS AND WILL NOT RUN:**

- A. IMPELLER FAN COVER IS DENTED. TAKE IT OFF AND STRAIGHTEN.
- B. FAULTY WIRING ..... CALL AN ELECTRICIAN.
- C. BAD CAPACITOR ..... CALL AN ELECTRICIAN.
- D. LOW VOLTAGE ..... CALL AN ELECTRICIAN.
- E. THE LIFT IS OVERLOADED.

6. **THE LIFT JERKS GOING UP AND DOWN:**

- A. THE CABLES ARE TOO LOOSE. ADJUST THEM AS PER INSTRUCTION.
- B. AIR IS IN THE HYDRAULIC SYSTEM. RAISE THE LIFT ALL THE WAY TO THE TOP AND THEN RETURN IT TO THE FLOOR. REPEAT THIS 4 - 6 TIMES. DO NOT LET THIS OVERHEAT THE POWER UNIT.



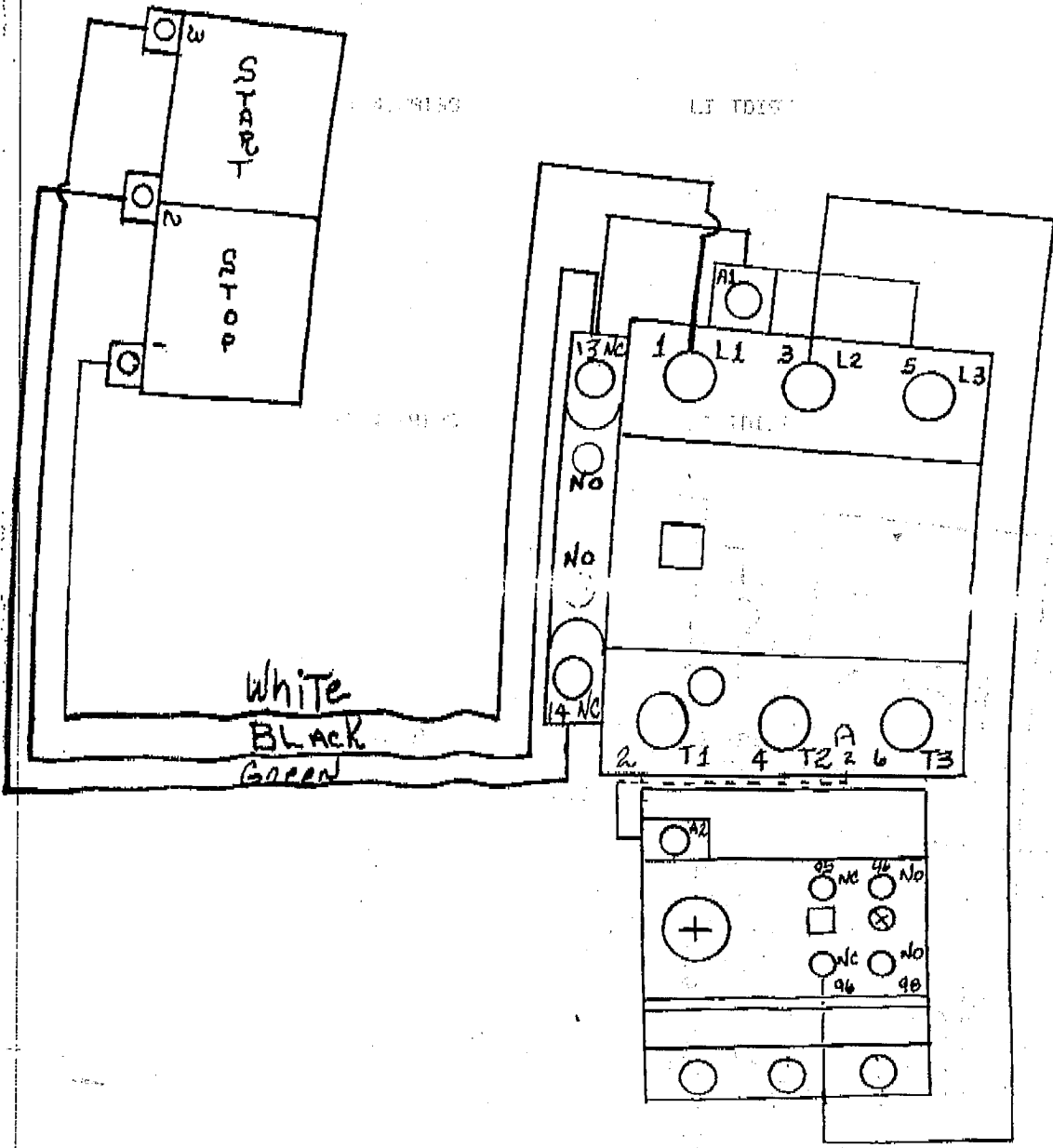


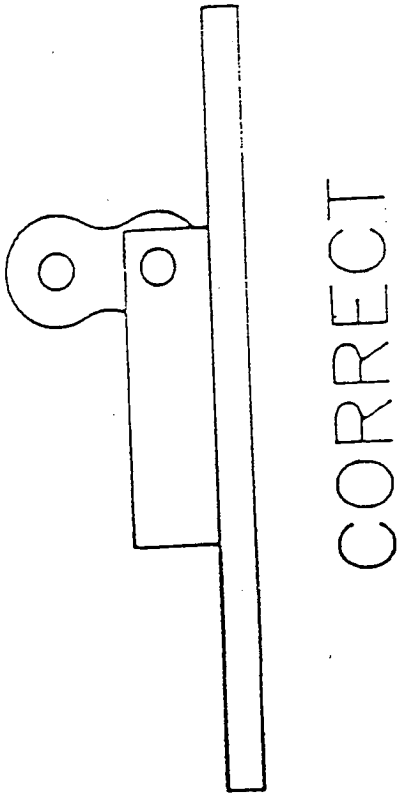
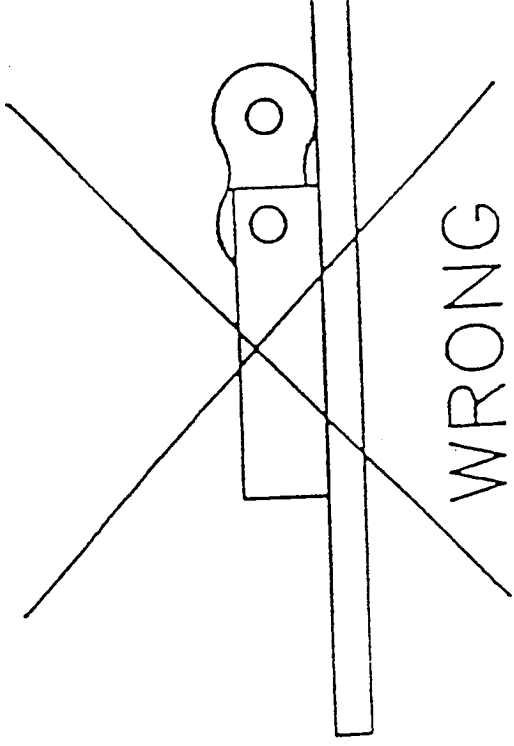
208/230 Volt Low Voltage	
MOTOR	SWITCH
1-7	1
2-8	3
3-9	5
Power Supply	SWITCH
L-1	2
L-2	4
L-3	6

460 VOLT HIGH Voltage	
MOTOR	SWITCH
4-7	1
5+8	3
6-9	5
Power Supply	SWITCH
L-1	2
L-2	4
L-3	6

ELECTRICAL Low Voltage	CIRCUIT High V <sub>0</sub>
T1	T1
T2	T2
T3	T3
T4	T4
T5	T5
T6	T6
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3 PHASE  
AC Wiring Assembly





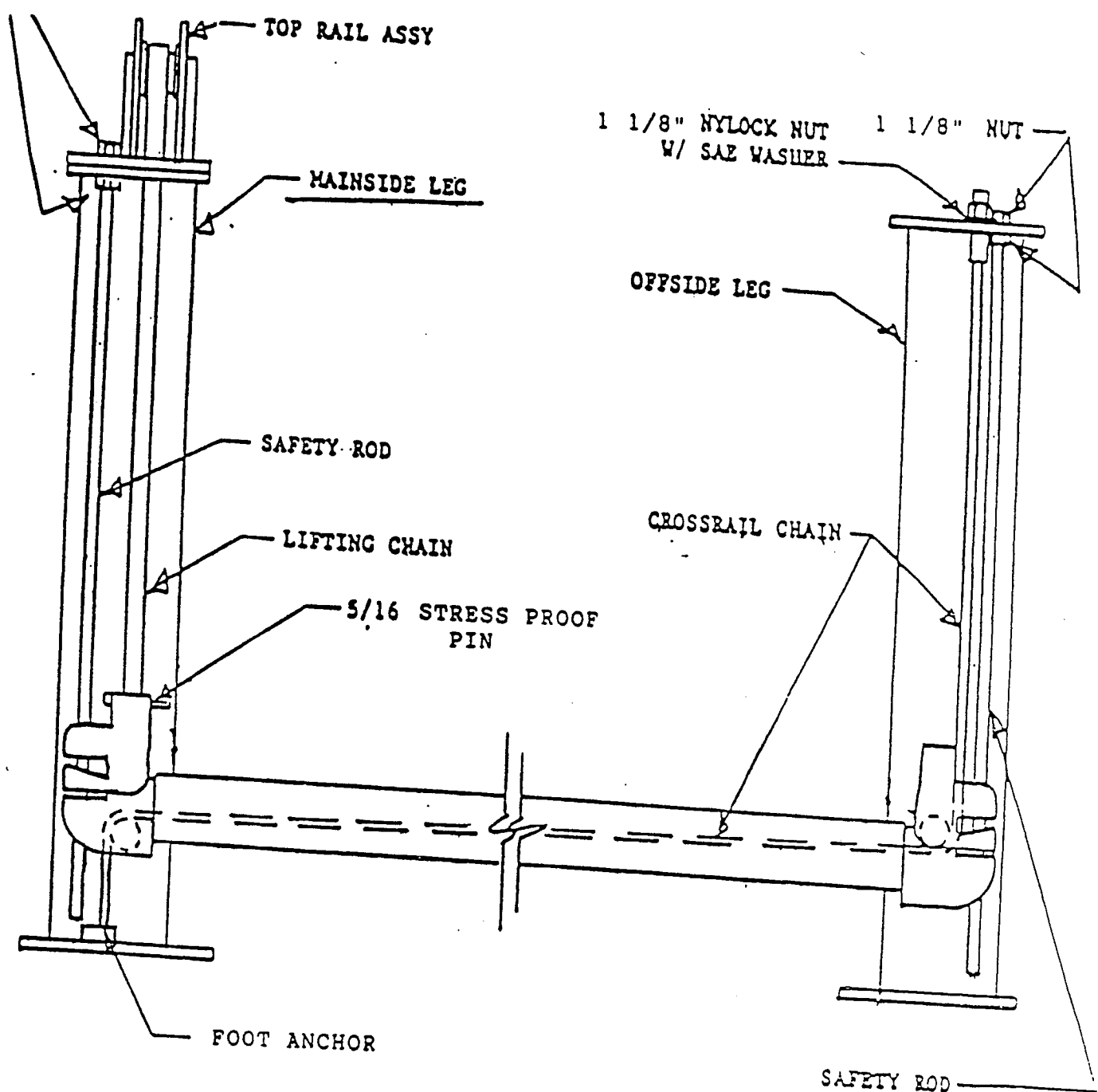


FIGURE 2: 30,000 lb LIFT, CROSSRAIL CHAIN ARRANGEMENT

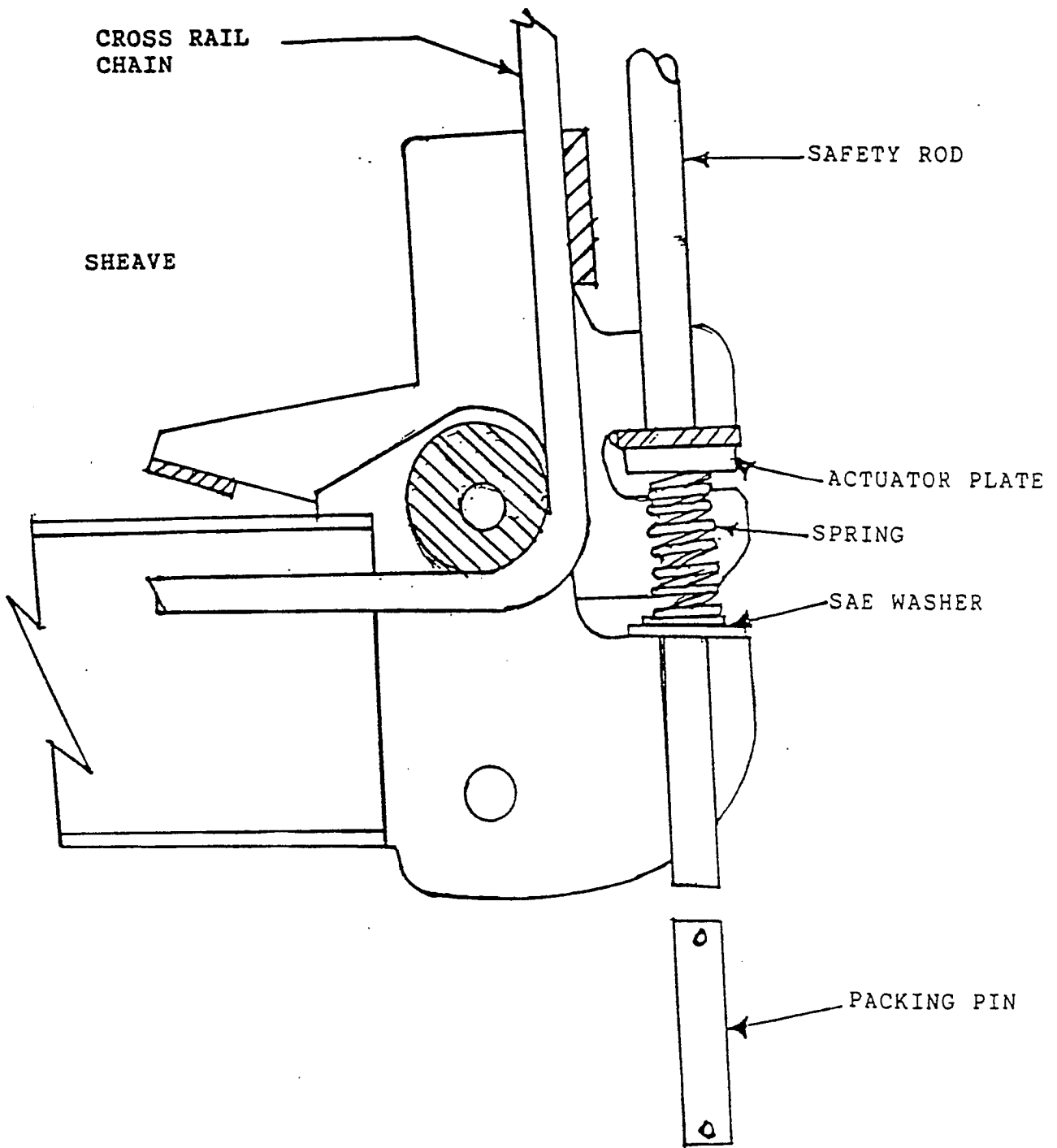
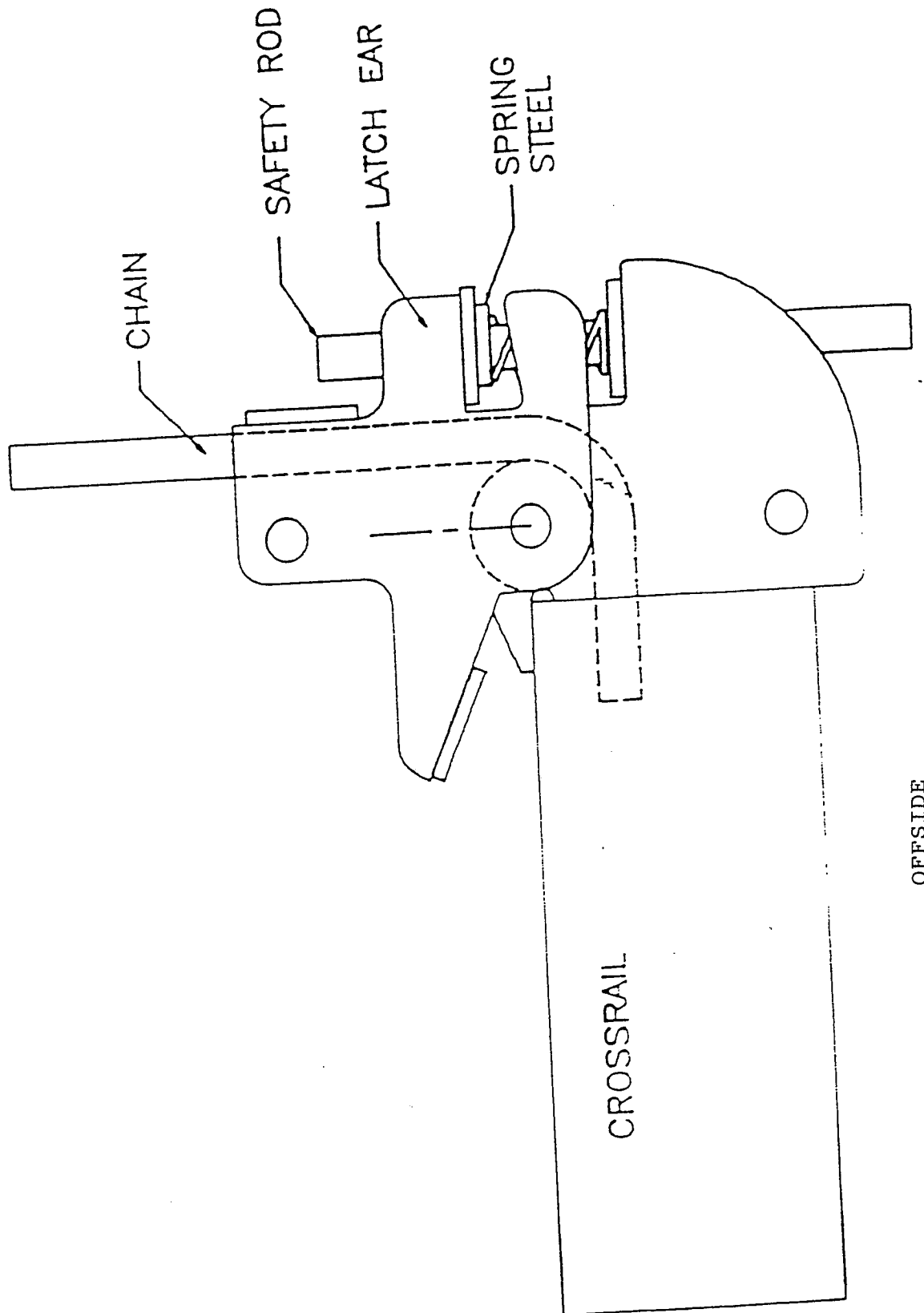


FIGURE 3 SAFETY ROD INSTALLATION OFFSIDE



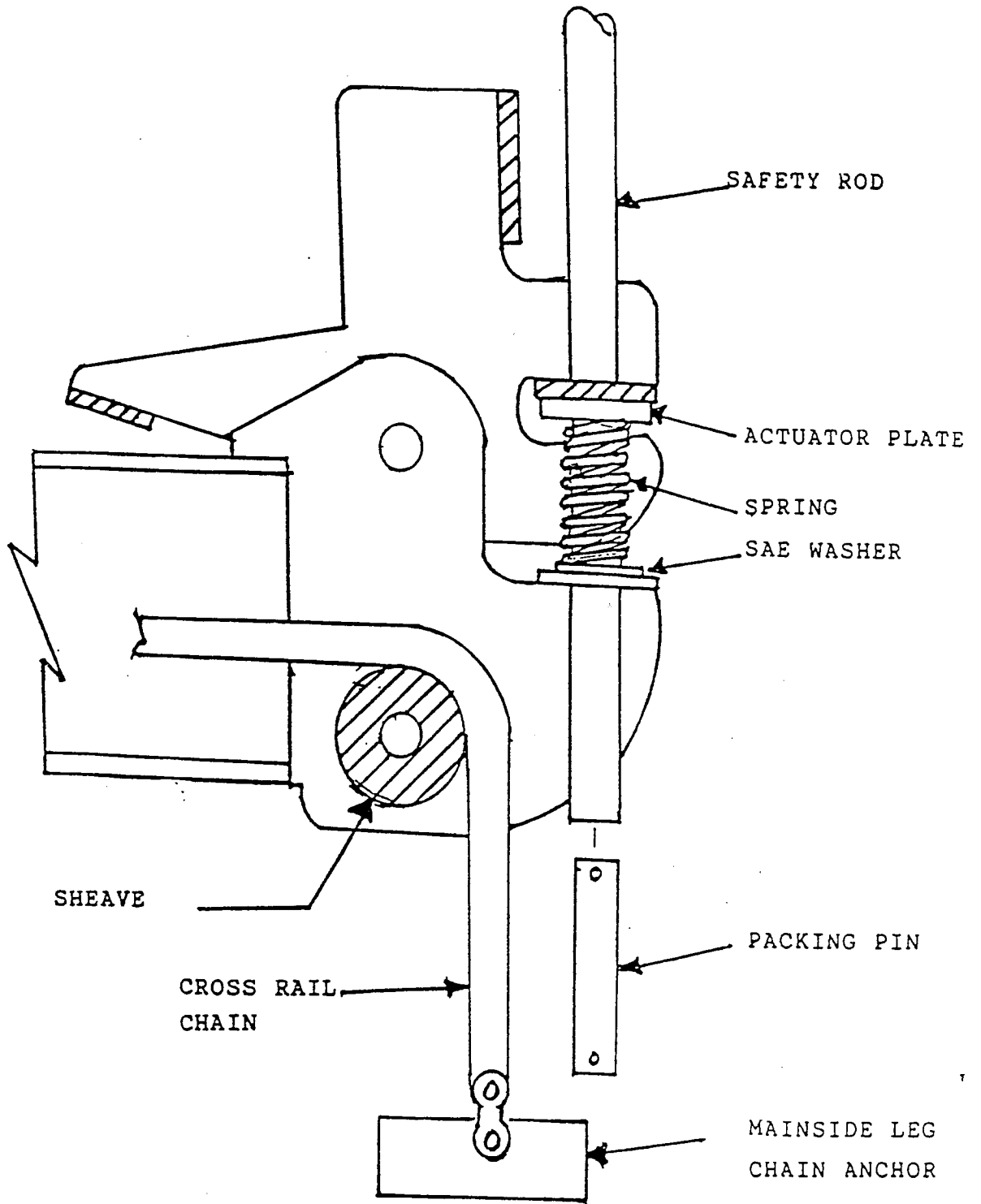
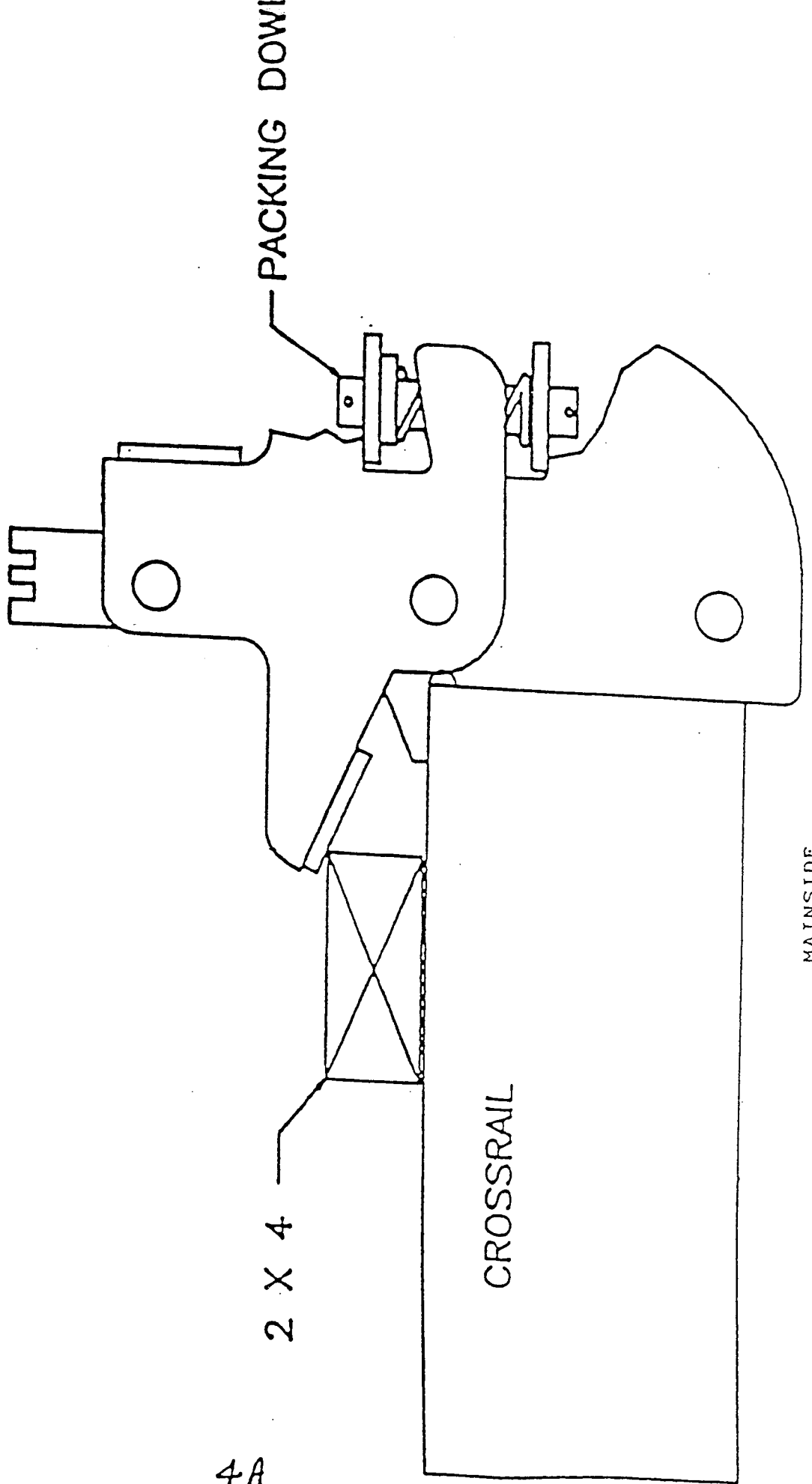
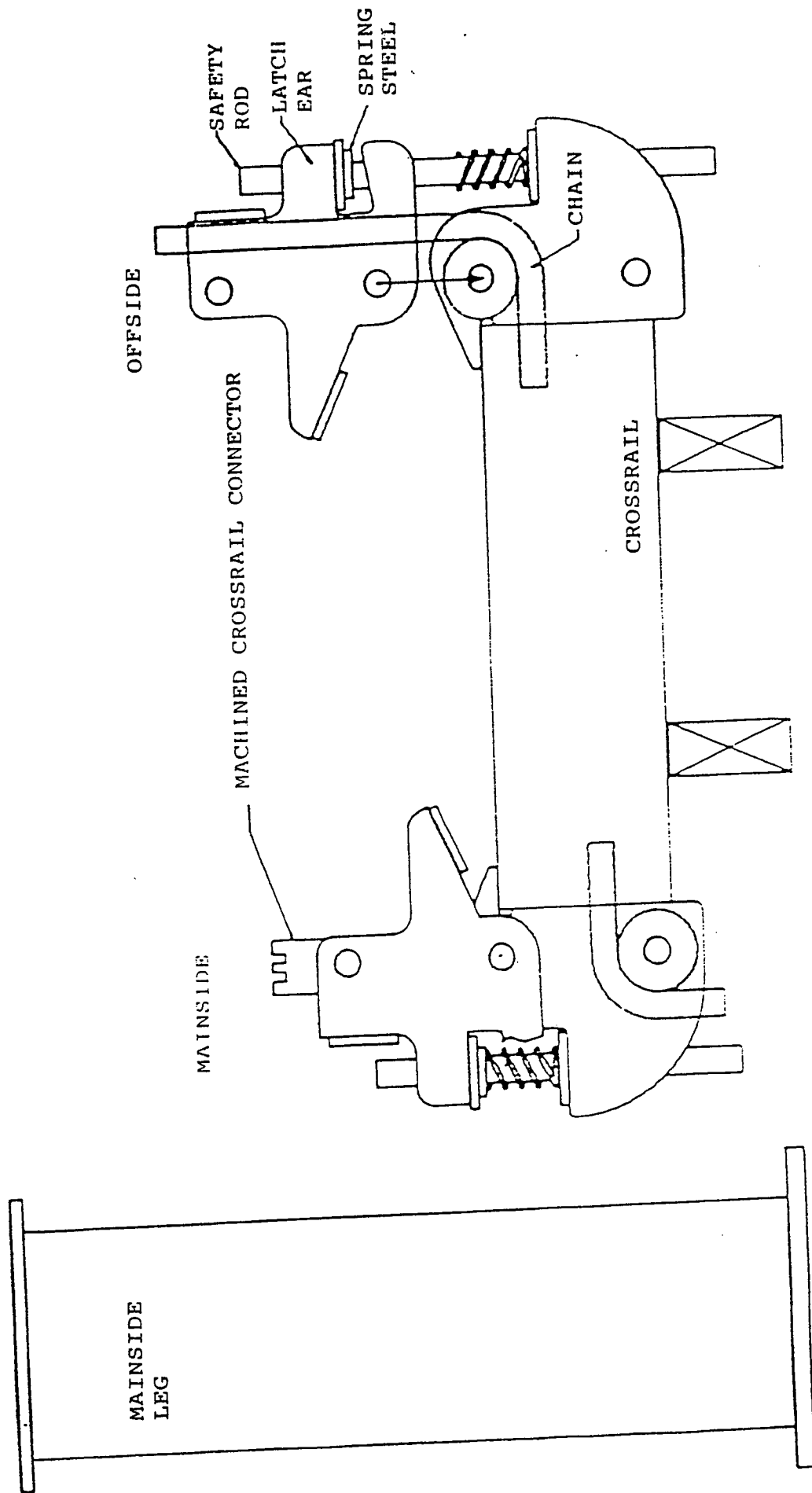


FIGURE 4 SAFETY ROD INSTALLATION MAINSIDE



4A





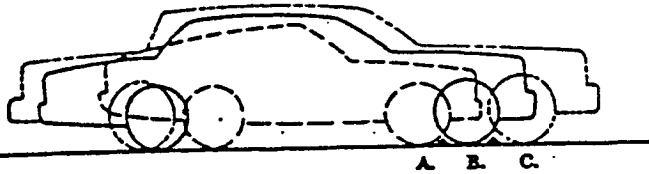
# OPERATING INSTRUCTIONS

**WARNING:** To avoid personal injury and/or property damage, permit only trained personnel to operate lift. After reviewing these instructions get familiar with lift controls by running the lift through a few cycles before loading vehicle on lift.

**CAUTION:** Allow 2 seconds between motor starts, failure to comply may cause motor burnout

1. Lift must be fully lowered and service bay clear of all personnel before the vehicle is brought on lift. Swing arms out to full drive-thru position, Fig. 1.
2. Spot vehicle over lift with left front wheel in proper spotting dish position, Fig. 20.
3. **Loading:** Release arm restraints. Swing arms under vehicle and position adapters at vehicle manufacturer's suggested pick-up points, Fig. 21. Use intermediate, high step or optional adapters for under chassis clearance when required, see page 11.

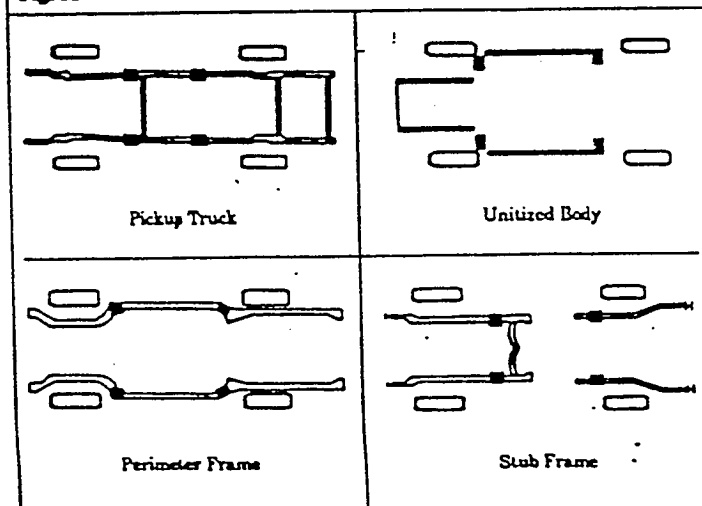
Typical Wheeling Spotting Positions



- A. Less than 105" wheel base - position left front wheel on approach side of wheel dish.
- B. 105" thru 127" wheel base - position left front wheel in wheel dish.
- C. Larger than 127" wheel base - position left front wheel just forward of wheel dish.

**WARNING:** Most specialty or modified vehicles cannot be raised on a frame engaging lift. Contact vehicle manufacturer for raising or jacking details.

Fig. 21



Typical Lifting Points:  
Refer to manufacturer's suggested pick-up points.

Fig. 21

**WARNING:** Before attempting to lift pick-up trucks or other truck frame vehicles be sure that:

- A. Individual axle vehicle weight does not exceed one-half lift capacity.
- B. Adapters are in secure contact with frame at vehicle manufacturers recommended pickup points.
- C. Vehicle is stable on lift and neither front nor "tail" heavy.
- D. The overhead switch bar will contact the highest point on the vehicle.

## 4. To Raise Lift:

- A. Actuate up switch on power unit, Fig. 22.
- B. Raise vehicle until tires clear the floor.
- C. Stop and check adapters for secure contact at vehicle manufacturer's suggested pick-up points.
- D. Lower vehicle and reposition adapters and/or vehicle if required and repeat step "C".
- E. Continue to raise to desired height only if vehicle is secure.
- F. Before going under the vehicle, check again to be sure all four adapters for secure contact at manufacturer's suggested pick-up points.
- G. Repeat complete Item 4 procedure if required.

**Note:** With some vehicles, the removal (or installation) of components may cause a critical shift in the center of gravity, and result in raised vehicle instability. Refer to the vehicle manufacturer's service manual for recommended procedures when performing these services.

**CAUTION:** Stand Clear of lift when lowering.

5. **To Lower Lift:** Remove all tools or other objects from lift area. Push latch release handle fully and hold. Push lowering valve handle to lower Fig. 22.

**Note:** Latch release is a deadman-type design. Handle must be held down to lower lift. Do not override deadman feature.

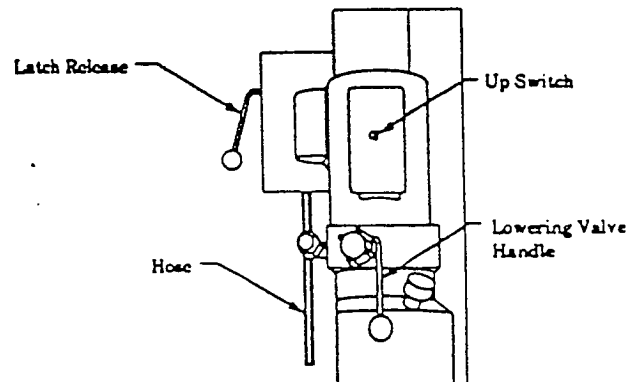


Fig. 22

6. Fully lower lift and adapters.
7. Remove adapters from under vehicle and swing arms to full drive-thru position before moving vehicle.
8. If lift is not operating properly, Do Not use until adjustment or repairs are made by qualified automotive lift representative.

**BILL OF MATERIALS  
A - 25K**

<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
2ea	25K101A	OFFSIDE LEG
2ea	25K100A	MAINSIDE LEG
1ea	25K500A	TRACKS
1ea	25K300A	TOP RAILS W/ 5" x 60" CYLINDER, SAFETY LATCH, CYLINDER CONNECTORS
1ea		BL 646 CHAINS
2ea	25K400A	CROSSRAILS
1ea	HW01-004	POWER UNIT
1ea	HW01-017	HYDRAULIC HOSE ASSY 3/8" x 180"
4ea		SAFETY RODS W/ 1 1/8" NUTS (8 EA)
2ea	25K200A	WHEEL STOPS
2ea		WHEEL CHOCKS
2ea	25K800A	RAMPS -- DRIVE ON
2ea		C / R CHAINS, W/ STUDS WASHERS & NUTS

**BOLT BOX**

16ea	3/4 x 4 3/4 ANCHOR BOLTS W/ NUTS & FLAT WASHERS
4ea	5/16 x 1 BOLTS
4ea	5/16 NC NUTS
4ea	5/16 NC NYLON LOCK NUTS
18ea	1/2 NC x 2 1/2 GR 5 BOLTS
6ea	1/2 SAE FLAT WASHERS
6ea	1/2 LOCK WASHERS
6ea	1/2 NC NYLON LOCKNUTS
24ea	1/2 FLAT WASHERS
2ea	5/16 x 4 3/4 CROSSRAIL PINS W/ COTTER KEYS
1ea	90 DEGREE POWER FITTING
3ea	NYLON TIE WRAPS

**BILL OF MATERIALS  
A - 30K**

<b>QTY</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
2ea	30K101A	OFFSIDE LEG
2ea	30K100A	MAINSIDE LEG
1ea	30K500A	TRACKS
1ea	30K300A	TOP RAILS W/ 5" x 60" CYLINDER, SAFETY LATCH, CYLINDER CONNECTORS
1ea		BL 646 CHAINS
2ea	30K400A	CROSSRAILS
1ea	HW01-004	POWER UNIT
1ea	HW01-017	HYDRAULIC HOSE ASSY 3/8" x 180"
4ea		SAFETY RODS W/ 1 1/8" NUTS (8 EA)
2ea	30K200A	WHEEL STOPS
2ea		WHEEL CHOCKS
2ea	30K800A	RAMPS - DRIVE ON
2ea		C / R CHAINS, W/ STUDS WASHERS & NUTS

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3ea	NYLON TIE WRAPS