

M-91-20
REV. A
AUGUST 2003

INSTALLATION INSTRUCTIONS

SL-20 A

SL-30 A

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MAXON[®]
LIFT CORP.

11921 Slauson Avenue
Santa Fe Springs, CA 90670

INTRODUCTION

THIS PUBLICATION CONTAINS THE INFORMATION REQUIRED TO INSTALL THE FOLLOWING MODELS AND THEIR OPTIONS; . SL-20A & SL-30A WITH 2000 AND 3000 POUND CAPACITIES. IF THERE IS ANY DOUBT IN YOUR MIND REGARDING THE SUITABILITY OF THESE LIFTS BEING INSTALLED ON ITS INTENDED VEHICLE, OR ANY PORTION OF THESE INSTRUCTIONS THAT YOU DO NOT UNDERSTAND, PLEASE CONTACT THE MAXON CUSTOMER SERVICE DEPARTMENT FOR CONSULTATION.

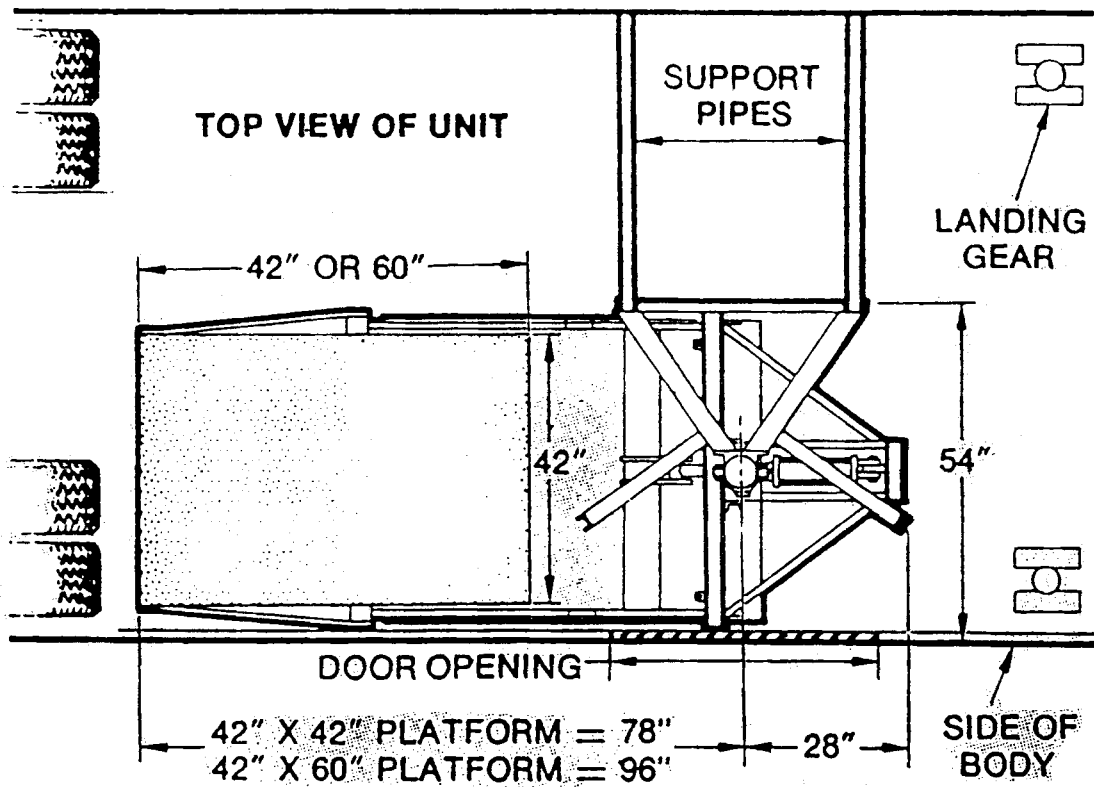
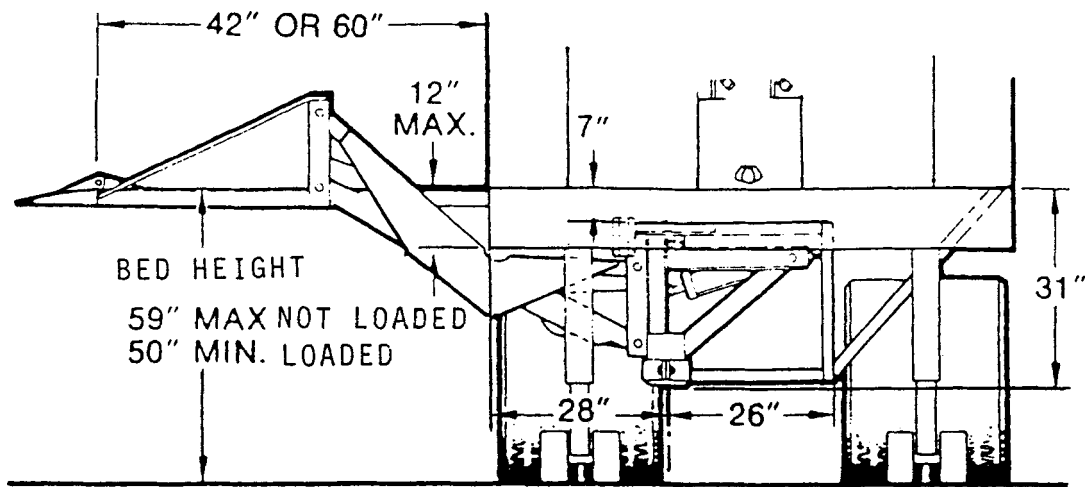
UNAUTHORIZED MODIFICATION TO THIS EQUIPMENT MAY CAUSE PREMATURE FAILURE OR CREATE HAZARDS IN ITS USE THAT ARE NOT FORESEEN AT THE TIME OF THE INSTALLATION. THESE KINDS OF CHANGES SHOULD BE DISCUSSED WITH OUR ENGINEERING DEPARTMENT BEFORE BEING UNDERTAKEN.

BED HEIGHT REQUIREMENTS TO GROUND ARE 50" LADEN TO 59" UNLADEN.

THESE LIFTS ARE DESIGNED FOR SIDE DOOR INSTALLATION.

CONTENTS

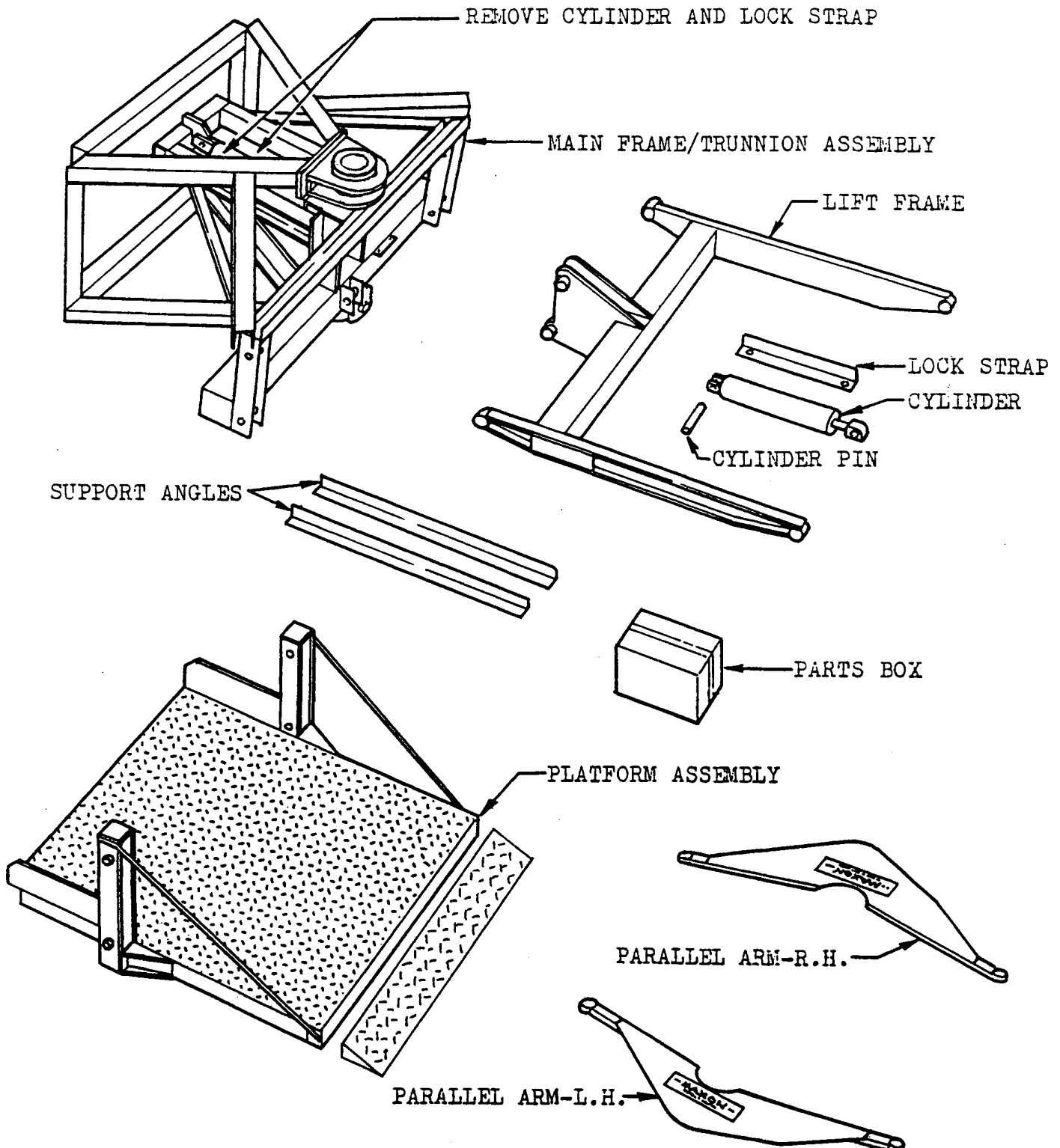
INSTALLATION OF STANDARD UNITPAGES 1 THRU 30



FIXED RAMP NOT INCLUDED IN 78" AND 96" DIMENSIONS.

INSTALLATION OF SUB-ASSEMBLIES

Break strapping and separate sub-assemblies.

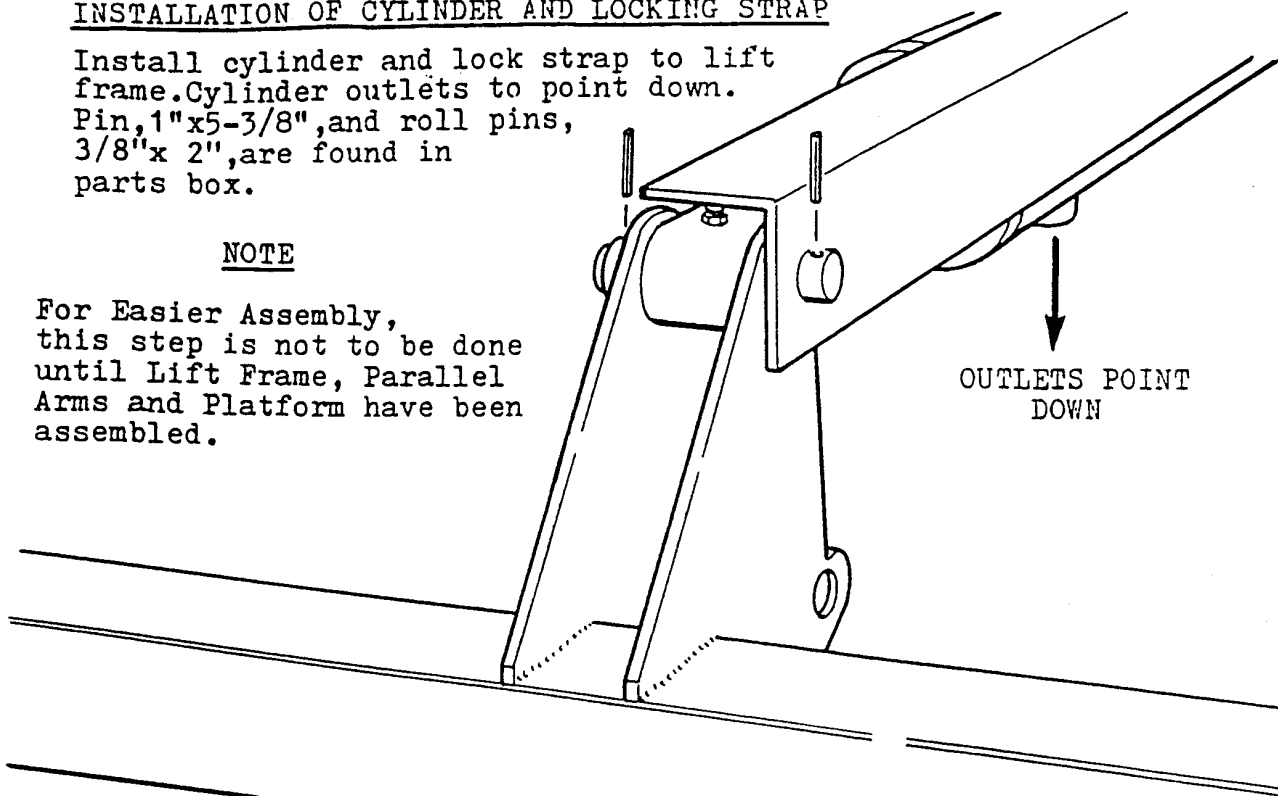


INSTALLATION OF CYLINDER AND LOCKING STRAP

Install cylinder and lock strap to lift frame. Cylinder outlets to point down. Pin, 1"x5-3/8", and roll pins, 3/8"x 2", are found in parts box.

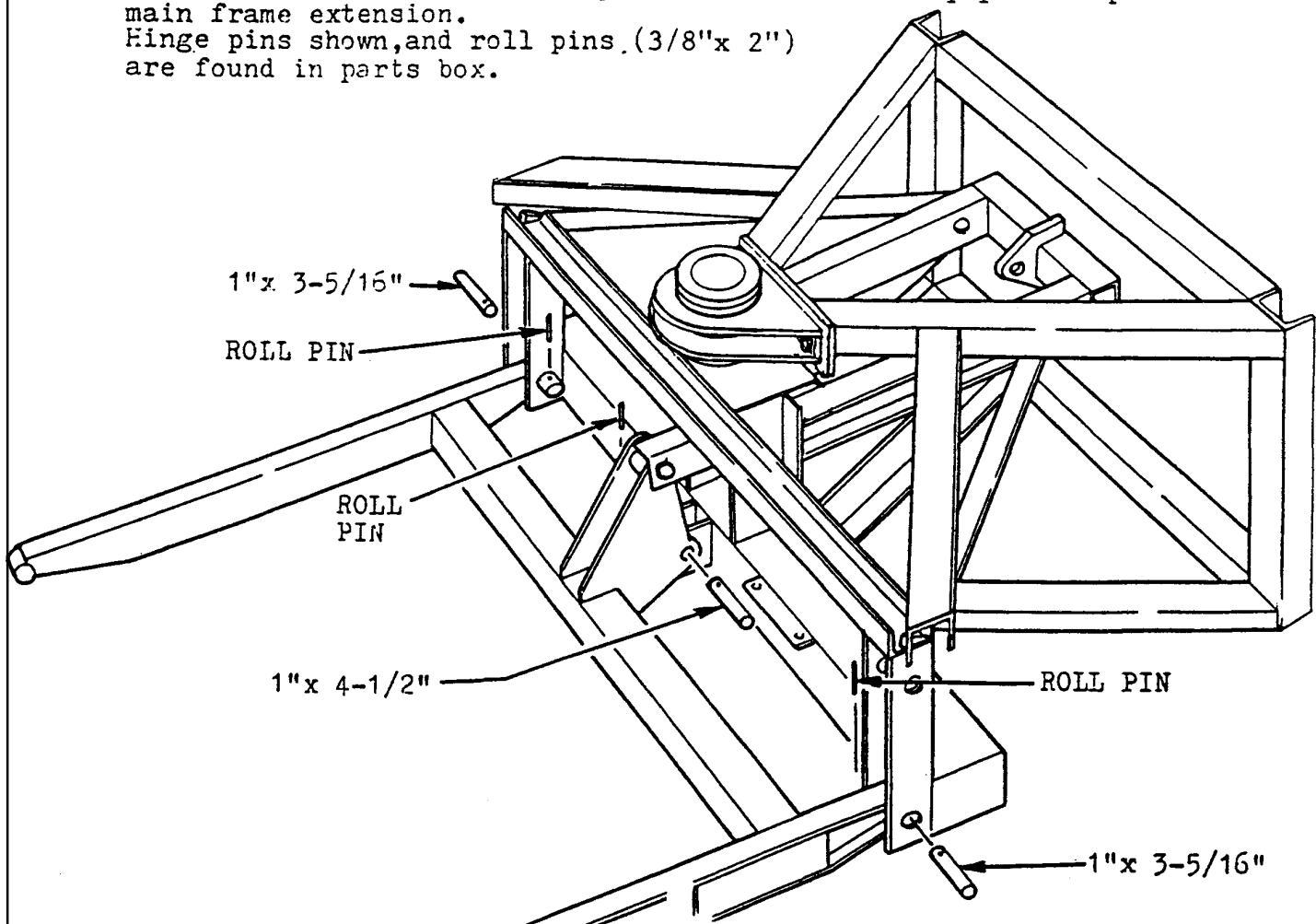
NOTE

For Easier Assembly, this step is not to be done until Lift Frame, Parallel Arms and Platform have been assembled.



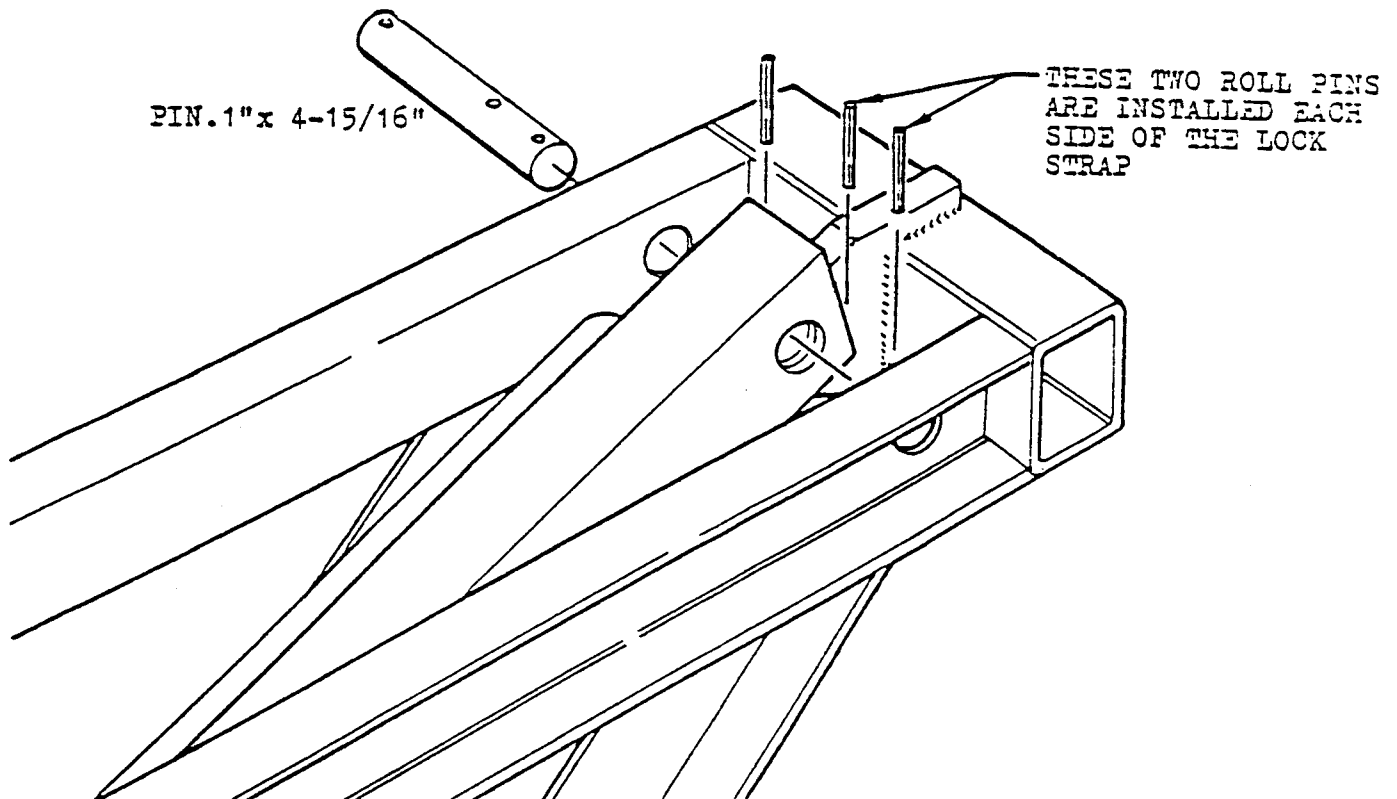
INSTALLATION OF LIFT FRAME

Install lift frame as shown. Cylinder and lock strap passes up into main frame extension. Hinge pins shown, and roll pins (3/8"x 2") are found in parts box.



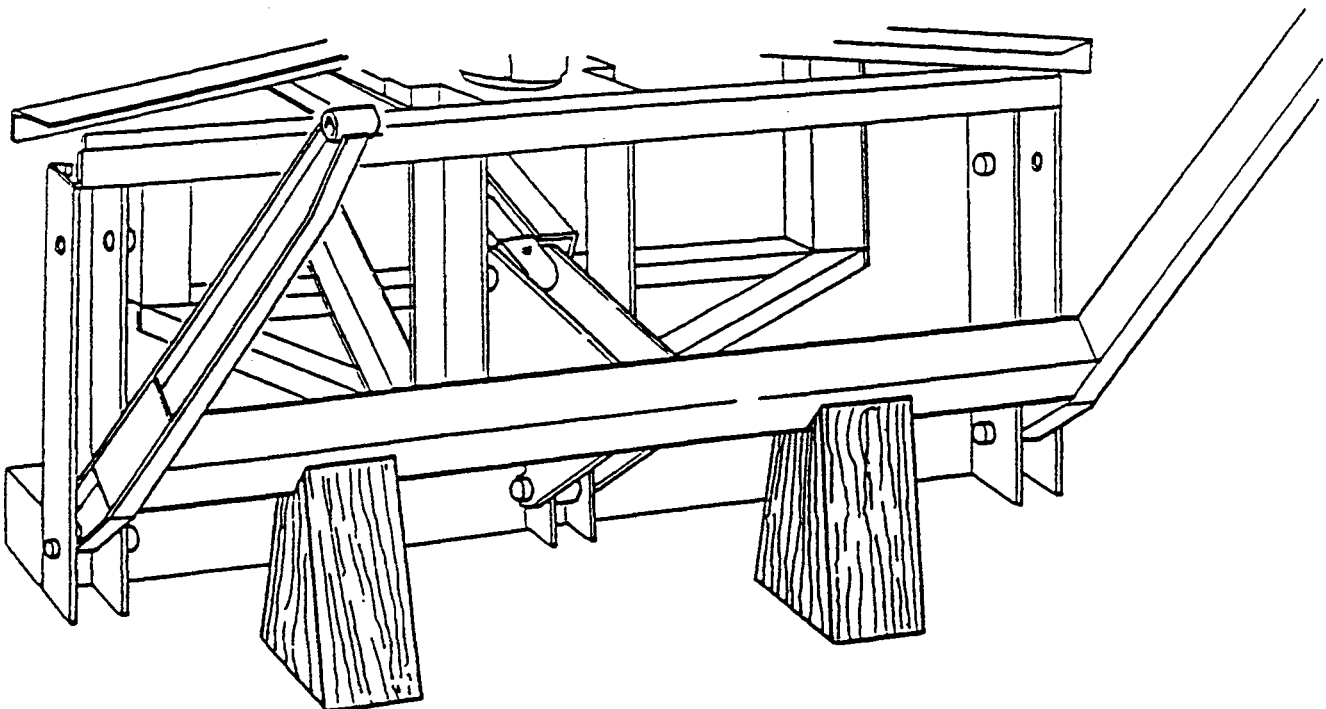
INSTALLATION OF CYLINDER- BUTT END

Install cylinder butt end with lock strap to cylinder frame. It will be necessary to raise lift frame to do this. Cylinder pin is 1"x 4-15/16". This pin was removed in Step 1.1. Roll pins are 3/8"x 2".



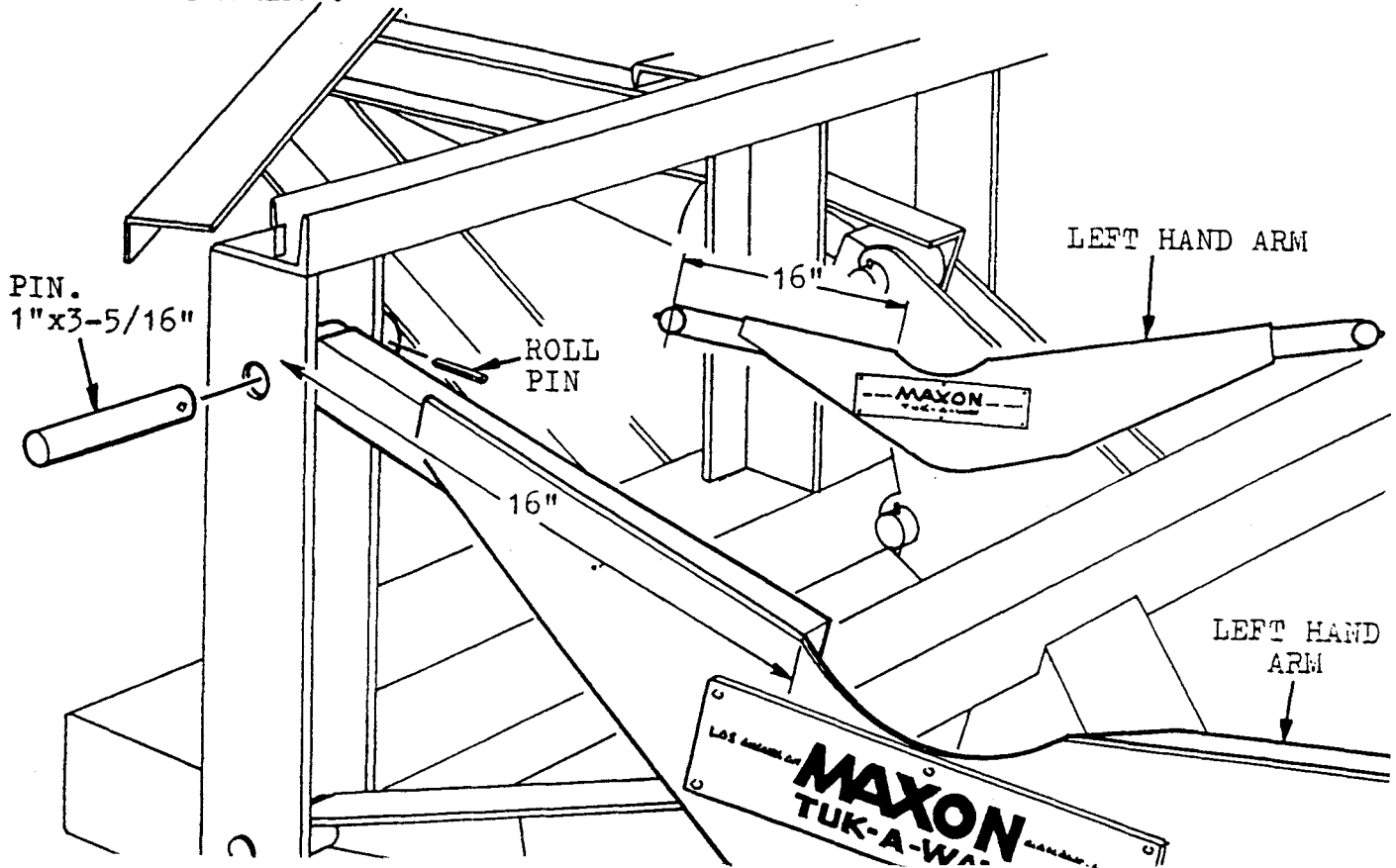
LIFT FRAME SUPPORT

It will make the platform installation a lot easier if the lift frame is supported in a manner suggested in the illustration.



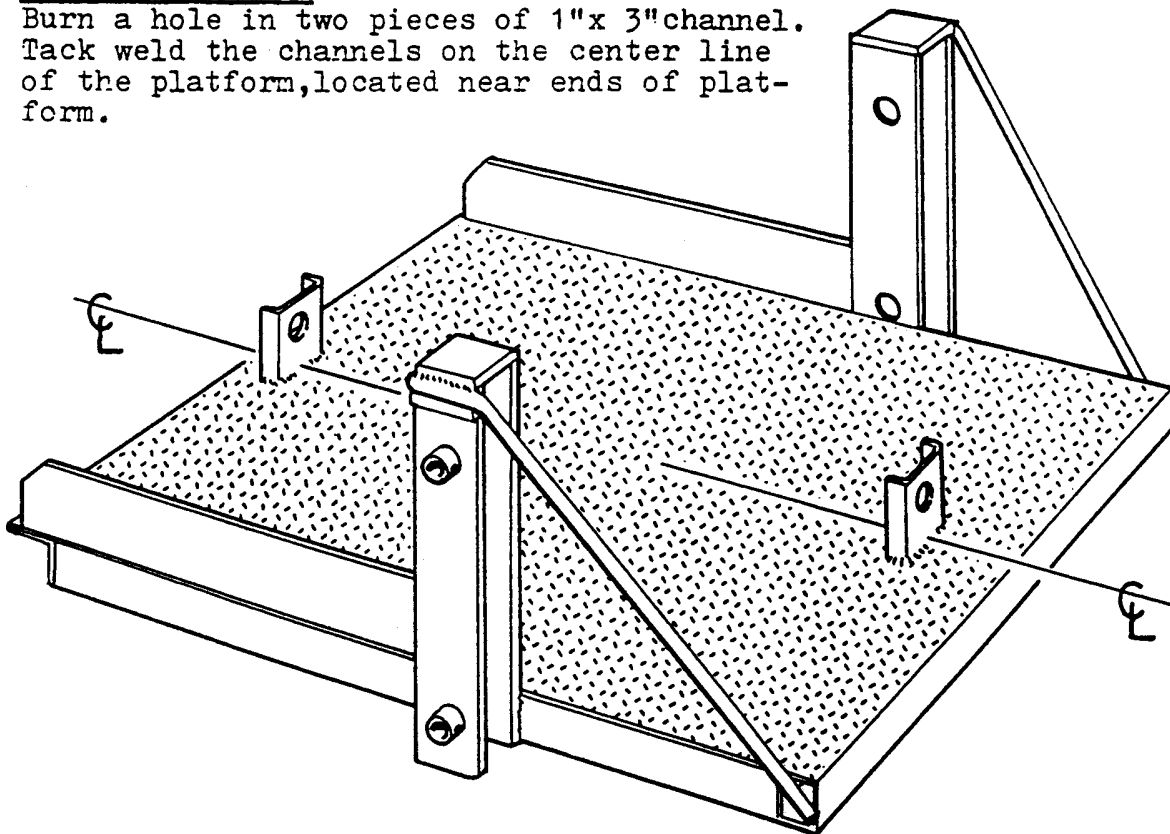
INSTALLATION OF PARALLEL ARMS

Parallel arms are installed as shown. LEFT HAND arm is illustrated. Pins and roll pins are found in parts box. Right hand arm installs in same manner.



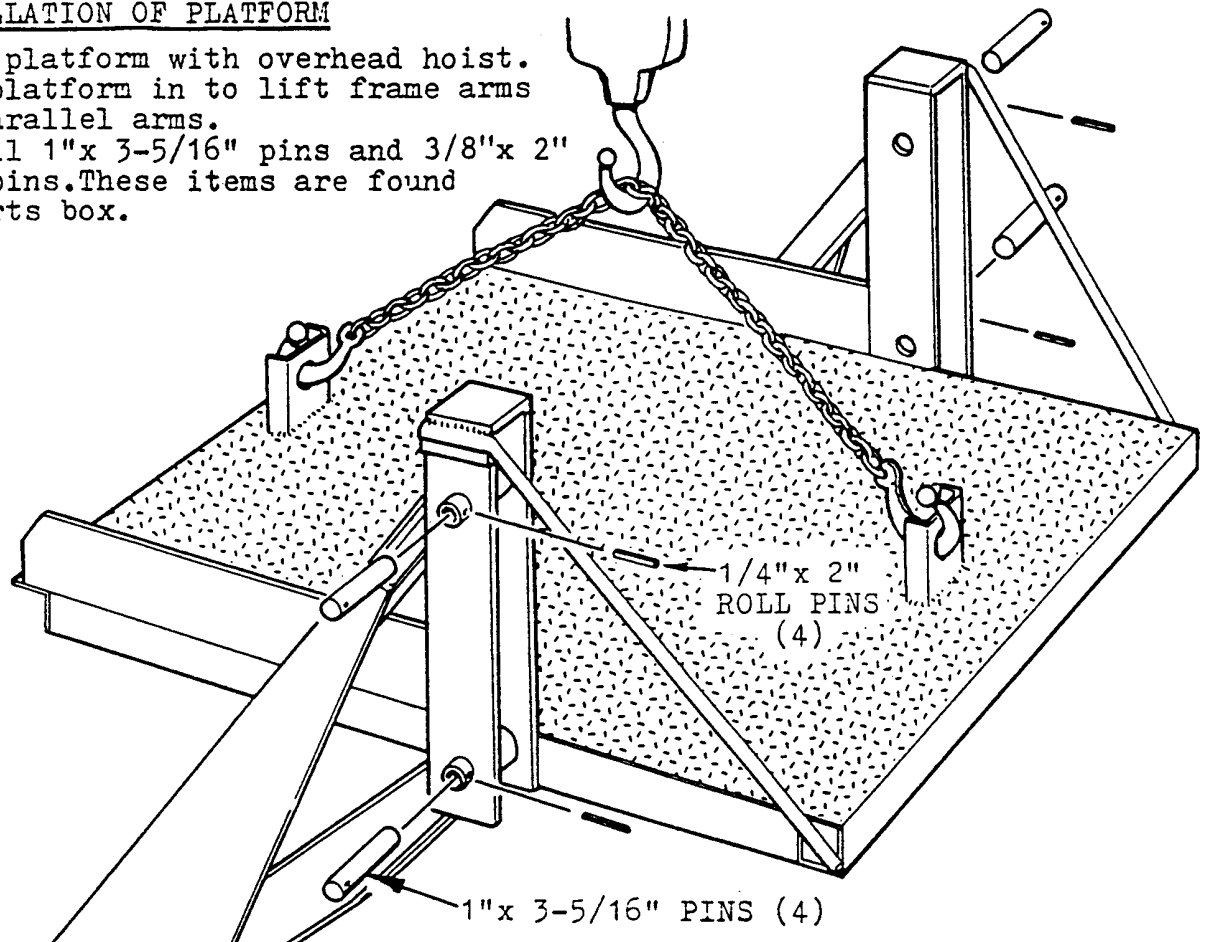
LIFTING CHANNELS

Burn a hole in two pieces of 1"x 3" channel. Tack weld the channels on the center line of the platform, located near ends of platform.



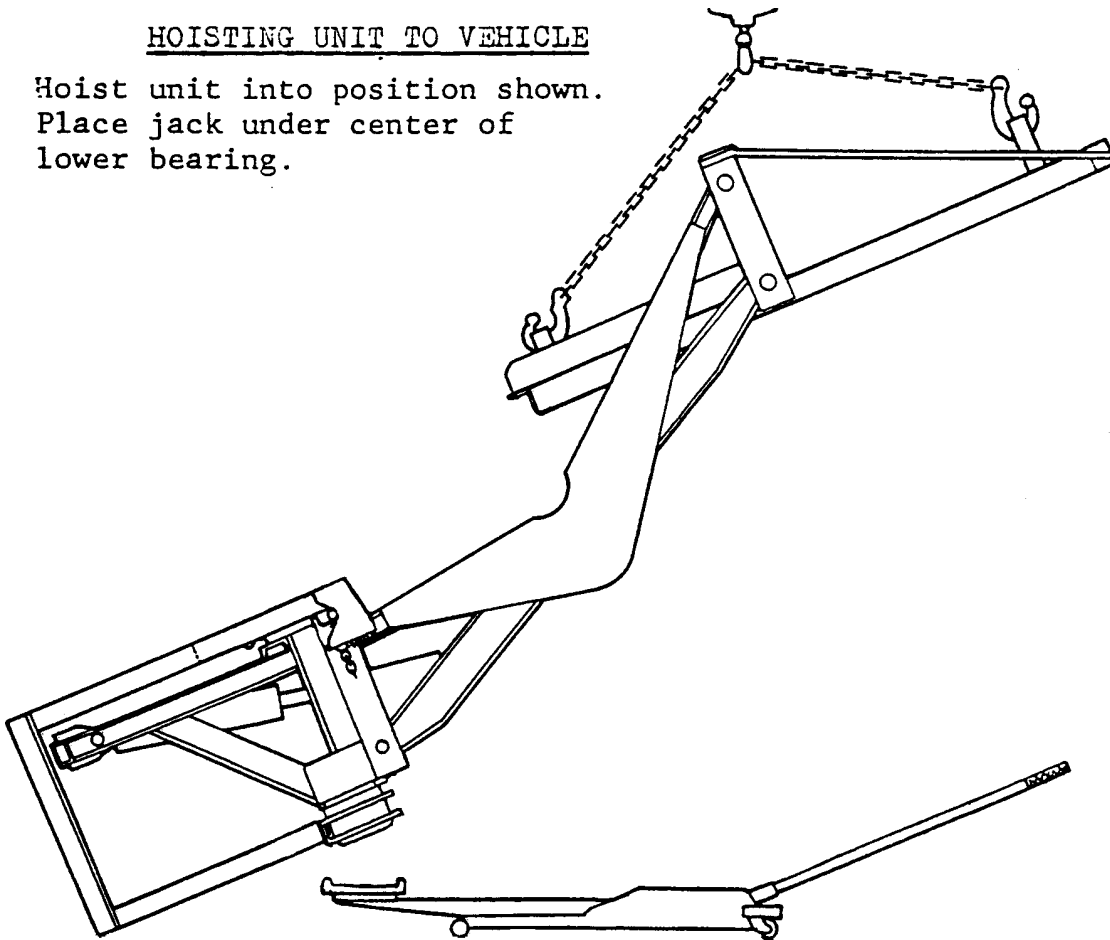
INSTALLATION OF PLATFORM

Raise platform with overhead hoist.
Move platform in to lift frame arms
and parallel arms.
Install 1"x 3-5/16" pins and 3/8"x 2"
roll pins. These items are found
in parts box.

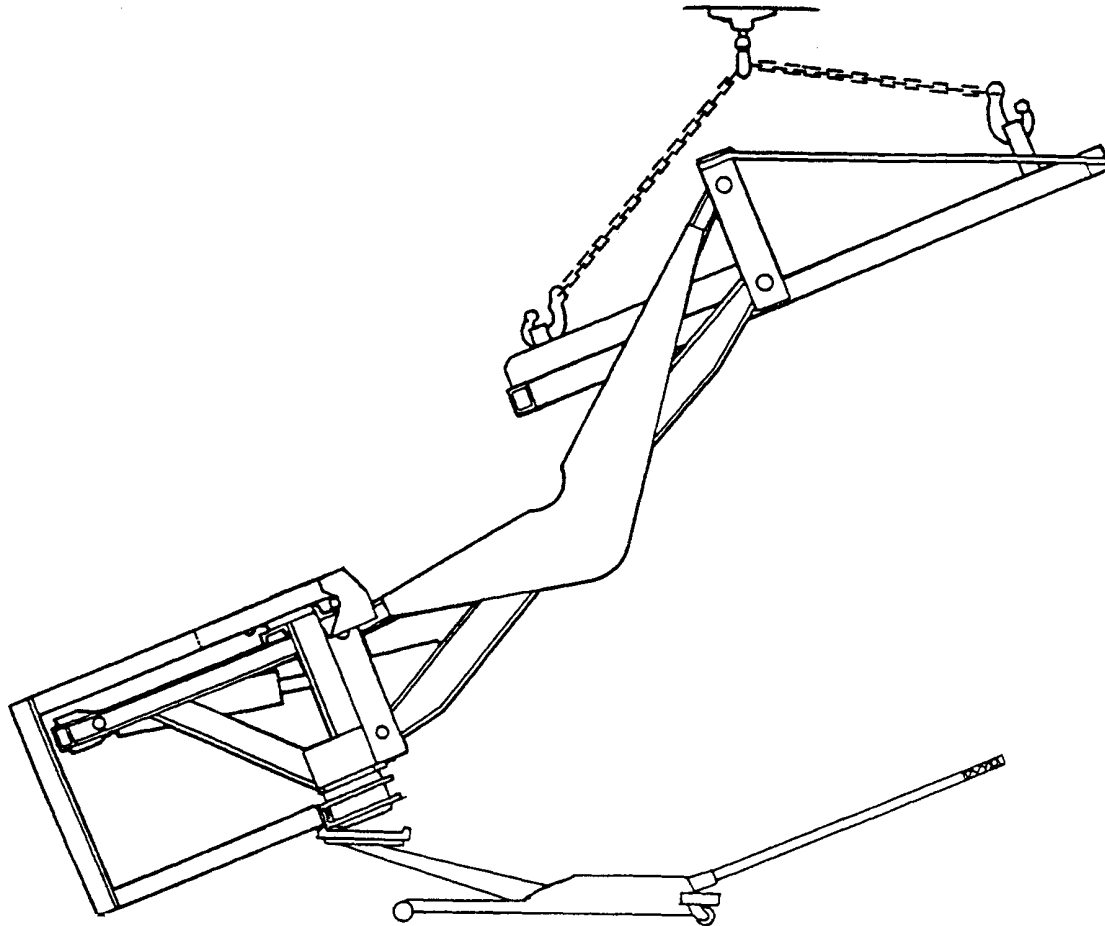


HOISTING UNIT TO VEHICLE

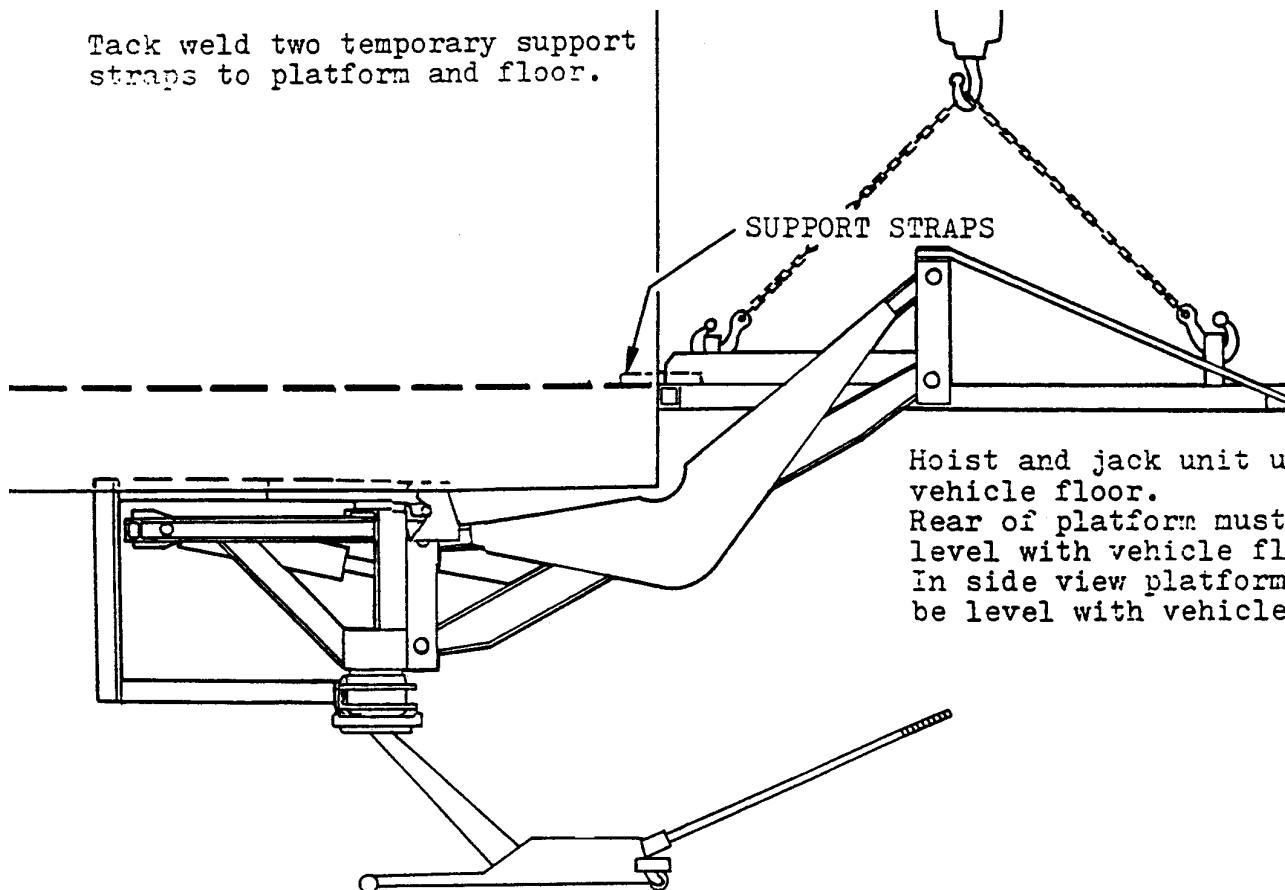
Hoist unit into position shown.
Place jack under center of
lower bearing.



Place jack under center of lower bearing.

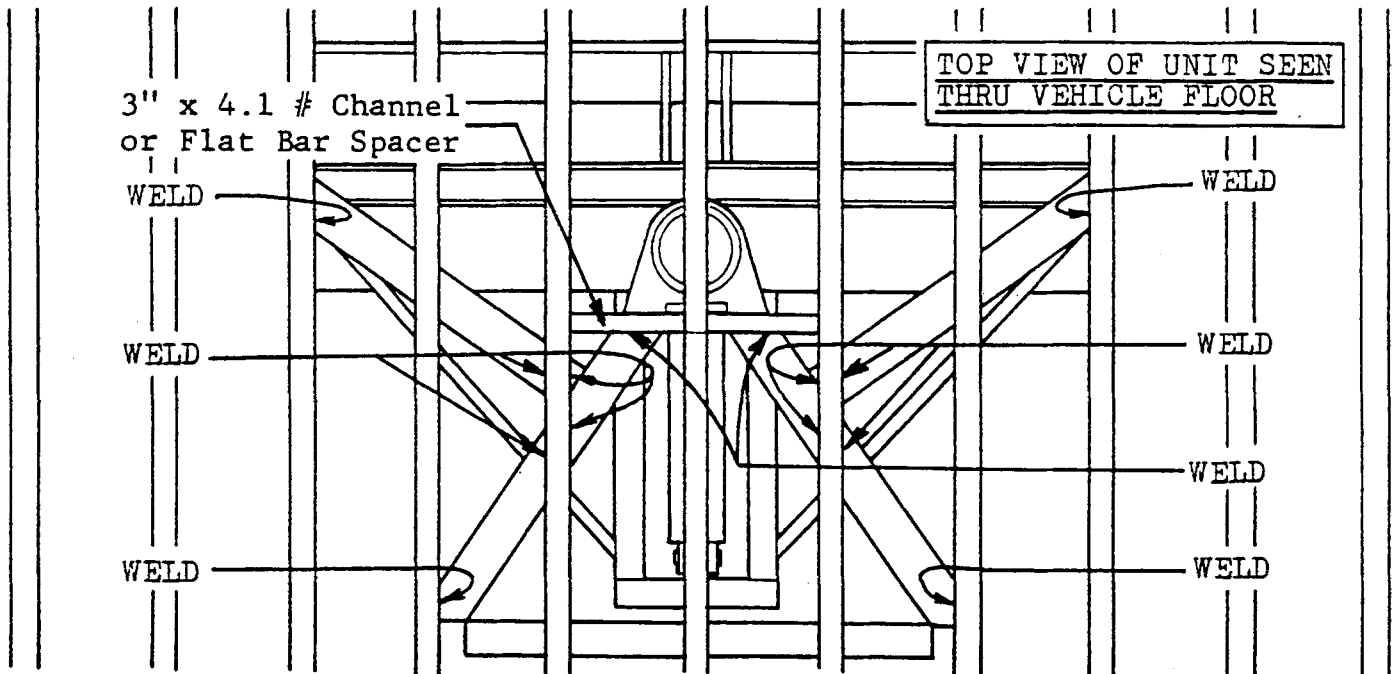


Tack weld two temporary support straps to platform and floor.



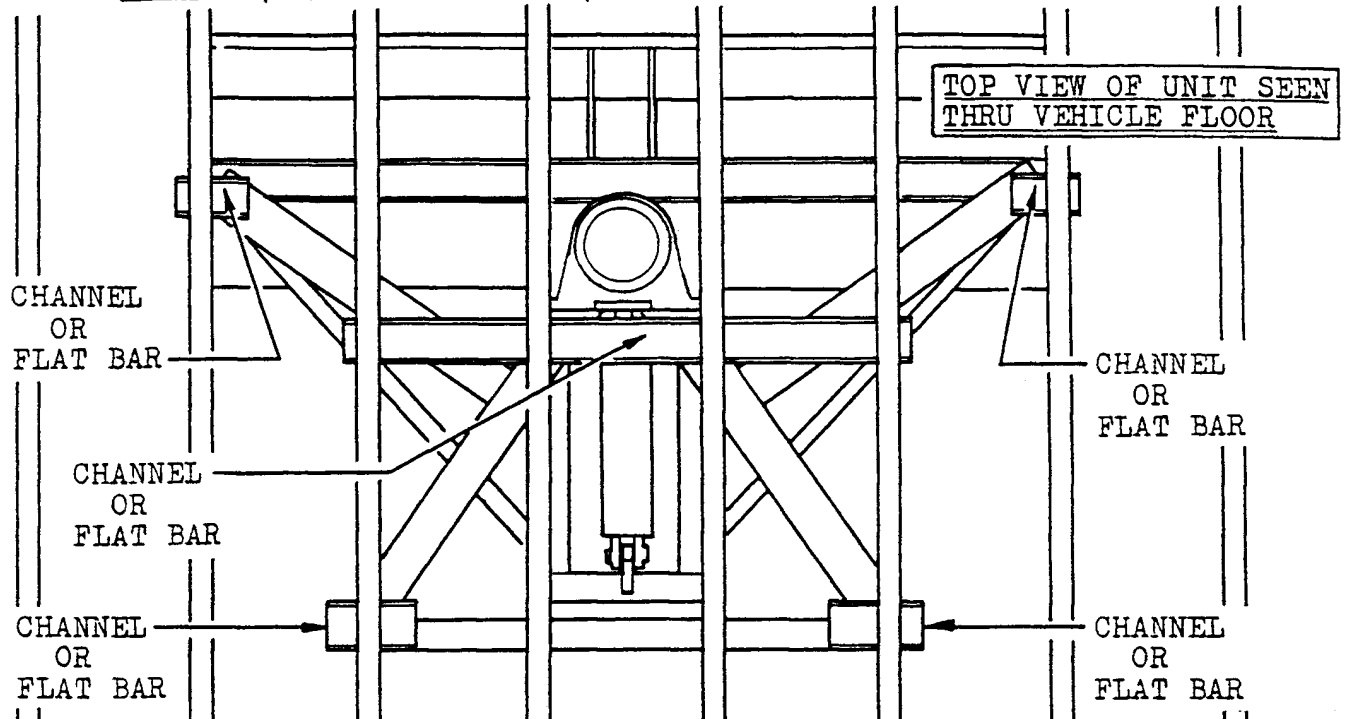
Hoist and jack unit up to vehicle floor.
Rear of platform must be level with vehicle floor.
In side view platform must be level with vehicle floor.

The ideal situation is to be able to weld the unit to vehicle cross members in at least six locations, as indicated below. Due to varying vehicle frame design this is not always possible. An alternative method is shown on next page.



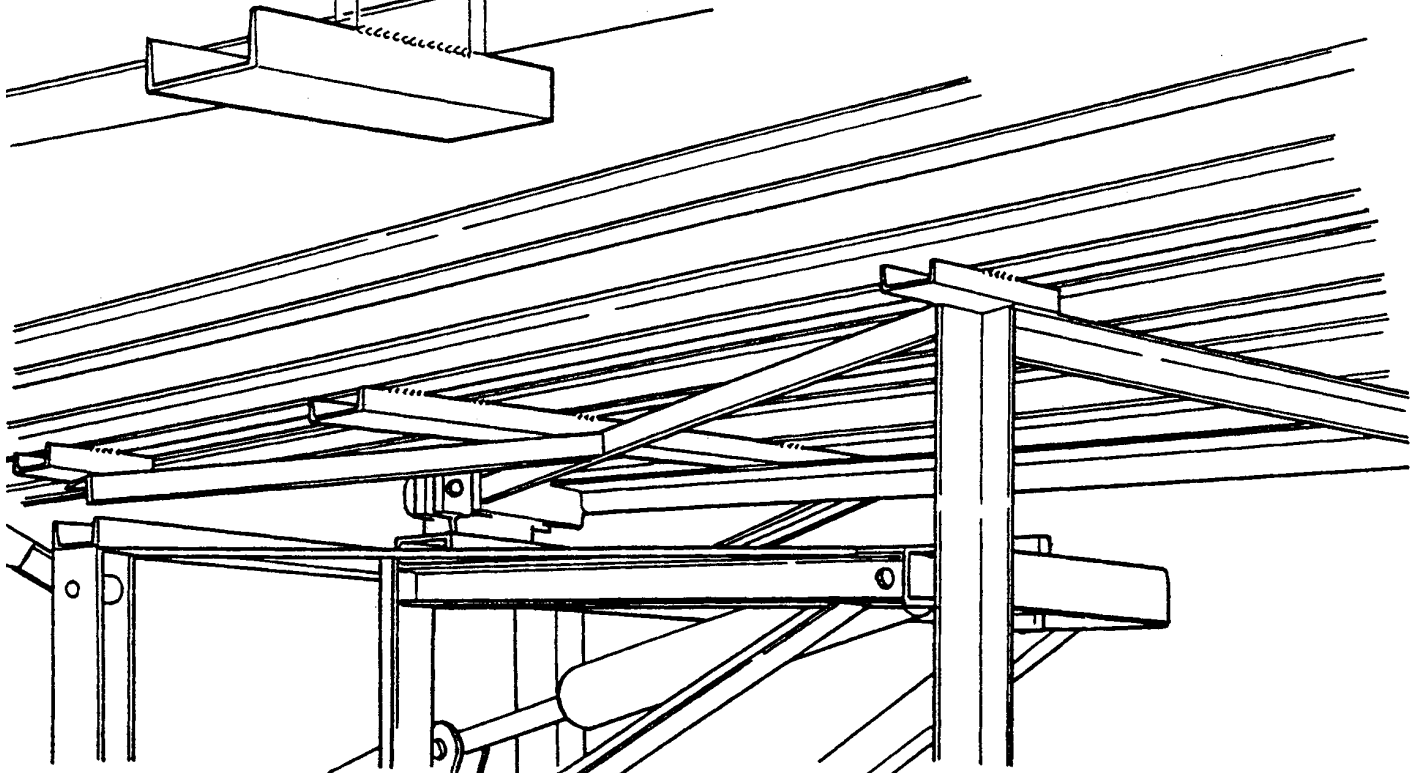
In cases where the unit does not touch the cross members fillers will have to be used to fill gap between unit and cross member. If the gap is large channels can be used. If gap is small flat bar stock is suitable. In both cases filler is welded to cross members and unit is welded to fillers. Welds should be $\frac{1}{4}$ " fillet welds, continuous.

DEPTH OF FLOOR AND FILLER SHOULD NOT EXCEED 10" MAXIMUM.

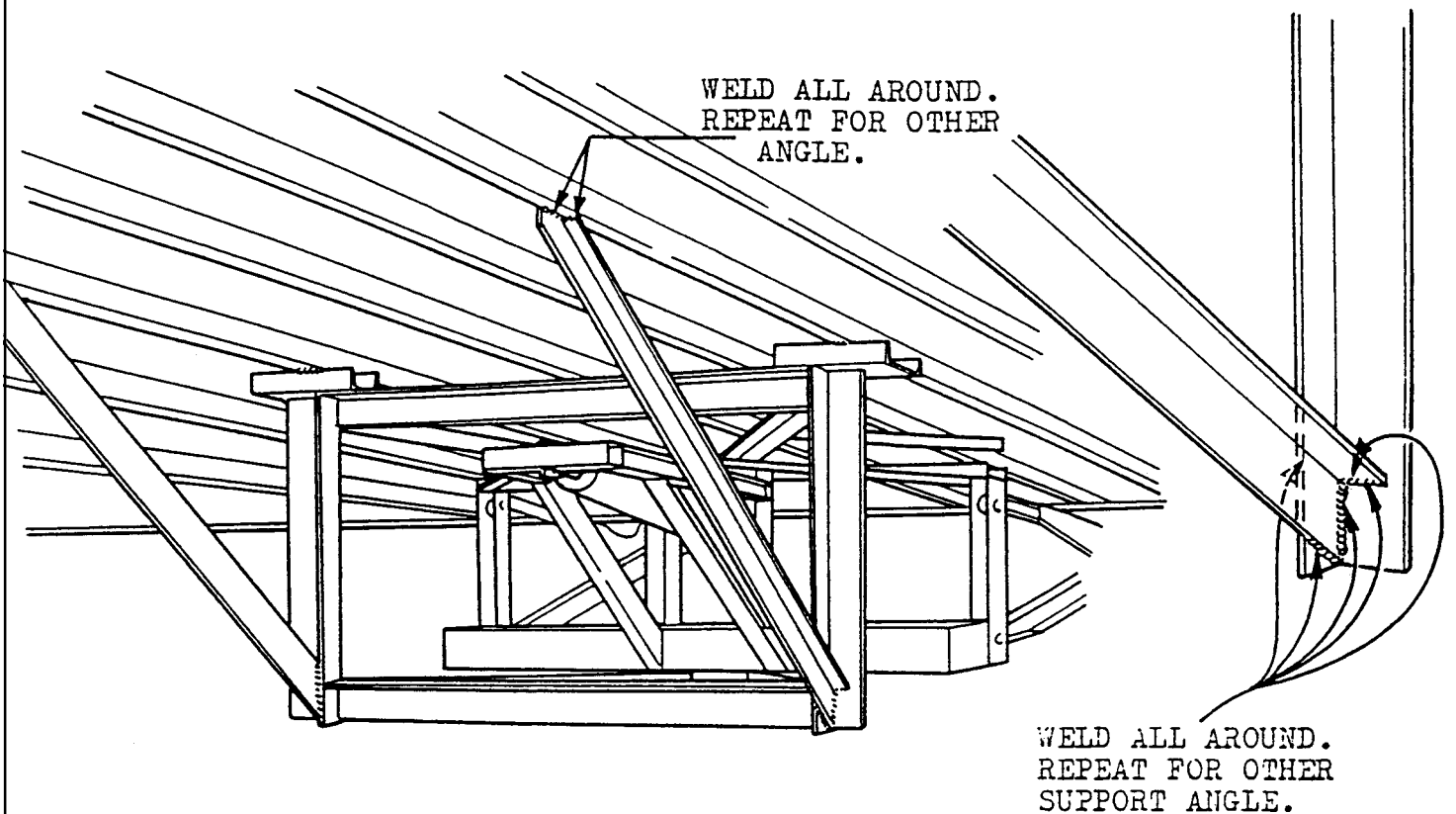


When welding fillers to cross members stop weld $\frac{1}{4}$ " from edges of cross members. Running welds to edges of cross members can cause eventual fracture of the edges. Welds should be $\frac{1}{4}$ " fillet welds, continuous.

$\frac{1}{4}$ " $\frac{1}{4}$ "

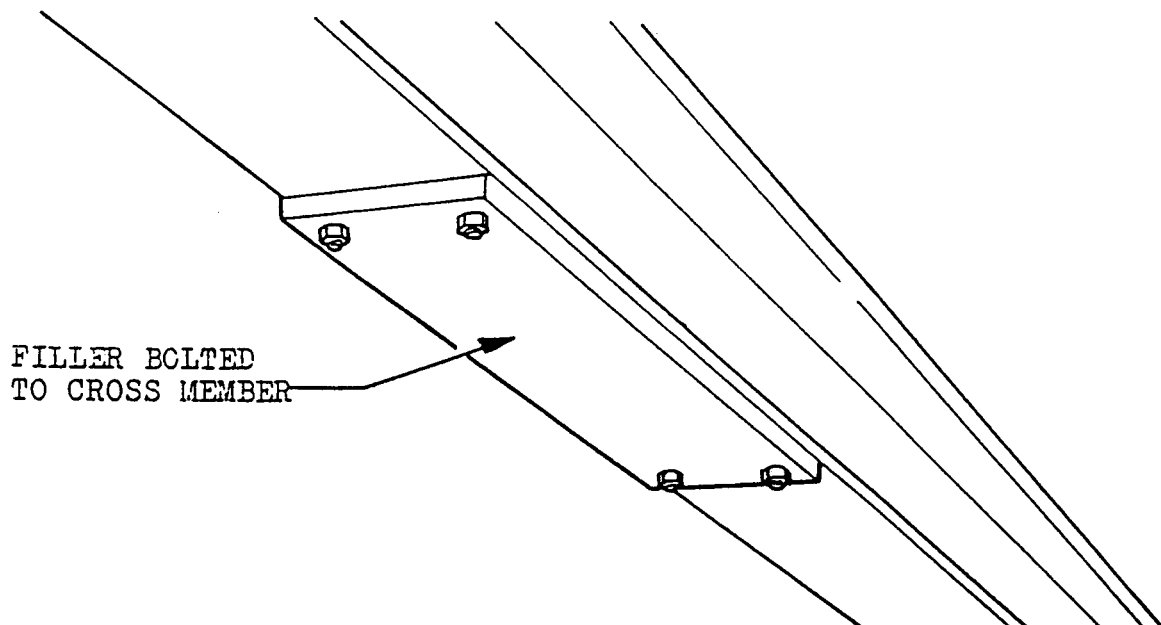


Weld support angles to bottom of trunnion assembly and to cross members both sides of unit. If support angles rise to a space between cross members a filler will be required between the two appropriate cross members. After welding filler to cross member weld support angle to filler.

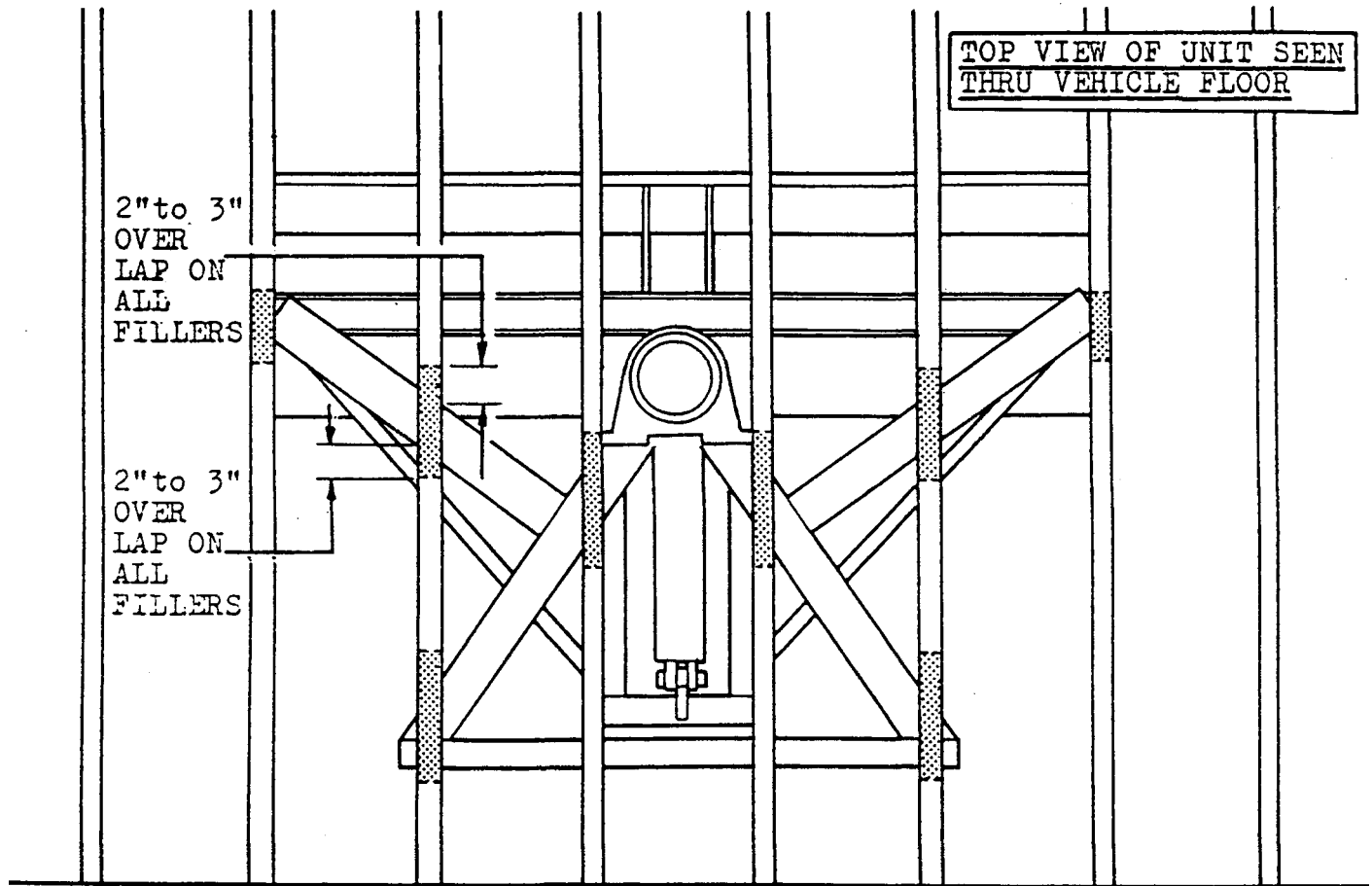


ALUMINUM FRAME VEHICLES

Steel fillers will need to be fabricated and bolted to the underside of the appropriate cross members to allow the unit to be welded to the fillers. The required number of fillers is shown on next page. The length of the fillers should be such as to allow a 2" to 3" overlap on that part of the unit to which they will be welded.



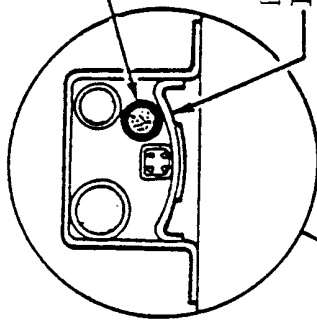
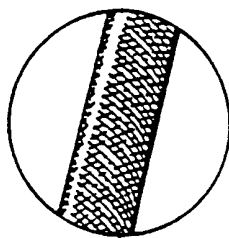
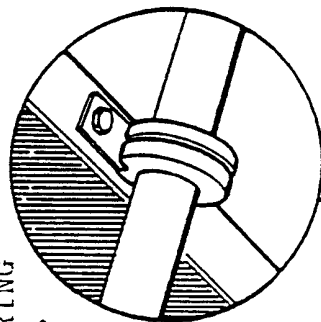
Weld unit to fillers .1/4"fillet weld,continuous.



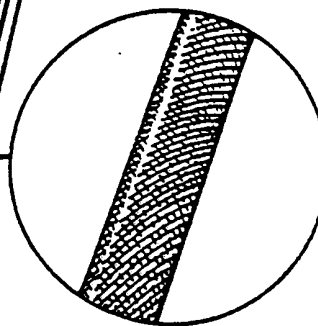
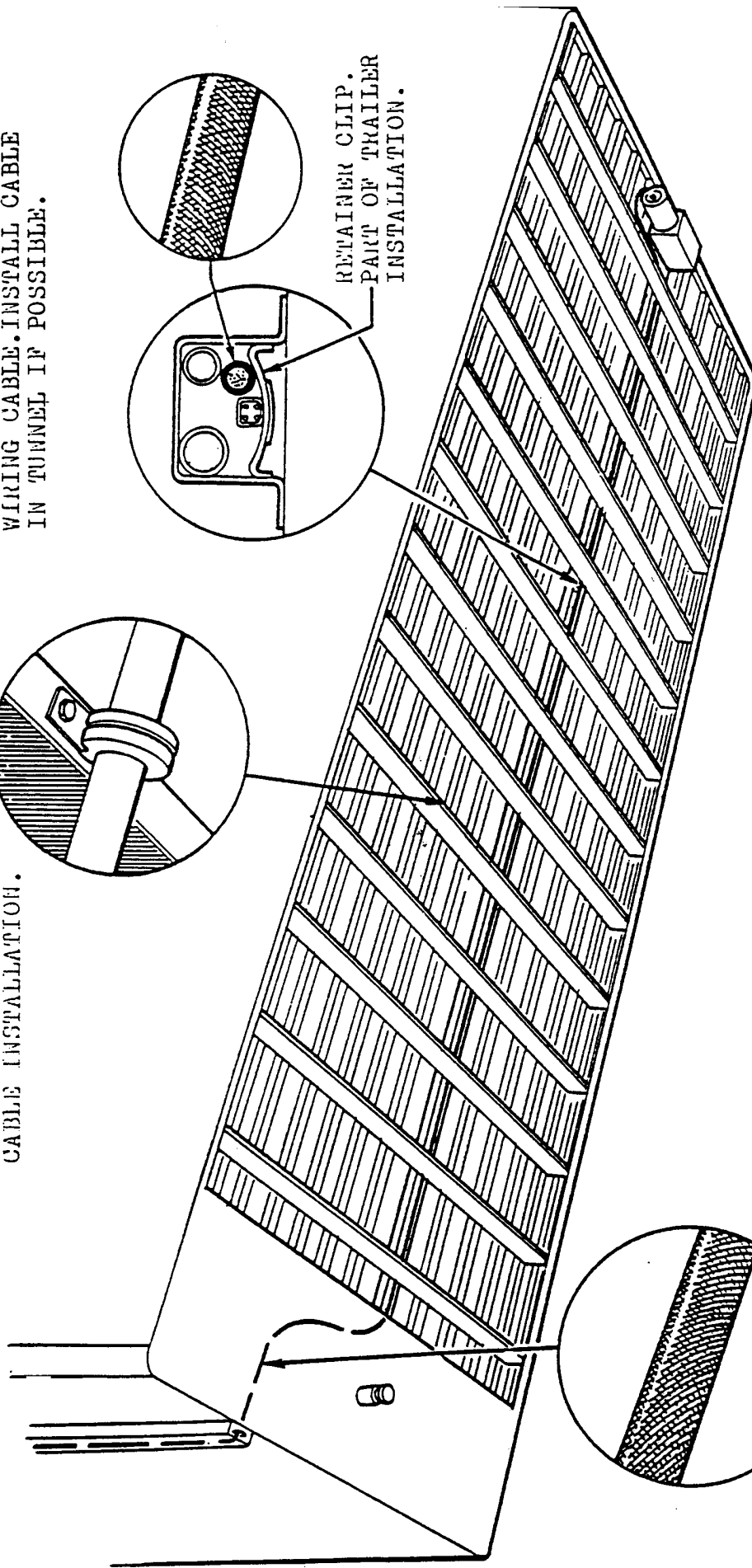
ALL TRAILERS WITH FLOOR TUNNEL FOR AIR LINES AND ELECTRICAL WIRING

ALTERNATE MOTOR WIRING
CABLE INSTALLATION.

INSTALL LOOM TO PUMP MOTOR
WIRING CABLE. INSTALL CABLE
IN TUNNEL IF POSSIBLE.

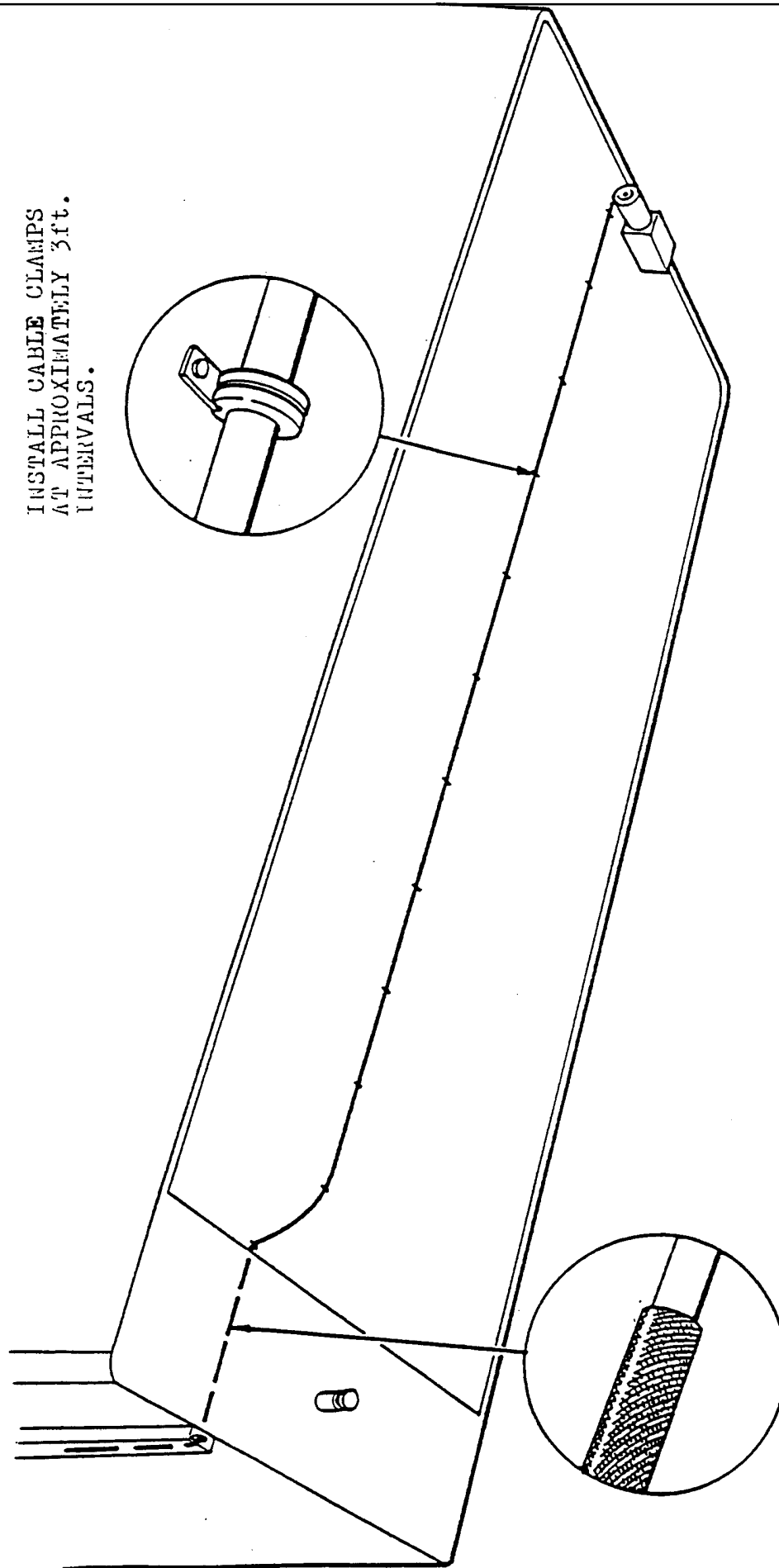


RETAINER CLIP.
PART OF TRAILER
INSTALLATION.



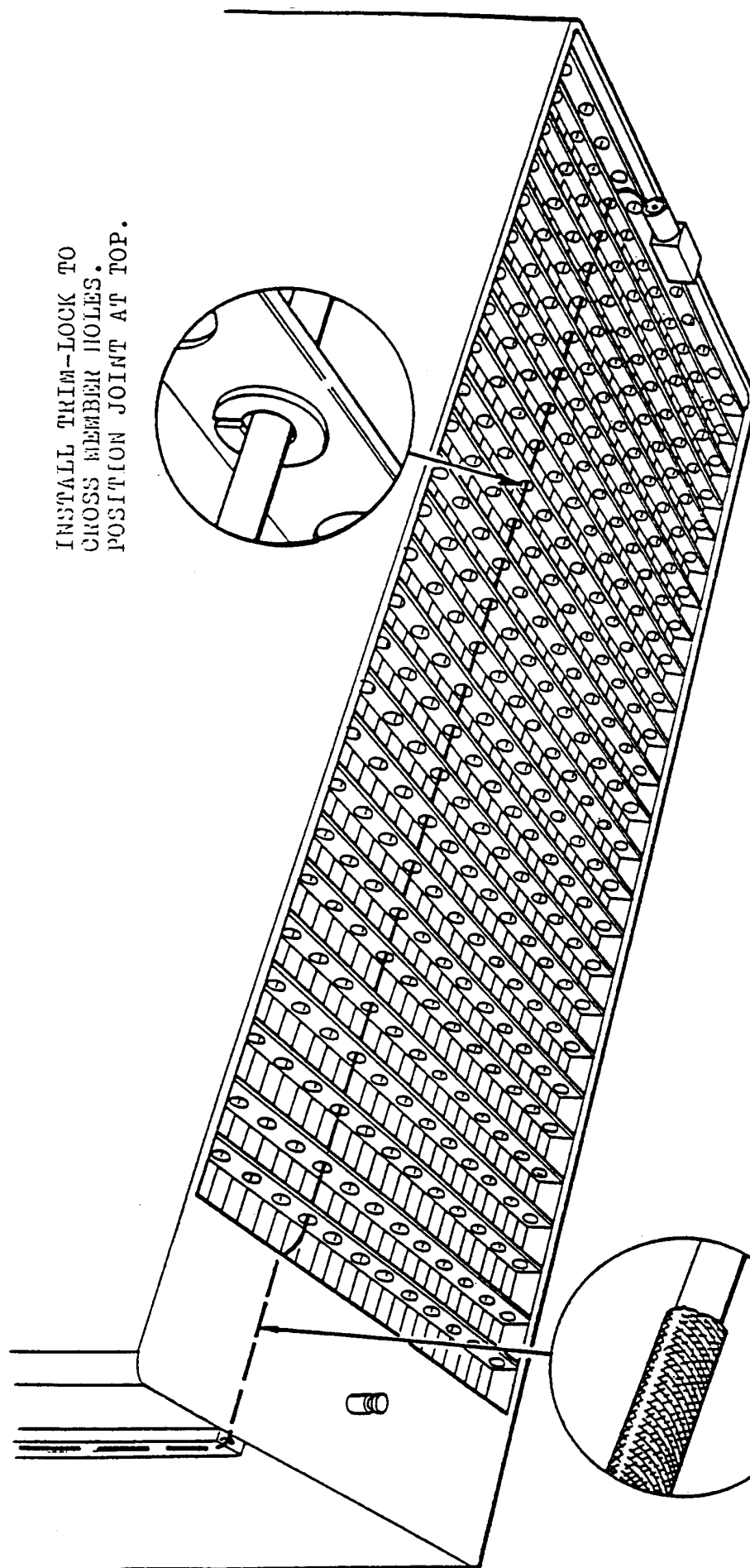
ROUTE MOTOR WIRING
CABLE AROUND PIN.

REFRIGERATOR TRAYLOR OR TRAILER WITH SMOOTH UNDERSIDE



INSTALL CABLE CLAMPS
AT APPROXIMATELY 3ft.
INTERVALS.

THEY WILL LOOK TO MOTOR
WIRING CABLE. ROUTE CABLE
AROUND POST.



INSTALL TRIM-LOCK TO
CROSS MEMBER HOLES.
POSITION JOINT AT TOP.

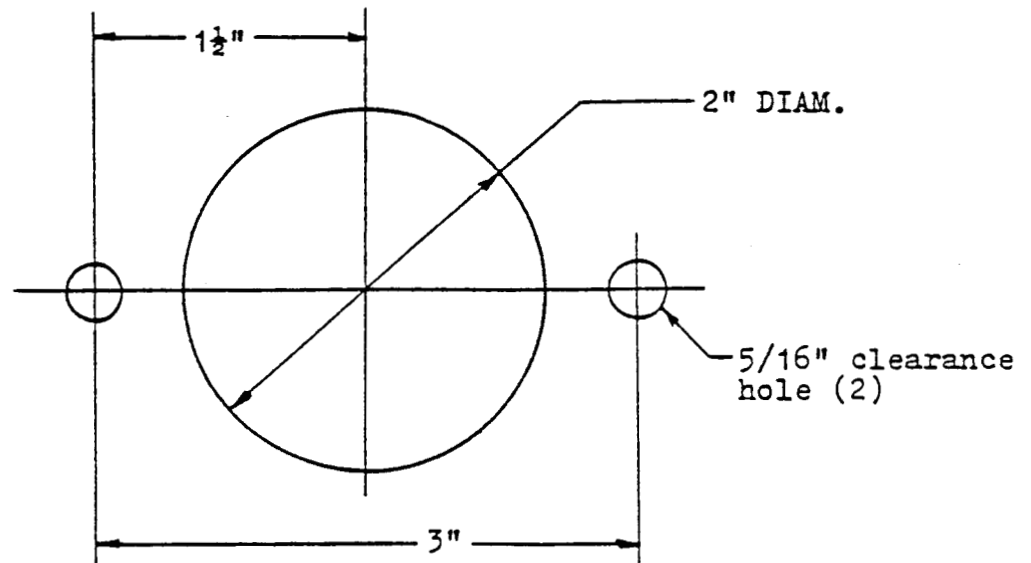
TESTING LOCK TO MOTOR
WIRING CABLE. ROUTE CABLE
AROUND POST.

INSTALLATION OF TRAILER CONNECTOR ASSEMBLY (P/N 51001)

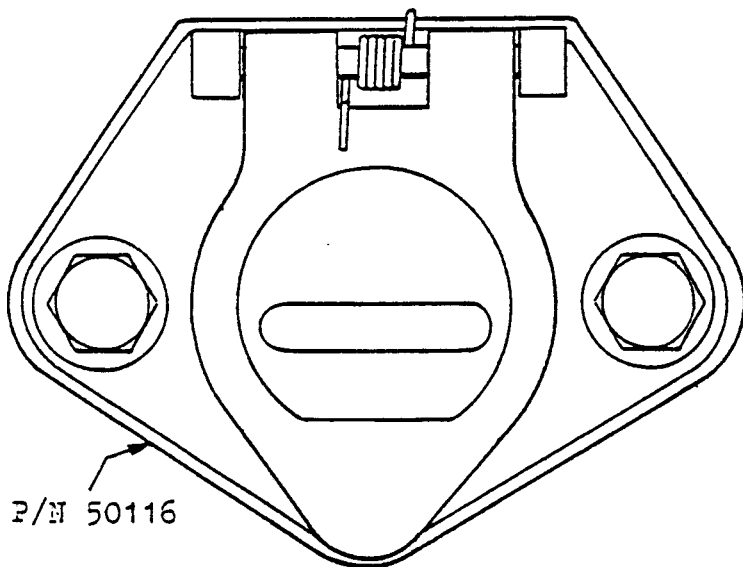
Consists of P/N 50115 and P/N 50116 Male and Female connectors.

The connector socket is installed to the front wall of the trailer. The location of the socket will depend upon the structure of the front wall and the disposition of any auxiliary services which may be already installed to the front wall. Select an area which allows the socket to be installed and wired from the rear.

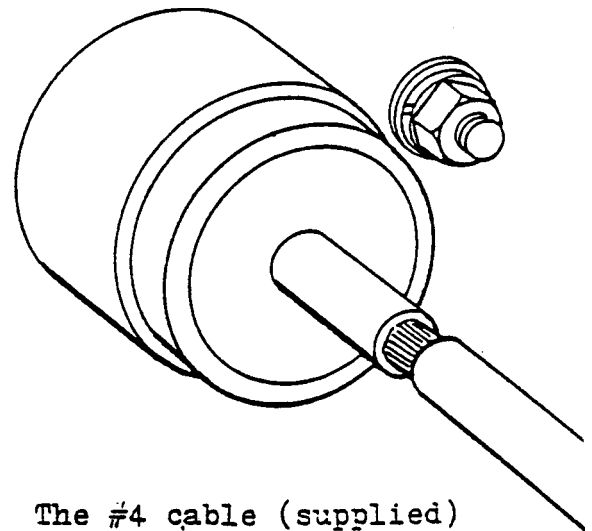
Female connector is self grounding when bolted to trailer.



Cut a hole in front wall to 2" diameter. The bolt holes (2) are 5/16" clearance. The bolts used are 5/16", the length to be determined by the structure of the front wall. Secure the bolts with 5/16" plain washers, lock washers and nuts.



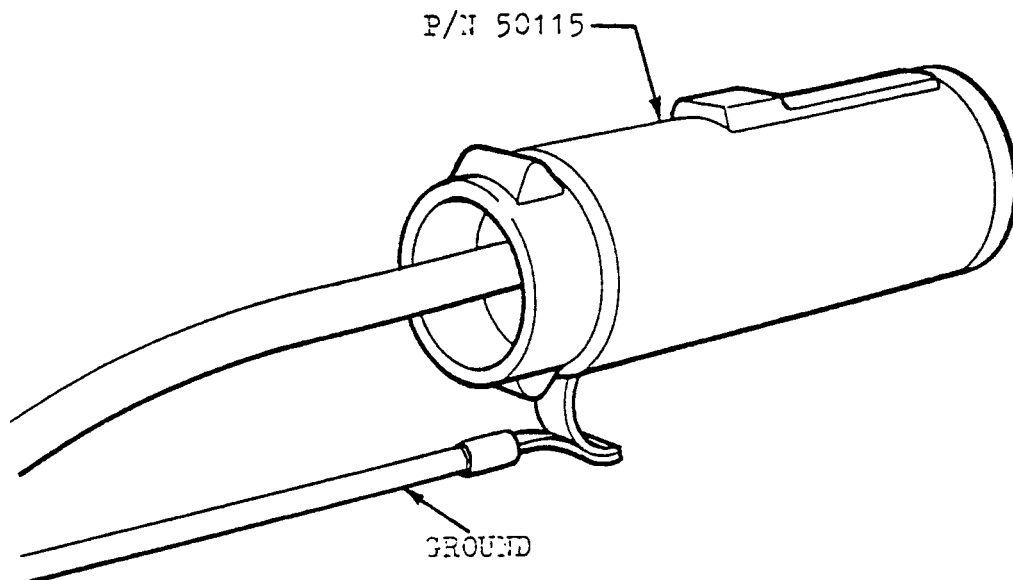
The socket is installed to the outside of the front wall as shown.



The #4 cable (supplied) is soldered into the rear of the socket. This cable is normally run thru to the pump switch on the lift gate.

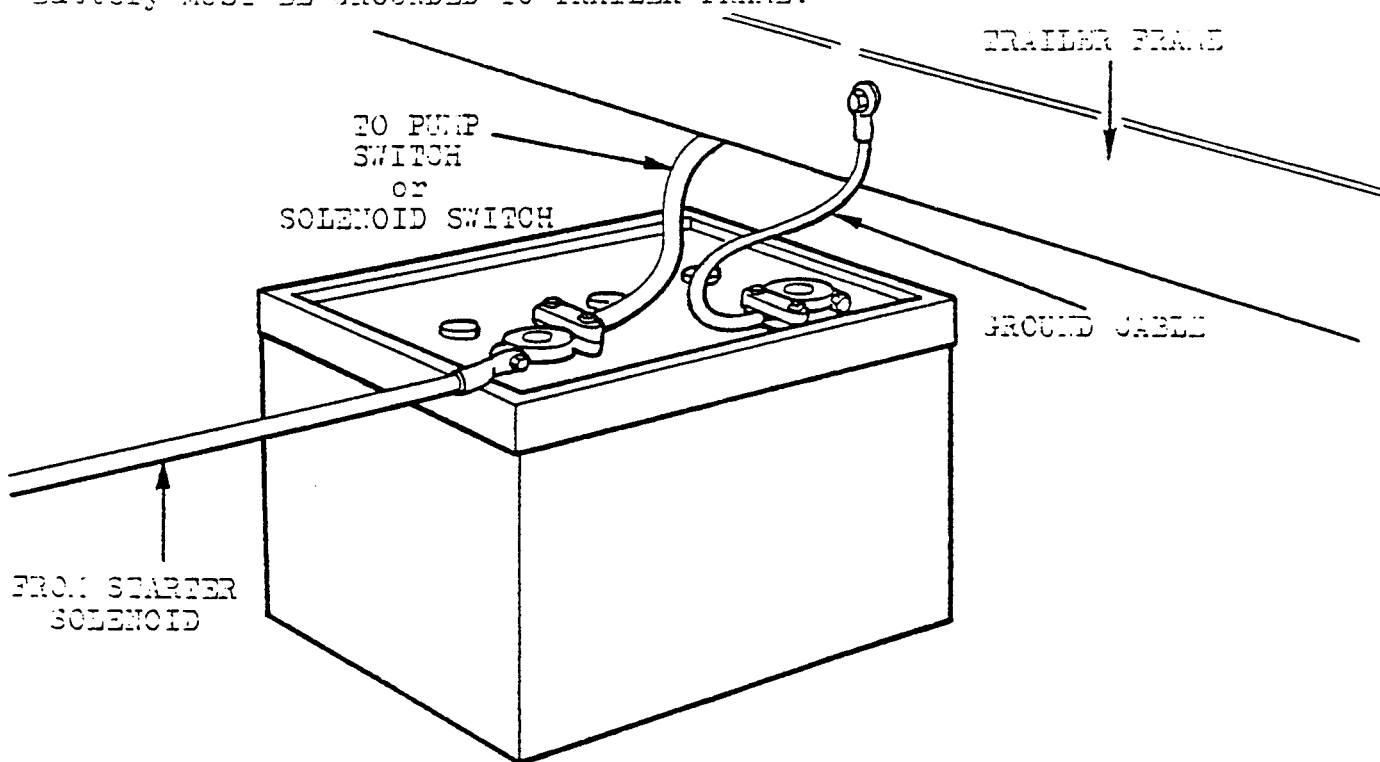
Continued

Male connector (P/N 50115) is wired thru to engine solenoid or battery HOT terminal.



TRAILER SECOND BATTERY

If using second battery HOT line from starter solenoid must be hooked up to HOT terminal on trailer battery and a cable installed from this terminal to pump switch (Manual control) or Solenoid switch (Remote control). Battery MUST BE GROUNDED TO TRAILER FRAME.



INSTALLATION OF PUMP

IF PLASTIC PUMP ENCLOSURE
BOX OPTION IS TO BE USED,
INSTALL BOX PRIOR TO INSTALL-
ING PUMP.

PRESSURE COMPENSATED
FLOW CONTROL VALVE.

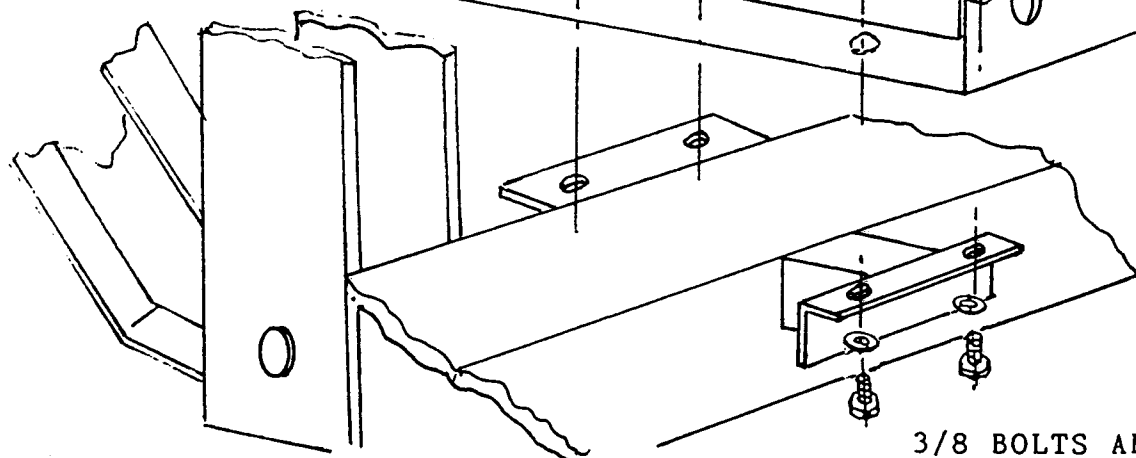
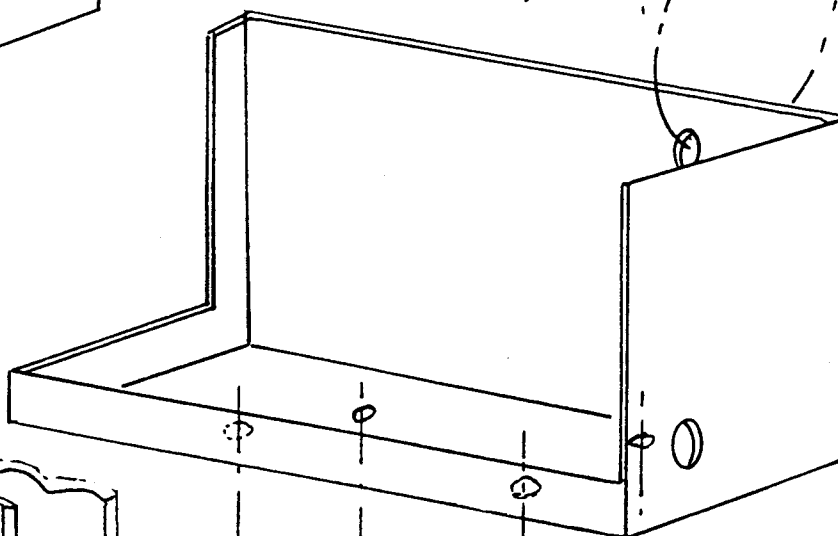
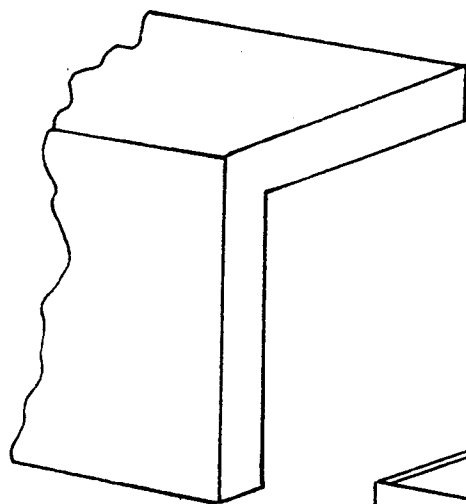
054036 ELBOW

228950 SWIVEL ELBOW

226948-04 HOSE

030304 NIPPLE

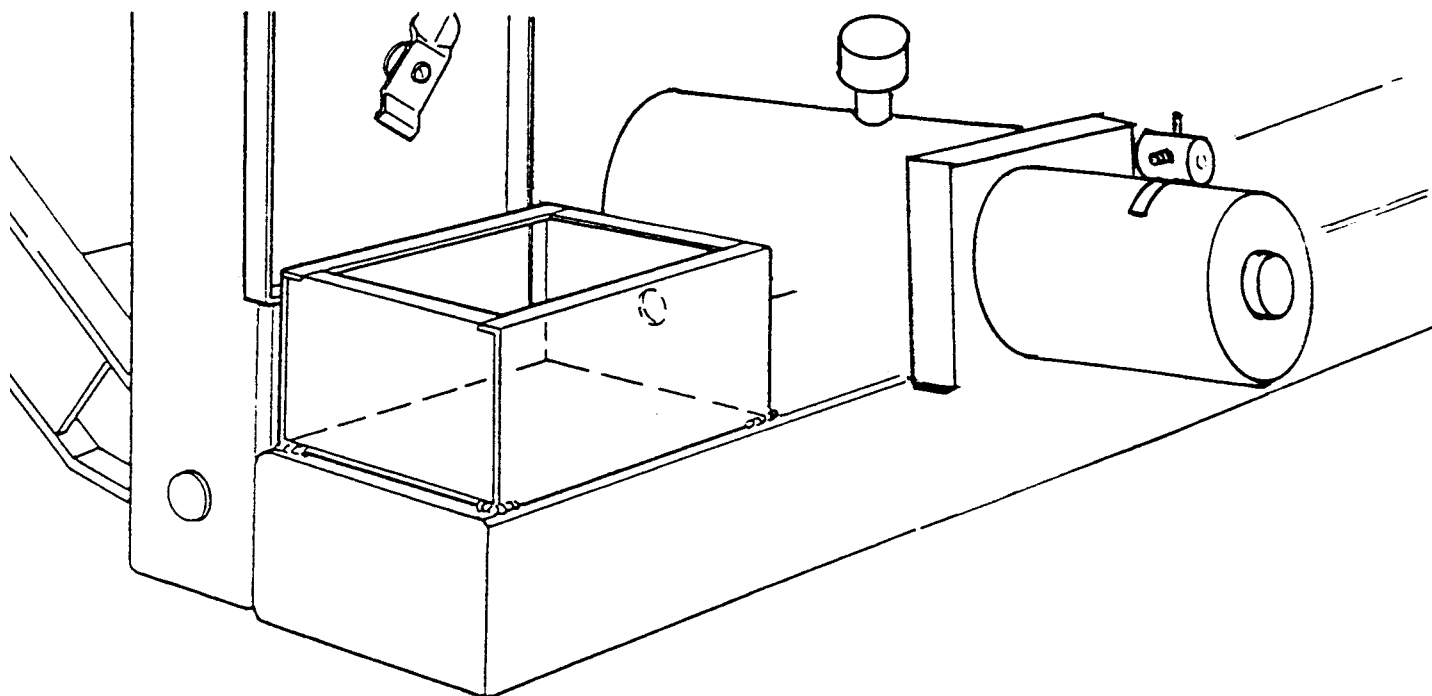
FILL RESERVIOR 1" BELOW TOP WITH DEXTRON 2



3/8 BOLTS AND LOCK WASHERS

INSTALLATION OF ENCLOSURE ASSEMBLY

Enclosure assembly is found in parts box. If unit swings out from vehicle from LEFT to RIGHT (COUNTERCLOCKWISE) the enclosure is installed on the RIGHT HAND END of the main frame. For a CLOCKWISE ROTATION it will be installed to the LEFT HAND END of the main frame. Weld four bottom corners of the enclosure to main frame.



CORD STRAIN RELIEF BUSHING

Pass the end of the cord with the three terminals thru hole in enclosure.

Pull enough cord thru to reach solenoid switch on pump.

We have supplied 2 JIFFY clamps to secure cord to top of main frame. Install cord bushing as shown.

1. PLACE BUSHING ON CORD

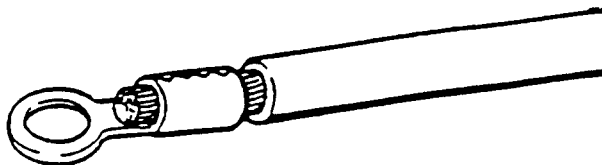
2. PRESS TOGETHER WITH PLIERS

3. SECURE CORD

TO REMOTE SW.

TO PUMP

INSTALLATION OF MOTOR WIRING CABLE :



STRIP THE INSULATION FROM ONE END OF THE MOTOR WIRING CABLE AND INSTALL A CABLE END. CRIMP CABLE END SECURELY TO THE CABLE.

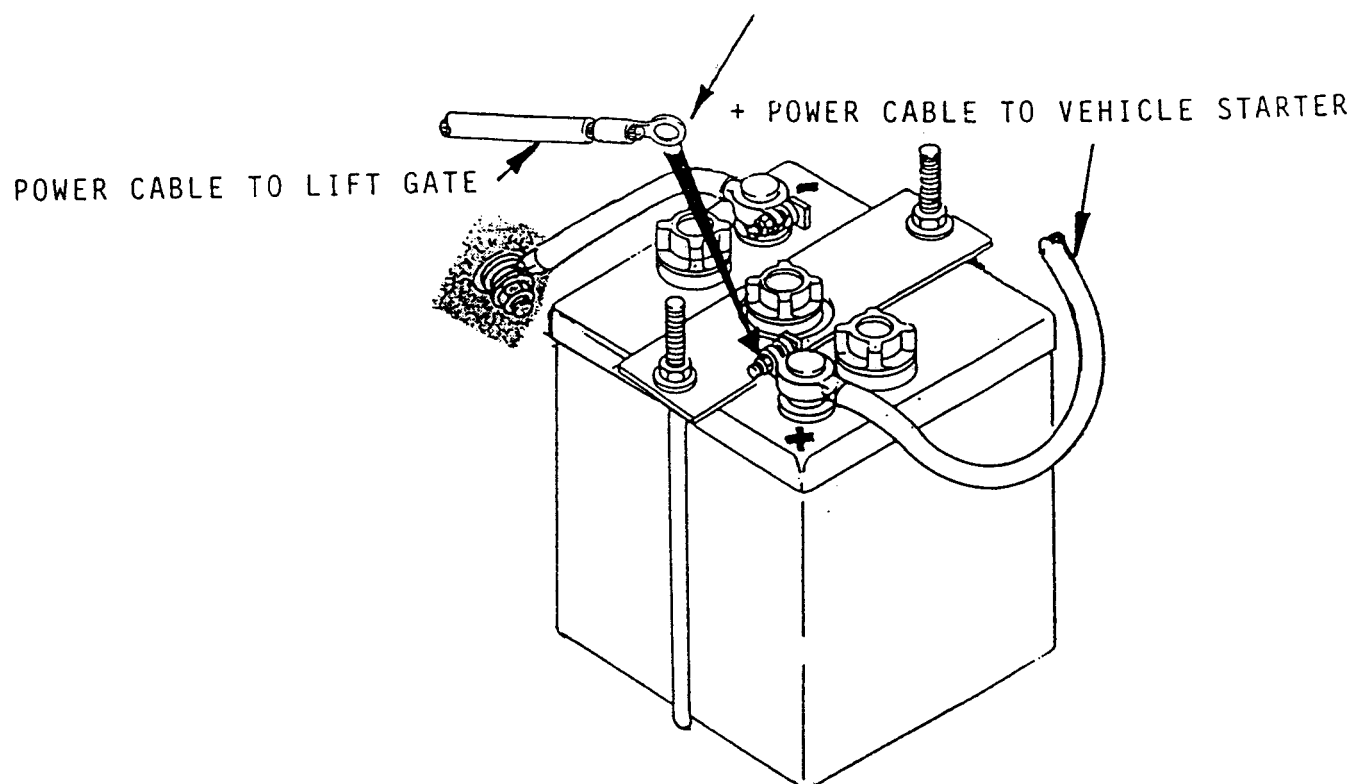
WHITE WIRE

BATTERY CABLE

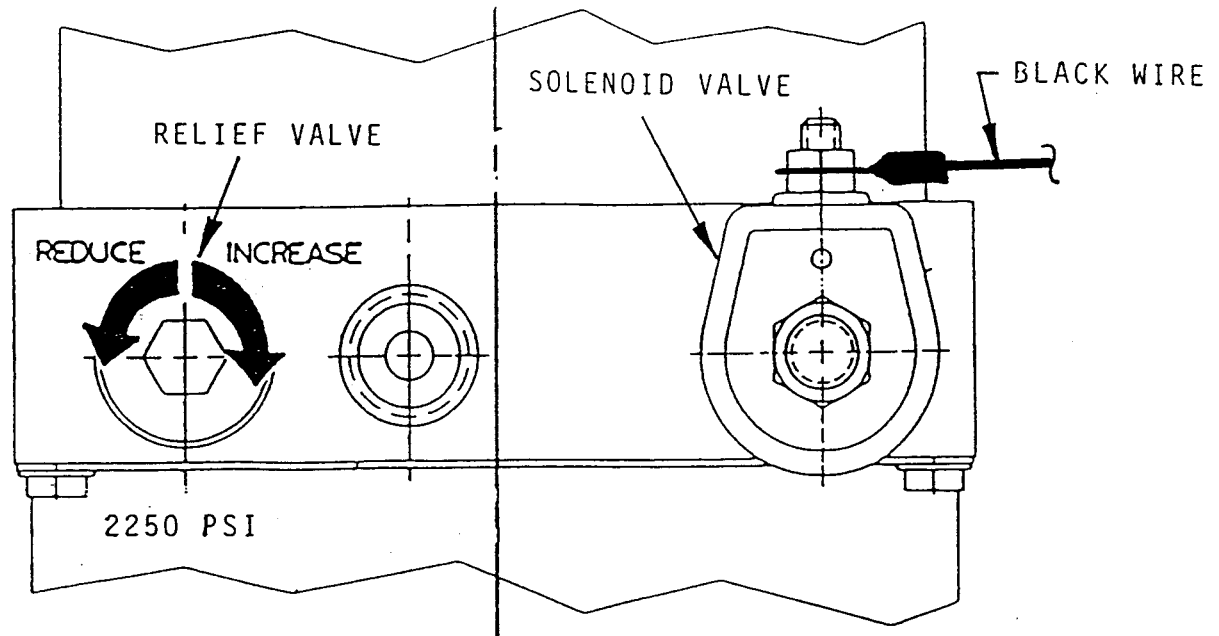
GREEN WIRE

MOTOR SOLENOID

INSTALL CABLE END FITTING TO CABLE. ATTACH CABLE FITTING TO + POST OF BATTERY.



AFTER PUMP HAS BEEN INSTALLED AND POWER CABLE AND CONTROL WIRES HAVE BEEN CONNECTED, BUT BEFORE INSTALLING VALVE AND HOSE, THE RELIEF VALVE MUST BE ADJUSTED. ATTACH PRESSURE GAUGE TO PRESSURE PORT. SET, TURNING RELIEF VALVE CAP CLOCKWISE.

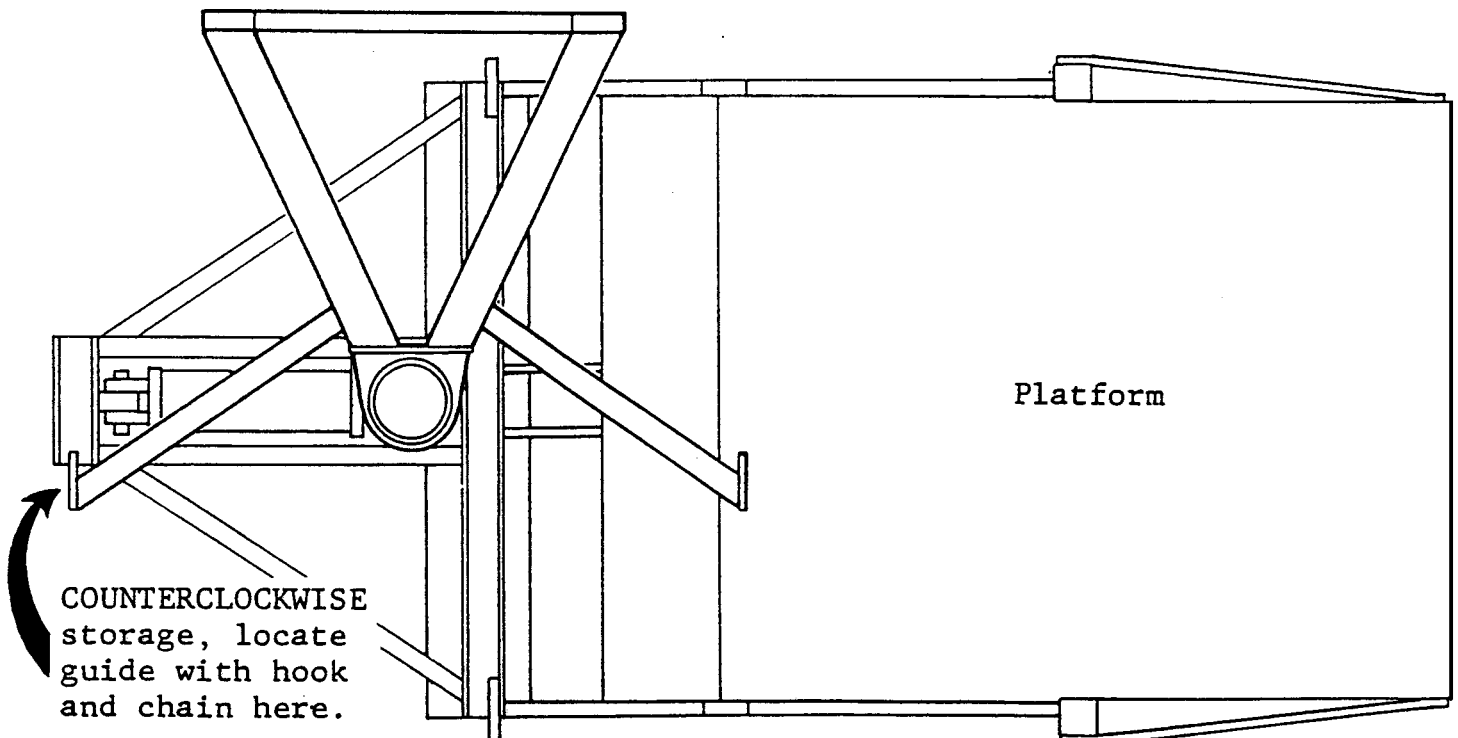
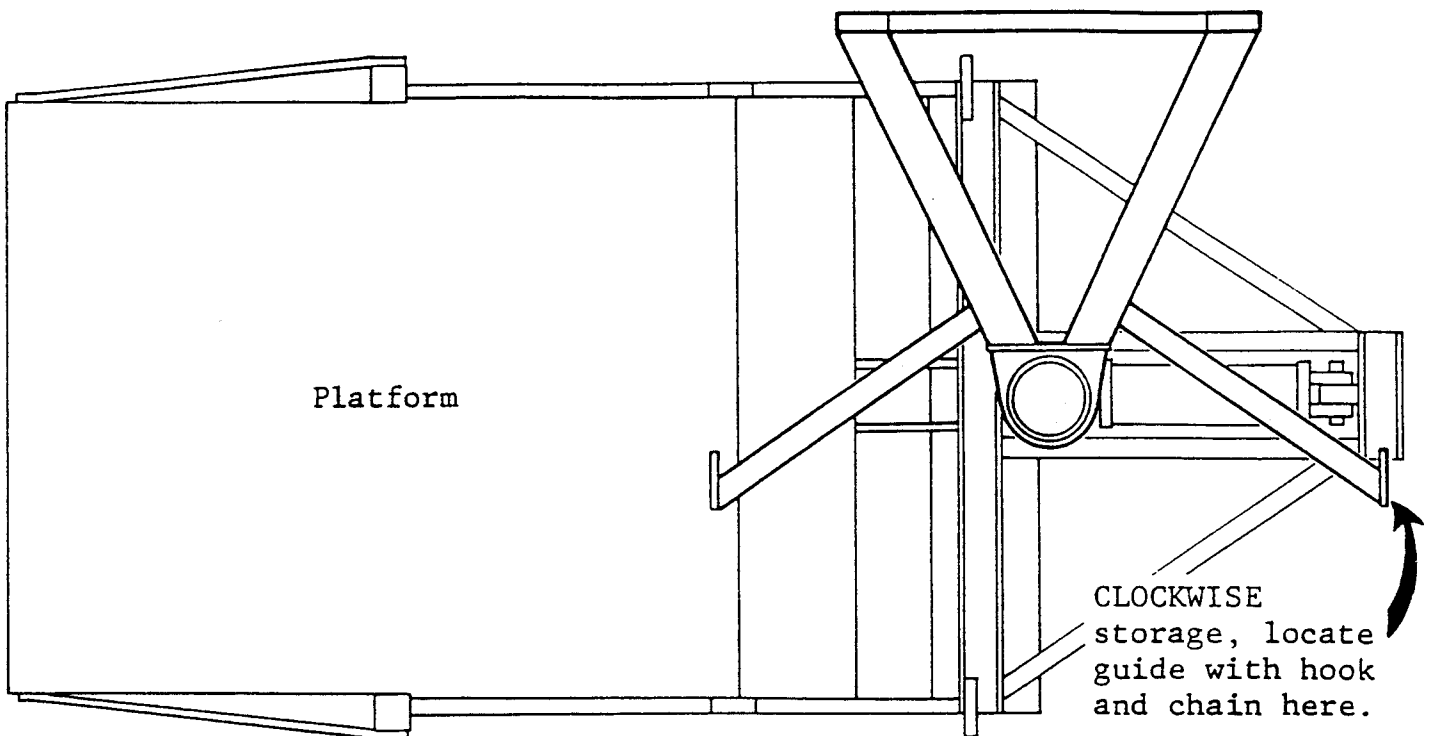


LOWERING PLATFORM TO GROUND

1. MOVE SWITCH TO UP POSITION. THIS WILL ALLOW PUMP TO FILL THE HOSE AND CYLINDER WITH OIL. YOU WILL HEAR THE SYSTEM BEING FILLED UNDER PRESSURE. WHEN YOU NO LONGER HEAR THE OIL CIRCULATING UNDER PRESSURE, RELEASE SWITCH. THE SYSTEM IS NOW FULL AND READY FOR OPERATION.
2. REMOVE THE LOCK STRAP FROM CYLINDER PINS.
3. LOWER AND REMOVE JACK FROM UNDER MAIN FRAME.
4. UN-HOOK HOIST FROM CHANNEL ON TOP OF PLATFORM.
5. STANDING CLEAR OF PLATFORM, MOVE SWITCH TO DOWN POSITION TO LOWER PLATFORM TO GROUND.
6. BURN OFF HOIST LOOP FROM TOP OF PLATFORM.
7. RAISE AND LOWER PLATFORM SEVERAL TIMES TO CHECK THE OPERATION OF THE UNIT.

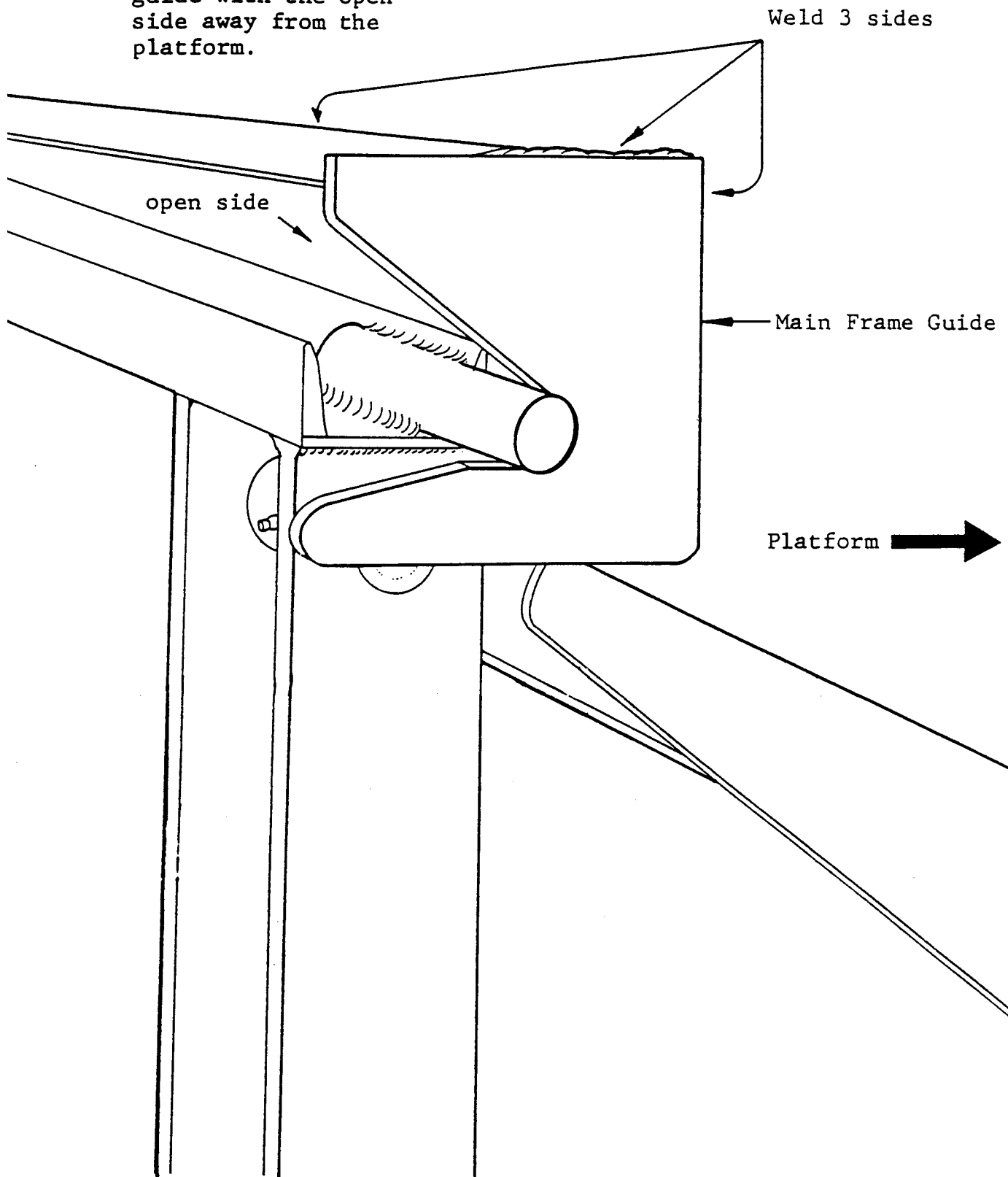
INSTALLATION OF MAIN FRAME GUIDES.

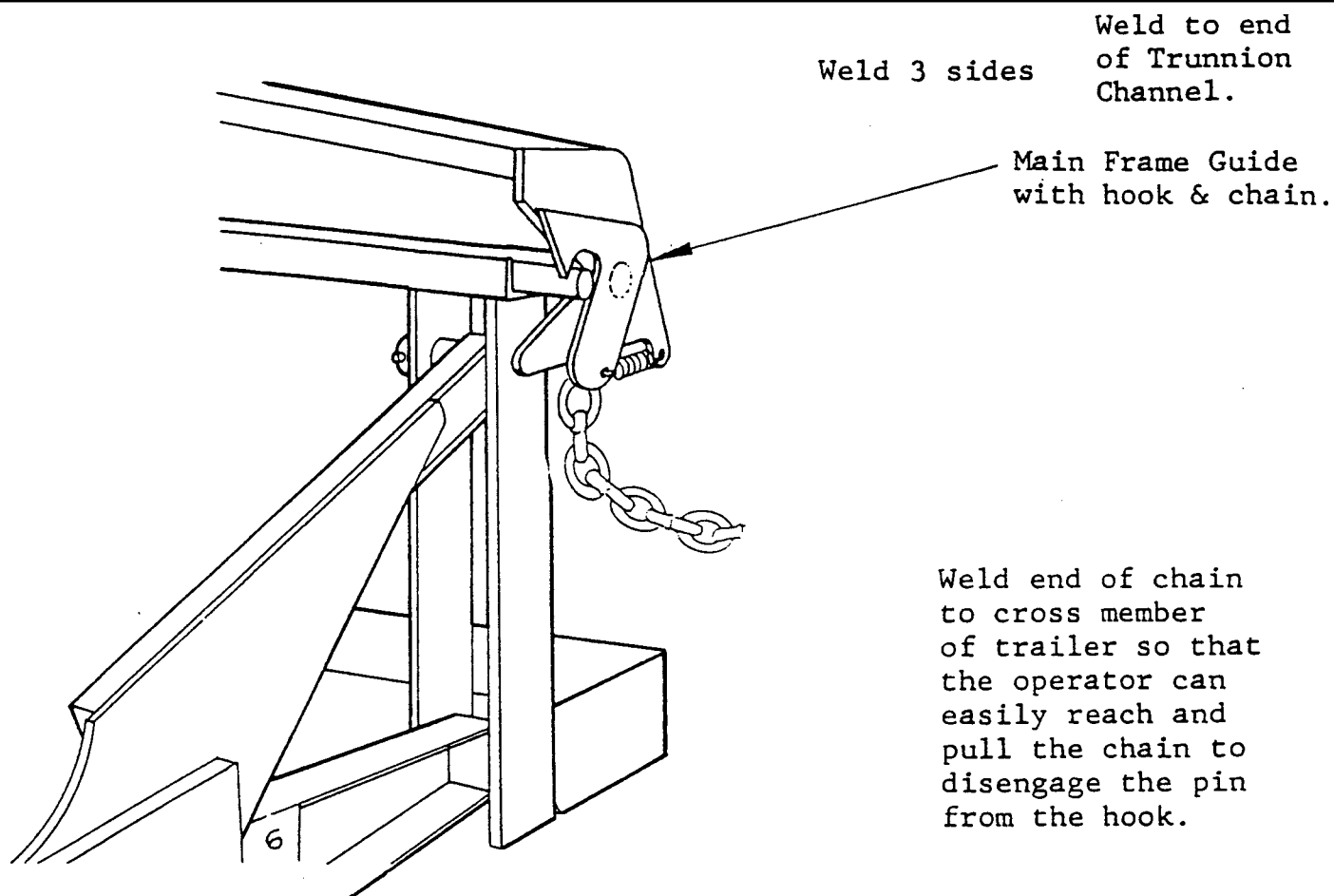
Platform may be pushed under truck in a clockwise or counterclockwise direction. Locate Main Frame Guides as shown below.



INSTALLATION OF MAIN FRAME GUIDES.

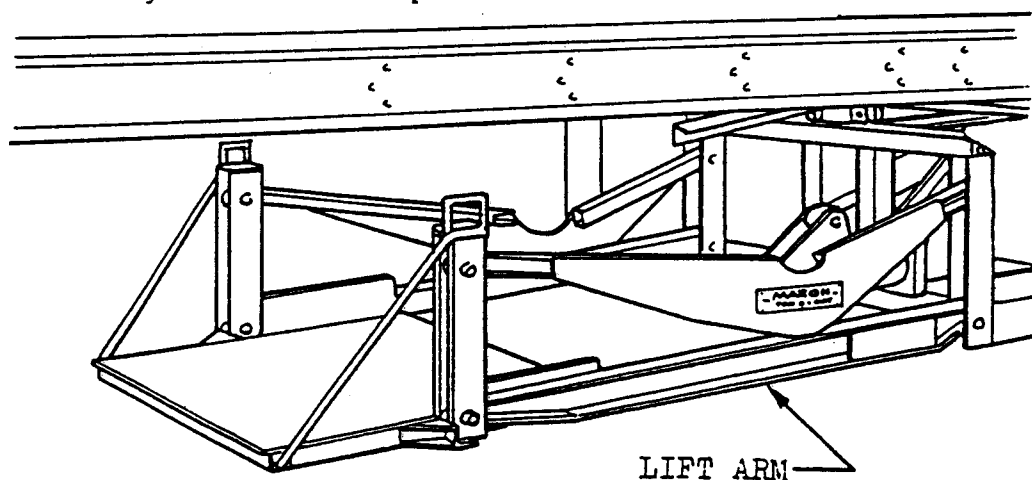
After locating the guide with hook and chain, locate other guide with the open side away from the platform.



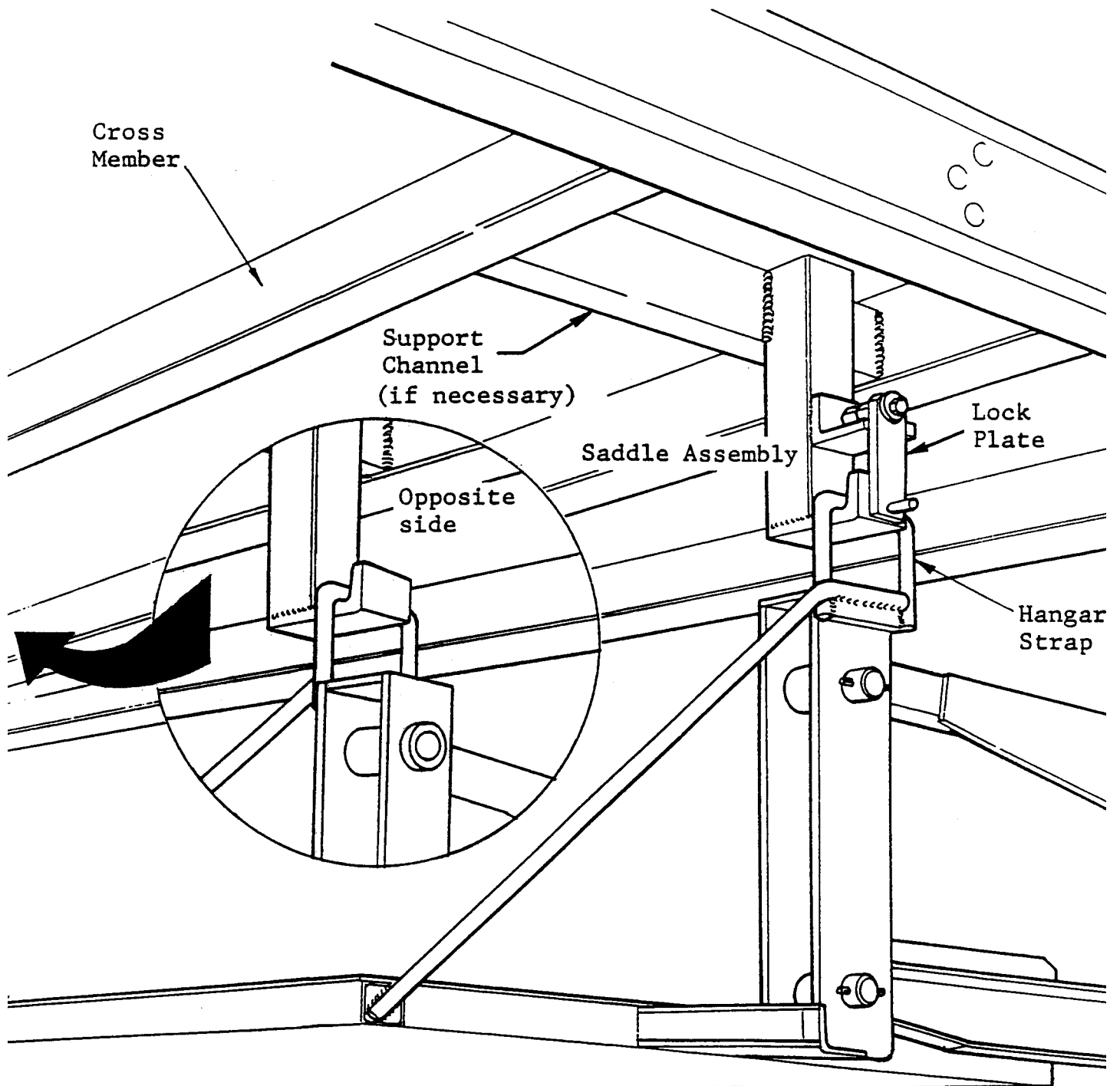


INSTALLATION OF SADDLE ASSEMBLY

Stand clear of platform. Operate remote switch toggle to RAISE position. When platform is about 2 feet off the ground release toggle. Pull on chain to open latch. Hold latch open and push on parallel arm with other hand. When latchpin clears latch, release chain and push unit under vehicle. When unit has swiveled 90° and is parallel to vehicle body, stop unit in that position. Operate toggle switch to RAISE position and release when lift arm is approximately parallel to ground. Saddle assembly is found in parts box.



Raise Lock Plate and place Saddle Assembly under hangar strap. Lower Lock Plate. Saddle Assembly should be welded to a cross member if possible. If not possible then cut a piece of channel to fit between two cross members. Channel is then welded to cross members and Saddle Assembly is welded to channel (shown below) Both sides of Saddle Assembly must be welded, either to channel or to cross member (if this is possible). 1/8" fillet weld, 3" long. both sides. Installation of unit is now complete.



DECAL

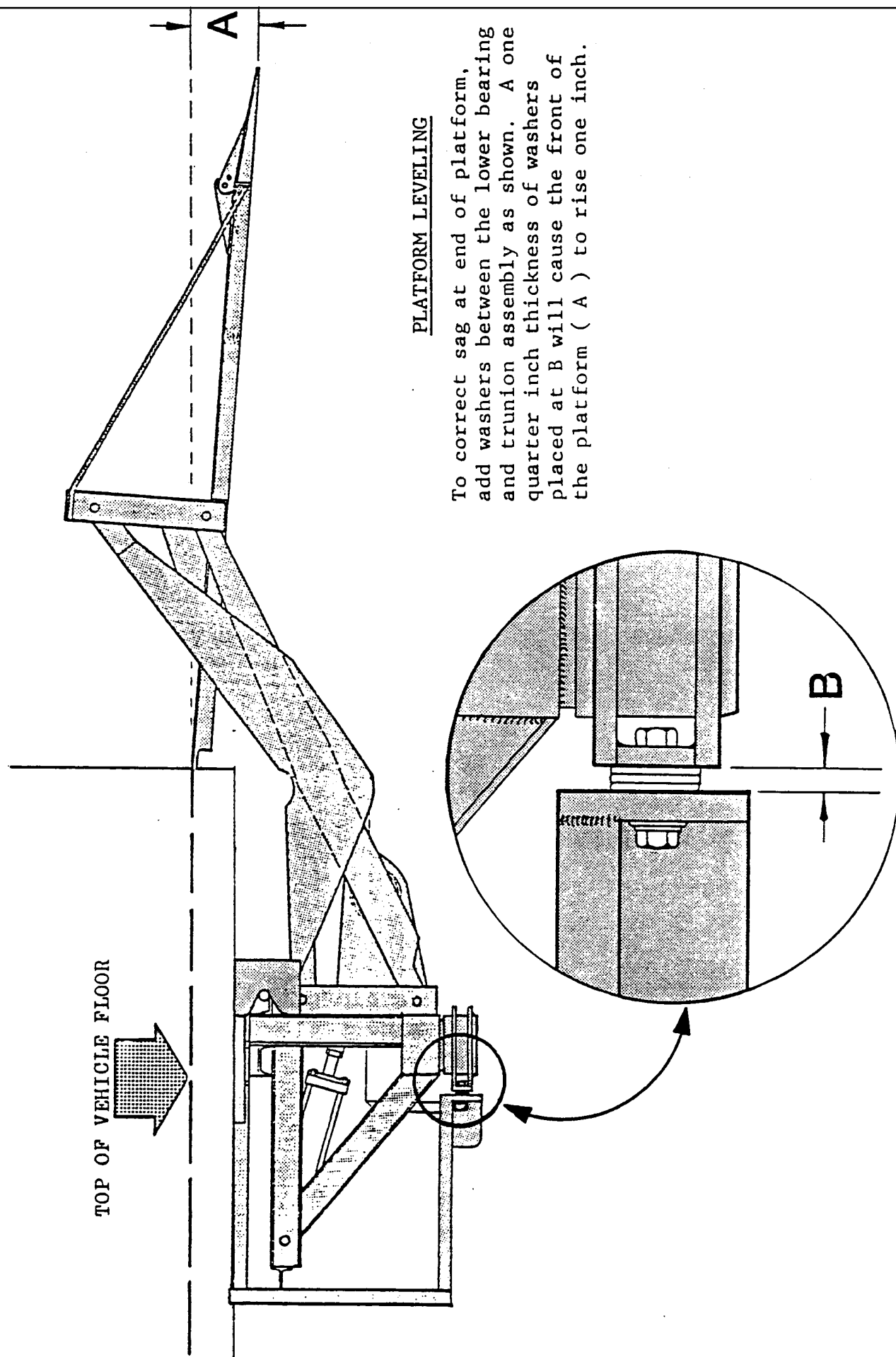
An URGENT WARNING decal is found in parts box. Decal MUST be located on side of vehicle close to point where unit will be operated. Operator must have a clear view of decal. When area has been selected, clean area thoroughly before applying decal. Decal is pressure sensitive. Peel off backing strip, place in position on cleaned surface and burnish down hard.

URGENT WARNING ELEVATING GATE INSTRUCTIONS

Before Operating Lift Be Sure You Understand

1. Improper operation of this lift can result in serious personal injury. Do not operate unless you have been properly instructed and have read, and are familiar with the operating instructions. If you do not have a copy of the instructions please obtain them from your employer, distributor, or lessor, as appropriate, before you attempt to operate the lift.
2. Be certain the vehicle is properly and securely braked before using the lift.
3. Always inspect this lift for maintenance or damage before using it. If there are signs of improper maintenance, damage to vital parts, or slippery platform surface, do not use the lift. Do not attempt your own repairs, unless you are specifically trained.
4. Do not overload. See the Mfg. Literature for the rated load. Remember that this limit applies to both raising and lowering operations.
5. Each load should be placed in a stable position as near as possible to the center of the platform.
6. Never stand in or move through or allow anyone else to stand in or move through the area in which the lift may operate or into which an upset load might fall.
7. This is not a passenger lift. Do not ride the lift with unstable loads or in such a manner that a failure would endanger you. The lift is not equipped with a back-up system to prevent falling in the event of a failure.

Member, ELEVATING TAILGATE DIVISION
A DIVISION OF TRUCK BODY AND EQUIPMENT ASSOCIATION, INC.



PLATFORM LEVELING

To correct sag at end of platform, add washers between the lower bearing and trunion assembly as shown. A one quarter inch thickness of washers placed at B will cause the front of the platform (A) to rise one inch.

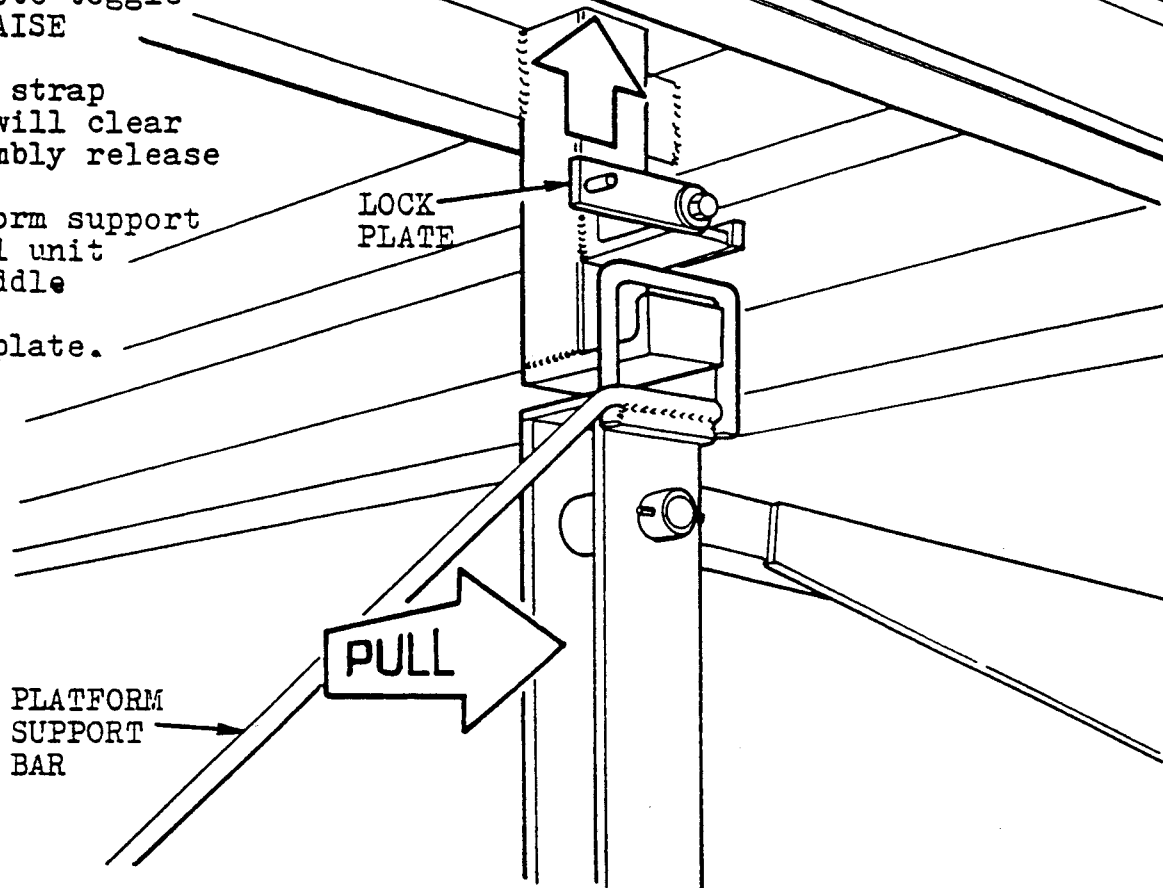
CHECKING OPERATION OF UNIT (FOR COMPLETE INSTRUCTIONS SEE M-76-20
OPERATOR'S MANUAL)

Raise lock plate as shown.
Operate remote toggle
switch to RAISE
position.

When hanger strap
on shackle will clear
saddle assembly release
toggle.

Grasp platform support
bar and pull unit
clear of saddle
assembly.

Lower lock plate.



Using remote control switch and standing clear of platform and its moving parts operate toggle to RAISE position. When platform reaches bed height release toggle. Continued operation of switch at this time will overload pump motor and cause it to burn out. Move toggle to LOWER position. When platform touches ground release toggle.

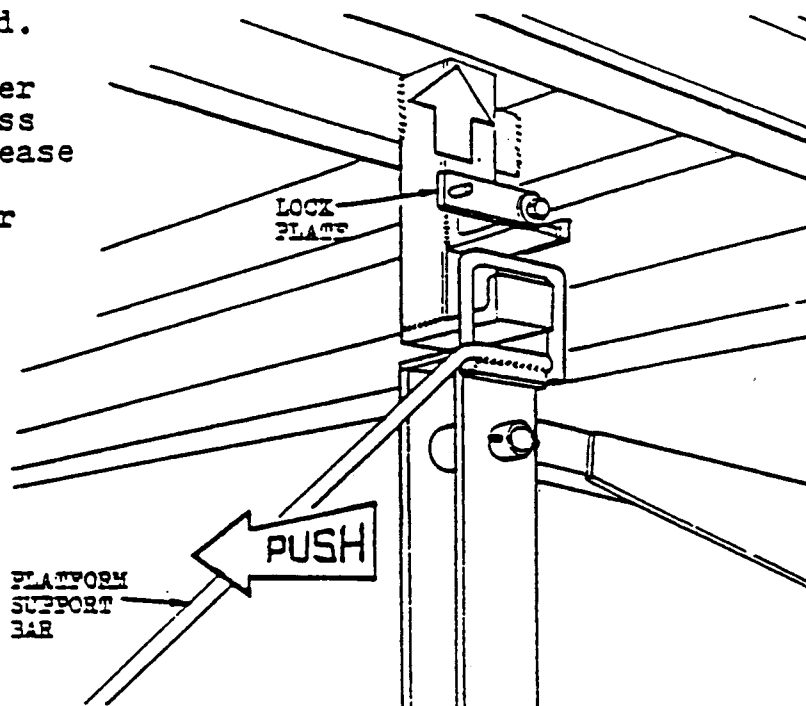
Raise and lower platform several times. Watch and listen for parts which may be binding. An application of grease on the surfaces which bind usually clears the problem.

Operate toggle switch to RAISE position. When platform is about 2 feet off ground release toggle.

Raise lock plate and hold. Operate toggle switch to RAISE position. When hanger strap on shackle will pass into saddle assembly, release toggle.

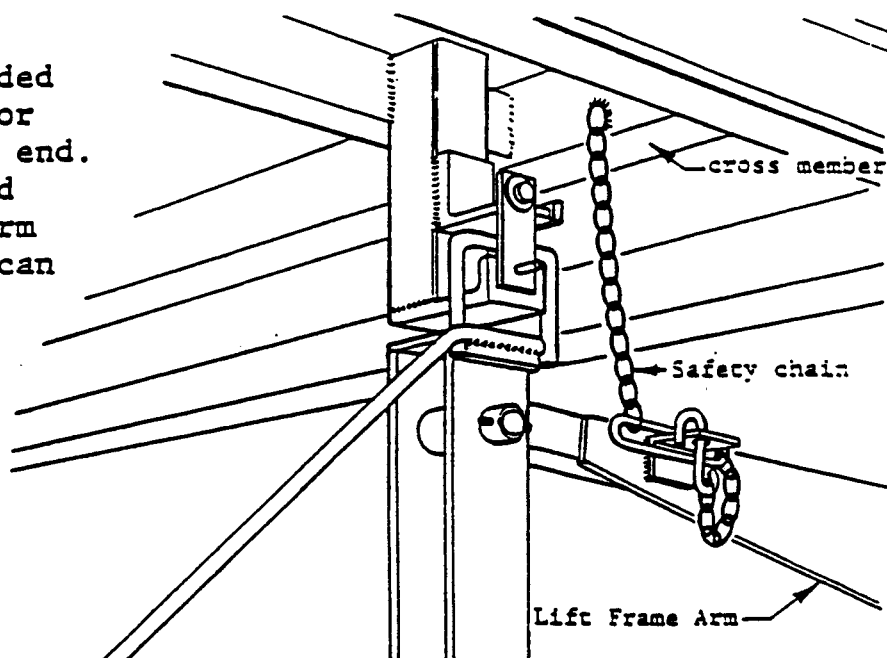
PUSH platform support bar until hanger strap is inside saddle assembly. Lower lock plate and make sure it is hanging down vertically.

By using toggle switch hanger strap can be lowered into saddle assembly.

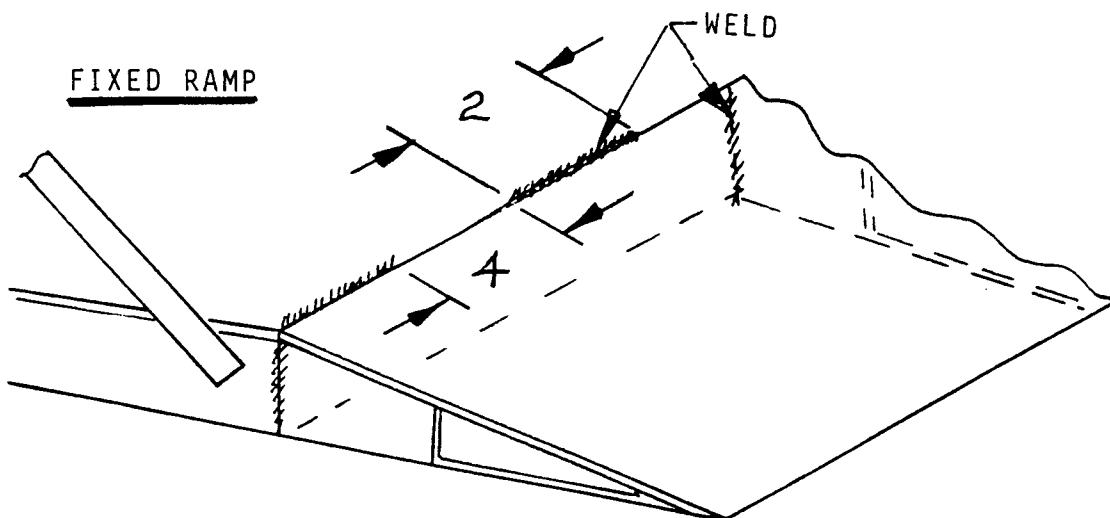


SAFETY CHAIN

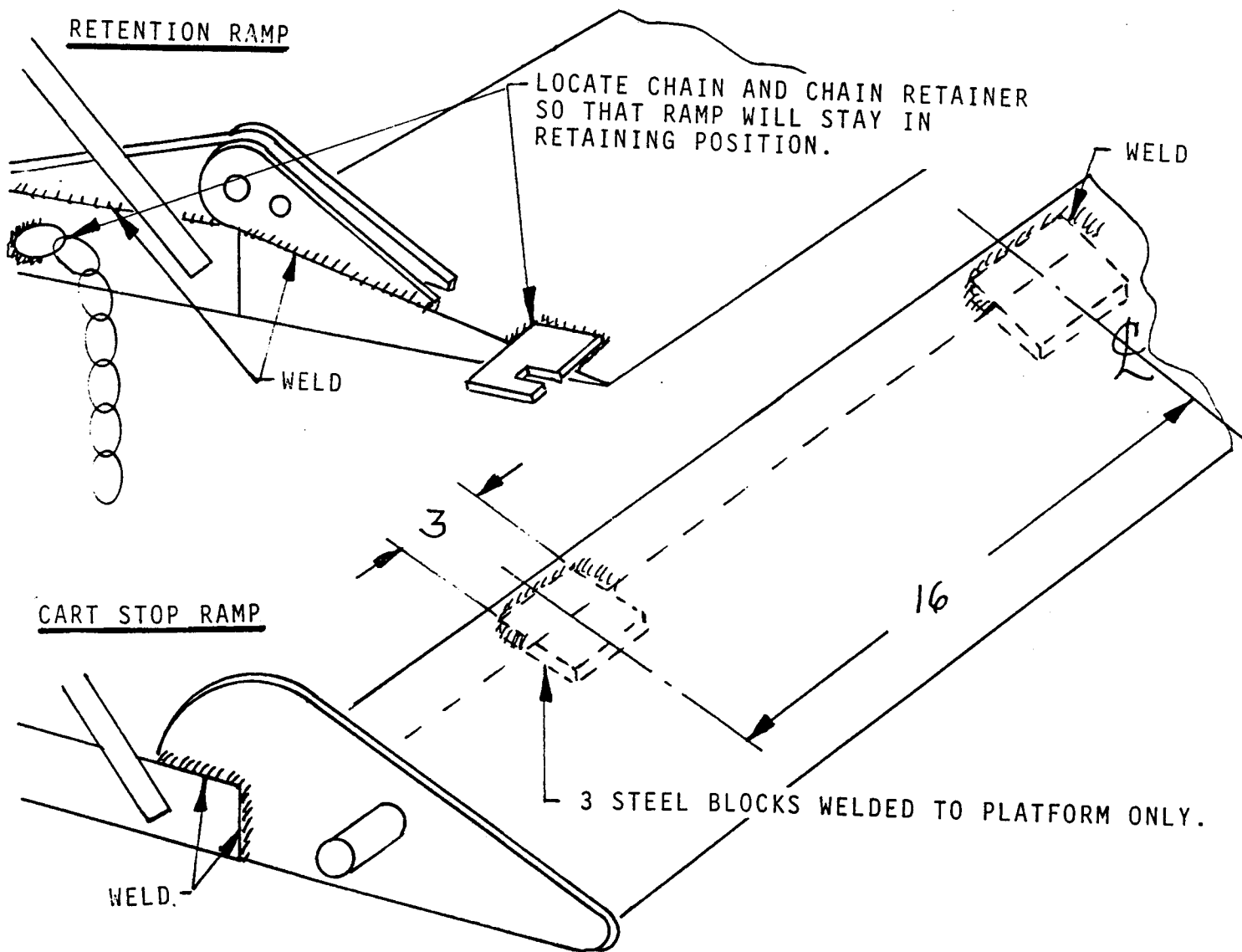
Safety chain is welded to support channel or cross member at one end. Other end is secured around Lift Frame Arm as shown. Vehicle can now be moved.



FIXED RAMP



RETENTION RAMP



CART STOP RAMP

