



ALWAYS TAKING THE FIRST STEP™

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## 2000 SERIES HALLCO LIVE FLOOR TRAILER SYSTEM INSTALLATION INSTRUCTIONS

\*\*\*\*\* INDEX \*\*\*\*\*

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\*\*\*\* NOTICE \*\*\*\*

This installation manual is a guide only, compiled from the experiences of numerous installers.

Installing your Hallco Live Floor will require some alterations to your trailer.

Any alterations without approval of the trailer manufacturer may void the trailer warranty. Check with the trailer manufacturer before performing any alterations.

Hallco assumes no liability for damages which may occur as a result of installing any of the live floor systems manufactured by Hallco Manufacturing Company, Incorporated.

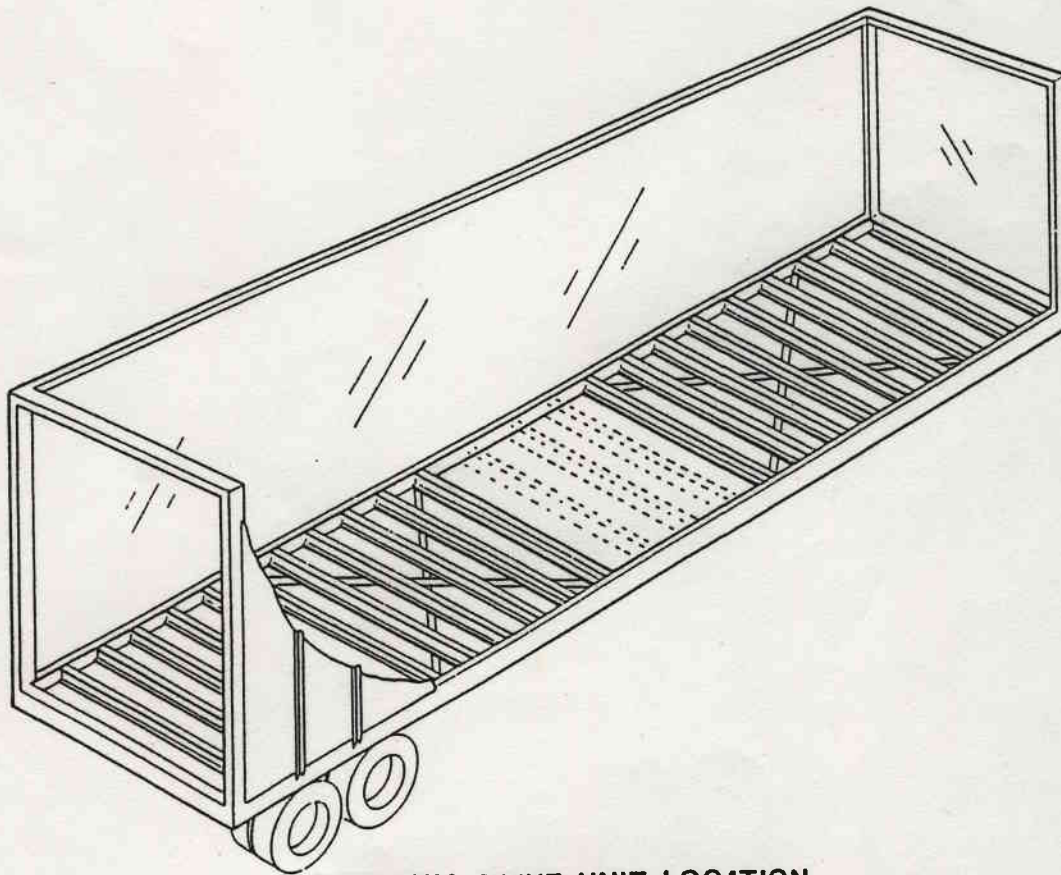
# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "1" PREPARING THE TRAILER

The first step to installing your new Hallco Live Floor is to remove the old floor completely. Everything above the cross-members and between the side walls. All decking, bolts, clips and any other debris left during deck removal. All mounting surfaces must be clean, smooth and level for proper installation.

**IMPORTANT NOTE:** In many trailers the deck is a structural member providing necessary support and strength to maintain the straightness of the side rails. Therefore if the trailer is straight to begin with it is advisable to crossbrace the trailer to maintain this straightness while installing the new Hallco Live Floor System. In any event the trailer side rails must be straight within 1/4" from front to rear.

The next step is to decide where you would like the drive unit located. The optimum location is near the center of the trailer. (see ILL. 1-1)



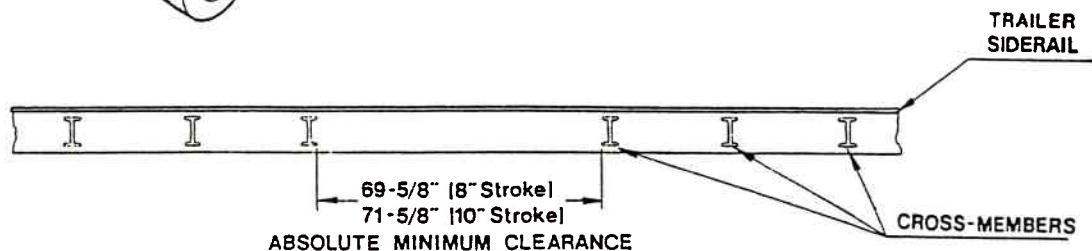
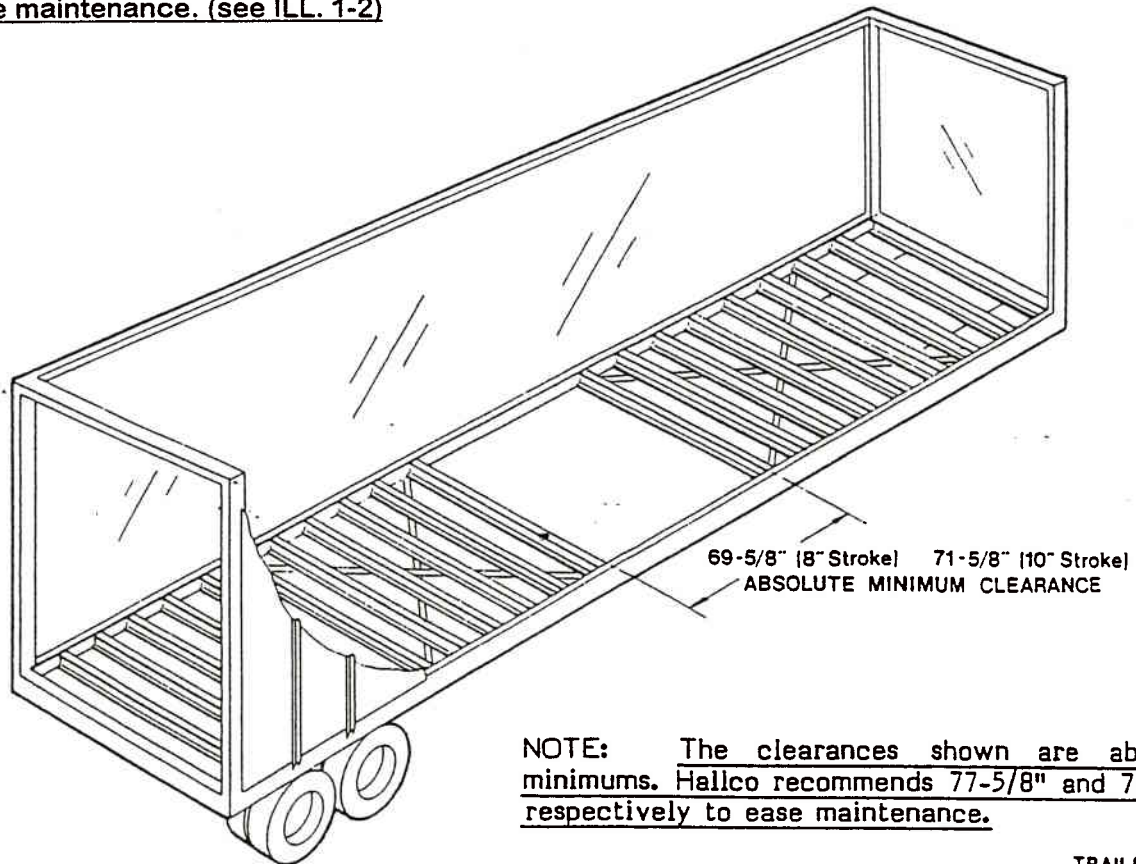
OPTIMUM DRIVE UNIT LOCATION

— ILL. 1-1 —

# 2000 SERIES HALCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "1" PREPARING THE TRAILER - CONTINUED

After you have decided where you would like the drive unit, you must provide an opening between the trailer cross-members. The opening must be not less than 69-5/8" for the 2000 Series drive unit with an 8" stroke and 71-5/8" for the 10" stroke model. PLEASE NOTE: these clearances are absolute minimums, Halco recommends that you provide an additional 4" at each end of the drive unit to ease maintenance. (see ILL. 1-2)



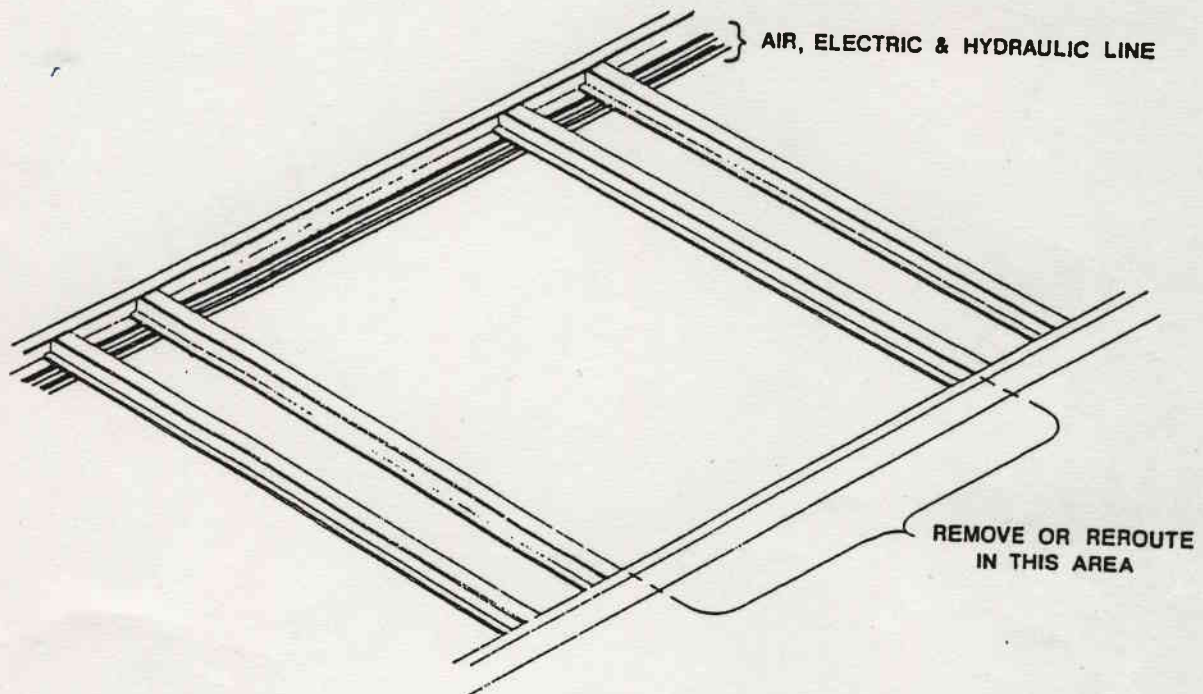
— ILL. 1-2 —

After you have decided where the drive unit will be located, examine existing electric, air and hydraulic lines. These lines may need to be removed and/or rerouted during installation. (see ILL. 1-3)

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

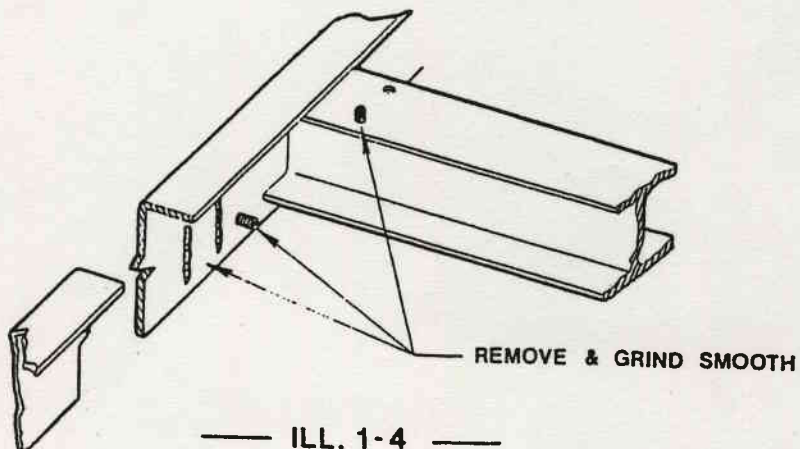
## SECTION "1"

### PREPARING THE TRAILER - CONTINUED



— ILL. 1-3 —

Now that the existing lines have been removed or rerouted, remove the cross-members in the intended drive area. When the cross-members have been removed, clean the side rails in this area. Remove broken bolts and grind smooth any old welds or slag left during cross-member removal. The mounting surface must be clean and smooth for proper installation. (see ILL. 1-4)



— ILL. 1-4 —

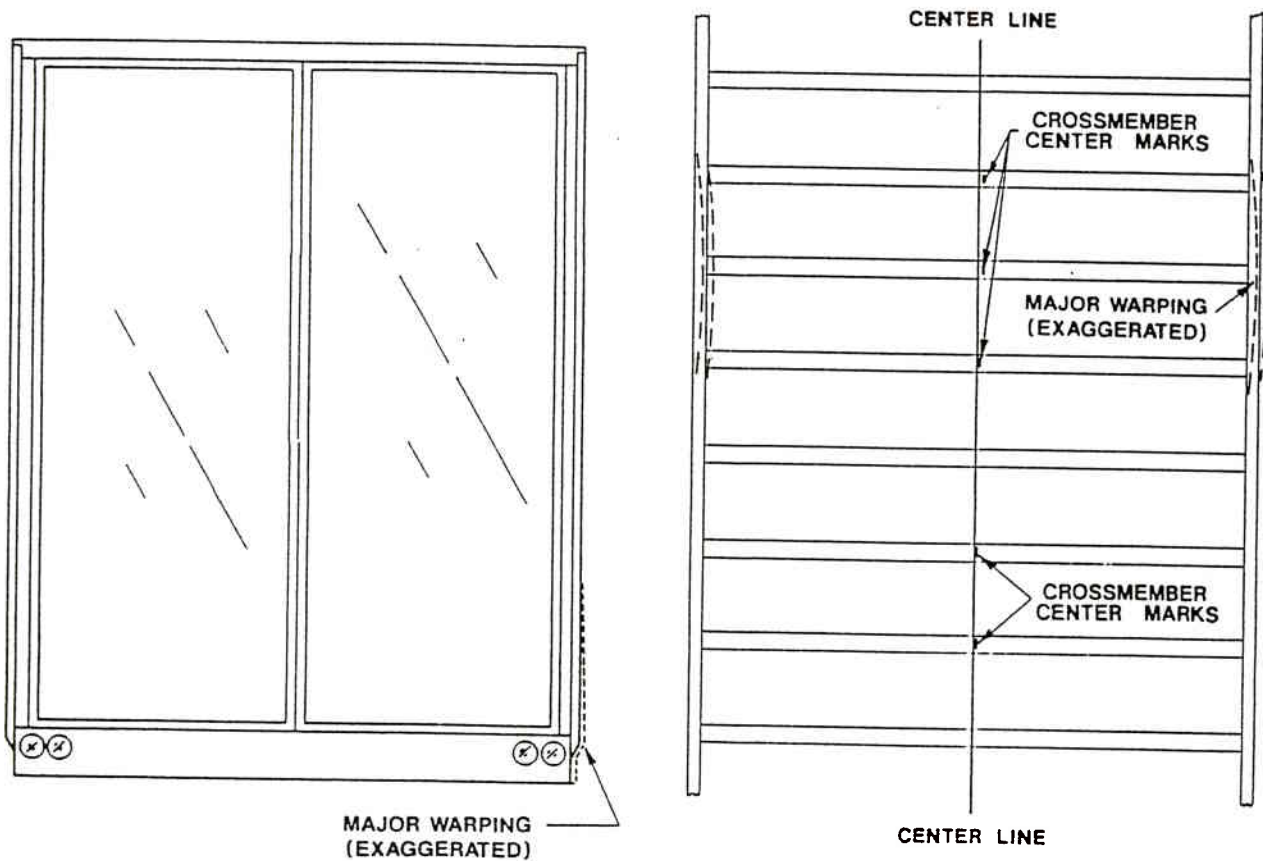
# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "1"

### PREPARING THE TRAILER - CONTINUED

Checking your trailer for straightness can be done in several ways. A visual sighting of the trailer side rails is a good beginning. You should be able to detect any major warping with a visual check.

The next step is to measure the cross-members and mark their centers. Then stretch a line from the center mark of the rear cross-member to the center mark of the front cross-member. Ideally, all the center marks will line up. If not, and they are off more than 1/4 of an inch you will need to straighten the side rails in this area. (see ILL. 1-5)



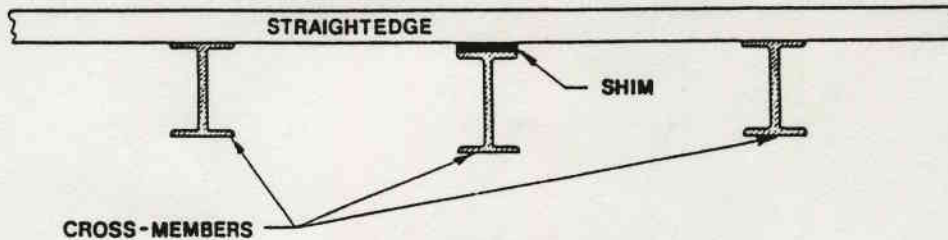
VISUAL SIGHTING

— ILL. 1-5 —

The cross-members need to be in good condition. It is important that they be clean, smooth and level. Repair and or replace as needed. Some cross-members can be shimmed to bring them to the proper level, provided they are reasonably clean and straight. (see ILL.1-6)

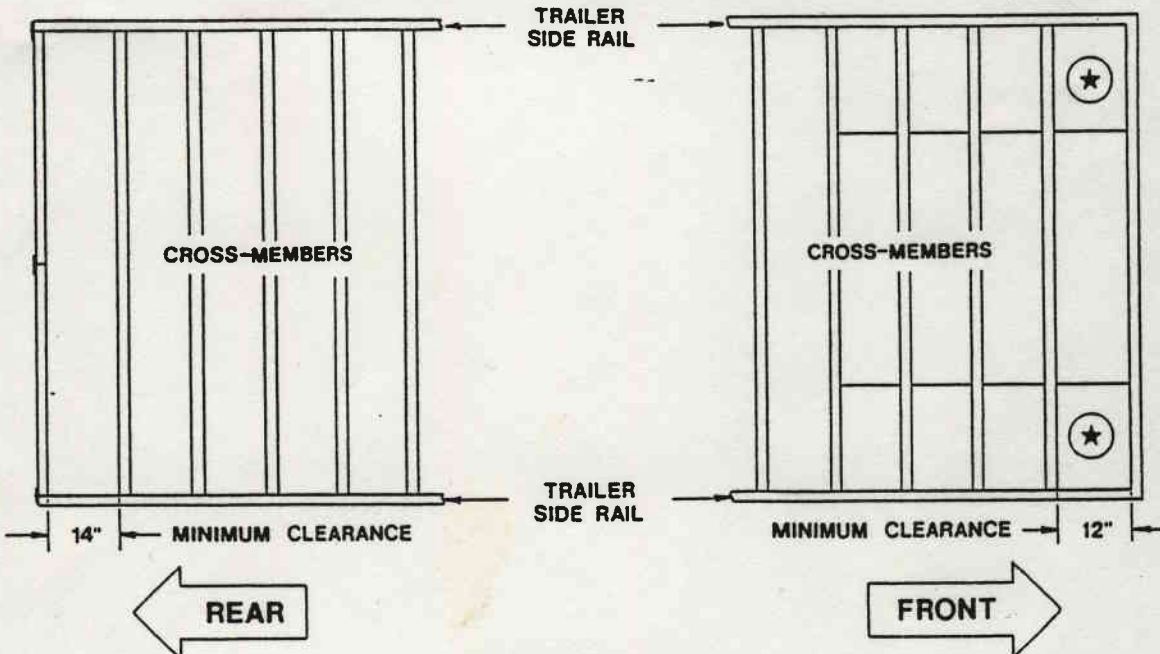
# 2000 SERIES HALCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "1" PREPARING THE TRAILER - CONTINUED



— ILL. 1-6 —

Hallco recommends that the rearmost cross-member be installed at a minimum distance from the rear bumper. The same applies to the front cross-member (see ILL.1-7) If your trailer does not meet these requirements, you will need to add cross-members respectively.



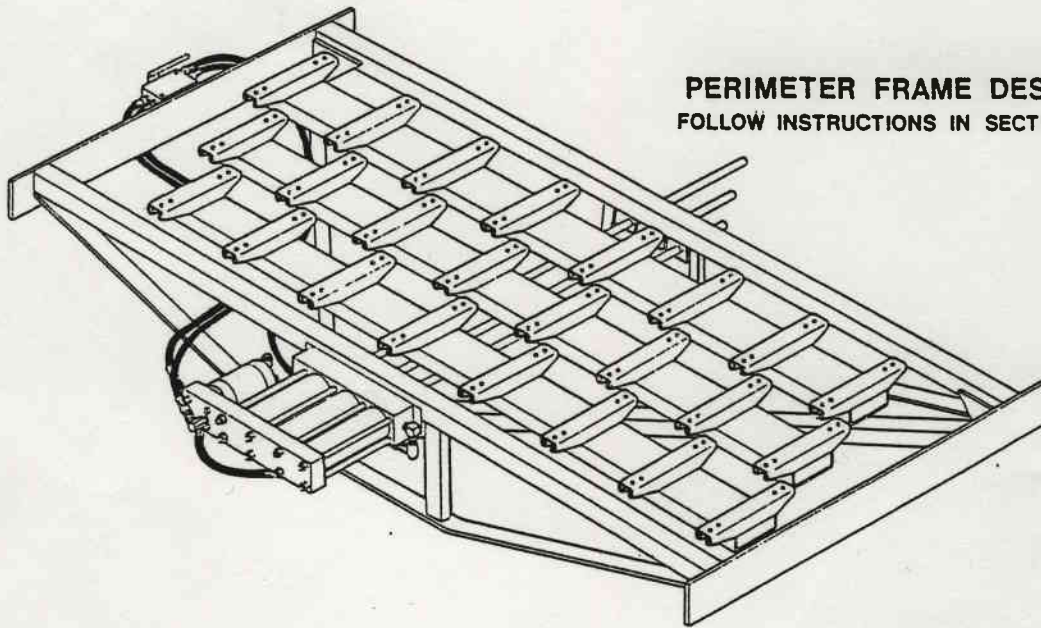
— ILL. 1-7 —

Note: If there are no clean out holes, provide at least two 4" diameter holes.

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

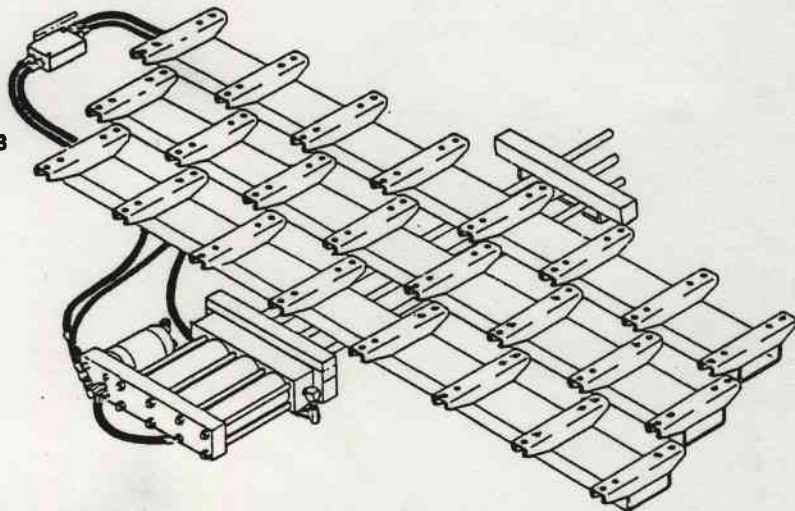
## SECTION "2" INSTALLING THE DRIVE UNIT

Before proceeding with the installation of the drive unit, you must determine which type of drive unit you have. There is the drive unit designed for the perimeter framed trailers and the one designed for the center framed trailer. The illustrations below show these drive units.



**PERIMETER FRAME DESIGN**  
FOLLOW INSTRUCTIONS IN SECTION 2A

**CENTER FRAME DESIGN**  
FOLLOW INSTRUCTIONS IN SECTION 2B



If you are installing a drive unit in a perimeter framed trailer follow the instructions in Section "2A". If you are installing a drive unit in a center framed trailer follow the instructions in Section "2B".

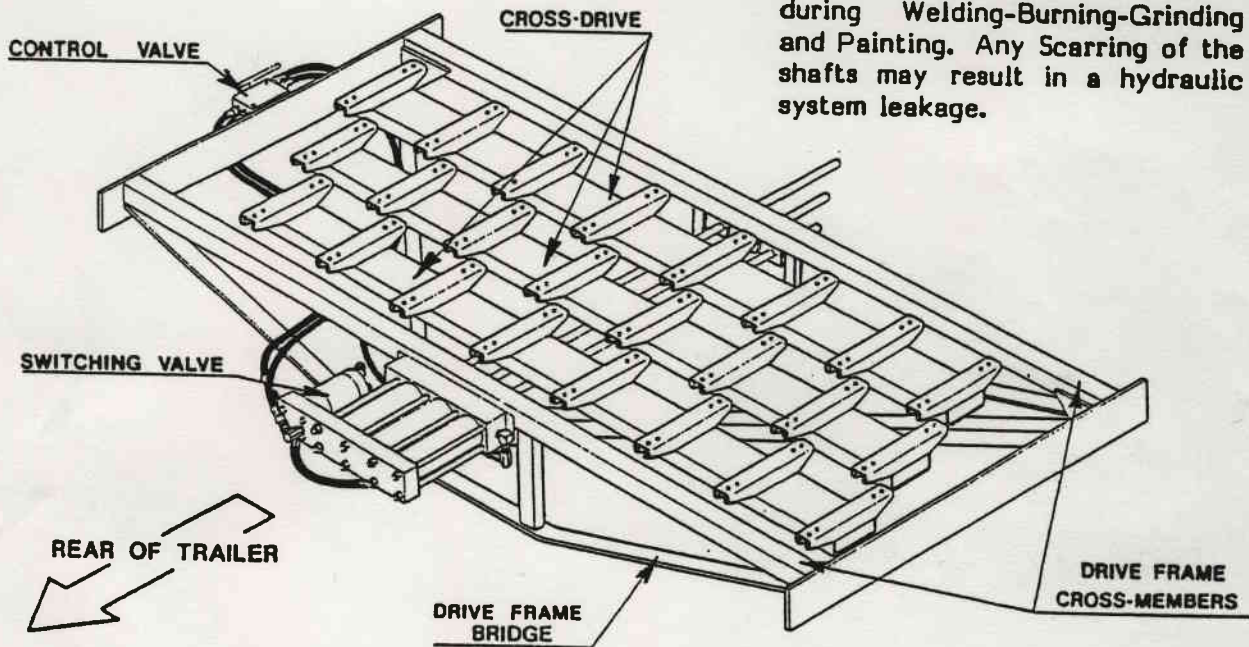
# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "2A" INSTALLING THE DRIVE UNIT IN A PERIMETER FRAMED TRAILER

**IMPORTANT NOTE:** When handling the Drive Unit, lift only by the Drive Frame cross-members. Never Lift by the Drive Frame Bridge! Lifting in this way may cause distortion of the Drive Frame and create problems during Drive Unit installation. (see ILL. 2A-1)

### NOTICE!!

Protect Chrome Cylinder shafts during Welding-Burning-Grinding and Painting. Any Scarring of the shafts may result in a hydraulic system leakage.



— ILL. 2A-1 —

If the Drive Unit was custom built to fit your trailer, you should be able to proceed with the installation.

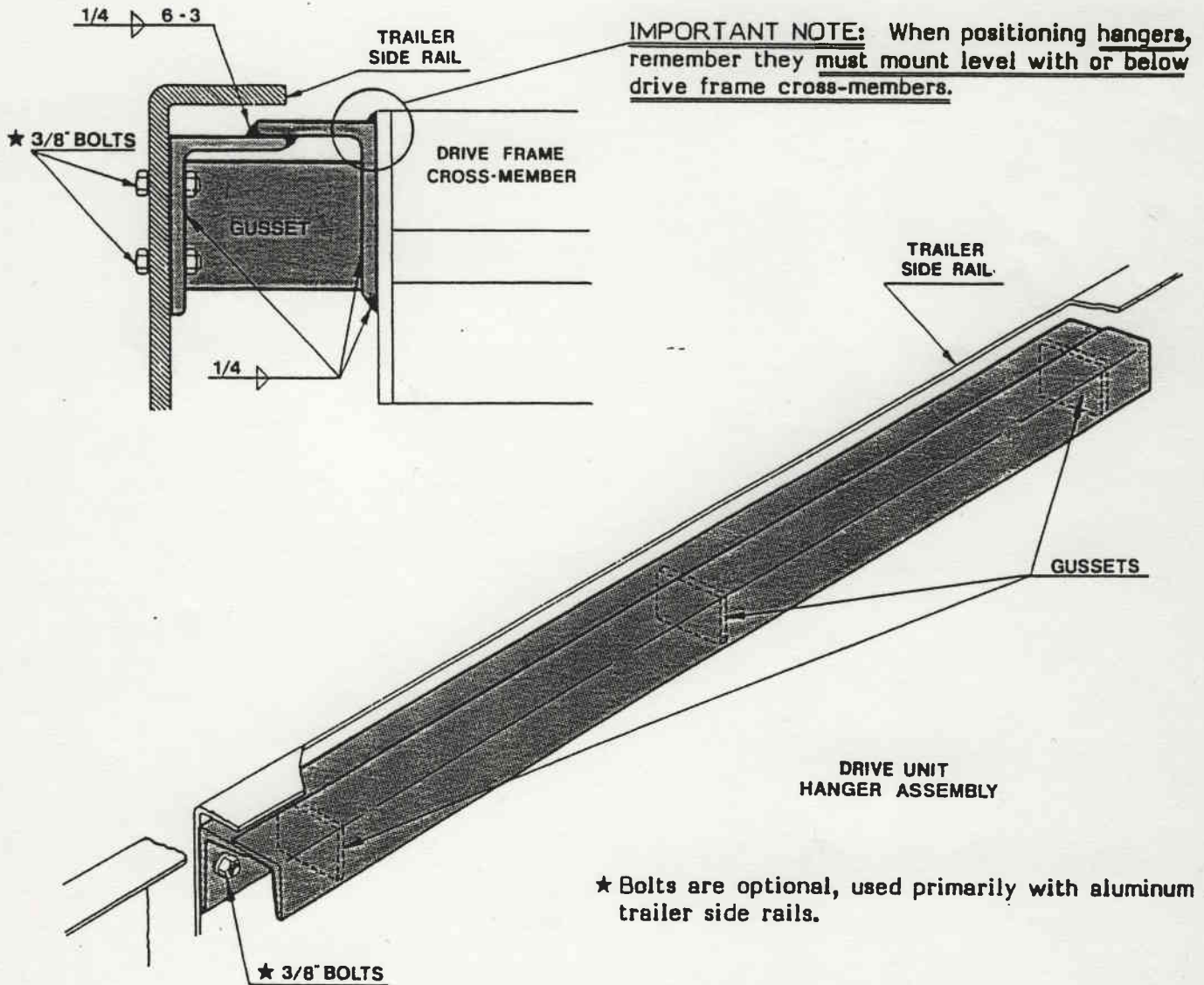
If the Drive Unit was not custom built to fit your trailer, you may need to build a set of Drive Unit Hangers. The first step is to determine the space the Hangers must fill. Measure the trailer cross-members. Now measure and subtract the width of the Drive Unit. Divide the result by two and you'll have the Hanger size needed. (See example below)

TRAILER CROSS-MEMBERS	95"
DRIVE UNIT WIDTH	87"
RESULT	8"
DIVIDE BY TWO	4" = Hanger size

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "2A" INSTALLING THE DRIVE UNIT IN A PERIMETER FRAMED TRAILER

The two most common designs for Drive Unit Hangers are shown in Illustration 2A-2 and 2A-3. The Hanger shown in ILL. 2A-2 is constructed of two pieces of 3" x 2" x 1/4" angle 48" long or longer with 2" x 1/4" flat bar gussets placed at the Drive Frame cross-members and every 18". This hanger design can be welded or bolted to the trailer side rail. Note: If bolting use not less than sixteen (16) three eighths (3/8") inch bolts per side. (see ILL. 2A-2)

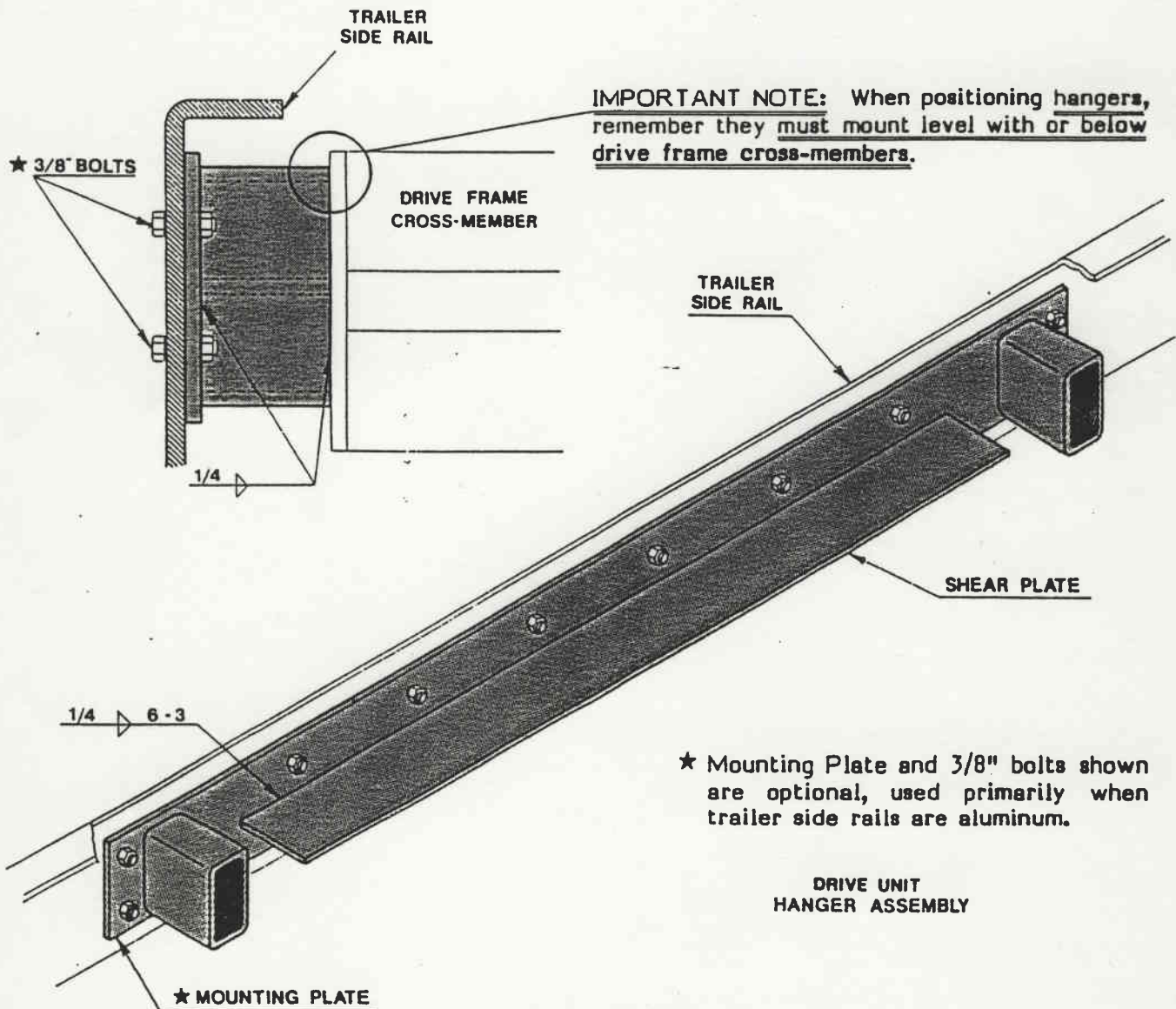


— ILL. 2A-2 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "2A" INSTALLING THE DRIVE UNIT IN A PERIMETER FRAMED TRAILER

The Hanger shown in Illustration 2A-3 is constructed of two pieces of 4" x 2" x 1/4" wall rectangular tubing welded to the Drive Frame at the Drive Frame Cross-members, with a 1/4" shear plate positioned between them. If your trailer has an aluminum side rail you will need an additional mounting plate to bolt to the trailer side rail. Note: If bolting use not less than sixteen (16), three eighths (3/8") inch bolts per side. (see ILL.2A-3)

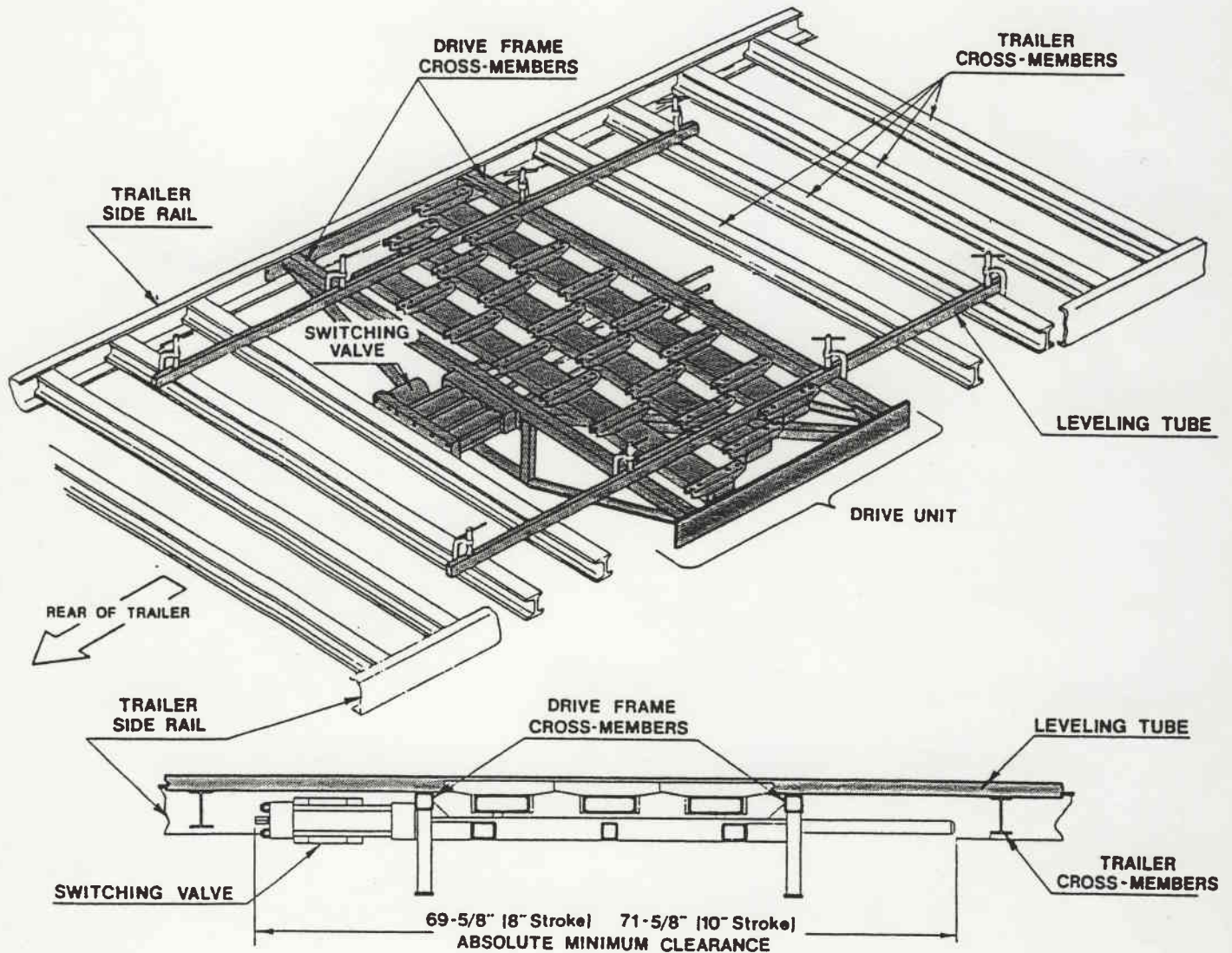


— ILL. 2A-3 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "2A" INSTALLING THE DRIVE UNIT IN A PERIMETER FRAMED TRAILER

The next step is to position the Drive Unit with the switching valve to the rear of the trailer and the drive shoes up. (see ILL. 2A-1) Next, raise or lower the Drive Unit into the opening provided earlier. It is important that the Drive Unit be centered between the trailer side rails. The Drive Frame cross-members must also be level with the trailer cross-members. Use at least two leveling tubes when positioning the Drive Unit. Two or three lengths of sub-deck on edge clamped to the Drive Frame will work as leveling tubes. Note: The leveling tubes alone may not be enough to support the Drive Unit. When the Drive Unit is centered and level, clamp the leveling tubes to the Trailer cross-members. (see ILL.2A-4)



— ILL. 2A-4 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "2A" INSTALLING THE DRIVE UNIT IN A PERIMETER FRAMED TRAILER

With the Drive Unit in position weld or bolt in place. If you are bolting the Drive Unit in place use not less than sixteen(16) three eighths inch(3/8") bolts per side. If welding the Drive Unit in place Hallco recommends skip welding using 1/4" fillet welds 6" long with a 3" pitch.

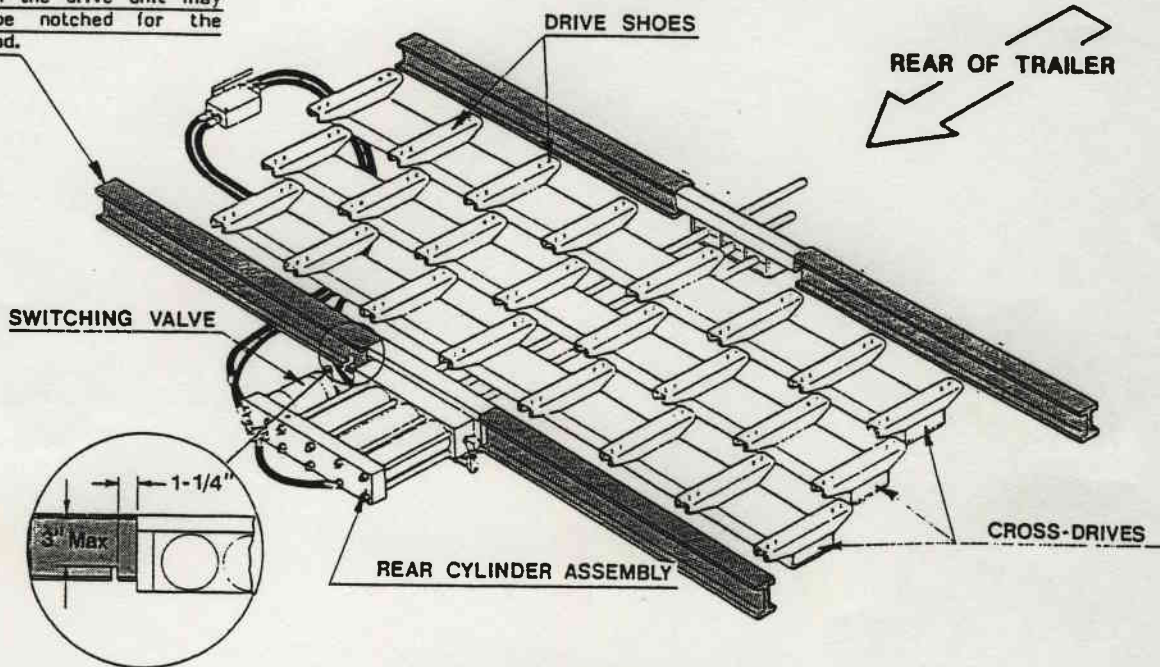
If you are using fabricated hangers to install the Drive Unit, and the trailer side rail configuration allows, Hallco recommends tack welding the hangers to the drive frame, then removing it from the trailer to finish welding the hangers in place. Then reposition the Drive Unit and weld or bolt in place. Checking to be sure the Drive Unit is centered and level.

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "2B" INSTALLING THE DRIVE UNIT IN A CENTER FRAMED TRAILER

To install the drive unit in a center framed trailer, you must cut four cross-members to size. These cross-members will be welded to the drive frame at the four corners.(see ILL. 2B-1)

Note: The cross-member at the left rear of the drive unit may need to be notched for the switching rod.



— ILL. 2B-1 —

The drive frame width measures  $16\frac{3}{4}$ ". Therefore to obtain the correct cross-member length: Measure one of the trailer cross-members, subtract  $16\frac{3}{4}$ " from that dimension and divide the result by two. This will give you the length the four cross-members must be. See example below.

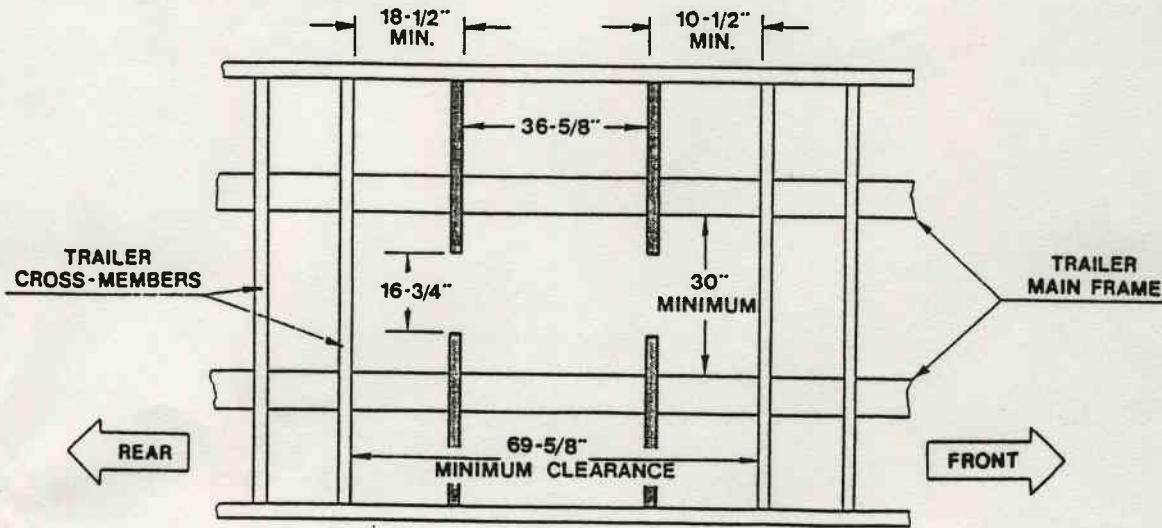
TRAILER CROSS-MEMBER	95"
DRIVE FRAME WIDTH	- $16\frac{3}{4}$ "
RESULT	$78\frac{1}{4}$ "
DIVIDE BY TWO	$39\frac{1}{8}$ "=Cross-member length

**IMPORTANT NOTE:** Protect chrome cylinder shafts during welding-burning-grinding and painting. Any scarring of the shafts could result in a hydraulic system leakage.

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

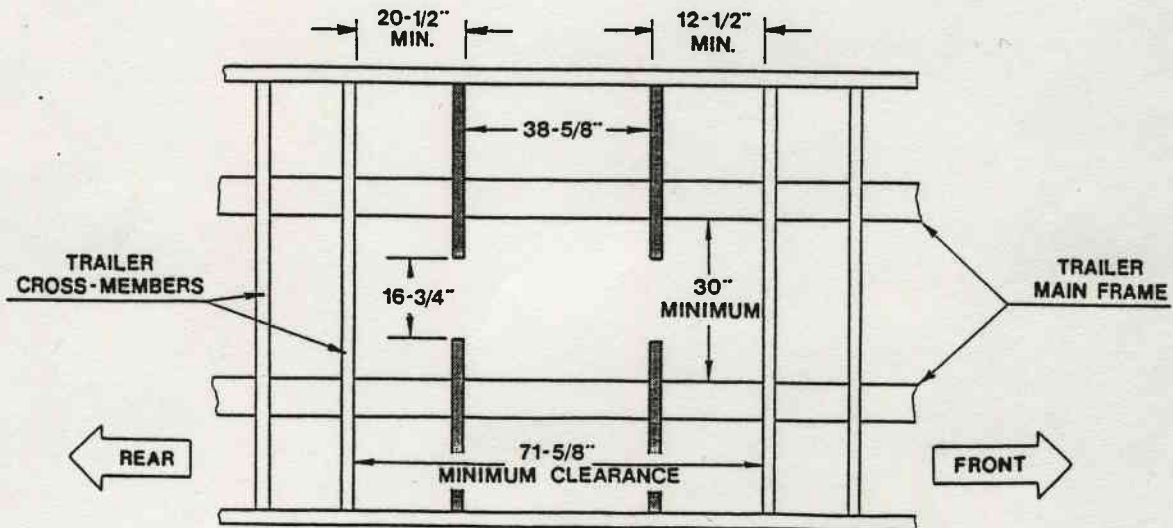
## SECTION "2B" INSTALLING THE DRIVE UNIT IN A CENTER FRAMED TRAILER

The next step is to position the cross-members at the proper position in the trailer. These cross-members should be clamped or tack welded only at this time.  
NOTE: See Illustration 2B-2 for 8" stroke Drive Units and Illustration 2B-3 for 10" stroke Drive Units.



8" Stroke

ILL. 2B-2



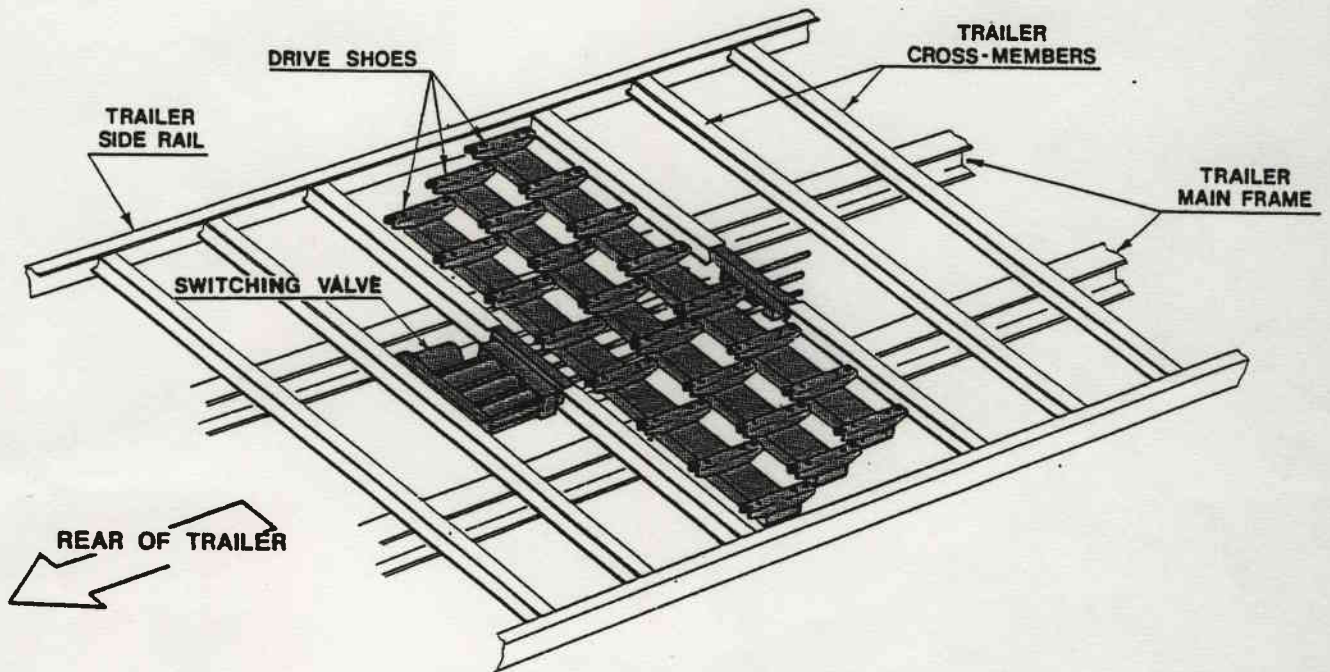
10" Stroke

ILL. 2B-3

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

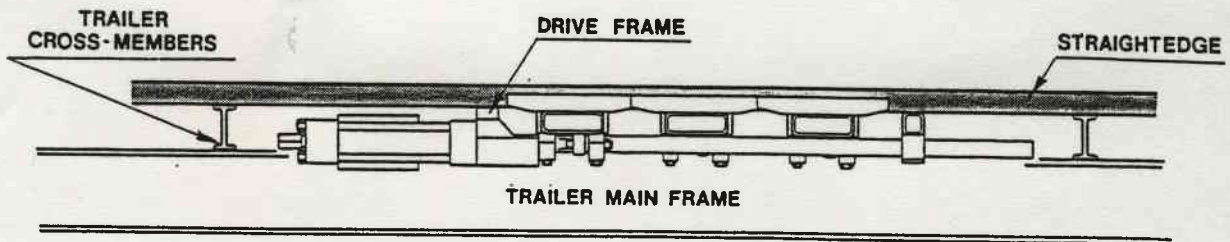
## SECTION "2B" INSTALLING THE DRIVE UNIT IN A CENTER FRAMED TRAILER

The next step is to position the drive unit with the switching valve to the rear of the trailer and the drive shoes up. Next, lower the drive unit into the opening provided earlier. (see ILL. 2B-4)



— ILL. 2B-4 —

The Drive frame must be level with the trailer cross-members. (see ILL. 2B-5)

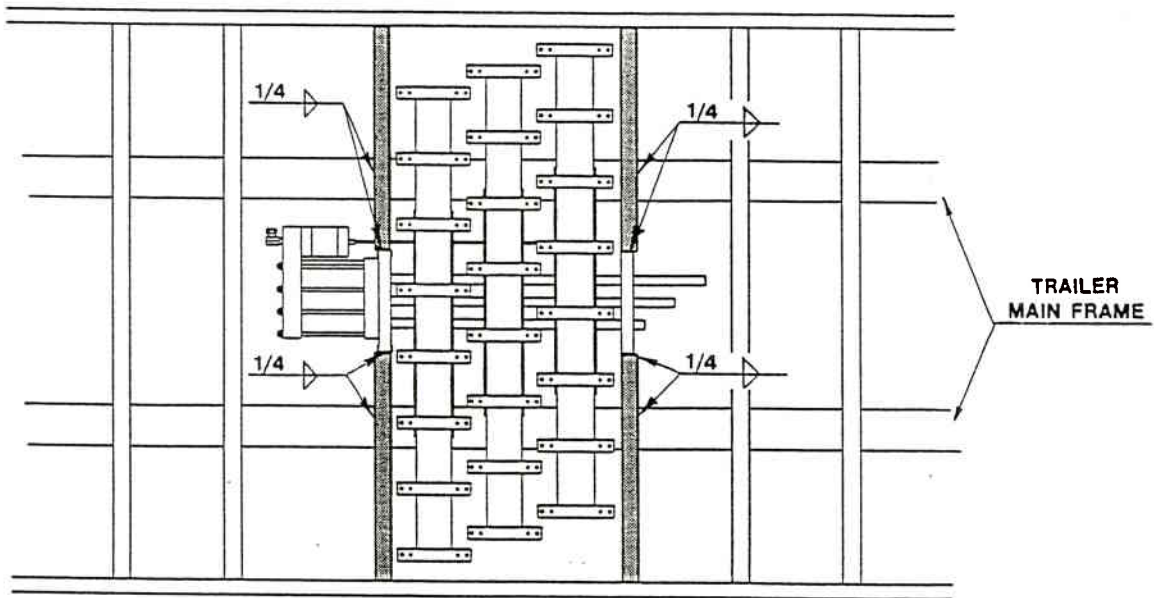


— ILL. 2B-5 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

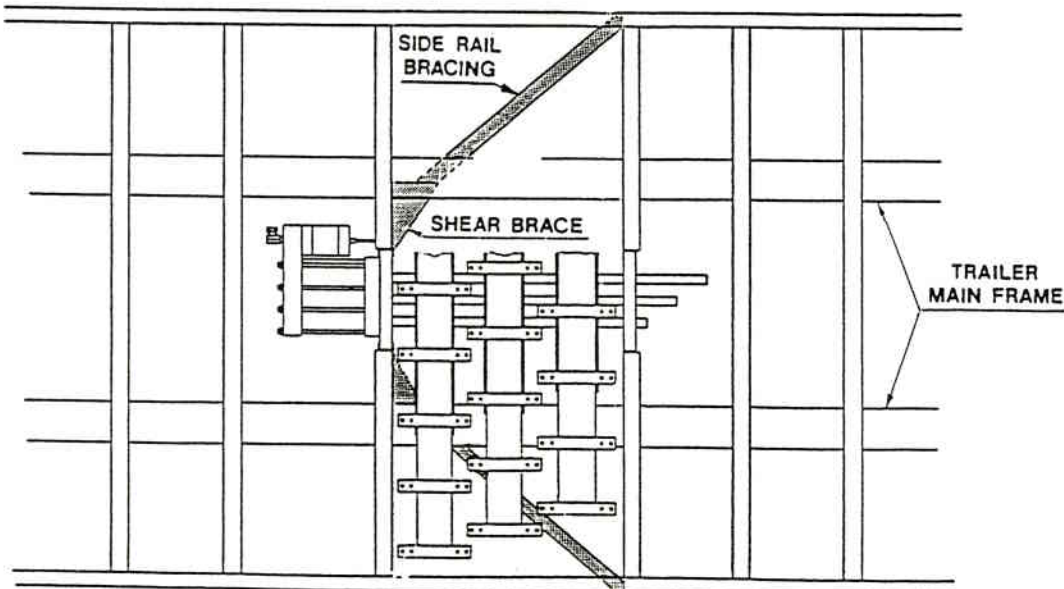
## SECTION "2B" INSTALLING THE DRIVE UNIT IN A CENTER FRAMED TRAILER

When the drive unit is centered and the drive frame is level with the trailer cross-members, weld the four cross-members to the drive frame. Hallco recommends using 1/4" fillet welds. (see ILL. 2B-6)



— ILL. 2B-6 —

Add shear bracing between the drive frame and the trailer main frame. The shear braces should be 1/2" steel plate minimum. They are welded to the drive frame and the trailer main frame. Additional side rail bracing is necessary in most cases, to brace the trailer side walls against the movement of the load.(see ILL. 2B-7)

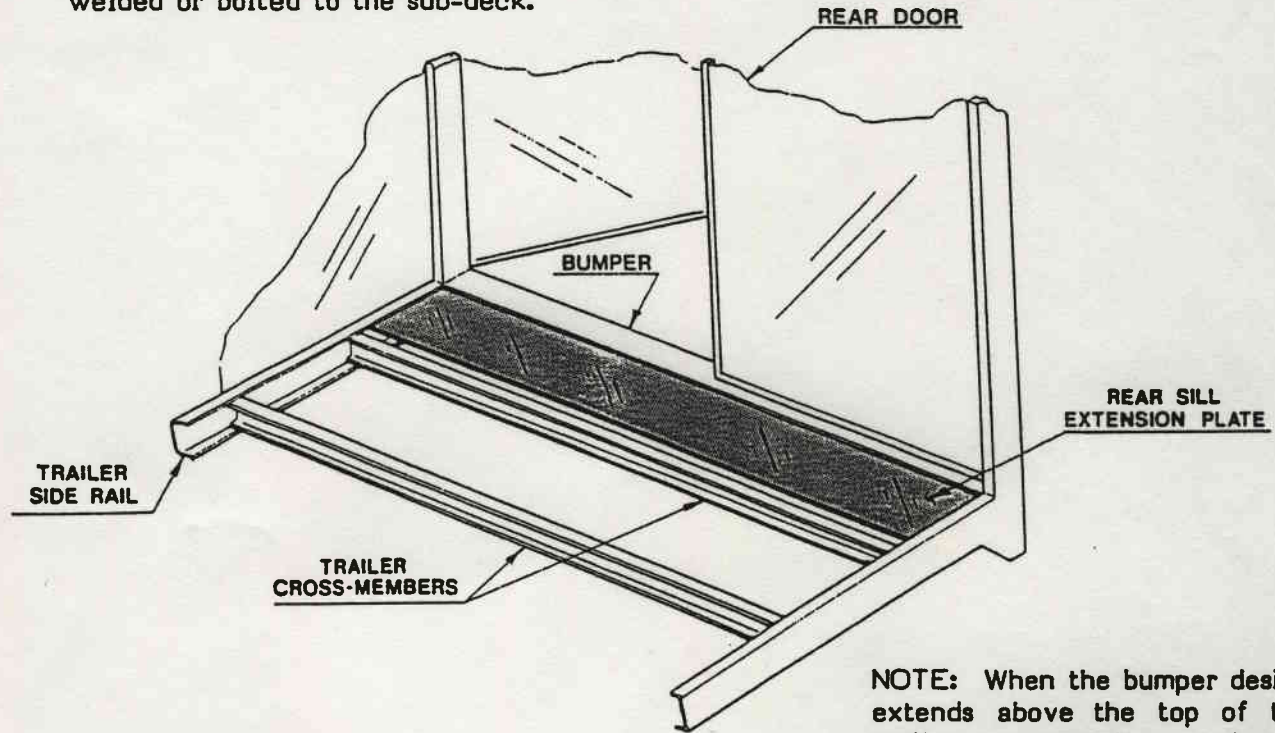


— ILL. 2B-7 —

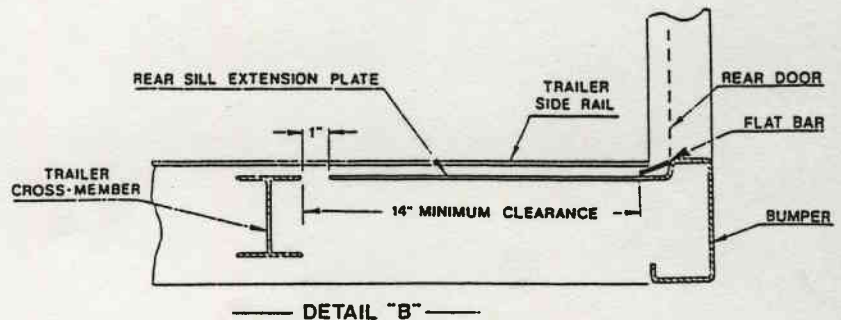
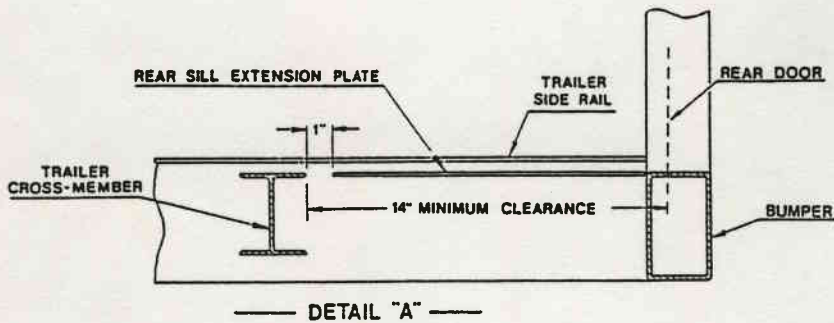
# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "3" INSTALLING THE SUB DECK

Before proceeding with the sub-deck installation, install the rear sill extension plate. The extension plate is attached to the rear bumper and the trailer side rails. (see ILL. 3-1) Tack weld only at this time. Later the extension plate will be welded or bolted to the sub-deck.



NOTE: When the bumper design extends above the top of the trailer cross-members, a length of flatbar should be attached to the bumper and the extension plate. The flatbar should fit from siderail to siderail. The minimum clearance would then be measured as shown in Detail "B" ILL. 3-1.

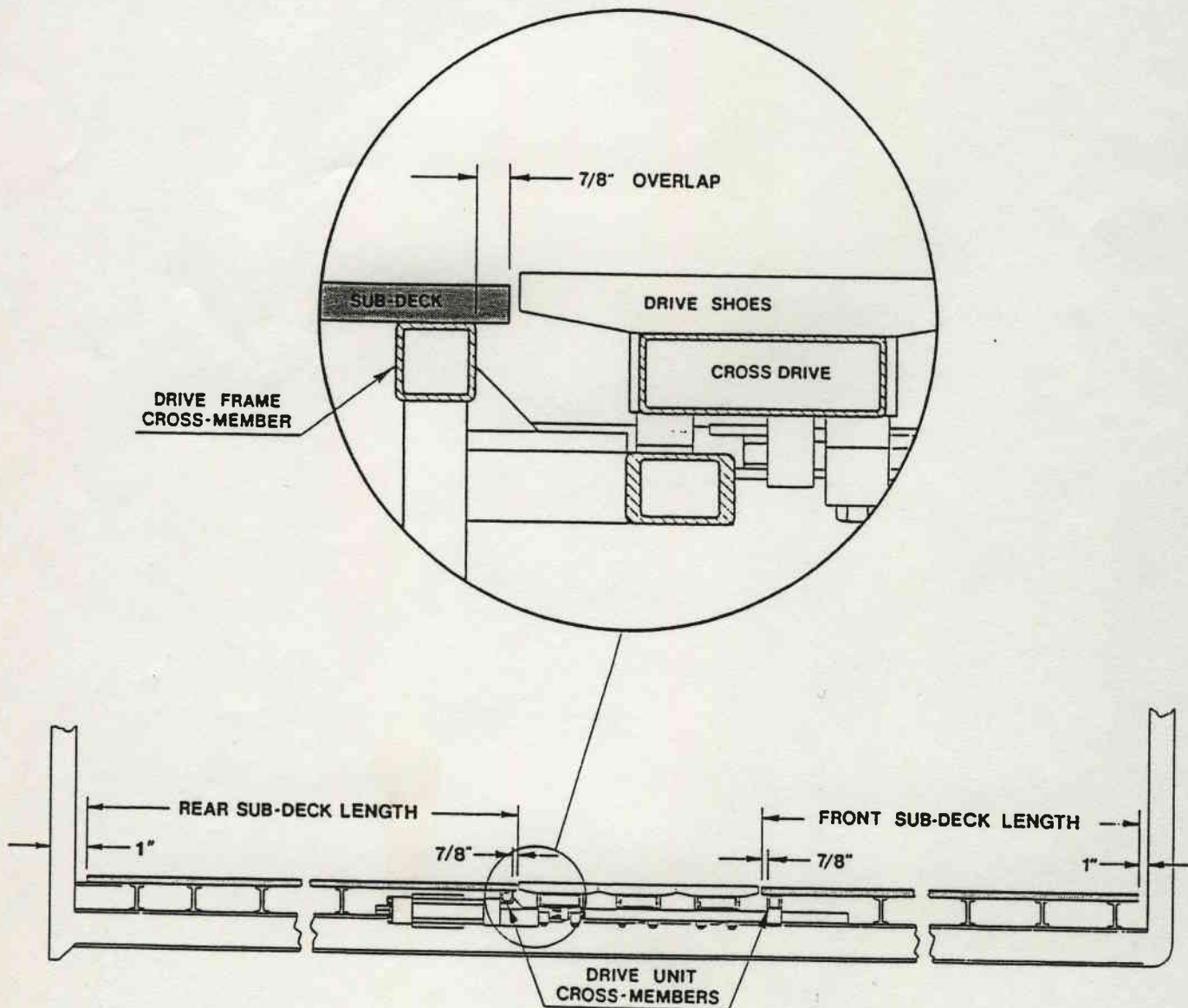


ILL. 3-1

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "3" INSTALLING THE SUB DECK

The next step is to measure and cut the sub-deck to the proper length. Starting  $7/8$ " inside the drive frame cross-member to 1" from the front of the trailer and 1" from the rear door. (see ILL.3-2) Cut the sub-deck to these measurements.

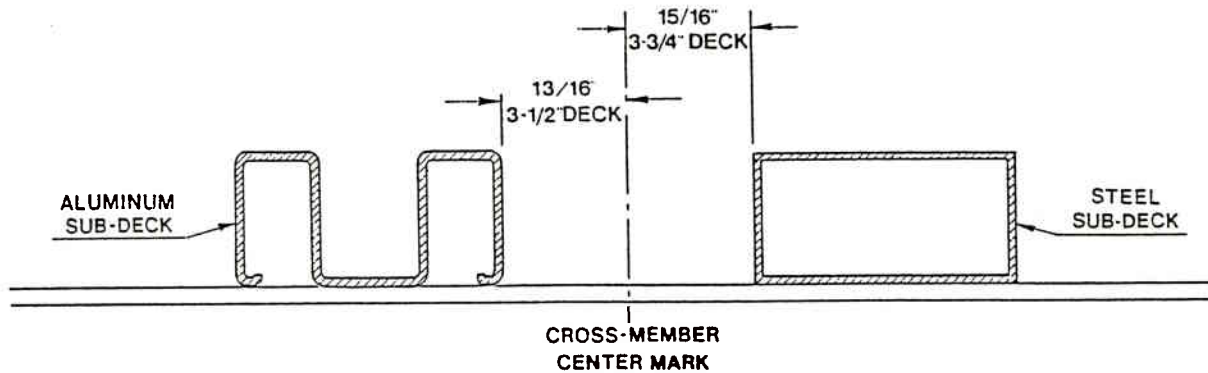


— ILL. 3-2 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

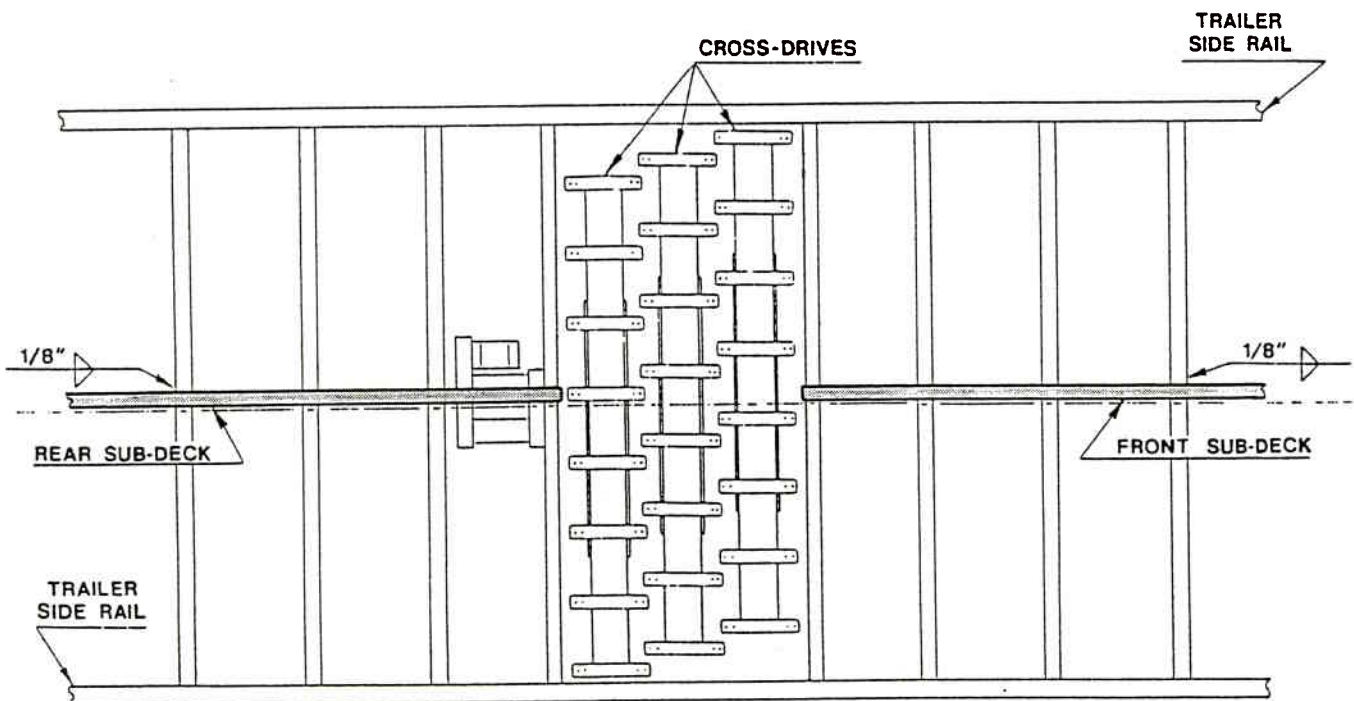
## SECTION "3" INSTALLING THE SUB DECK

Using the cross-member center marks you made when preparing the Trailer, position one of the center-most pieces of sub-deck  $13/16"$  from the center mark if using  $3-1/2"$  deck slats or  $15/16"$  if using  $3-3/4"$  deck slats. (see ILL. 3-3)



— ILL. 3-3 —

By taking great care with the installation of this piece of sub-deck you will make the rest of the sub-deck installation as trouble free as possible. (Note: If welding Hallco recommends using  $1/8"$  fillet welds to avoid interference with the bearings) (see ILL. 3-4)

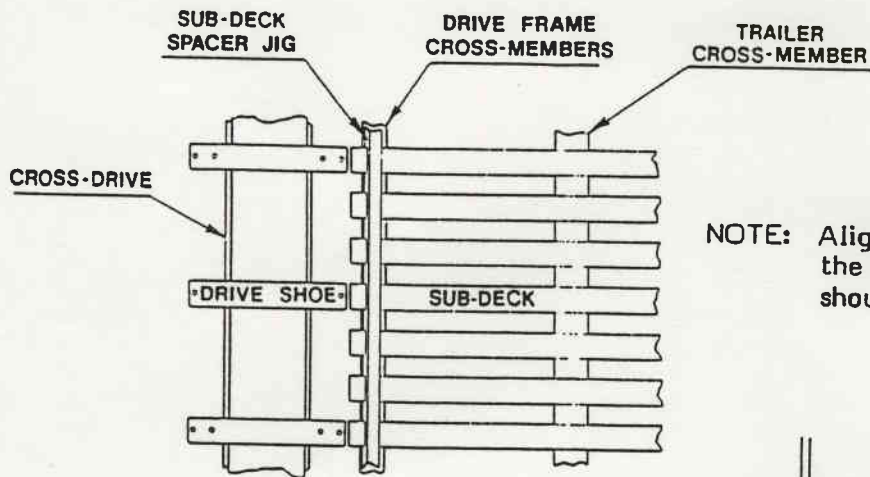


— ILL. 3-4 —

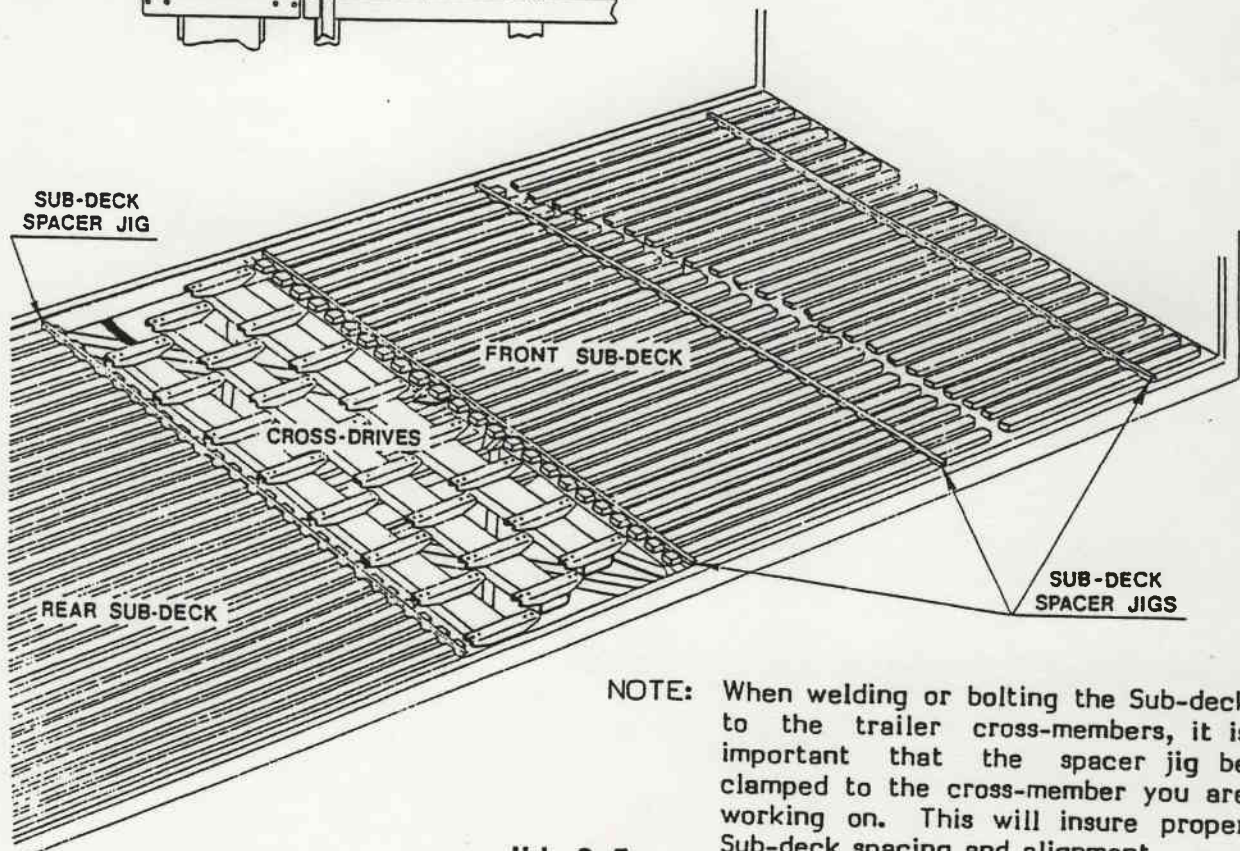
# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "3" INSTALLING THE SUB DECK

Now place the remainder of the sub-deck pieces in place, front and rear respectively. Using the spacing jigs provided (3 front and 3 rear) position the sub-deck pieces so that they line up exactly with the drive shoes. (see ILL. 3-5)



NOTE: Alignment of the Drive Shoes and the Sub-deck tubes is critical and should be maintained.



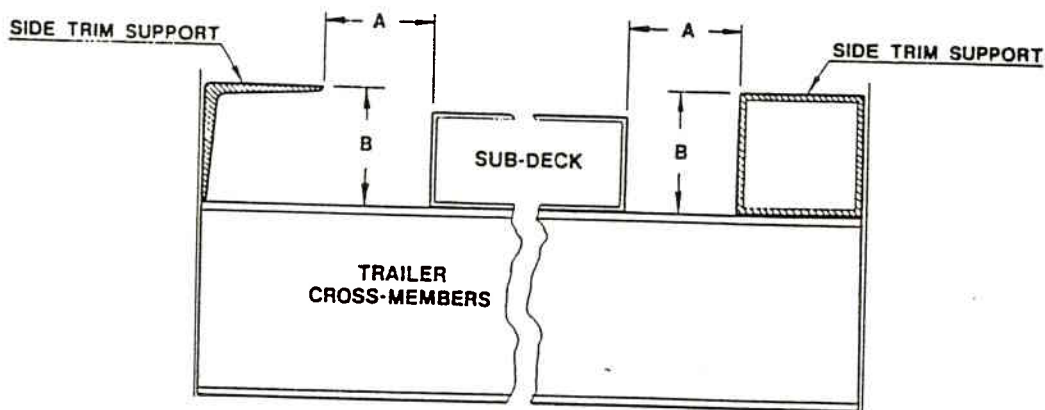
NOTE: When welding or bolting the Sub-deck to the trailer cross-members, it is important that the spacer jig be clamped to the cross-member you are working on. This will insure proper Sub-deck spacing and alignment.

ILL. 3-5

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "4" INSTALLING THE SIDE TRIM SUPPORT

The support for the side trim should be 1-1/4" above the cross-members, and meet the sidewall. It should come no closer to the sub deck than 1-3/8" when using 3-1/2" deck, or 1-1/2" when using 3-3/4" deck. The support may be a length of 1-1/4" angle bolted or riveted to the sidewall or a length of 1-1/4" tube fastened into the corner. Any other fabricated metal support will work which may be secured to the sidewall and will support the trim at the correct elevation. (see ILL. 4-1)



— ILL. 4-1 —

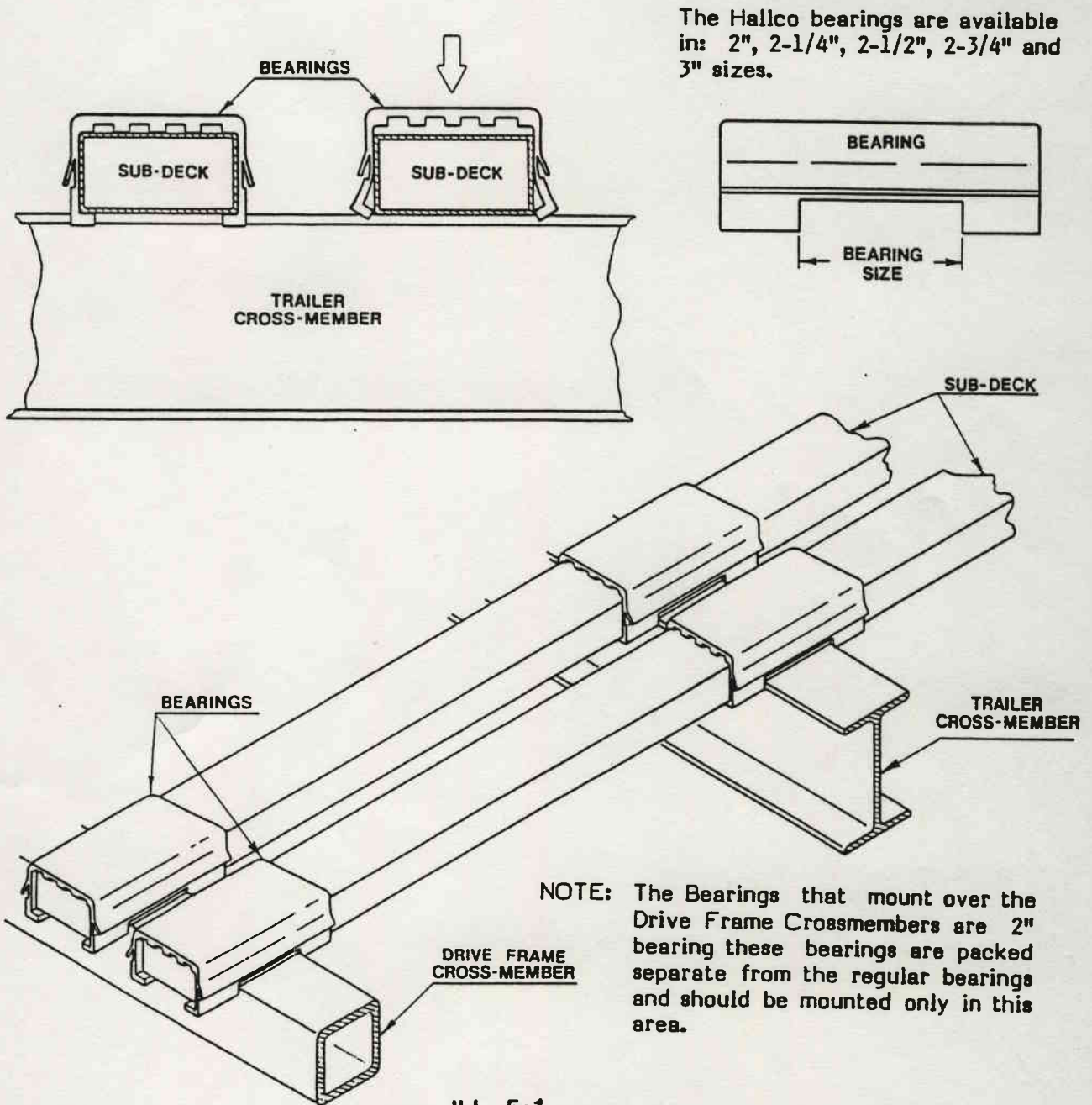
The above elevation of 1-1/4" is correct for 1/8" thick deck. See the chart below for a complete mounting height breakdown.

DECK TYPE	DECK WIDTH		DIMENSION A		DECK THICKNESS		DIMENSION B	
	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters
35-	3-1/2	88.900	1-3/8	38.100	1/8	3.175	1-1/4	31.750
					3/16	4.700	1-5/16	33.337
					1/4	6.350	1-3/8	34.925
					3/8	9.525	1-1/2	38.100
37-	3-3/4	95.250	1-1/2	34.925	1/8	3.175	1-1/4	31.750
					3/16	4.700	1-5/16	33.337
					1/4	6.350	1-3/8	34.925
					3/8	9.525	1-1/2	38.100

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "5" INSTALLING THE BEARINGS

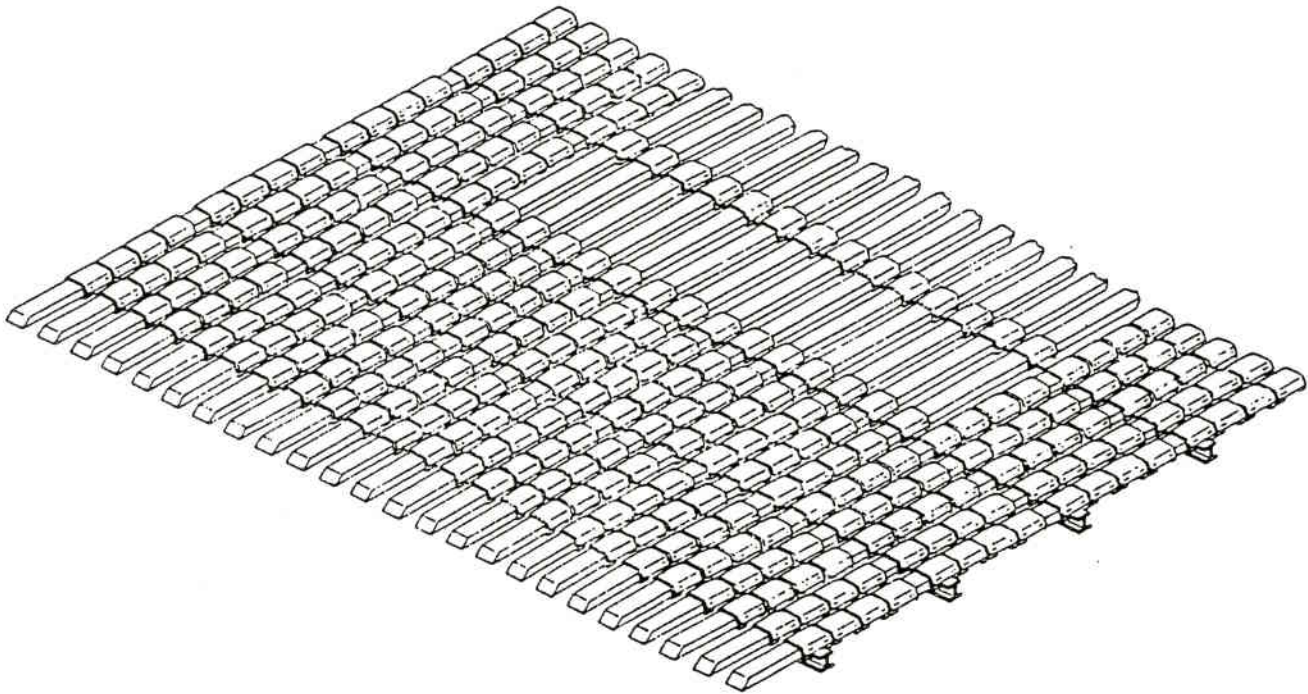
The Plastic bearings are snapped over the subdeck. They are placed at each trailer cross-member straddling the Flange and at the Drive Unit straddling the Drive Frame Cross-members. (See ILL. 5-1)



# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

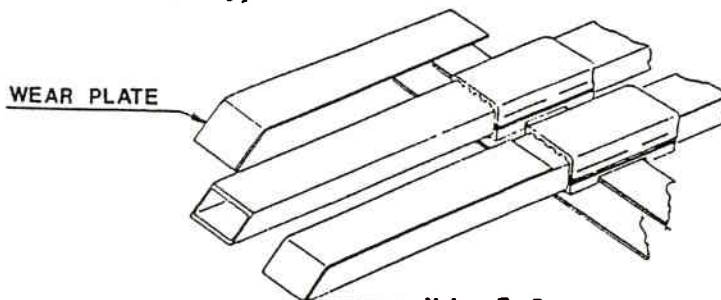
## SECTION "5" INSTALLING THE BEARINGS - CONTINUED

Hallco supplies enough bearings to allow the placing of extra bearings between the rearmost two trailer cross-members and on the outside five pieces of sub-deck on each side of the trailer. These bearings are placed in the last 10' to 15' feet of the trailer or as needed to protect the deck from debris thrown up by the tires. These additional bearings also add support to the rear deck where forklifts may be used. (see ILL. 5-2) Additional bearings should also be placed on the outside five pieces of sub-deck in the front of the trailer to protect the floor from the debris thrown up by the tractor tires.



— ILL. 5-2 —

At the rear of the trailer after the last bearing on each piece of sub-deck, weld a 1/8" thick 2" wide piece of flatbar to the top surface, and over the end of the sub-deck. This will act as an additional wear surface over the last section of the sub-deck. (See ILL. 5-3)

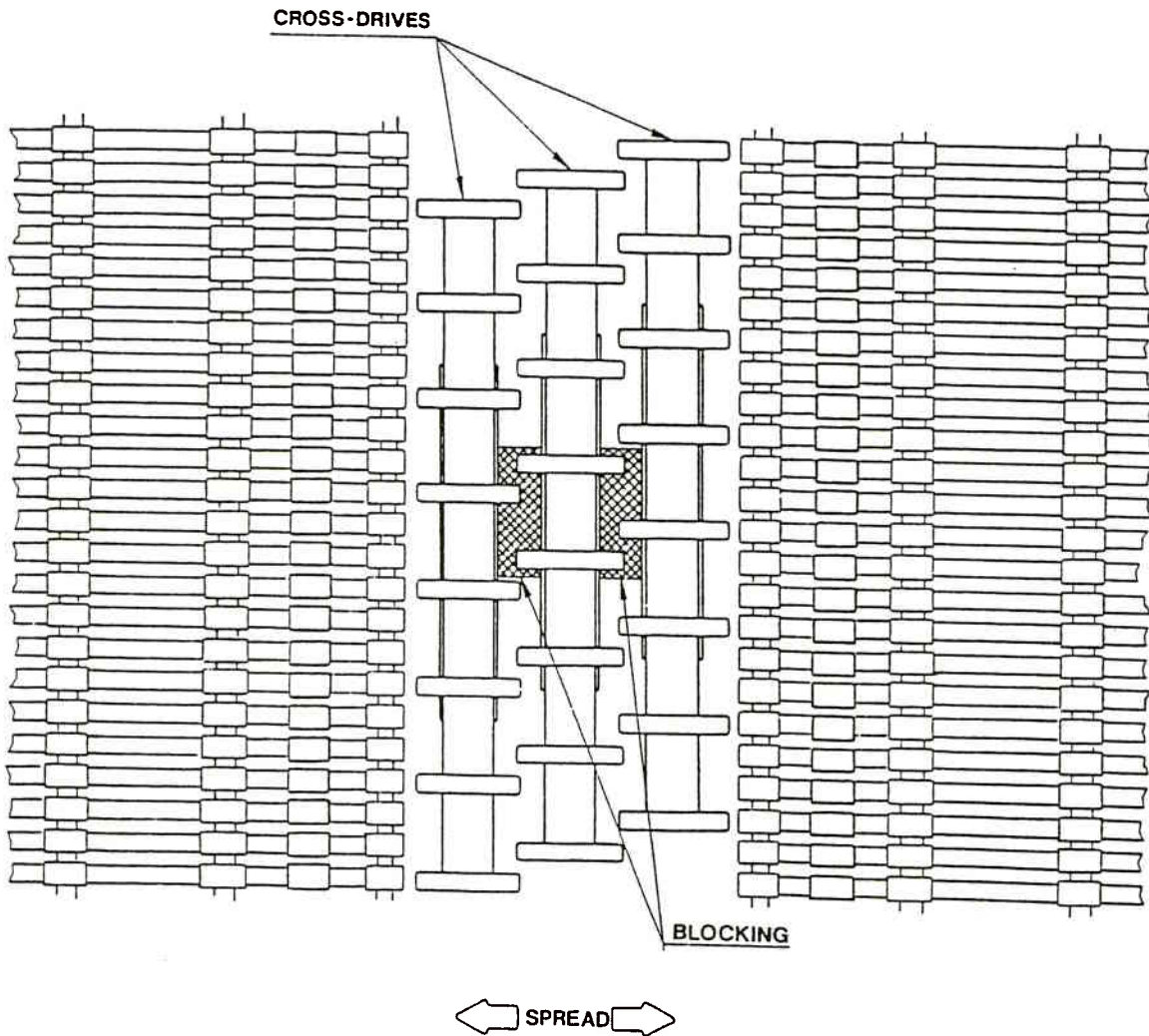


— ILL. 5-3 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "6" INSTALLING THE DECK

First and possibly the most important part of the deck installation is the positioning of the cross-drives on the drive unit. Push the rear cross-drive to the rear as far as it will go. Then push the front cross-drive forward as far as possible. Position the center cross-drive between the other two cross-drives. If the drive unit is an 8" stroke model there should be approximately a 4" space between the cross-drives. There should be approximately a 5" space between the cross-drives on the 10" stroke model drive units. Secure the cross-drives in this position by blocking each side of the center cross-drive close to the cylinder shafts. This will help keep the cross-drives square while installing the deck. (see ILL. 6-1)

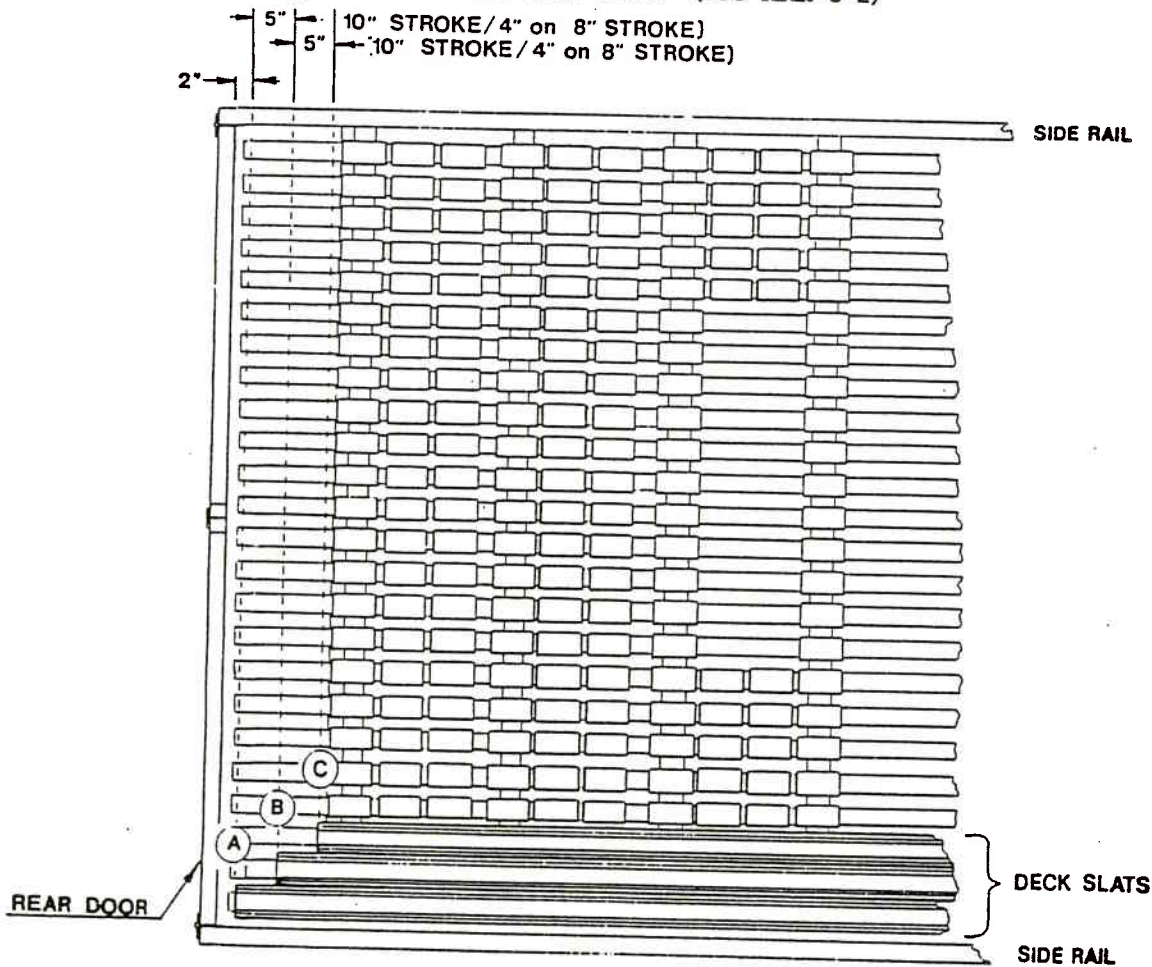


ILL. 6-1

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

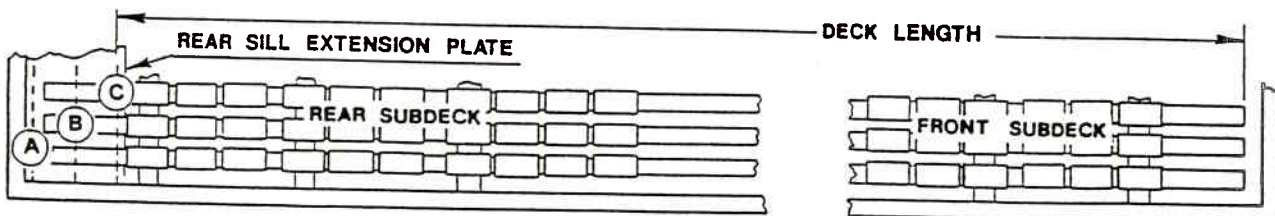
## SECTION "6" INSTALLING THE DECK - CONTINUED

Next close the rear door. On the bumper make a mark full width of the trailer, where the inside of the door hits. Measure into the trailer 2" and make another mark full width of the trailer. Identify this line with the letter "A". From line "A" measure in 4" for 8" stroke models or 5" for 10" stroke models and draw another line full width. Identify this line with the letter "B". Repeat for line "C". These are the spacing marks for the deck slats. (see ILL. 6-2)



— ILL. 6-2 —

Measure from the front sub-deck to line "C". This measurement is the longest the deck slats may be. You may need to cut your deck slats to this length. (see ILL.6-3)

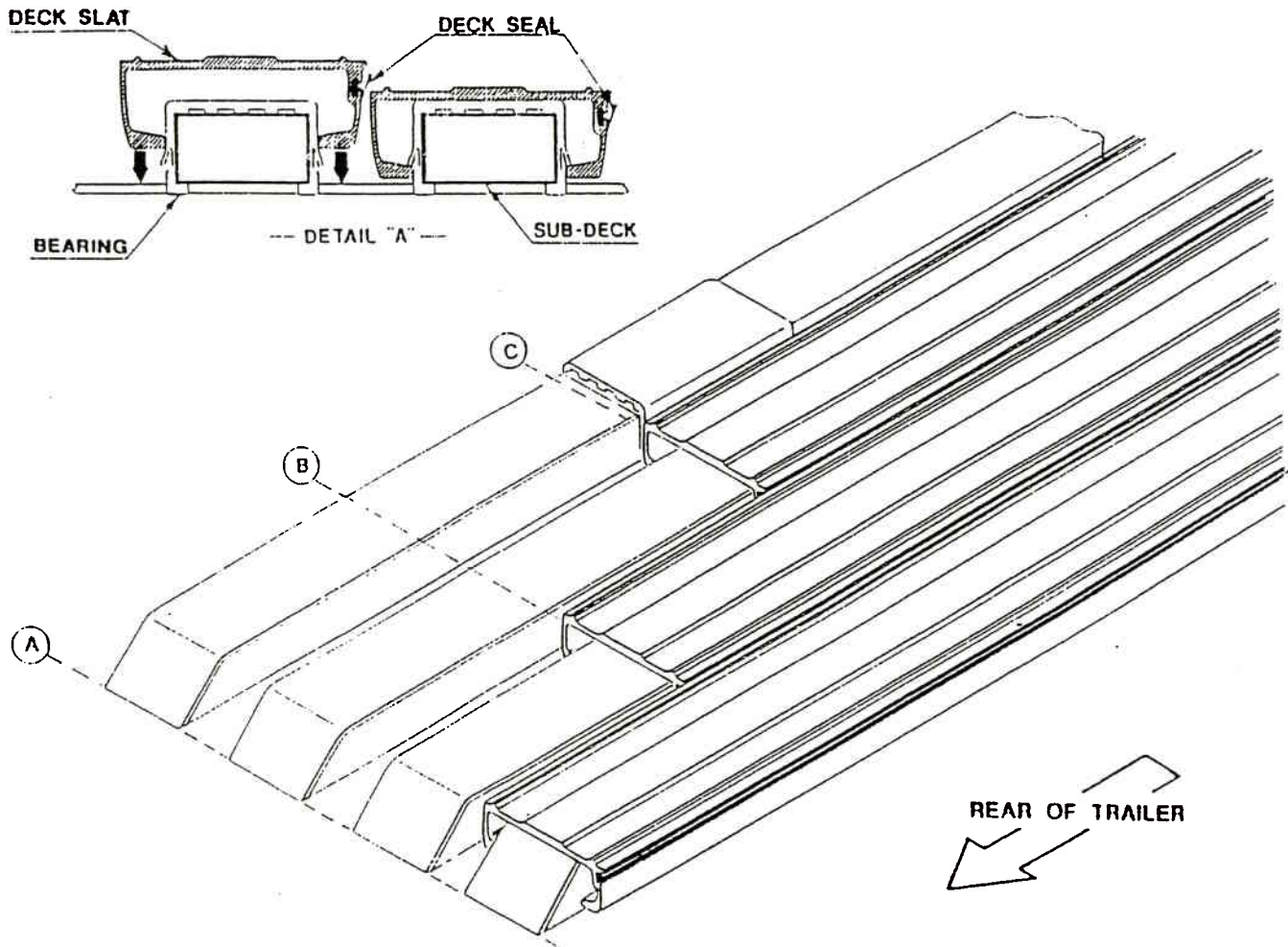


— ILL. 6-3 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "6" INSTALLING THE DECK - CONTINUED

Starting at the curbside (right) of the trailer, lay the first deck slat in position with the seal toward the curbside (right) of the trailer, 1/2" to the rear of the line "A". Standing on the deck slat, snap the deck in place over the plastic bearings. Do this at each cross-member, full length of the slat. You may now bump this slat forward to match line "A". Now, lay the second deck slat in place 1/2" to the rear of line "B". Remember the seal should be toward the curbside (right) side of the trailer (see detail "A" ILL. 6-4). Snap this deck slat in place over the bearings. Bump this slat forward to line "B". Lay the third deck slat, again with the seal over the bearings as before. Bump the deck slat forward to line "C".



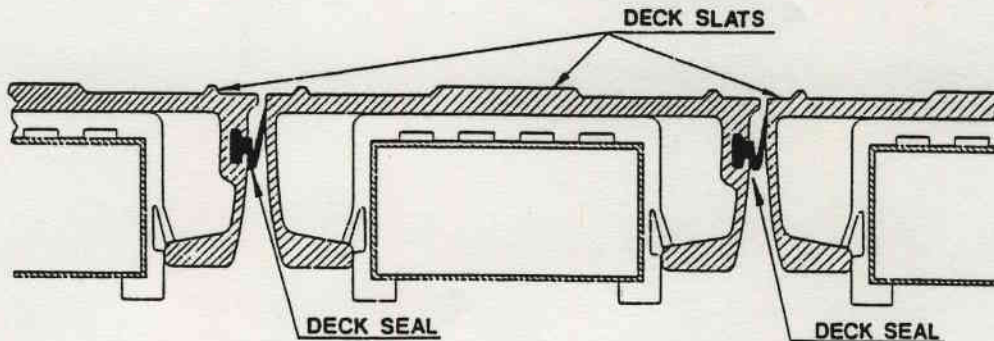
— ILL. 6-4 —

Repeat this process until all deck slats are in place. At this time make sure that the deck slats are fully mounted over the bearings. (see ILL.6-5)

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

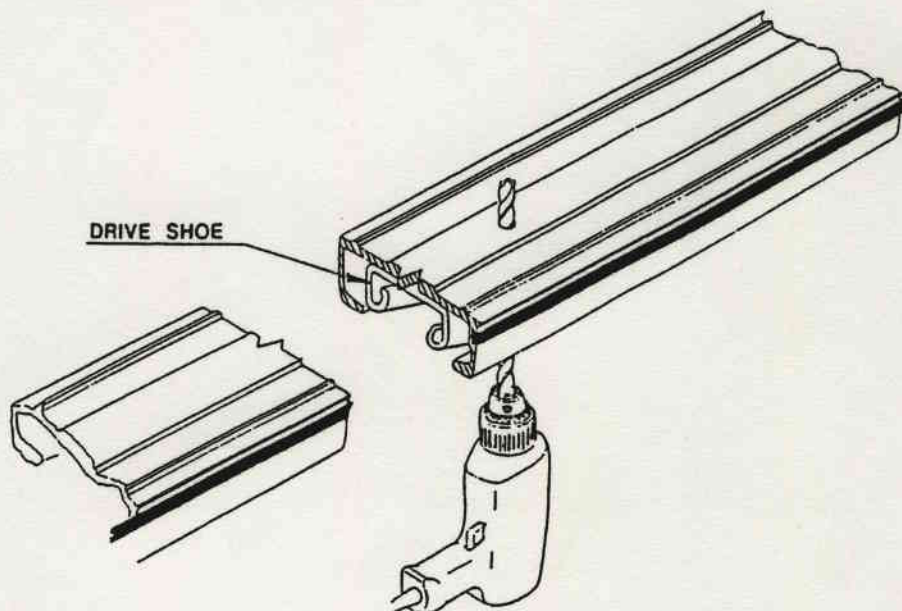
## SECTION "6" INSTALLING THE DECK - CONTINUED

If a plastic seal is used, inspect it to insure the seal has not been rolled out of shape. There should be no seal showing above the deck. (see ILL.6-5)



— ILL. 6-5 —

Now that the deck slats are all in the correct position and are fully mounted over the bearings, you are ready to start drilling the deck slats. This drilling is done from the underside of the deck through the bolting holes in the drive shoes. Drill  $3/8$ " holes. To begin with, drill only one hole in each of the outside three drive shoes, on each side of the Drive Unit. Use a  $1/4$ " x  $1-1/2$ " bolt (not provided) to temporarily pull the shoes up to the deck and to stabilize the cross drives while drilling through the other shoes. (see ILL.6-6)



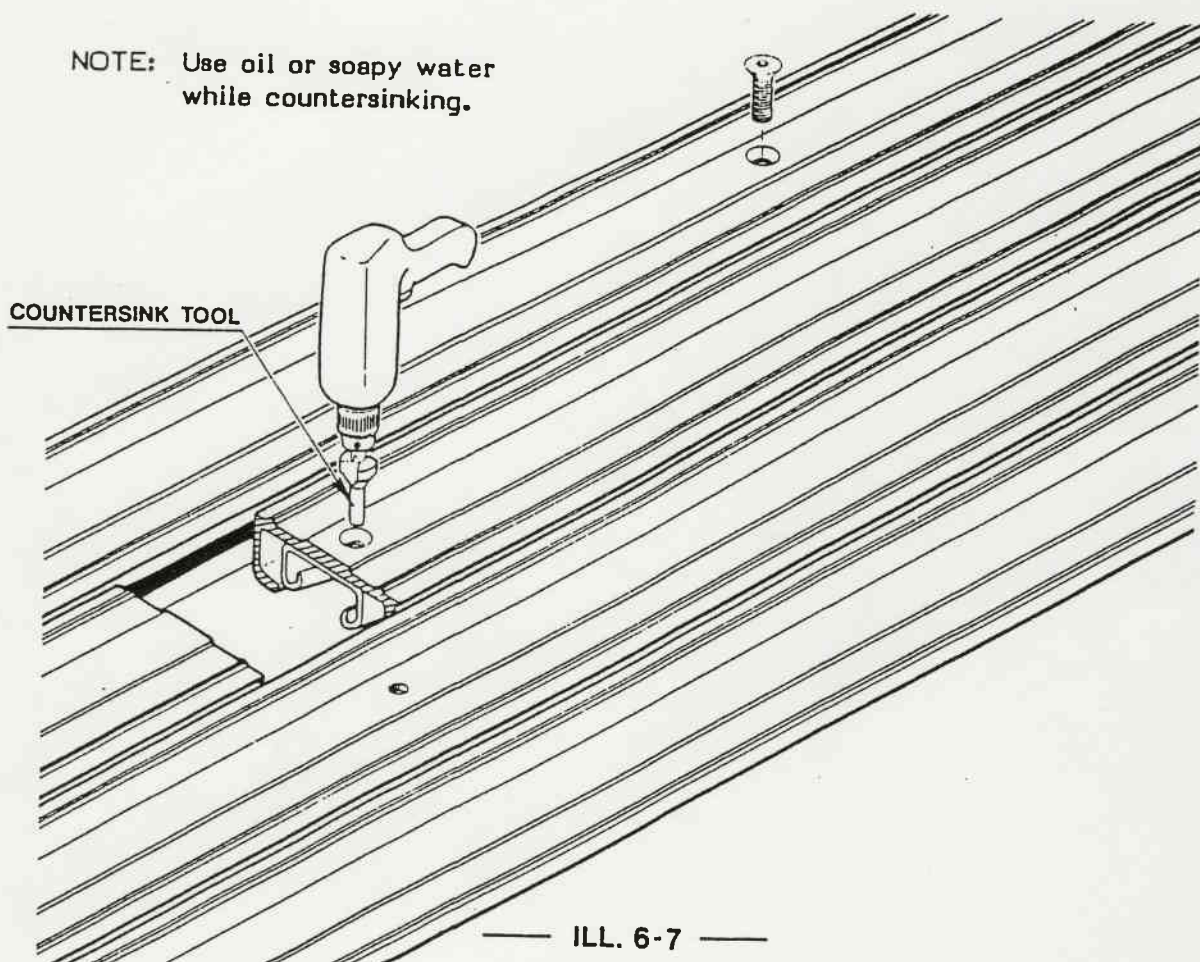
— ILL. 6-6 —

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "6" INSTALLING THE DECK - CONTINUED

Drill one hole only through as many of the shoes as possible. If it was impossible to drill all the holes from the underside drill the remaining holes from the top at this time. Countersink all the holes with the tool provided with your kit, do not over countersink. After countersinking clean all the debris from between the deck and the drive shoes. Install the bolts and nuts and torque to 35 foot pounds. The balance of the holes may then be drilled, countersunk and bolted. (see ILL.6-7)

NOTE: Use oil or soapy water while countersinking.

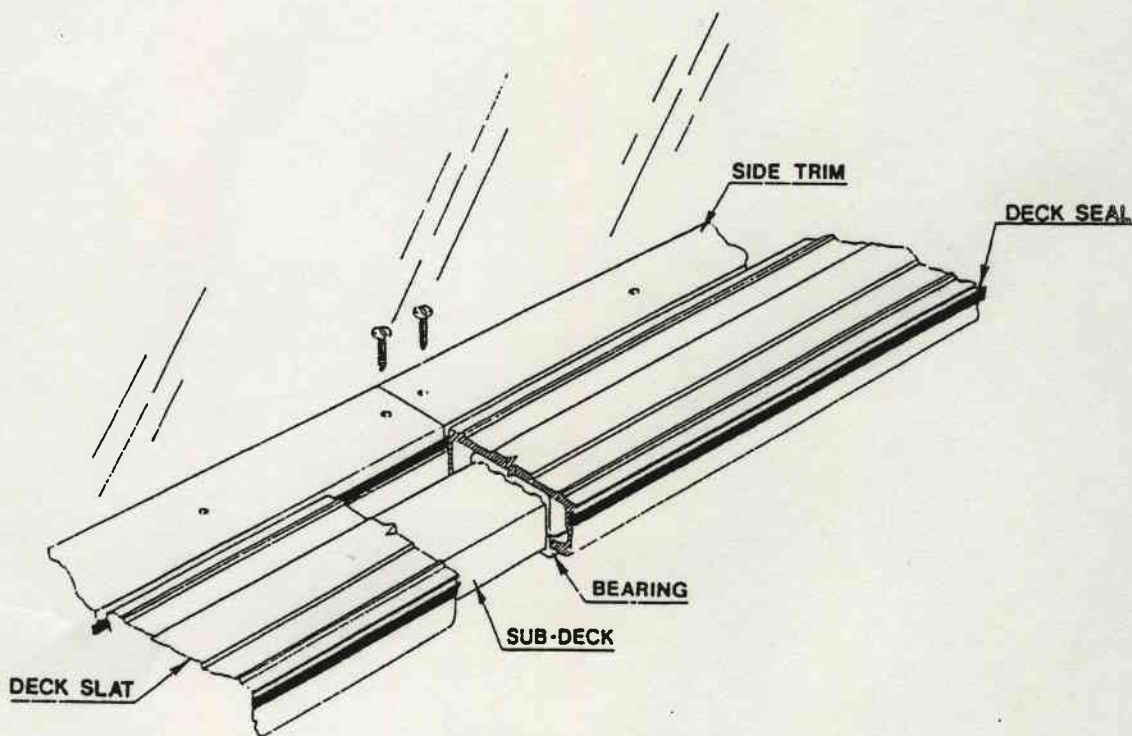


Before moving on to the next step check to be sure each and every nut has been torqued to 35 foot pounds. Now that the decking is all installed remove the blocking from the cross-drives.

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "7" INSTALLING THE SIDE TRIM

The side trim comes in 20' and 24' lengths. Hallco will provide you with the appropriate lengths to fit your trailer. Looking at the drivers side, the deck should not have a seal facing the side wall. Therefore this side will need the trim with the seal installed. Lay out the trim so that the seal meets the deck and the ends of the trim are together.(see ILL.7-1)



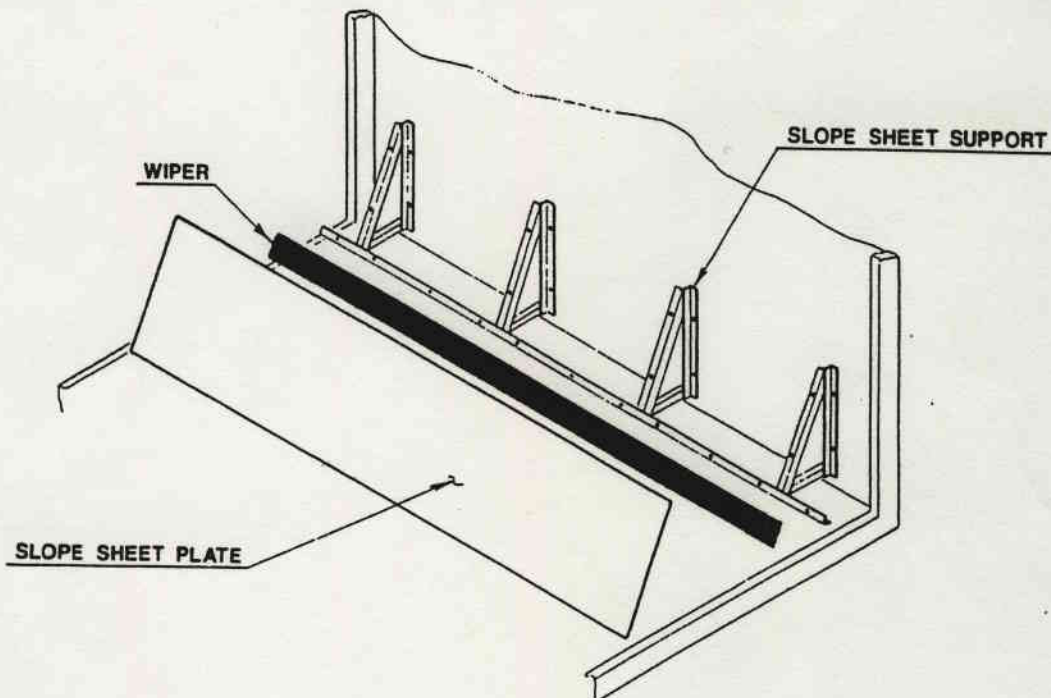
— ILL. 7-1 —

The trim can be attached with either pop rivets or by self tapping screws every 12 to 16 inches. Install the curb side trim in the same manner as you did the other side. (Curb side trim will not have the seal in place.)

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "8" INSTALLING THE SLOPE SHEET

The slope sheet prevents material from entering the forward working area of the deck. The usual manner of construction is to provide a frame fastened to the forward wall which will support a plastic wiper in contact with the deck, and a steel or aluminum plate in contact with the walls. (see ILL.8-1)

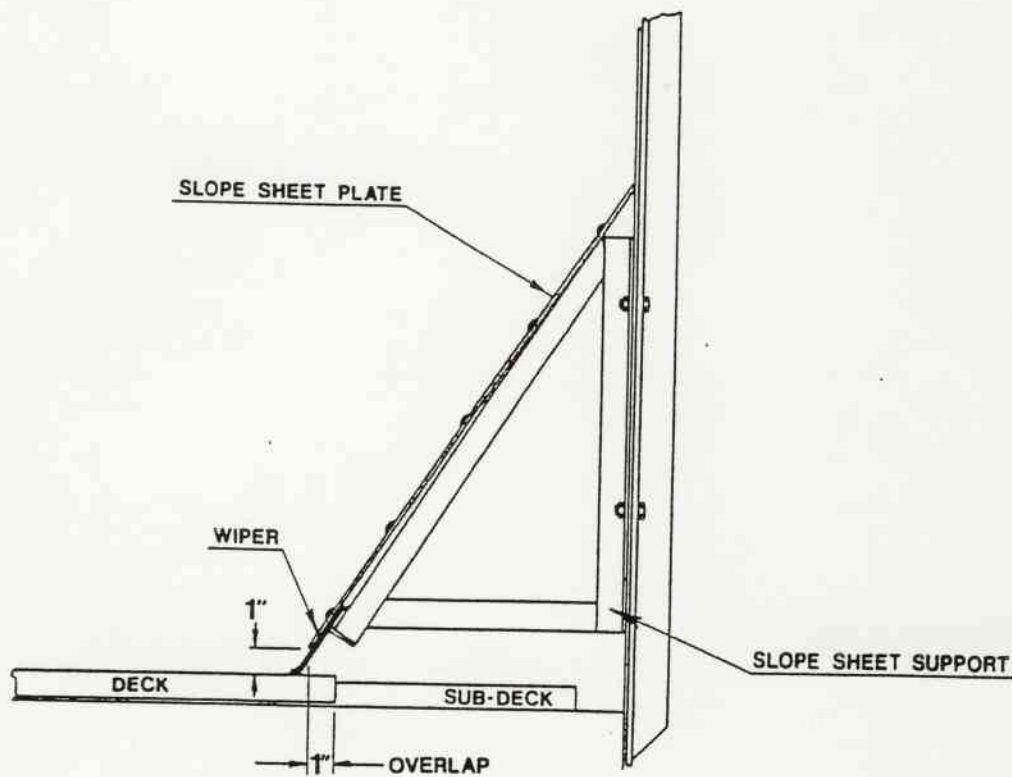


— ILL. 8-1 —

The Trailer front wall construction will determine the finish design of the slope sheet. There are some critical points to its construction however. The first and most important of these is that the slope sheet braces be strong enough to support the load and maintain a minimum clearance of 1" between the slope sheet plate and the aluminum deck. If the design is too weak and the plate comes in contact with the deck, severe damage may occur when the floor is placed in motion. Next, the slope sheet must overlap the end of the deck by a minimum of 1" with the deck in its rearmost position. (see ILL.8-2)

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "8" INSTALLING THE SLOPE SHEET - CONTINUED



— ILL. 8-2 —

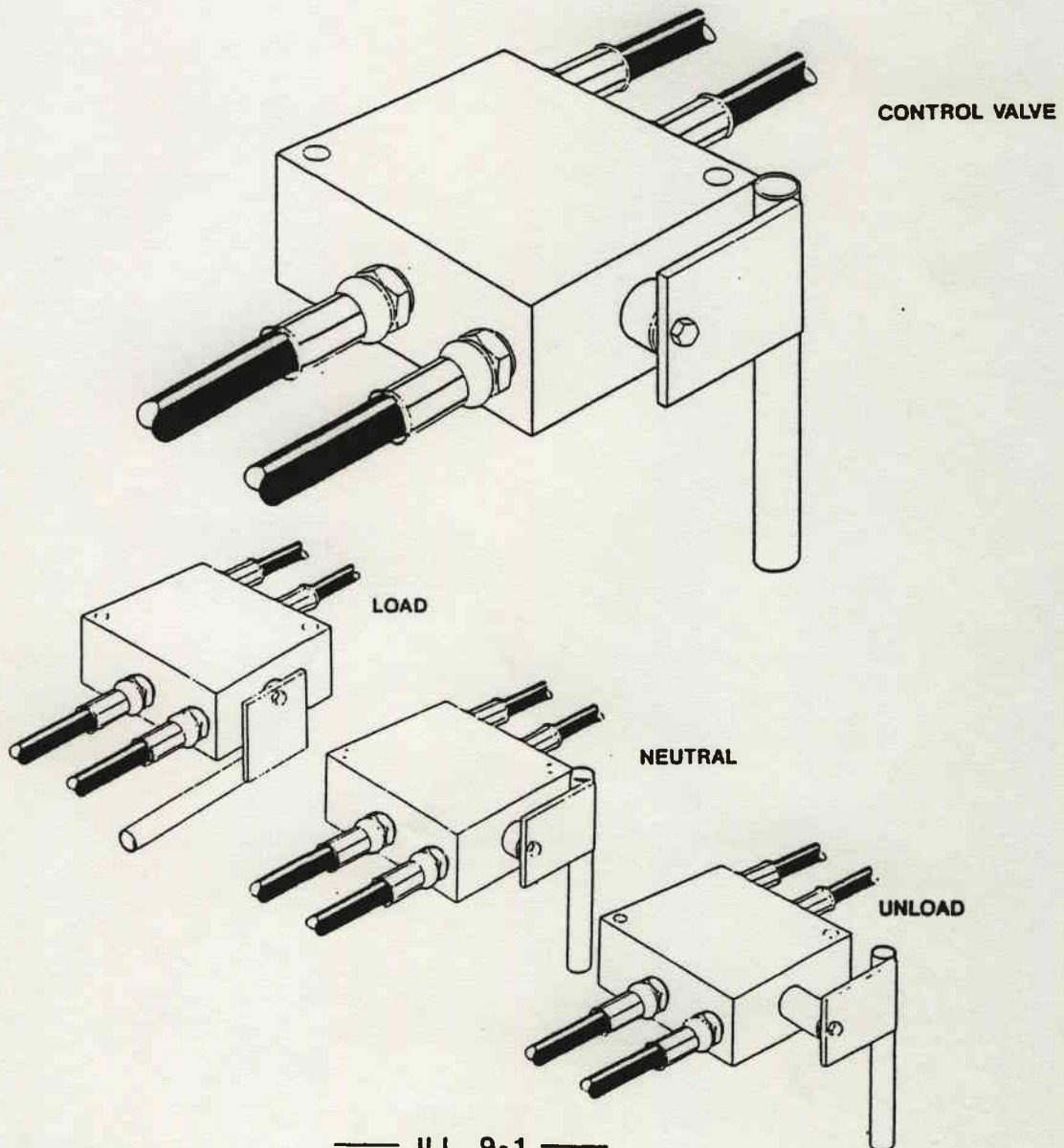
### PLEASE NOTE:

Some material will filter past the slope sheet and built into a restriction when the deck moves forward. For this reason, you must provide adequate clean-out holes below the slope sheet.

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "9" HOOKING UP THE SYSTEM

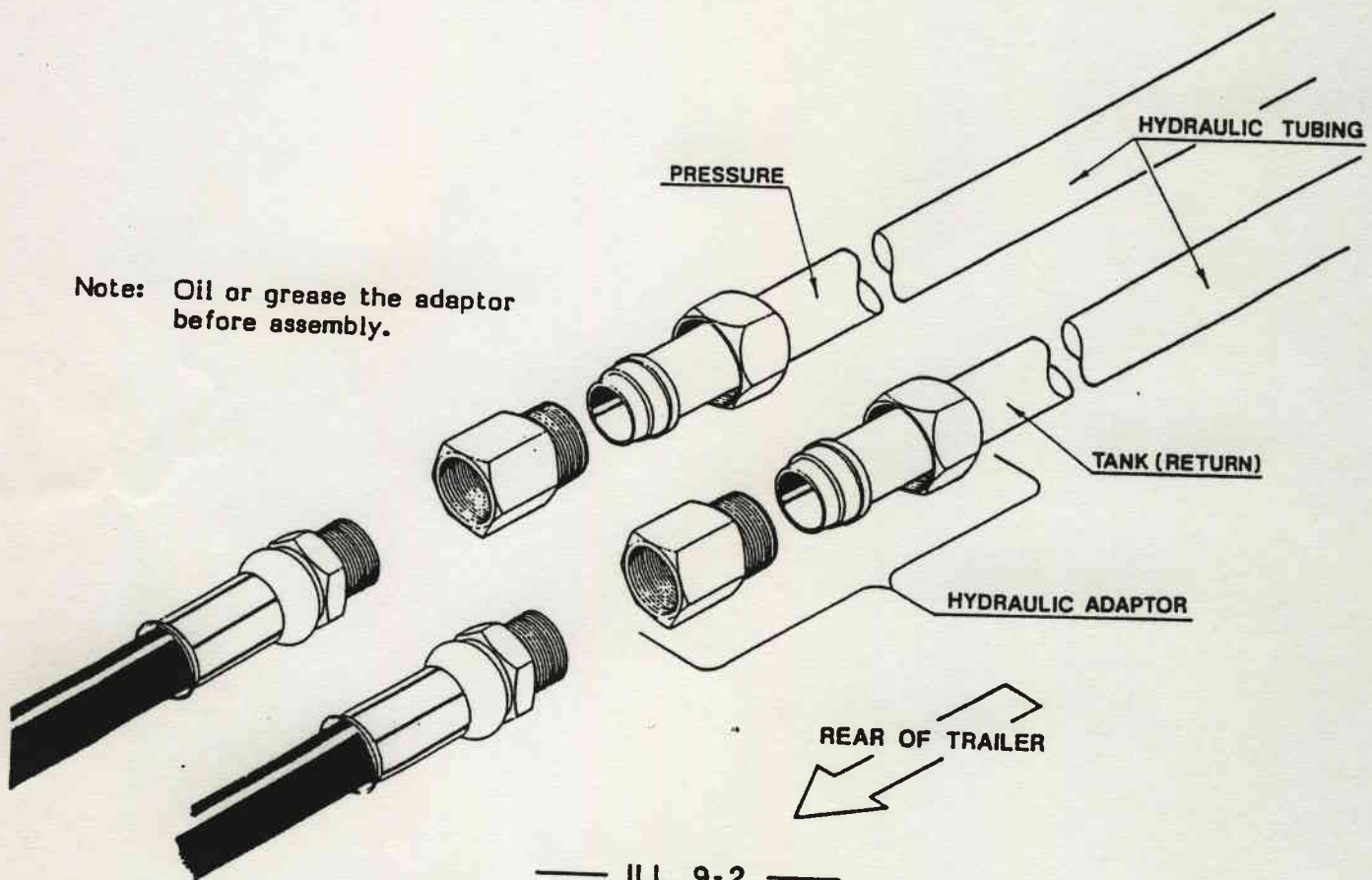
First re-install the electric, air and hydraulic lines that you removed at the beginning of the installation process. Install the control valve on the drivers side of the trailer. The control valve shown in ILL.9-1 is in the neutral position. To unload the trailer pull the handle toward you. To load the trailer, turn the handle forward and push all the way in. (see ILL.9-1)



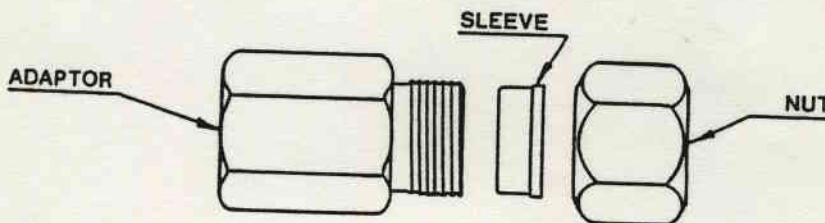
# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "9" HOOKING UP THE SYSTEM - CONTINUED

Next locate the switching valve. The bottom port and fitting are marked with a "P" for pressure and the other port and fitting have been marked with a "T" for Tank. The kit also comes complete with two 5' x 1" hydraulic hoses. These hoses will be used to connect the drive unit to the hydraulic tubes, running through or above the cross-members. If you have not already attached the hydraulic adaptors to these tubes do so at this time. (see ILL.9-2)

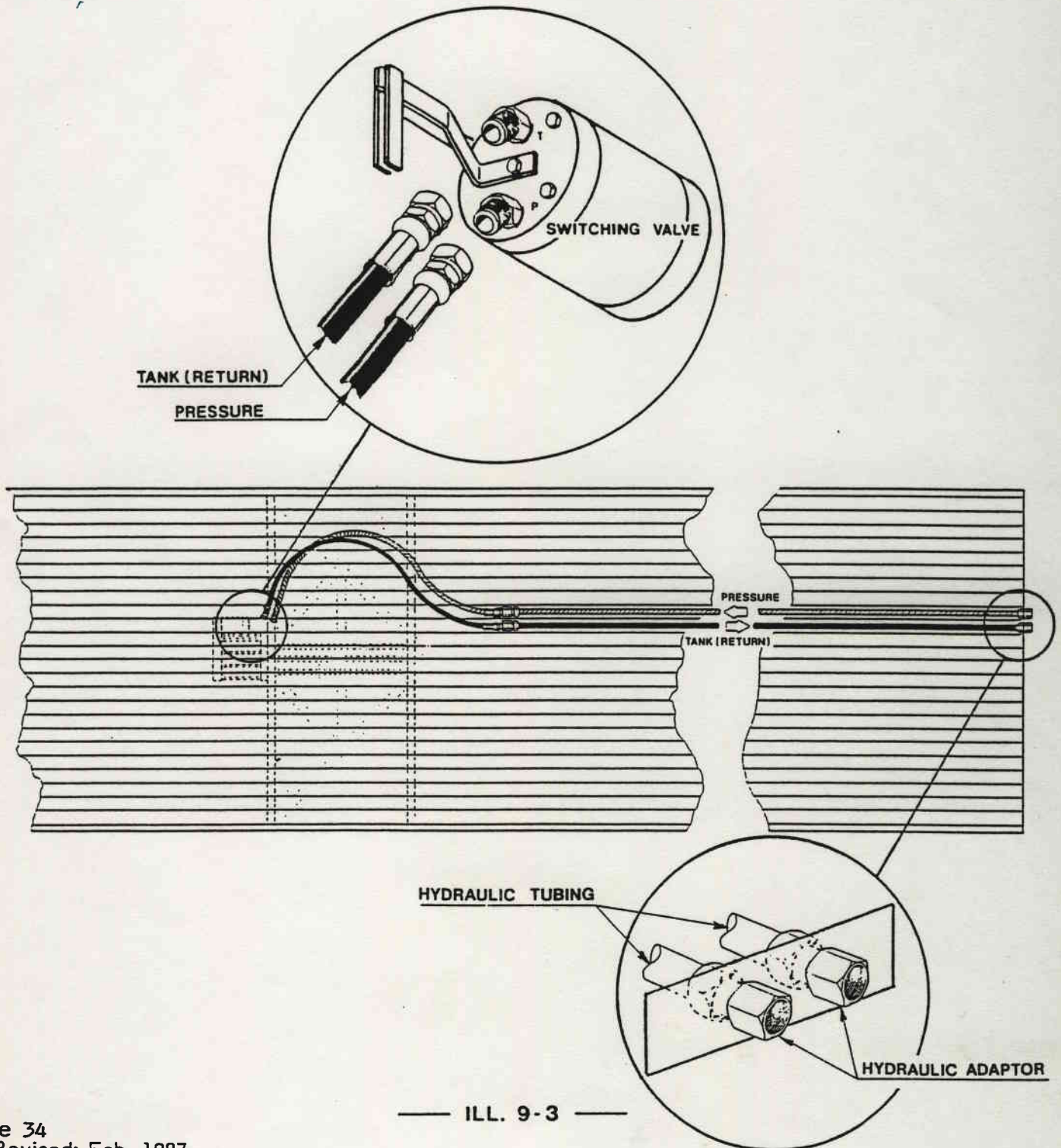


Note: When attaching the hydraulic adaptors make sure the sleeve is installed with the ridge toward the nut as shown below.



# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

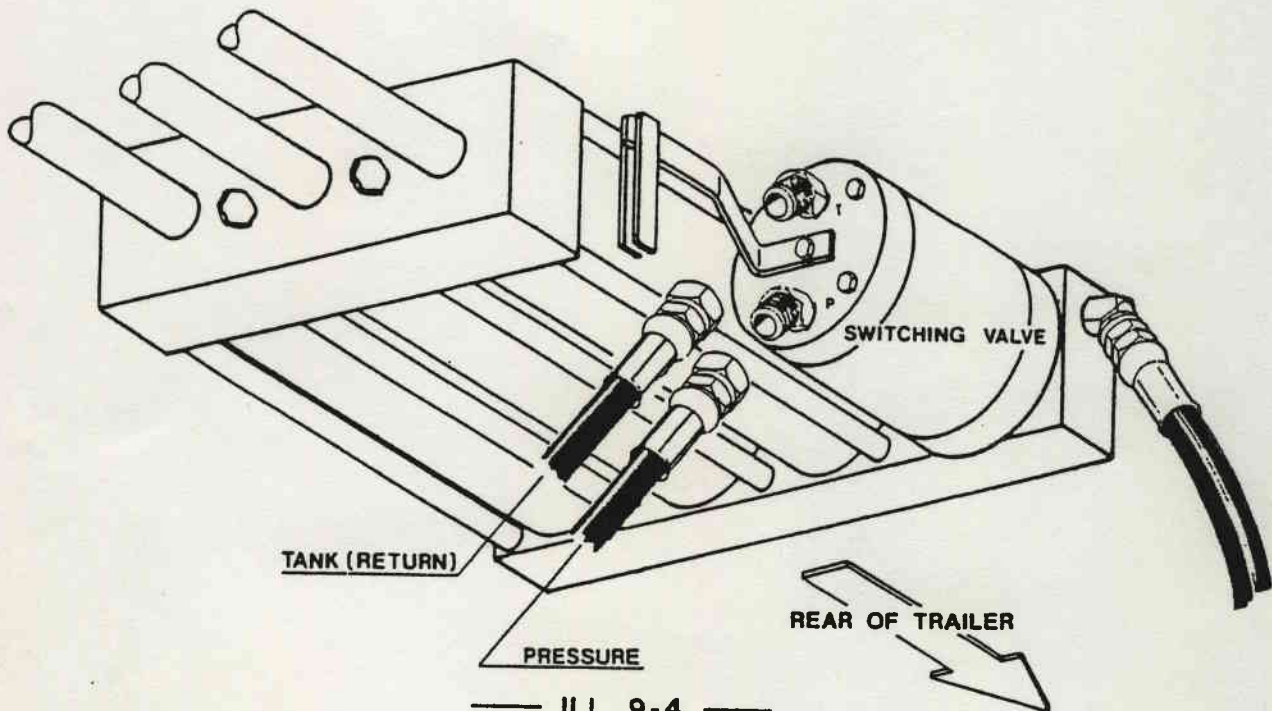
## SECTION "9" HOOKING UP THE SYSTEM - CONTINUED



# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "9" HOOKING UP THE SYSTEM - CONTINUED

Now attach the hoses to the tubes, you should now designate the tube nearest the driver's side as the PRESSURE LINE so the hose attached to this tube should be attached to the "P" port and fitting on the switching valve (this should be the bottom fitting) Now attach the other hose to the remaining tube. This will be the TANK or RETURN line, and the hose will be attached to the "T" port and fitting on the switching valve. (see ILL.9-4)



# 2000 SERIES HALCO LIVE FLOOR "WET KIT REQUIREMENTS"

## SECTION "10"

HALLCO RECOMMENDS CONSULTING A HYDRAULIC SPECIALIST TO MATCH THE "PTO" AND PUMP TO YOUR TRACTORS TRANSMISSION.

THE WET KIT MUST PROVIDE NOT LESS THAN 2800 PSI NOR MORE THAN 3000 PSI. THE FLOW RATE SHOULD MATCH THE JOB.

A GOOD ALL-AROUND TRUCK DRIVEN WET KIT WILL PROVIDE ABOUT 8 GPM. AT IDLE AND WILL UNLOAD A 27' TRAILER IN ABOUT 8 MINUTES. WHEN SPEED IS ESSENTIAL, THE ENGINE MAY BE RUN AT 1000 to 1500 RPM AND WILL UNLOAD IN ABOUT 3-1/2 MINUTES.

### HYDRAULIC RESERVOIR:

#### 20 to 30 GALLON MINIMUM CAPACITY

The Hydraulic reservoir should have facilities to mount the relief valve and a return line filter. Both of these items must dump the oil into the reservoir below the low level line. Halco suggests a down draft be installed in the reservoir on the return line, to limit the turbulence. The pump supply oil should be taken from 1" to 2" above the bottom of the reservoir. This outlet should be screened or baffled, to prevent a whirlpool. The whirlpool could result in air being introduced into the system. A sight gauge or other means of visually checking, oil level, should be installed. NOTE: When operating in warmer climates a 30 gallon minimum capacity reservoir is preferred.

OIL: A GOOD GRADE OF HYDRAULIC OIL, CLIMATIZED TO YOUR AREA

FILLER CAP: BREATHER TYPE, WITH FILTER

### HYDRAULIC PUMP:

#### 15 GPM AT 1200 RPM

An industrial quality vane type pump such as the Vickers Model V20 or 25V is recommended. The supply line from the reservoir should be 1-1/2" ID minimum. The supply line from the pump should be no smaller than 3/4" two wire type (Example Weatherhead 425-10).

PTO: 100% OUTPUT WITH CAB MOUNTED AIR OR CABLE SHIFT

The PTO should be able to direct mount the pump therefore, a Bottom Mount will be necessary in most cases. Control of the PTO from the cab can be either a cable or air shift. A dash mounted indicator light is also needed.

### RELIEF VALVE:

#### EXTERNAL, TANK MOUNTED, SET AT 2800 MINIMUM to 3000 MAXIMUM PSI.

The Relief valve must be able to handle the system oil flow. Set at 2800 to 3000 PSI.

FILTER: RETURN LINE, 25 MICRON, RATED AT 20 GPM MINIMUM

A return line filter with a nominal rating of 20 to 40 GPM and a paper element of 25 micron or finer is needed to assure clean oil and a long system life.

### QUICK CONNECTS:

#### CAPABLE OF HANDLING SYSTEM OIL FLOW (30-40 GPM)

### PRESSURE GAUGE:

#### 0 to 5000 PSI GLYCERINE FILLED

Revised: Feb. 1987

# 2000 SERIES HALLCO LIVE FLOOR INSTALLATION INSTRUCTIONS

## SECTION "11" FINAL CHECK LIST

These next steps are important and should be done before putting any load on the floor.

1. Check the entire trailer, make sure all the bearings and floor decking are seated properly.
2. Check the front and rear of the trailer and make sure there are proper Deck clearances.
3. Make sure all hydraulic fittings are tight.
4. Make sure the control rod on the switching valve is straight and the limit stops are locked tight.
5. Check and make sure the pressure and return lines on the trailer are matched to those on the truck.